



**Oil India Limited**  
**(A Govt. of India Enterprise)**  
**P.O. Duliajan – 786602, Assam, India**

Telephone No. (91-374) 2800491  
Fax No: (91-374) 2800533  
Email: materials@oilindia.in ; mmfd1@oilindia.in

**Tender No. & date : SDG2887L14/09 of 18.03.2014**

Tender Fee : Not Applicable

Bid Security Amount : Applicable

**Bidding Type : SINGLE STAGE TWO BID SYSTEM**

Date of pre-bid conference : 21<sup>st</sup> & 22<sup>nd</sup> April 2014

Venue of pre-bid conference : KOLKATA, WEST BENGAL (INDIA)

Bid Closing date : 14.05.2014 (11:00 HOURS IST)

Bid Opening date : 14.05.2014 (14:00 HOURS IST)

Performance Guarantee : Applicable

OIL INDIA LIMITED have issued Limited tenders to following parties for items detailed below.

Item No. / Mat. Code	Material Description	Unit	Qty
1.	HEAVY DUTY, COMPUTERIZED TRUCK-MOUNTED INTEGRATED OPEN HOLE LOGGING UNIT WITH DOWNHOLE LOGGING TOOLS AND ACCESSORIES.  (DETAILED SPECIFICATION ETC. HAS BEEN FURNISHED VIDE ANNEXURE-A).	NO	1

**NOTES:**

- (1) A Pre-Bid Conference with the vendors will be held in Kolkata (India) on 21<sup>st</sup> & 22<sup>nd</sup> April 2014 to discuss on the technical specifications and other terms and conditions of the tender. The exact venue and time of the Pre-Bid conference will be intimated to the eligible vendors at a later date.
- (2) Clarification on the technical specifications and other terms & conditions of the Open Hole Logging Unit shall be provided to the vendors during the Pre-bid Conference. Bidders should come fully prepared to the Pre-bid Conference and submit their queries to OIL in the Pre-bid Conference for clarification. The set of queries may also be sent to OIL at least 7 (seven) days before the Pre-bid Conference for study by OIL.
- (3) Any changes in the technical specifications and other terms & conditions of the Open Hole Logging Unit arising out of discussion in the Pre-bid Conference shall also form part of the tender document.

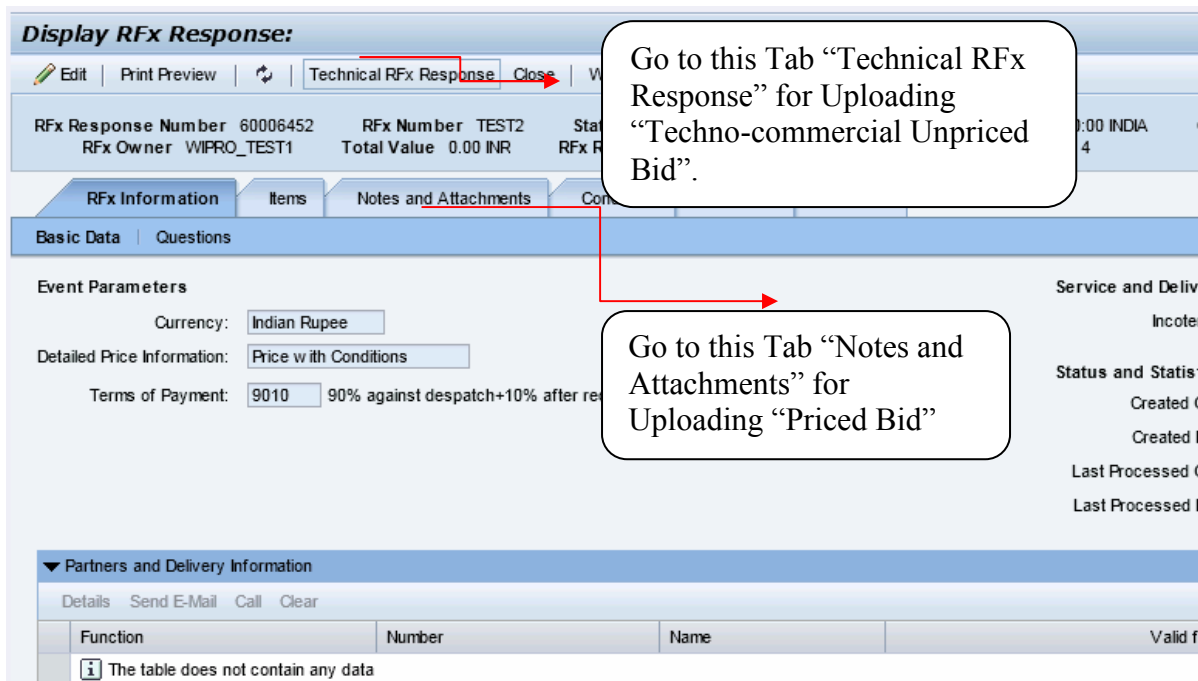
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- (4) Bidders shall inform OIL at the following address about their participation in the Pre-Bid Conference with details of the persons to enable OIL to make arrangement for the Pre-Bid Conference.
- HEAD – MATERIALS  
OIL INDIA LIMITED  
P.O DULIAJAN, PIN – 786 602  
DIST. DIBRUGARH (ASSAM) INDIA  
FAX NO. : +91 - 374 – 2800533  
E-Mail : [mmfd1@oilindia.in](mailto:mmfd1@oilindia.in) / [materials@oilindia.in](mailto:materials@oilindia.in)
- (5) Maximum two (2) representatives from each prospective bidder shall be allowed to participate in the pre-bid conference. All costs associated to attending the pre-bid conference by their representatives shall be borne by the interested Bidders themselves.

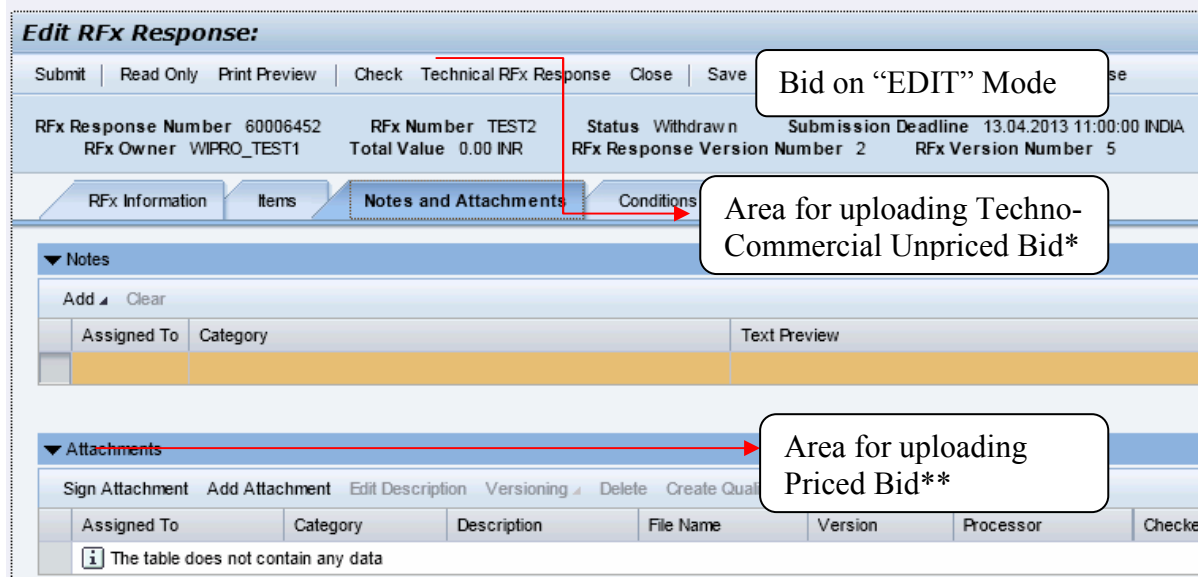
### **Special Notes :**

- 1.0 The tender will be governed by “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders) including Amendments & Addendum to “General Terms & Conditions” for e-Procurement.
- 2.0 Bid Rejection Criteria / Bid Evaluation Criteria is furnished vide Section-V of Annexure-A of the tender document.
- 2.1 Commercial Check list are furnished vide Section-VI of Annexure-A. Please ensure that the check list is properly filled up and uploaded along with techno-commercial bid.
- 3.0 The items covered by this enquiry shall be used by Oil India Limited in the PEL/ML areas which are issued/renewed after 01/04/99 and hence Nil Customs Duty during import will be applicable. Indigenous bidder shall be eligible for Deemed Export Benefit against this purchase. Details of Deemed Export are furnished vide Addendum to MM/GLOBAL/E-01/2005 available in OIL's web site.
- 4.0 Please note that all tender forms and supporting documents are to be submitted through OIL's e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with tender no. and due date to The **Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam** on or before the Bid Closing Date and Time mentioned in the Tender.
  - a) **Original Bid Security.**
  - b) **Details Catalogue and any other document which have been specified to be submitted in original.**
- 5.0 In case of SINGLE STAGE-TWO BID SYSTEM, bidders shall prepare the “Techno-commercial Unpriced Bid” and “Priced Bid” separately and shall upload through electronic form in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender. The “Techno-commercial Unpriced Bid” shall contain all technical and commercial details except the prices which shall be kept blank. Details of prices as per Bid format / Commercial bid to be uploaded as attachment in the Attachment Tab “Notes and Attachments”.  
Any offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in the tender.

**A screen shot in this regard is given below.**



**On “EDIT” Mode- The following screen will appear. Bidders are advised to Upload “Techno-Commercial Unpriced Bid” and “Priced Bid” in the places as indicated above:**



**Note :**

- \* The “Techno-Commercial Unpriced Bid” shall contain all techno-commercial details **except the prices.**
- \*\* The “Price bid” must contain the price schedule and the bidder’s commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Sign. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Attachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and clock on OK to save the File.

- 6.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the bid or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in the rejection of its offer without seeking any clarifications.
- 7.0 Tax & Duties:
- (i) All taxes, stamp duties and other levies imposed outside India shall be the responsibility of the Bidder/Seller and charges thereof shall be included in the offered rates.
  - (ii) All Taxes & levies imposed in India, for the services including installation & commissioning, training etc. shall be to the Bidder/Seller's account.
  - (iii) Income Tax on the value of the Services rendered by the Bidder /Seller in connection with installation, commissioning, training etc. shall be deducted at source from the invoices at the appropriate rate under the I.T. Act & Rules from time to time.
- 8.0 Other terms and conditions of the tender shall be as per “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders). However, if any of the Clauses of the Bid Rejection Criteria (BRC) / Bid Evaluation Criteria (BEC) mentioned here contradict the Clauses in the “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders) of the tender and/or elsewhere, those mentioned in this BEC / BRC shall prevail.
- 9.0 **The Integrity Pact is applicable against this tender.** OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure XII of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be returned by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder’s authorized signatory who sign the Bid.

OIL’s Independent External Monitors at present are as under:

**(I) SHRI N. GOPALASWAMI, I.A.S ( Retd) ,**  
**Former Chief Election Commissioner of India**  
**E-mail Id: gopalaswamin@gmail.com**

**(II) SHRI RAMESH CHANDRA AGARWAL , IPS( Retd)**  
**Former Director General of Police**  
**E-mail Id: rcagarwal@rediffmail.com**

**ANNEXURE-A**  
**TO TENDER NO. SDG2887L14/09**

**TECHNICAL SPECIFICATIONS FOR OPEN HOLE LOGGING UNIT**  
**WITH LOGGING TOOLS AND ACCESSORIES**

**PREAMBLE**

OIL INDIA LIMITED (OIL) intends to procure one **New, state-of-art, heavy duty, computerized truck-mounted integrated Logging Unit with downhole logging tools and accessories.**

The said Logging Unit must comprise of logging cabin, surface electronics, operational and application software and also should be well-equipped to carry out all types of wireline logging operations including Open Hole services, Cased Hole services & Well Completion operations in oil and gas wells of 6000 meters depths in tropical / desert environments with hostile and sticky downhole conditions. The unit should also be capable of performing all types of wireline services ranging from formation evaluation to reservoir monitoring, utilizing new-generation logging tools / techniques with state-of-art hardware and software. In addition to those specified below, the logging unit must have all basic fittings and accessories and performance specifications conforming to international logging companies' standard logging units.

The tender document consists of the following sections:

- SECTION – I : AUTOMOBILE AND HYDRAULIC SECTION
- SECTION – II : LOGGING SECTION
- SECTION – III : TRAINING AND PRE-DESPATCH INSPECTION
- SECTION – IV : INSTALLATION & COMMISSIONING AND WARRANTY
- SECTION – V : BID REJECTION CRITERIA / BID EVALUATION CRITERIA
- SECTION – VI : COMMERCIAL CHECK LIST

## **SECTION - I**

### **AUTOMOBILE AND HYDRAULIC SECTION**

The Logging Units should be ergonomically designed, heavy duty type logging unit to be used in rough terrain, typical oil field roads and desert environment. The bidders should confirm that the offered model will be suitable for mounting complete logging cabin with all requisite hydraulic, pneumatic systems, tool racks etc., with documentary evidence. Complete specifications along with drawings, part numbers, part wise vendor/ manufacturers' lists, catalogues etc., are to be provided. The model offered should be state-of-art and conform to international quality standard norms.

#### **1. TRUCK CHASSIS**

The truck chassis shall be of **Kenworth/ Peterbilt / International /Volvo make only** having specifications, fitments, accessories etc. as under-

##### **1.1 DIMENSIONS (COMPLETE UNIT WITH LOGGING CABIN)**

Overall Width - Not more than 2.60 meters.

Overall Height - Within 4.0 meters (approx.) from ground.

Overall Length - Within 11.00 meters.

Ground Clearance - **Not less than 25.00 cm.** However, if necessary, the bidder should mount subsequently fitted undercarriage component (i.e. other than those originally mounted components) at maximum height.

##### **1.2 ENGINE**

Water-cooled diesel engine of adequate power (300 -350 HP at rated RPM) suitable for road drive of the truck as well as logging operation up to a depth of 6000 meters. While the engine shall conform to minimum BS-III / EURO-III or equivalent Emission Norms, the bidder must offer engine of make Caterpillar/ Cummins/International/Volvo only. **In case of engine with Electronic Controller System, Engine Fault Diagnostic Tools (both Software as well as complete Hardware) shall be supplied along with the unit. Bidder shall categorically confirm in the bid that the offered software is for the particular engine of the truck.**

### 1.3 TRANSMISSION

The transmission shall be suitable for both road drive and logging operation and match with the engine output. It can be of either Automatic or Manual type.

### 1.4 DRIVE, COWL & STEERING

Drive	6 x 6 Drive (All live axles - one front, two rear). While normal drive shall be under 6 x 4 option, there shall be provision to shift to 6 x 6 drive option as & when required.
Cowl	<b>Semi Forward Control or Full Forward Control.</b>
Steering	<b>Right Hand Drive</b> Hydraulic Power Assisted Steering (Steering on Right Hand Side inside the driver's cabin).
Turning Radius	<b>Minimum Turning Radius not more than 18.00 meters.</b>

### 1.5 SUSPENSION, GVW & AXLES

A.	Front Suspension	Heavy Duty Multi-leaf Spring suspension of suitable design with Shock absorbers.
	Rear suspension	Rocker Beam (Walking Beam) with auxiliary leaf springs suspension of suitable design with Shock absorbers.

***Air Spring type suspension (both at front & rear) is not acceptable.***

B.	Total Laden Weight	-	<b>Within 30,000 Kg.</b>
	Front Axle Capacity	-	As per design.
	Rear Axles Capacity	-	As per design.

**C. Rear axles shall have Inter Axle Lock facility.**

**D. Actual loading on each individual axle (all front and rear) shall be within 85% (eighty five percent) of maximum load bearing capacity of the respective axle i.e. Total Weight (Total Laden Weight) of the unit with all items/equipments shall be within 85% (eighty five percent) of *Maximum Permissible Gross Vehicle Weight* (i.e. Total Axle Capacity) of the truck unit.**

## 1.6 WHEELS & RIMS

Suitable wheels (2 Nos. at Front Axle, 8 Nos. at Rear Axles) with tube & tyre of adequate ply rating with two sets of complete spare wheels (even in case of same front and rear wheels). **It is desired that bidder should offer front and rear wheels of same size & type. If not possible for design constraint, two spare wheels – one for each type shall be supplied.** Suitable lifting and mounting arrangement facility for the spare wheels shall be provided.

## 1.7 BRAKES

- A. **Service Brake** - Multiple Circuit Pneumatic S – Cam / Z-Cam brake acting on all wheels.
- B. **Parking/Emergency Brakes** - Manual Hand Operated Parking Brake acting on all wheels. It shall automatically get engaged in the event of low/no air pressure.
- C. **All Emergency/Parking Brake Servos shall have manual release mechanism (Screw Type) to release the brake manually in case of low/no air pressure for maintenance.**
- D. **All air tanks shall have Drain Plugs.**
- E. **All wheel brake-drums shall have dust cover.**
- F. **Buzzer warning for low pressure.**

## 1.8 FUEL TANK

**The Fuel tank shall be of adequate capacity to cater fuel demand for at least 30 Hrs. of continuous full load logging operation. Suitable strainer at the opening of the tank to prevent entry of foreign materials and locking arrangement shall be provided. The bidder should mention fuel capacity of the tank fitted in their offered truck.**

## 1.9 DRIVER'S CABIN

Factory built (original built & supplied with chassis by chassis manufacture) ergonomically designed floating steel/aluminum driver's cabin complete with Air Conditioner and all standard fittings/accessories.

## 1.10 OTHER FITTINGS AND ACCESSORIES

- A. Since the truck will be driven on Indian roads having traffic rules for Right Hand Drive vehicles only, sufficient and suitable Side marker lights, Hazard



warning lights, rear and side reflectors, etc. as well as Air Horn in addition to Electric Horn shall be provided for safe road movement. While all lights shall be covered to the extent possible with suitable guard to prevent damage, all electrical fittings/components/connections shall be suitable to operate in hazardous oilfield area.

- B.** All gauges & meters including Engine Tachometer & Hour Meter as per standard inside the driver's cabin. The Speedometer & the Odometer shall be with Metric KM calibration system only.

It shall be bidder's endeavour to provide the Engine Oil Pressure & Temperature meters, Air Pressure Meter, Transmission Oil Pressure & Temperature meters (if any) with high-low warning buzzers.

In addition, similar types of Engine Oil Pressure & Temperature meters, Engine Tachometer as well as Transmission Oil Pressure & Temperature meters (if any) shall be provided inside the logging cabin.

- C.** Suitable Reversing Audio Alarm with Blinker lights at rear of the unit.
- D.** Suitable Air Dryer with replaceable type filter element in truck pneumatic system.
- E.** Well-covered and non-conducting material wrapped Vertical Exhaust located behind and projected above the top of the driver's cabin.
- F.** Suitable heavy-duty Towing Hooks both at front and rear capable of pulling/towing the unit from bogged down situation in slushy areas in oilfields from front as well as rear.
- G.** Electrical equipments like starter, alternator, etc. shall be either of Lucas or Delco Remy Make.
- H.** Suitable electrical Master Switch to engage all electrical circuits from battery.
- I.** Well covered Battery box, Standard Tool Kit in a portable box for general maintenance of the truck, heavy duty Grease gun, wheel wrench & handle, 2(two) Nos. 30 MT capacity hydraulic jack with handle, 2(two) nos. Stopper Block for rear wheels to prevent accidental movement of unit while in stationary position, etc.
- J.** Suitable 2(two) Nos. jack support plates at rear end of the chassis/body to level  
the truck in slushy ground.
- K.** Fire Extinguisher and First Aid Box etc. as per standard inside driver's cabin.

## 2.0 **HYDRAULIC SYSTEM FOR LOGGING OPERATION**

The hydraulic system for logging operation shall be as per manufacture's design. However, the design shall ensure that the brakes of winch drums remain engaged until and unless the drums are selected for operation or the brakes are released. All hydraulic hoses shall be properly marked (**at both the ends**) for easy identification during maintenance/replacement.

## 3.0 **MANUALS & CATALOGUES**

The following Manuals & Catalogue **in printed form in English Language** shall be supplied along with the unit in addition to supply of the same in compact disc (CD) format. **Supply of the manuals/catalogues only in compact disc format is not acceptable.** Similarly, all the manuals & catalogues shall contain only those components/systems that have been used in the unit i.e. the same must be **CUSTOM ILLUSTRATED MANUALS/ CATALOGUES ONLY** – not the generalized ones.

**COMMISSIONING OF THE UNIT SHALL NOT BE CONSIDERED AS COMPLETE UNTIL & UNLESS ALL THE PRINTED MANUALS/CATALOGUES ARE SUPPLIED.**

- a. 3(three) sets of printed Spare Parts Catalogue and Workshop & Service Manual for all components/systems of the truck chassis like engine, transmissions, axles, brake, suspension, electrical & pneumatic systems, etc. with complete schematics of electrical & pneumatic circuits.
- b. 3(three) sets of printed Spare Parts Catalogue and Workshop & Service Manual in English Language for all components of the hydraulic systems for logging operation like hydraulic pumps, motors, winch drums, torque hubs (gearboxes) of winch drums, spooler arm, electrical/electronic control system of hydraulic operations, control panel circuitry, etc. complete with all hydraulic schematics (circuits) showing and labeling all components including hoses/pipes. Above shall be complete with functional logic explanation.
- c. 1(one) set of Engine Fault Diagnostic Tools manuals in case of engine with Electronic Controller System.

#### **4.0 SPARE PARTS**

All spares in specified quantity as indicated in the **Automobile Spare Parts List** vide **Para 5.3 below shall be supplied along with the unit.** Specific description, Part Nos., Make, etc. and Unit Price of each and every item (spare) shall clearly be indicated in the Techno-commercial bid.

#### **5.0 BID SUBMISSION & DOCUMENTATIONS**

Bidder's response to all NIT stipulations should clearly be defined. Bidder shall furnish specific details/specifications of all major components, systems with Make & Model, etc. Generalized response like - 'As per NIT Specifications/Technical Leaflet', 'Noted', 'Accepted' or in any similar fashion is not encouraged.

**It shall be bidder's endeavour to offer the following items as per makes & models indicated against each item** (other suitable makes & models are however equally acceptable in case of operational and/or design requirements supplemented with proper justification).

<b>Transmission make</b>	<b>- Automatic Transmission of Allison/ Volvo OR Manual gearbox of Eaton Fuller make.</b>
<b>Hydraulic Pump &amp; Motors</b>	<b>- Mannesmann Rexroth / Packer</b>
<b>Transfer Case (if any)</b>	<b>- Fabco</b>
<b>Torque Hub</b>	<b>- Fairfield</b>
<b>Wheel/Tyre Size</b>	<b>- 425/65 R22.5 – Front/11.00 R 22.5 – Rear or 295/80R-22.5 Front /295/75R-22.5-Rear or Available Indian Make Tyres of size 14.00X20- Front/12.00X20-Rear of suitable Ply rating</b>

#### **5.1 The following documents shall be submitted along with the bid for bid evaluation**

- a.** Technical leaflets with detailed specifications, Make & Model of chassis, engine, transmission, power take off unit, transfer case (if any), axle, suspension, steering, wheel & rim, brake, etc.
- b.** Detailed dimensional layout drawing/s illustrating Driver's Cabin, Logging Cabin, Rear Cabin and all major items/components.
- c.** Technical leaflets with detailed specification, Make & Model of all hydraulic pumps, motors, torque hubs (gearboxes) of winch drums, brake mechanism of winch drums etc.
- d.** List of items that shall be supplied under Engine Fault Diagnostic Tools (both Software as well as complete Hardware).

- e. List of tools that shall be supplied under Standard Tool Kit for general maintenance of the truck.
- f. Specific description, Part Nos., Make, etc. and Unit Price of each and every item (spare) as detailed in the Spare Parts List provided in the NIT.
- g. List of additional spares, if any, for 2(two) year maintenance as felt necessary but not covered in the Spare Parts List provided in the NIT with Description, Part Nos., Make, etc. including Unit Rate (for future reference/procurement only; not for bid evaluation).
- h. A Checklist as per enclosed format shall be furnished along with the Techno-commercial bid. In case of any contradicting higher/better specification provided elsewhere in the bid, the specifications provided in Part 'A' of the said checklist shall only be considered for bid evaluation.

**5.2 The following documents are to be submitted along with the supply/unit -**

- a. Sale Letter, Pollution & Roadworthy Certificate (in similar format of Form 21 & 22A of Indian Motor Vehicle Act - sample copies enclosed), Engine Emission Norms Certificate, etc. as required under Indian Motor Vehicle Act for registration of the unit in the name of **Oil India Limited**.
- b. Final Chassis Built Up/Vehicle Content Record documents from chassis manufacturer.
- c. **Notwithstanding any clause mentioned elsewhere in the NIT, the Invoice for the complete unit shall be submitted in 2(two) parts separately as under :**
  - i. **Invoice for truck chassis and driver's cabin** - it shall include the cost of the truck chassis with driver's cabin and cost of fabrication of the logging cabin only.
  - ii. **Invoice for logging equipments** - it shall include cost of all other equipments, draw works, hydraulic system, winch, tools, accessories, etc. subsequently fitted in the original truck chassis and supplied separately as part of the unit.

**5.3 AUTOMOBILE SPARE PARTS LIST: The following spares for the unit shall be quoted separately cost of which shall be considered for evaluation of the offers.**

i. **TRUCK SPARES:**

**A. ENGINE -**

1. Fuel Filter Element	10 Nos.
2. Water Separator Element	10 Nos.
3. Engine Oil Filter Element	10 Sets.
4. Air Filter Element	10 Sets.
5. Water/Corrosion Filter Element	10 Nos.
6. Fan Belt	4 Sets.
7. Alternator Belt	4 Sets.
8. Compressor Belt	4 Sets.
9. AC Compressor Belt	4 Sets.
10. Water Pump Repair Kit	2 Sets.
11. Water Hose	4 Sets.
12. Engine Mounting	2 Set

**B. TRANSMISSION -**

**In case of Automatic Transmission -**

1. Transmission Filter Element	4 Sets
2. Transmission Mounting	2 Set
3. Gear shifter (the one inside drivers cabin)	1 No
4. Gear shifter repair kit	2 Sets
5. Gear shifter hoses	2 Sets

**In case of Manual Transmission -**

1. Clutch Disc Assembly	2 Set
2. Pressure Plate Assembly	2 Set
3. Release Bearing	2 Set
4. Remote Gear Shift Cable, if any	2 Sets
5. Transmission Mounting	2 Set

**C. TRANSFER CASE (if any) & POWER TAKE OFF (PTO) -**

1. Oil Filter Element, if any	4 Sets
2. Mounting	2 Set
3. Oil Seal	2 Set
4. PTO actuator Seal Kit	5 Set

**D. FRONT AXLE -**

1. Wheel Stud with Nut(s)	2 full set for 2 wheels
2. Axle Stud with Nut	2 full set for 2 wheels
3. Wheel Hub Oil Seal	4 full set for 4 wheels

	4. Wheel Hub Bearing	2 full set for 1 wheel
	5. Differential Oil Seal	2 Set
<b>E.</b>	<b><u>REAR AXLE -</u></b>	
	1. Wheel Stud with Nut(s)	2 full set for 4 wheels
	2. Axle Stud with Nut	2 full set for 4 wheels
	3. Wheel Hub Oil Seal	2 full set for 8 wheels
	4. Wheel Hub Bearing	2 full set for 2 wheels
	5. Differential Oil Seal	2 full set for both differentials
	6. Differential Filter Element (in any)	2 Set
<b>F.</b>	<b><u>DRIVE LINE (Propeller Shaft)</u></b>	
	1. UJ Cross (Spider and Bearing) for both Front & Rear Propeller shaft	2 Set
	2. UJ Cross (if any) for Hyd. Pump	2 Set
	3. Drive Line Assy for PTO drive	1 Set
<b>G.</b>	<b><u>STEERING -</u></b>	
	1. Steering Oil Filter Element	2 Set
	2. Steering Pump Repair Kit	1 Set
	3. Steering Box/Cylinder Repair Kit	2 Set
	4. Tie Rod End (for both sides)	2 Set
	5. Steering Pump complete	1 no.
<b>H.</b>	<b><u>BRAKE &amp; PNEUMATIC CIRCUIT -</u></b>	
	1. Foot Brake Valve Repair Kit	3 Sets
	2. Repair Kit for Front Wheel Servo	4 Sets (for 4 servos)
	3. Repair Kit for Rear Wheel Servo	8 Sets (for 8 servos)
	4. Air Dryer Filter Element	8 Nos.
	5. Repair Kit for all Pneumatic Valves	1 Set each
<b>I.</b>	<b><u>ELECTRICAL -</u></b>	
	1. Engine Starter (for truck engine)	1 No.
	2. Alternator (for truck engine)	1 No.
<b>ii.</b>	<b><u>HYDRAULIC SYSTEM &amp; ITS COMPONENTS</u></b>	
	1. Hydraulic Filter Element	10 Sets
	2. Repair Seal Kit for Hydraulic Pump	1 set for each pump
	3. Repair Seal Kit for Hydraulic Motor	1 set for each motor
	4. Repair Seal Kit for all Hydraulic Valves	1 set for each valve
	5. Hydraulic Hose (all the hoses used in the system)	1 Set

- |  |                         |
|--|-------------------------|
| 6. Repair Seal Kit for Torque Hub                    | 1 set for each hub      |
| 7. Repair Seal Kit for all other Hydraulic Actuators | 1 set for each actuator |
| 8. High/Low Clutch control Valve                     | 2 nos.                  |
| 9. Brake Valve for Winch                             | 1 no.                   |
| 10. Solenoid for Pump Control                        | 4 nos.                  |

**NOTE –**

1. **All spares in specified quantity as indicated above shall be supplied along with the unit.**
2. **Specific description, Part Nos., Make, etc. and Unit Price of each and every item shall clearly be indicated in the bid.**
3. **Bidder shall also quote separately for any additional spares with similar details as felt necessary but not covered in this list for future reference/procurement - not for bid evaluation.**

**5.4** *Following items shall be quoted by the bidder separately in the prescribed format , which may be procured against order from the successful bidder. **Price quoted for this list shall not be considered for bid evaluation.***

<b>Srl. No.</b>	<b>Name of the Part</b>	<b>Part Number</b>	<b>Cost per Unit</b>
1	ECM of the offered Engine		
2	Wiring Harness from Driver's cabin to engine		
3	Wiring Harness from Logging operator's cabin to engine		
4	Sensors for the engine (all sensors present in the engine)		
5	Injectors		
6	Water Pump		
7	Wheel Rim		
8	Brake Shoes		
9	ECM for ABS		
10	Sensors for ABS		
11	Clutch Disk in case of manual Transmission		
12	Clutch Cylinder repair Kit- if available (in case of manual transmission)		

13	Seal Kit for Transfer Case (in case Transfer Case is present)		
14	All major valves present in Hydraulic ckt.		
15	Repair kit for actuators-spooler etc.		
16	Charge Pump for Main Pump		
17	Charge Pump for Motor for driving the Alternator		
18	Tires for Wheel		



## CHECKLIST

### **Part A TECHNICAL**

Sl. No.	PARAMETERS/REQUIREMENTS	BIDDER'S OFFER (To indicate details or yes/no, as applicable)	REMARKS, IF ANY
1.	Overall Dimensions (Width, Height & Length) of complete unit		
2.	Ground Clearance		
3.	Make & Model of Chassis		
4.	Wheelbase		
5.	Engine	a Make & Model	
		b Max. Output Power	
		c Max. Output Torque	
		d Naturally Aspirated or Turbo Charged	
		e <i>Emission norms</i>	
		f Control System (Electronic?)	
6	<b>Trans mission</b>	a Make & Model	
		b No. of gears	
		c High/Low option	
7.	Make, Model & Type of Transfer Case (if any)		
8.	Drive		
9.	Cowl		
10.	Make, Model & Type of Steering System		
11.	Minimum Turning Radius		
12.	Make, Model & Type of Front Suspension		
13.	Make, Model & Type of Rear Suspension		
14.	Max. permissible Gross Vehicle Weight		
15.	Total weight of the unit (i.e. Total Laden Weight)		
16.	Axle capacity	a Front	
		b Rear	
17.	Axle Loading	a Front	
		b <b>Rear</b>	

18.	Inter Axle Lock facility for rear tandem axles.		
19.	Axle Loading within 85% of capacity.		
20.	Type, Size of Wheel & Tyre	a Front	
		b Rear	
21.	Type of Service Brake	a Front	
		b Rear	
22.	Type of Wheel Brake Servos	a Front	
		b Rear	
23.	Fuel Tank capacity.		
24.	Seating arrangement & capacity in Driver's cabin.		
25.	Reversing Alarm with Blinker Lights		
26.	Electrical fittings/equipments suitable for hazardous oilfield area.		
27.	Speedometer/Odometer in Metric (KM) calibration.		
28.	Additional meters & gauges for transmission and engine parameters monitoring inside logging cabin.		
29.	Provision of Air Dryer in truck's pneumatic system.		
30.	Towing Hooks at front & Rear of the truck.		
31.	Make of Starter, Alternator, etc. of engine.		
32.	Winch drum brakes (as per NIT stipulations).		
33.	Make & Model of Hydraulic Pumps.		
34.	Make & Model of Hydraulic Motors.		
35.	Make & Model of Torque Hubs of winch drums.		
36.	Marking of hydraulic hoses ( <u>at both the ends</u> ) for easy identification during maintenance / replacement.		

**Part B DOCUMENTATIONS**

<u>Sl. No.</u>	<u>DESCRIPTIONS</u>	<u>DOCUMENT ENCLOSED</u> <u>Yes or No</u>	<u>REMARKS, IF ANY</u>
1.	Technical leaflets with detailed specifications, Make & Model of chassis, engine, transmission, transfer case, power take off unit, axle, suspension, steering, wheel & rim, brake, etc.		
2.	Detailed dimensional layout drawing illustrating Driver's Cabin, Logging Cabin, Rear Cabin and all major items/components.		
3.	Technical leaflets with detailed specifications, Make & Model of all hydraulic pumps, motors, torque hubs (gearboxes) of winch drums, brake mechanism of winch drums, etc.		
4.	List of items that shall be supplied under Engine Fault Diagnostic Tools (both Software as well as complete		

	Hardware).		
5.	List of tools that shall be supplied under Standard Tool Kit for general maintenance of the truck.		
6.	Specific description, Part Nos., Make, etc. and Unit Price of each and every item (spare) as detailed in the Spares Parts List provided in the NIT.		
7.	List of additional spares as felt necessary for 2 years maintenance but not covered in the Spares Parts List provided in the NIT with Description, Part Nos., Make, etc. including Unit Rate (for future reference/procurement only; not for bid evaluation).		

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Date \_\_\_\_\_

*This is a sample copy similar to FORM 21 of Indian Motor Vehicle Act only. The certificate to be issued by supplier shall contain following minimum information. -*

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**SALE CERTIFICATE**

Certified that ..... (brand name of the vehicle) has  
been delivered by us to ..... on ..... (date).

Name of the buyer .....

Address .....

The details of the vehicles are as under -:

1. Class of vehicle .....
2. Maker's name & address .....
3. Chassis No. ....
4. Engine No. ....
5. Horse power or cubic capacity .....
6. Fuel used .....
7. Number of cylinders .....
8. Month and year of manufacturing .....
9. Seating capacity (including driver) .....
10. Unladen weight .....
11. Maximum axle weight, number and description of tyres –
  - (a) Front axle .....
  - (b) Rear axle/axles .....
  - (c) Any other axle .....
12. Colour (s) of the body .....
13. Gross vehicle weight .....
14. Type of body .....

**Date:** .....  
**dealer**

**Signature of the manufacturer /**

*This is a sample copy similar to FORM 22(A) of Indian Motor Vehicle Act only. The certificate to be issued by supplier shall contain following minimum information. -*

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**CERTIFICATE OF COMPLIANCE WITH POLLUTION STANDARDS /  
SAFETY STANDARDS OF COMPONENTS AND ROAD WORTHINESS**

Certified that ..... (brand name of the vehicle) bearing  
Chassis number ..... and Engine number ..... complies with the  
..... (name of Emission Standard – Euro II, etc.) Emission standard as well as other  
Safety & Road Worthiness Standards as per provisions of the .....  
..... (name of Motor Vehicles Act of country of origin).

It is also certified that body of the above vehicle has been fabricated by us and the same complies  
with the provisions of the ..... (name of Motor Vehicles Act of  
country of origin).

Signatures of Manufacturer / Body Builder

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**(END OF SECTION – I)**

## **SECTION - II**

### **LOGGING SECTION**

Oil India Limited intends to procure one no. of new, state of the art, heavy-duty truck-mounted integrated logging unit with downhole logging tools and accessories. The logging unit must have the following minimum features (Clauses 1.0 to 8.0 below) in addition to standard accessories and fittings.

#### **1.0 ELECTRICAL SYSTEM / EQUIPMENT:**

- 1.1 Hydraulic driven, Heavy Duty, Captive Electric Power Generator of adequate capacity should be provided for power requirement of the surface system, downhole tools & all other electrical accessories in the logging unit.
- 1.2 The captive power source must be equipped with voltage and frequency monitor & control, over/under voltage and frequency protection.
- 1.3 The power generator must have automatic safety shut-down features.
- 1.4 A suitable power intake point is to be provided to feed power into the unit from external source. Flexible cable (Approx. 20 M in length) with suitable plugs for This purpose should be provided.
- 1.5 Outlets for internal accessories are to be provided.
- 1.6 Exterior power outlets should be properly covered.
- 1.7 Wiring should be easily accessible for maintenance and service purposes. Entire wiring should be well documented.
- 1.8 Back up electrical power generator of minimum requirement capacity should be provided. The backup electrical power source should be one of the following power systems with manual switchover connection:
  - (a) One Diesel Generator (low noise) mounted on the unit in addition to the main hydraulic alternator.
  - (b) One hydraulic alternator fitted on the unit in addition to the main hydraulic alternator.

#### **2.0 LOGGING CABIN / OPERATOR'S COMPARTMENT:**

- 2.1 The cabin will be suitably air-conditioned (with 4 nos. roof mounted electrical air conditioners) to maintain the environmental requirement of surface system (15 - 25 Degree C), when outside temperature ranges from 8 degree

C to 48 degree C. The air-conditioners should be so mounted that they can withstand the shock of transportation on rough country roads and should be suitably guarded.

- 2.2 The cabin should have a requisite capacity dehumidifier installed.
- 2.3 The cabin must be well illuminated for conducting smooth operations during all hours of the day/night and must have enough space for operating engineers, a witness and the winch operator.
- 2.4 Fire extinguishers and first-aid kit are to be provided.
- 2.5 Two way intercom system between rig floor and unit.
- 2.6 Cabin pressurization system should be provided to pump filtered fresh air in to the logging cabin for preventing dust entry.
- 2.7 Three numbers of swivel type chairs should be provided, one for the winch operator and other two for the logging engineers.
- 2.8 At least three numbers of drawers with locking / latching arrangement should be provided in the logging cabin to store logging manuals.
- 2.9 A Console Panel for controlling and monitoring various parameters related to winch, truck engine, power drawn from internal and external source etc.
- 2.10 Slip proof metallic floor with suitable carpet.
- 2.11 Roll up tinted window shades is to be provided to minimize sunlight or external light glare through the windows.

### **3.0 SURFACE LOGGING SYSTEM**

The log data acquisition and processing system should be an integrated collection of state-of-art hardware & software. It must be a field proven, latest version **DUAL Logging System**, capable of performing the following wireline operations:

- 3.1 The offered surface logging system must be capable of performing the logging operations and services with the type of tools as described in the Clauses 10.1 to 10.16
- 3.2 Completion and allied Services like all types of Plugs / Packer setting jobs, Perforations using passive shooting CCL and shooting Gamma Ray / CCL tools.
- 3.3 Change over from one system to the other must be easy and user-friendly.

#### **4.0 LOGGING SYSTEM HARDWARE (DUAL SYSTEM)**

- 4.1 Each system shall include the following, in addition to other standard fittings /accessories:
- (a) Two nos. Thermal Plotters for plotting logs both on Paper (roll & fanfold) & Film
  - (b) One no. External Portable USB Hard Drive (min 1 TB) for data storage
  - (c) One no. DVD Read / Write Drive
  - (d) One no. Uninterrupted Power Supply for each logging system.
- 4.2 Each system CPU must be very high speed, state-of-art computer with sufficient RAM and hard drive capacity, supporting dual display and capable of multi-tasking operations.
- 4.3 Each system should have at least 02 (two) TFT type Monitors working simultaneously. If the two monitors are common to both the logging systems, then the other two monitors should be provided as extras.
- 4.4 If a panel is common to both the logging systems, the other panel of the same type should be provided as an extra (“not in circuit”).
- 4.5 The Dual Logging System must be a collection of **two independently working full capability logging system**, and should have minimum number of common panels, if any, to ensure full redundancy.

#### **5.0 LOGGING SYSTEM SOFTWARE**

- 5.1 The system should work on the latest operating software. Software should be menu driven, user friendly with multi-tasking capability.
- 5.2 Details of the software along with price break up for each module (if any) should be provided.
- 5.3 Backup copies of all loaded software shall be supplied in DVD format.
- 5.4 Oil India Limited’s logo must be incorporated in all log printout and processed output.
- 5.5 Diagnostic software for the surface system as well as for the downhole tools must be provided.
- 5.6 The system must be capable of converting log data into API standard LIS, ASCII (LAS) and other standard formats.
- 5.7 The system must include all necessary environmental correction packages for the downhole tools.
- 5.8 The system software must include automatic depth correction capability



- 5.9 The system software must display real-time corrected depth and line tension.
- 5.10 The bidder should give an undertaking to update the software regularly for a period of 10 years from the date of commissioning of the unit at no cost to OIL.
- 5.11 The bidder should give an undertaking to support licensing for the software originally supplied for a minimum period of 10 years from the date of commissioning of the unit at no cost to OIL.

## **6.0 OTHER FEATURES:**

- 6.1 Nonmagnetic **Dual Drum** cable reels. The multi conductor cable shall be a seven conductor 12.0396 mm (0.474 inch) OD, 23000 feet long **Slammer type cable** having breaking strength of at least 22,000 lbs with magnetic marks at 50 meter interval. The singleconductor cable shall be of 7.937 mm (5/16") OD and 23000 feet in length with breaking strength of at least 11,000 lbs. The rated temperature for both the cables must not be less than 400 Degrees F. Both the logging cables must be of a reputed manufacturer with proven field records.
- 6.2 Hydraulic winch suitable for carrying out logging operations in 6000 meter deep wells. The maximum pulling speed must be at least **150 meters / minute** and minimum pulling speed should not be more than **1 meter / minute**, with maximum tool load
- 6.3 Electrically operated hydraulic brake along with mechanical hand brake for the winch is to be provided in the logging cabin.
- 6.4 A certificate should be provided confirming micro fractures / cracks free base mounting frame of the cable drums.
- 6.5 Built-in line oiler system for lubricating the cables with the operating switches on the winch operator's control panel.
- 6.6 Overhead cable spooling system, for the both seven conductor and the mono conductor cable.
- 6.7 Accurate Straight line **metric** Depth Measuring System using dual encoders shall be provided. **Magnetic Mark Detector** shall be an integral part of the depth measuring system. The depth measuring system must also include an independent backup depth measuring & display unit provided near to the winch operator panel.

- 6.8 Line load measuring system should be provided to measure line tension upto 25,000 lbs (9842.5 kg). For rig-floor type tension devices, the length of the cable required for load cell connection should be at least 150 meters long. The Line load measuring system should display both total and differential line loads.
- 6.9 Grounding reel fitted with at least 50 meters cable with clamps for grounding during side wall coring, perforations and other allied wire line operations.
- 6.10 Tool racks with suitable, independently working air bags for transportation of downhole tools must be provided. The tool racks must accommodate the longest tool supplied by the bidder.
- 6.11 Rear bumper should be fitted with a working vise and folding step.
- 6.12 Suitable drum lights, rear rig lights (12 Volts), besides AC quartz lights are to be provided. The AC quartz lights assemblies must be suitably protected from external impacts.
- 6.13 The logging unit must have provision for requisite compressed air supply with 100 meters long hose pipe for use in minimum 5000 psi grease injection control head in through Tubing Perforations. Alternatively, hydraulic (Sauer danfoss or equivalent make) driven pump in the logging unit with their controls at suitable place easily accessible to the operator should be provided for the same purpose mentioned above.
- 6.14 Pneumatic line wipers for cleaning drilling fluid from the cable while pulling out logging tools should be provided, both for the multi conductor and mono conductor cable.
- 6.15 All the electrical wires running in the winch / draw works compartment must be concealed/conduit.
- 6.16 Body to be painted to OIL's specification (and with OIL logo)  
**Note:** Logo / specification shall be provided by OIL after placement of order.
- 6.17 Safety / Warning Signs (pertaining to radioactive and explosive jobs).
- 6.18 The offered Logging Unit should be an integrated Logging Unit suitable for use in rough oil field roads. Converted units like skids mounted on trailers will be rejected.
- 6.19 Offers of Logging Trucks with insufficient fuel capacity and unable to cater for at least 30 (thirty) hours of continuous logging operation will be rejected.

## 7.0 STORAGE REQUIREMENT WITHIN THE LOGGING UNIT:

- 7.1 Suitable Radio Active source storage compartment to transport the requisite radioactive sources (Density and Neutron sources) together with their individual containers as per Radiation Safety Standard. Proper arrangement should be provided in the said compartment to secure the source containers.
- 7.2 Two separate compartments, one for carrying Explosive Shaped Charges and the other for carrying Electric Detonators should be provided. These two compartments should be separated by a distance of minimum **1.5** meters as per Indian Explosive Rules. The inside of these compartments should be paneled with good quality non-sparking material. These two individual compartments should be minimum **1.15** meters away from the electrical power sources and fuel tanks mounted in the Logging Truck.
- 7.3 Properly designed compartments for rig up accessories and hand tools should be provided.
- 7.4 All compartments should have locking / latching arrangement.

## 8.0 LOGGING ACCESSORIES:

The logging unit should be fully equipped with rig up and other standard accessories for straight away commissioning of the unit. Detail list along with price breakup of each item is to be provided in the price bid. However, certain operationally vital items, as mentioned below, are to be included in the standard rig-up accessories.

8.1	Upper and Lower Sheaves suitable for the offered multi-conductor and the 5/16" OD monocable with floor stand etc.	01 set each
8.2	Elevator Hook (T-Hanger) for the offered Sheave wheels	01 set each
8.3	Cable-hanger with liner for the offered multi-conductor and the 5/16" OD monocable	01 set each
8.4	Tie back chains with hooks and shackles: (a) 20 ft length, 7.5 Tons approx. capacity (b) 30 ft length, 7.5 Tons approx. capacity (c) 30 ft length, 17 Tons approx. capacity	01 no. each
8.5	Goose neck for the offered multi-conductor and the 5/16" OD monocable	02 no. each
8.6	Portable Hydraulic cable cutter	02 no.
8.7	Portable Digital Multimeter with carrying case	02 no.

8.8	Portable Analog Multimeter with carrying case	02 no.
8.9	Portable Digital Insulation Tester with case	02 no.
8.10	Portable Blasting Galvanometer for Ballistics purposes	02 no.
8.11	Portable, handheld Radioactive Monitoring Meter for measuring radiation exposure of Gamma sources	01 no.
8.12	24" Pipe Wrenches	04 nos.
8.13	18" Pipe Wrenches	04 nos.
8.14	Standard Electronic Tool Box with tools required for logging operations at well-site	01 set
8.15	Standard Electronic Tool Box (Repair Mechanics Tool Box) with tools for maintenance and repair of surface system and logging tools	01 set
8.16	Standard Mechanical Tool Box with tools required to carry out mechanical repairs	01 set
8.17	Well-site Logging Tool make-up tool	01 no.
8.18	Weak Points are to be quoted as follows (a) Approx. 6200 lbs rating (b) Approx. 4500 lbs rating	15 nos. each
8.19	Re-head Kit for Multi-conductor Cable head and monocable head	15 set each
8.20	All hand tools needed for the rehead jobs must be quoted	01 set
8.21	Hydraulic oil filling system for downhole tools comprising of vacuum pump, fluid lines and adapters etc.	01 set
8.22	Tool oil used in all the downhole logging tools	05 Gallons each type
8.23	Radioactive Test sources (for diagnostics), if any, with containers meeting RA safety standard	01 no. each
8.24	Shooting CCL (Passive, 1-11/16" OD)	04 nos.
8.25	Rig Stray Voltage & RF Monitor mounted in the logging unit	01 no.
8.26	Tool Dollies, Basket Stands and adjustable high stands for use during tool testing, calibration and repair	08 nos. each type
8.27	Any other items which are operationally required but not mentioned above must also be quoted	As required

## 9.0 TECHNICAL MANUALS AND DOCUMENTATION:

The following technical manuals and documentations mentioned in Clauses 9.1 & 9.2 are to be supplied **at no cost to OIL**:

**9.1 THE FOLLOWING DOCUMENTS SHALL BE SUBMITTED ALONG WITH THE BID FOR BID EVALUATION:**

In addition to those mentioned in the NIT, the Technical Bid must include the following:

- a. Technical leaflets, literatures with detailed specifications, Make & Model of Logging Truck, Downhole Tools, Surface System and Fishing equipments etc. offered in the Bid.
- b. Block Diagram of the surface Logging System containing all panels.
- c. Layout Drawing of proposed logging Cabin

**9.2 THE FOLLOWING DOCUMENTS SHALL BE SUBMITTED ALONG WITH THE SUPPLY OF THE LOGGING TRUCK:**

- a. Four sets of Training Notes / Study Guides for the offered logging tools in properly bound volumes
- b. Four sets each of Operations and maintenance Manuals covering all Mechanical, Electrical, Electronic systems and sub-systems, Schematics of all the systems and sub-systems, including downhole logging tools in properly bound volumes
- c. Soft copies of all the above documents in CD / DVD.
- d. All technical brochures / specification documentation and software related to the logging systems, all downhole tools and all major equipments/accessories offered by the bidder must be in **English Language only**.

**10.0 DOWNHOLE LOGGING TOOLS:**

- (a) All downhole logging tools mentioned in this clause should be rated for minimum 124 MPA (18,000 PSI) pressure and 177 Degree C (350 Deg F) temperature. The downhole tools must withstand maximum rated pressure and temperature for a minimum period of one hour continuous exposure.
- (b) Tool should be equipped with proper accessories to log holes of deviation up to 45 degrees.
- (c) **The bidders should quote all required accessories for each downhole tool as mentioned in the Clause- 10. The quote should include the following items, where-ever necessary, in addition to other accessories.**

- i Calibration equipment
  - ii Well site verifiers
  - iii Centralizers / De-centralizers / Stand-off, etc.
  - iv Requisite Radio Active Sources
  - v Knuckle / Flex Joints / hole finder/ swivel/ bull plugs etc. for logging upto 45 Degrees deviated wells.
- (d) **The bidder must submit the technical specifications against each downhole tool in a tabular form (ref. Annexure – 1). The technical specification table must include information on tool diameter, borehole diameter ranges, casing OD ranges, measurement type and ranges, depth of investigation, vertical resolution, accuracy, pressure & temperature rating etc. in addition to others. Any deviations from OIL NIT specifications should also be highlighted in this tool specs table.**

#### 10.1 DUAL LATEROLOG RESISTIVITY TOOL (DEEP & SHALLOW)

**QUANTITY = 02 NUMBERS**

**Minimum Technical Specification:**

1. The tool should be capable of recording shallow and deep resistivity simultaneously
2. Should be able to log boreholes of diameter in the range from 6.25 inches to 20 inches
3. Minimum depth of investigation for Shallow = 24 inches and minimum depth of investigation for Deep resistivity measurement = 55 inches
4. Should have vertical resolution of 2 ft. or less
5. The measuring range for the tool should be from 0.2 ohm-m to 40,000 ohm-m for Deep and 0.2 ohm-m to 2000 ohm-m for Shallow with 5% accuracy
6. Shop Calibration system and all onsite test equipments for tool check should be provided, quantity = 02 set each
7. The system should be capable of recording SP log with the offered resistivity tool. Separate SP tool, if required, is to be quoted, quantity = 02 nos.
8. All items / assemblies for the tool should be quoted individually

## 10.2 MICRO SPHERICALLY FOCUSED TOOL OR EQUIVALENT

**QUANTITY = 02 NUMBERS**

**Minimum Technical Specification:**

The tool should be padded Rxo device working on micro focusing principle

1. The tool should be able to measure Flushed Zone Resistivity in the range from 0.2 ohm-m minimum to 2000 ohm-m with an accuracy of 5%.
2. Should be able to log hole of diameter from 6.25 inches to 20 inches
3. Shop Calibration system, onsite test equipments for tool check and caliper calibration fixtures etc. are to be provided, quantity = 02 sets each
4. All items / assemblies for the tool should be quoted individually

## 10.3 SPECTRAL LITHO DENSITY LOGGING TOOL OR EQUIVALENT

**QUANTITY = 02 NUMBERS**

**Minimum Technical Specification:**

1. Padded type Compensated formation density tool capable of deriving Borehole compensated formation density. The tool should be capable of measuring the photo-electric absorption cross-section of formation matrix.
2. The measurement range of the tool should be from 1.3 gram/cc to 3.0 gram/cc for bulk density
3. Should be able to log boreholes of diameter from 6 inches to 20 inches (approx.)
4. The tool caliper should have measuring range from 6 inches to 20 inches.
5. Should have vertical resolution of 3 ft. or less
6. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 02 sets each
7. Radioactive sources for Tool Calibration and Logging Operation along with their respective containers meeting IAEA safety standard, and respective source handling tools must be provided as mentioned below:

Radioactive Sources = 02 nos. each type  
Radioactive Source Containers = 02 nos. each type  
Source Handling tools = 04 nos. each type

8. All items / assemblies for the tool should be quoted individually

#### 10.4 COMPENSATED DUAL SPACED NEUTRON POROSITY TOOL OR EQUIVALENT

**QUANTITY = 02 NUMBERS**

**Minimum Technical Specification:**

1. The tool should be mandrel type and should record formation neutron porosity. The tool should also be able to record porosity log in Cased Holes with provision to correct the same to derive Open Hole porosity.
2. Measuring range of the tool should be -2 PU to 100 PU (Porosity Unit) with an accuracy of +/- 5% or less. The tool should be calibrated to Limestone porosity along with a provision to change over to Sandstone porosity
3. Should have vertical resolution of 3 ft. or less
4. Should be able to log boreholes of diameter from 6 inches to 20 inches (approx.)
5. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 02 sets each
5. Radioactive sources for Tool Calibration and Logging Operation along with their respective containers meeting IAEA safety standard, and respective source handling tools must be provided as mentioned below:

Radioactive Sources = 02 nos. each type  
Radioactive Source Containers = 02 nos. each type  
Source Handling tools = 04 nos. each type

6. Appropriate Decentralizers for logging, quantity = 04 sets
7. All items / assemblies for the tool should be quoted individually

#### 10.5 SPETRAL GAMMA RAY TOOL

**QUANTITY = 01 NUMBER**

**Minimum Technical Specification:**



1. Tool should be able to measure total and corrected natural gamma ray to assess Thorium (Th), Uranium (U) and Potassium (K) components. It would also provide the ratios of Th/U, U/K and Th/K.
2. The tool should be combinable with all the Open Hole logging tools and the performance should not be affected in such combination.
3. The tool should be API calibrated with measuring range of 0 to 1000 API, with an accuracy of (+/-) 5 API units.
4. Should be able to log boreholes of diameter from 6 inches to 20 inches (approx.)
5. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 01 set each
6. All items / assemblies for the tool should be quoted individually

#### **10.6 NATURAL GAMMA RAY TOOL**

**QUANTITY = 02 NUMBERS**

**Minimum Technical Specification:**

1. The should be combinable with all the Open Hole logging tools and the performance should not be affected in such combination.
2. The tool should be calibrated in API with measuring range of 0 to 500 API with an accuracy of (+/-) 5 API units.
3. Should be able to log boreholes of diameter from 6 inches to 20 inches (approx.)
4. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 02 set each
5. All items / assemblies for the tool should be quoted individually

#### **10.7 ARRAY TYPE INDUCTION RESISTIVITY TOOL**

**QUANTITY = 01 NUMBER**

**Minimum Technical Specification:**

The tool should be an array type induction resistivity imaging tool with multiple depths of investigation for generating shallow to deep resistivity logs.

1. The tool should be capable of recording of at least 5 radial resistivity curves at 10",20",30", 60", and 90" with vertical resolution of 1 feet,2 feet, and 4 feet in the range of 0.2 to 500 ohm-m.
2. The skin effect correction should be applied on actual measurement in real time.
3. The tool should have built-in capability to record SP signal simultaneously
4. Shop calibration jigs/loops and on site test equipment, if any, should be quoted separately.
5. Necessary centralizers / stand-offs for logging in standard open hole sizes up to 20" OD should be provided, quantity = 02 sets
6. All items/assemblies of the tools should be quoted individually.
7. Necessary software for processing the tool measurements with **environmental corrections and invasion profile in color code should be quoted.**

## 10.8

### SONIC TOOL WITH CBL/VDL CAPABILITY

#### QUANTITY = 02 NUMBER

#### Minimum Technical Specification:

1. The tool should be an acoustic logging tool with multiple transmitters and receivers designed to carry out borehole compensated compressional wave measurements
2. The tool should be capable of recording full waveform data digitally permitting advanced data analysis and quality control for waveform amplitude, slowness and arrival time in both open-hole and cased-hole applications.
3. Tool should be able to produce compressional travel time ( $\Delta T$ ) in open holes to derive sonic porosity, time-depth correlation, synthetic seismograms, etc.
4. The tool should record, process and display the following log curves:
  - a) Individual receiver travel time.
  - b) Formation Travel time computed from 3' and 5' receiver.
  - c) Integrated travel time.
  - d) Amplitude of 3' receiver for Cement Bond Log in Cased Holes
  - e) Variable Density Log (VDL) from 5' receiver in Cased Holes

5. The tool should be combinable with CCL and Gamma Ray Tools to record CBL/VDL/GR/CCL log in the same run. For this purpose, necessary Gamma Ray tool and CCL tool should be provided, quantity = 02 nos. each
6. Gain and threshold adjustments should be based on latest principles
7. Necessary Centralizers for logging in standard Open Holes should be provided, quantity = 04 sets
8. Over-body Centralizers should be provided for recording CBL/VDL/GR/CCL log in 5", 5-1/2", 7" and 9-5/8" casing, quantity = 02 sets each
9. Shop calibration system and onsite test equipment/jig for tool check should be provided, quantity = 02 sets
10. Any other accessories required for the tool should also be provided.
11. All items / assemblies of the tool should be quoted individually

## 10.9

### ACOUSTIC SCANNING TOOL

#### QUANTITY = 01 NUMBER

#### Minimum Technical Specification:

1. The tool should be an ultrasonic acoustic scanning tool that provide high resolution images of the borehole in open hole environment. The high resolution borehole image so obtained will be used for detailed structural, stratigraphic, and sedimentological analysis.
2. Tool should provide cement evaluation and pipe inspection in Cased Holes.
3. The tool must have an interchangeable head that rotates a full 360 degrees and contains high frequency acoustic transducer to provide a full 360 degree profile of the borehole.
4. The borehole image provided by the tool must be direction oriented
5. Necessary Centralizers for logging in standard open hole sizes up to 18" OD should be provided, quantity = 02 sets
6. Necessary Centralizers for Cased Hole applications should be provided for casing sizes 5-1/2", 7" and 9-5/8" casing, quantity = 02 sets each
7. Shop calibration system and onsite test equipment/jig for tool check should be provided, quantity = 02 sets

8. Any other accessories required for the tool should also be provided.
9. All items / assemblies of the tool should be quoted individually

#### **10.10 BOREHOLE DEVIATION SURVEY TOOL**

##### **QUANTITY = 02 NUMBER**

##### **Minimum Technical Specification:**

1. The tool should be able to provide borehole directional data to output different borehole directional plots.
2. The tool should be able to run either independently or in combination with other tool.
3. The tool must have three-axis accelerometers and magnetometers to provide borehole azimuth, magnetic face angle, gravity tool face, hole inclination, in addition to others.
4. Necessary centralizers for logging in open hole upto 20" OD should be provided, quantity = 02 sets
5. Shop calibration system and onsite test equipment/jig for tool check should be provided, quantity = 02 set
6. Any other accessories required for the tool should also be provided.
7. All items / assemblies of the tool should be quoted individually

#### **10.11 MICRO-RESISTIVITY TYPE BOREHOLE IMAGER TOOL**

##### **QUANTITY = 01 NUMBER**

##### **Minimum Technical Specification:**

1. The tool should give High resolution bore-hole image for detection of vugs, fractures, wash outs and other bore-hole surface effects. Log data will be utilized for characterization of sedimentary bodies, sedimentary dips, structural analysis, reservoir characterization etc.
2. Tool should have Pads mounted on independently articulated arms for proper pad contact in rugose, washed-out, elliptical, or highly deviated boreholes
3. The tool should have high sampling rate (120 samples/ft or more) and adequate borehole coverage (67% in 8.5 in. holes or more) for obtaining high resolution pictures of the borehole walls.
4. Should be able to log boreholes of diameter from 6.25 inches to 20 inches (approx.)

5. Required centralizers and all other accessories for the tool should be provided
6. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 01 set each
7. All items / assemblies for the tool should be quoted individually

**10.12 TELEMETRY CARTRIDGE TOOL**

**QUANTITY = 02 NUMBER**

**Minimum Technical Specification:**

1. The downhole telemetry tool should have the capacity to transmit data from a combination of tools as indicated in the Clause no. 11 below.
2. The tool should work on latest digital data telemetry system with error checking capability during transmission
3. Tool test equipment, calibration equipment, if any, should be provided.
4. All items / assemblies for the tool should be quoted individually

**10.13 DOWNHOLE TENSION DEVICE TOOL**

**QUANTITY = 02 NUMBER**

**Minimum Technical Specification:**

1. To monitor and record downhole wireline tension (tool weight)
2. Tool should be combinable with all other downhole logging tools
3. Shop and wellsite calibration system and test equipment, if any, should be provided.
4. All items / assemblies for the tool should be quoted individually

**10.14 SIDE WALL CORING (PERCUSSION TYPE) TOOL WITH CONSUMABLES**

**QUANTITY = 02 NUMBER**

**Minimum Technical Specification:**

The Coring Gun should have the capability to take at least 24 numbers of cores selectively in one single run. The Gun assembly should have provision to record Gamma ray in the same run for depth correlation.

1. Separate Gamma Ray tool compatible with the core gun, if any, should be provided, quantity = 02 number
2. Details of equipment necessary for gun assembly and loading should be provided
3. All accessories for the gun to retrieve sidewall cores in soft, medium and hard formations are to be provided
4. Break-up of explosives and accessories for 250 Deg. F for 50 jobs @ 24 cores each to be provided
5. All items / assemblies for the tool should be quoted individually

**10.15 SHOOTING GAMMA RAY/CCL TOOL (1-11/16" OD)**

**QUANTITY = 02 NUMBERS**

**Minimum Technical Specification:**

1. A depth-correlation tool to record GR and CCL log simultaneously.
2. Tool must be designed to absorb perforating gun shock when used with perforating guns
3. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 02 sets
4. All items / assemblies for the tool should be quoted individually

**10.16 SHOOTING GAMMA RAY/CCL TOOL (3.13" OD APPROX.)**

**QUANTITY = 02 NUMBER**

**Minimum Technical Specification:**

1. A depth-correlation GR/CCL tool designed to operate with perforating guns.
2. Tool OD should be 3.13" approx.
3. Tool must be designed to absorb perforating gun shock
4. Tool should record CCL and GR simultaneously in Cased Hole
5. Base Calibration system, simulators, sleeves and other accessories, and onsite test equipments / jigs for the tool check should be provided, quantity = 02 sets
6. All items / assemblies for the tool should be quoted individually

**10.17 STANDARD WIRELINE CABLE GUIDED FISHING EQUIPMENT**

## **QUANTITY = 01 NUMBER**

The fishing kit should be adaptable to the entire range of Open Hole Logging tools and other sub-surface equipment. For the fishing kit, item-wise complete list of all parts with respective Part Number is to be furnished. Appropriate cable hangers with liners for the multi-conductor logging cable, Grapples, Cable Sleeves, and Housing etc. are to be quoted.

- 10.18**      **Those items / accessories which are common to all the downhole tools (CABLE HEAD, BRIDLE, MONOCABLE HEAD etc.) must be quoted, quantity = 02 numbers each**

## **11.0**      **COMBINABILITY OF LOGGING TOOLS:**

**The tools should be able to run independently and also in the following combinations.**

1. Dual Laterolog + Gamma ray / Spectral Gamma Ray
2. Dual Laterolog + Micro spherically focused log + Gamma ray / Spectral Gamma Ray
3. Array Induction Log + Gamma ray / Spectral Gamma Ray
4. Array Induction Log + Micro spherically focused log + Gamma ray / Spectral Gamma Ray
5. Compensated Spectral Density Tool + Gamma ray / Spectral Gamma Ray
6. Compensated Neutron Porosity Tool + Gamma ray / Spectral Gamma Ray
7. Compensated Spectral Density Tool + Compensated Neutron Porosity Tool + Gamma ray / Spectral Gamma Ray
8. Borehole compensated Sonic Tool + Gamma ray / Spectral Gamma Ray
9. Borehole compensated Sonic Tool + Compensated Spectral Density Tool + Compensated Neutron Porosity Tool + Gamma ray / Spectral Gamma Ray
10. Borehole compensated Sonic Tool (CBL mode) + Gamma ray
11. Borehole compensated Sonic Tool (CBL mode) + Gamma ray + CCL Tool
12. Acoustic Scanning Tool + Gamma Ray / Spectral Gamma Ray
13. Acoustic Scanning Tool + Borehole compensated Sonic Tool (CBL mode) + Gamma Ray / Spectral Gamma Ray

14. Micro-resistivity imaging tool + Gamma ray / Spectral Gamma Ray
15. Borehole deviation Survey Tool + Gamma ray / Spectral Gamma Ray
16. Array Induction Log + Compensated Spectral Density Tool + Compensated Neutron Porosity Tool + Gamma ray / Spectral Gamma Ray
17. Array Induction Log + Compensated Spectral Density Tool + Compensated Neutron Porosity Tool + Borehole compensated Sonic Tool + Gamma ray / Spectral Gamma Ray
18. Dual Laterolog + Micro spherically focused log + Compensated Spectral Density Tool + Compensated Neutron Porosity Tool + Gamma ray / Spectral Gamma Ray
19. Dual Laterolog + Micro spherically focused log + Compensated Spectral Density Tool + Compensated Neutron Porosity Tool + Borehole compensated Sonic Tool + Gamma ray / Spectral Gamma Ray

## 12.0 SYSTEM UPGRADATION CAPABILITIES:

Although the logging unit with its surface system is basically needed for the basic / essential logging operations using the above-mentioned downhole tools, it must have the capacity to be upgraded for the following specialized logging operations including processing. System capability for carrying out specialized logging surveys through up-gradation is mandatory. Specialized surveys for which, the offered system must have up- gradation capability are as follows.

1. Slim-hole carbon-oxygen logging (RST / RMT or equivalent).
2. Magnetic Resonance Imaging (MRIL / CMR or equivalent).
3. Formation testing & sampling services

## 13.0 OPTIONAL TOOLS:

The offered logging unit, with its surface system (on procurement of required hardware like Panels, interface cards, and software modules etc. for optional tools, if any) should be able to carry out wireline operations using the optional tools as specified below. The Bidder is required to quote all optional tools along with hardware requirements like Panels, Interface cards, Software modules including processing and interpretation software modules etc. involved for each optional tool. **Though price for the optional items will NOT be considered for commercial evaluation of the bid,** quotation, complete in all respects, is to be forwarded.

- 13.1 Magnetic Resonance Imaging (MRIL / CMR or equivalent)



- 13.2 Slim-hole carbon-oxygen logging (RST / RMT or equivalent)
- 13.3 Free Point Indicator Tool
- 13.4 Slim Quad Combo tools
- 13.5 Wireline Formation testing & sampling

## **14.0 COMPUTER SYSTEM FOR LOG DATA PROCESSING & INTERPRETATION AT BASE:**

**The bidder is required to quote the following:**

1. Latest version of log data processing and formation evaluation software packages (ULTRA, ELAN / EXPRESS etc. or equivalent and their advanced version).
2. Log data processing and interpretation software packages for Array Induction, Acoustic Scanning tool, Sonic tool, Micro-Resistivity imaging tool, Borehole Deviation survey tool
3. Single user computer system with accessories, supporting the above mentioned software packages. The system should have at least 02 (two) 19" Monitors (TFT type). One UPS should be provided with the system. The system should run on 220 volts AC / 50 Hz power source.
4. Continuous Printers ( 02 nos.) capable of printing high resolution color logs and other computed results
5. There should be DVD read/write and USB portable Hard drive for data transfer and storage
6. Consumables like Paper, ink cartridges/toner etc. sufficient for 50 data processing jobs of 500 meters interval each should be provided.

**NOTE:** Details of all the hardware and software along with individual price break-up required for a full-fledged computer centre at Base for log data processing and interpretation should be provided in all details. **OIL reserves the right to select the requisite software and hardware modules.**

## **15.0 LAB SYSTEM FOR FAULT ANALYSIS AND REPAIR**

**The bidder is required to quote the following:**

- 15.1 Lab Test System for Testing Logging Tools & Equipments for the purpose of fault analysis and repair

- 15.2 The system should be a complete one in terms of all necessary hardware and software including software licenses.
- 15.3 The system should be capable of powering up all logging tools in the Maintenance Lab.
- 15.4 The system should have necessary provisions for opening and closing the calipers of the padded logging tools.
- 15.5 The system should be capable of playing back recorded log data with hardcopy output.
- 15.6 The Lab system should be a rack-mounted system for easy installation in the Maintenance Lab
- 15.7 All other accessories like specialized hand tools for assembly/disassembly of logging tools, jumpers, cables, cable simulators, soldering stations etc. are to be provided.
- 15.8 All items / assemblies for the Lab system should be quoted individually

## 16.0 SPARE PARTS AND CONSUMABLES:

**The Bidder is requested to note that the following items from clause 16.1 through 16.8 will also be considered for bid evaluation.**

- 16.1 The bidder is required to quote all explosives, spares, consumables and accessories required for 50 runs of operation for the following jobs. The quote must contain Part Number, description of each item, recommended quantity for 50 runs of operation, unit price, and extended price of each quoted item. **Validity of the quote should be for a period of at least 06 (six) months from the bid closing date.**

- i) For all the downhole tools as mentioned in the clauses 10.1 through 10.16.

**(Printed Circuit Boards, Tool Detectors, Tool Pads, Transmitters & Receivers etc. are NOT to be quoted against this clause).**

- ii) For Side Wall Core operations, explosives, consumables, spares and accessories with detail break-up for 50 runs @ 24 cores per run, are to be quoted as below. **(Selector Switch**

assembly for the Core Gun, if any, is NOT to be quoted against this clause)

<b>Break-up of 50 runs of SWC operations</b>	
<b>Hard Formation</b>	<b>30 Runs</b>
<b>Medium Formation</b>	<b>10 Runs</b>
<b>Soft Formation</b>	<b>10 Runs</b>

- iii) For the Surface Logging System, if any (**Panel and PCBs are NOT to be quoted against this clause**)
- iv) For Fishing operations
- v) For Straight Line Depth Measuring System (**PCBs are NOT to be quoted against this Clause**)
- vi) For all those items and accessories which are common to all the downhole tools (**LIKE CABLE HEAD, BRIDLES ETC.**)
- vii) Any other item, which the Bidder feels is required, but not mentioned in this clause.

***NOTE: The Bidder is required to quote every item as mentioned in the above clause 16.1. Any item (consumable or accessory) NOT specifically quoted in the Bid for 50 runs of operations and found to be required before completion of 50 runs of operation, shall be supplied by the supplier FREE OF CHARGE TO OIL.***

**16.2** The Bidder is required to quote spares, consumables and accessories for the following:

- (a) For the AC Power generator for 2000 running hours (**Printed Circuit Boards are NOT to be quoted against this clause**)
- (b) For the roof mounted air-conditioners for 2000 running hours (**Printed Circuit Boards, if any, are NOT to be quoted against this clause**)

***NOTE: The Bidder is required to quote every item as mentioned in the above clause 16.2 and hence to be very careful while quoting. Any item (consumable or accessory) NOT specifically quoted in the Bid and found to***

***be required before completion of the mentioned running hours, shall be supplied by the supplier FREE OF CHARGE TO OIL.***

**16.3 The Bidder is required to quote the following:**

- (a) One no. each of all the Printed Circuit Boards (PCB) used in each downhole tool as mentioned in the clause 10.1 to 10.16. (For example, if 10 nos. of circuit boards are used, whether similar or different type, in density logging tool, all the 10 circuit boards must be quoted). The quotation for the PCBs must be tool-wise.**
- (b) MSFL Pads similar to the ones fitted in the tool, quantity = 10 nos.**
- (c) Micro-resistivity Imaging Tool Pad Assembly, quantity = 01 set**
- (d) Complete Detector assemblies for Density Tool, Compensated Neutron Tool, Spectral Gamma Ray tool, Natural Gamma ray Tool as mentioned in Clause 10.3, 10.4, 10.5 & 10.6, quantity = 01 no. each**
- (e) Selector Switch for side wall core guns (if any), quantity = 04 nos.**
- (f) Acoustic Scanning Tool Rotating Head (clause 10.9), quantity = 01 no. each size**
- (g) Transmitters and Receivers for the Sonic Tool (clause 10.8), quantity = 01 no. each**
- (h) 100 numbers of each type of O-ring used in each downhole tool (clause 10.1 to 10.16) which requires change after every run.**
- (i) 20 numbers of each type of O-ring used in each downhole tool (clause 10.1 to 10.16) which requires seldom change.**
- (j) Two times the number of Nuts, bolts, washers, roll-pin, lock-pin, connectors, different pins and boots etc. used in each downhole tool (clause 10.1 to 10.16).**
- (k) One number each of all the printed circuit board used in the AC generators and their control units.**
- (l) One number each of all the printed circuit board, if any, used in the roof mounted Air Conditioners.**

***NOTE: The Bidder is required to quote every item as mentioned in the above clause 16.3. If the Bidder fails to quote any of the above items in the bid, but found to be a part of the equipment during five years from the date of successful commissioning of the equipment, the bidder must supply the same FREE OF CHARGE TO OIL.***

**16.4** Depth / Tension Measuring Panel, if any, is to be quoted, quantity = 01 no.

**16.5** AC generator (Alternator) exactly similar to the one installed in the logging unit is to be quoted as spare along with all controllers / accessories. In case

of failure of the truck mounted generator, the spare generator must be able to replace it directly.

**16.6** A straight Line Measuring system, similar to the one installed in the logging unit, is to be quoted as spare along with all accessories including depth encoders. In case of failure of the installed Depth Measuring system, the spare measuring head must be able to replace it directly.

**16.7** Spare Tension Device / Load Pin similar to the one used in the logging unit, quantity = 02 nos.

**16.8** Four numbers of electrical roof mounted air conditioners, similar to the ones fitted in the logging unit, are to be quoted as spares.

**16.9** **RECOMMENDED SPARE LIST:**

Apart from the spares, consumables and accessories mentioned in the clauses 16.1 to 16.8, the bidder is required to submit a list of all the recommended spares (electronic, electrical, mechanical, hydraulic etc.), accessories and consumables for the truck mounted assemblies, sub-assemblies, surface electronic systems, and downhole tools including explosives for side wall coring operations. This recommended spare parts list should contain Description, part Number and quantity of each item. The quantity of items recommended must be sufficient to cater 100 runs per tool in 02 years of uninterrupted operation and maintenance. **This is required for OIL's future reference / procurement only, and will not be considered for bid evaluation.**

**16.10** **The Bidder must submit a written commitment that the spares and consumables will be supplied on chargeable basis to OIL for a period of 10 years from the date of closing of the bids.**

**16.11** Explosives for Side wall Core operations, Radioactive sources and perishable consumables like Paper, Films etc. are to be Air-freighted upto Kolkata / Delhi, India, and the bidder should quote accordingly.

**16.12** Procurement of spares, accessories, PCBs, consumables etc. mentioned against clauses 16.1 to 16.8 shall be at the discretion of OIL.

**17.0** Bidders are required to submit a **standard price list** of the **entire items** used in the offered logging unit. The price list must include all electronic, electrical, mechanical

and hydraulic items, accessories and consumables for the truck mounted assemblies,

Sub assemblies, surface electronic system and downhole tools including explosives & consumables for sidewall core operations. The price list should contain description, part number and unit price of each item and must be valid for a minimum period of **two years** from the date of **successful commissioning of the Logging truck and downhole tools.**

- 18.0** The bidder must confirm in writing along with their bid that they possess all standard testing & calibration facilities at their manufacturing Base / Testing centre, including pressure / temperature testing etc., for all the tools offered by them against this tender.
- 19.0** The logging truck, tools and accessories offered against this bid must be the latest, state-of-the art and field-proven in the Industry with capability of trouble free data recording and seamless data transferring up to well depth of at least 6000 meters. and must have been field- proven for at least 1 year prior to bid closing date.
- 20.0** All offered equipment must be of **new, unused and fresh manufacture.** Firm commitment is to be made by the bidder in the bid for supply of brand new equipment.
- 21.0** Offers must include rig up and other requisite essential accessories for straight away commissioning of the unit.
- 22.0** The bidder should also have proper R & D facilities for development and up-gradation of their equipments.
- 23.0** The bidder must quote as per the tender requirement only and provide FULL INFORMATION wherever applicable in the bid. Bidders' response to each clause of the NIT must be submitted in a tabular format as shown in **Annexure - 2** with appropriate reference to the main quote. After opening of the bids, in case any technical clarification is required on any bid, OIL will seek clarification from that bidder and the bidder will have to reply/clarify with complete details within the specified time mentioned by OIL. If not complied, that particular bid will not be considered for evaluation.

**The bidder must respond to each and every clause in the NIT in a tabular form as per ANNEXURE – 2**

**24.0 Past Performance**

At the time of technical evaluation of the offers, past performance of similar equipments supplied by the bidder as well as after-sales service, supply of spares etc. in respect of such equipment by the concerned bidder will be considered. If the same are not found to be satisfactory as already communicated to the bidder, the offer may be considered as unacceptable and rejected.

**25.0** Bid evaluation will be done only for those bids which offer full quantities of goods as mentioned in the **Sections I through IV**.

**(END OF SECTION – II)**

## **SECTION – III**

### **1.0 TRAINING:**

Successful bidder will have to provide training for 4 (four) Field Engineers, 3 (three) Maintenance Engineers, 2 (Two) Log Data Processing & Interpretation Engineers and 2 (Two) Transport Engineers at their training school which is equipped with Test Well and all other requisite facilities. The training charges, if any, should be quoted separately which shall be considered for evaluation of the bid. However, passage and living expenses, including accommodation charges of OIL Engineers nominated for the training courses will be borne by OIL.

### **1.1 FIELD ENGINEERS' TRAINING:**

This should include detailed aspects of wireline logging operations and basic equipment trouble shooting at Base and at Field, in addition to the regular curriculum for Field Engineers' Training Course. The Field engineers' training course should give special emphasis on the Array type Induction Resistivity Tool, Sonic Tool, Acoustic Scanning Tool, and Micro-resistivity imaging tool at the supplier's training school. Duration of the training period, location of training, and prerequisite of the trainees, if any, etc. should be clearly specified in the bid document.

### **1.2 MAINTENANCE ENGINEERS' TRAINING:**

This should include detailed theoretical and practical training on the Logging surface system hardware & software, downhole logging tools, and power generating sub-systems of the Logging Unit, in addition to the regular curriculum of Maintenance Engineers' Training course. The training course must give special emphasis on maintenance training of the Array type Induction Resistivity Tool, Sonic Tool, Acoustic Scanning Tool, and Micro-resistivity imaging tool at the supplier's training school. Duration of the training period, location of training, and prerequisite of the trainees, if any, etc. should be clearly specified in the bid document.



### **1.3 LOG DATA PROCESSING, ANALYSIS AND INTERPRETATION TRAINING:**

The bidder is required to provide training on data processing, analysis and interpretation of log data for all the downhole tools and software modules to be procured from them along with basic log interpretation and formation evaluation at the Supplier's Training School. Special emphasis is to be given on processing and interpretation of log data from the Array type Induction Resistivity Tool, Sonic Tool, Acoustic Scanning Tool, and Micro-resistivity imaging tool at the supplier's training school. Duration of the training period, location of the training, and prerequisite of the trainees, if any, etc. should be clearly specified in the bid document.

### **1.4 TRANSPORT ENGINEERS' TRAINING:**

The successful bidder will have to arrange for a training program for 2 (two) Transport Engineers of OIL on Maintenance, Working Principles and Troubleshooting of the following systems / items used in the Logging Unit besides other relevant subjects, at the supplier's Training School. Duration of the training period, location of training, and prerequisite of the trainees, if any, etc. should be clearly specified in the bid document.

- (a) Truck Engine and its control system
- (b) Transmission, PTO and Transfer Case (if any)
- (c) Pneumatic system (for the truck chassis)
- (d) Complete Hydraulic system (as per hydraulic schematics) for logging operation
- (e) All Pumps & Motors, and Torque Hubs of winch drum of the hydraulic system
- (f) Electrical/electronic control systems for operation of hydraulic winch and all other hydraulic actuators

### **2.0 INSPECTION CUM ACCEPTANCE:**

The pre-shipment inspection of the equipments shall be carried out in 2 (two) phases:-

**Phase-1 : for Automobile and Hydraulic Section and**

**Phase-2 : for Logging Section, both at the supplier's premises** by a team of executives from OIL as mentioned below. It is to be noted that immediately after

completion of the Transport Engineers' Training, the same team of two Transport Engineers from OIL will carry out the Phase – 1 inspection.

## **2.1 INSPECTION PHASE – 1: Automobile and Hydraulic Section:**

The supplier shall facilitate pre-dispatch inspection of the logging unit at their Plant/Works for a minimum period of 01 (one) week by 2 (two) Transport Engineers from OIL at no additional cost to OIL. However, Passage and living expenses, including accommodation charges of OIL Executives nominated to carry out the inspection work will be borne by OIL. The period of inspection and acceptance process may accordingly be specified by the bidders in the bid documents.

The inspection cum acceptance process will include the following minimum tasks / steps:

- (a) Physical verification / inspection of all the items / fittings / accessories as per the Purchase Order (related to the Automobile Section only), including all parts catalogue, maintenance & Service Manuals, Schematics, Final Chassis built up/ Vehicle Content Record documents, etc. and **actual loading on axles**. The supplier shall arrange driver / operator, weighing facility and any other infrastructure as and when required during the process of inspection.
- (b) Verification of all Certificates / records of shock and vibration testing and other documents related to the logging truck.
- (c) Operational testing of the truck and the complete hydraulic system.
- (d) The supplier shall have to take note of any minor modification(s) for operational requirement suggested by the inspectors and comply with the same at no extra cost.
- (e) The minutes of the inspection task would be prepared at the end of the inspection process and jointly signed by both the parties (OIL and the supplier).
- (f) The supplier shall confirm in writing compliance of all the points raised in the minutes of inspection as well as any other subsequent additions / changes, following deliberations with the Phase – 1 Inspectors after arrival at Duliajan, Assam.

**NOTE:** The same team of 02 (two) Transport Engineers from OIL, immediately after completing the Transport Engineers Training (clause 1.4 above), will carry out the Phase – 1 inspection for at least one week.

## **2.2 INSPECTION PHASE – 2 : Logging Section:**

The supplier shall facilitate pre-dispatch inspection of the logging unit at their Plant/Works for a minimum period of 04 (four) weeks by 2 (two) Logging Engineers in senior level from OIL **at no additional cost to OIL**. However, Passage and living expenses, including accommodation charges of OIL Executives nominated to carry out the inspection work will be borne by OIL. The period of inspection and acceptance process may accordingly be specified by the bidders in the bid documents.

The inspection cum acceptance process will include the following minimum tasks / steps:

- (a)** Physical verification of all the items as per the Purchase Order with emphasis on items of cost more than US \$ 1500 per item.
- (b)** Functional testing of the logging system, downhole tools and accessories to their rated specifications. Although the hydraulic system will be tested during Phase – 1 inspection, the same will also be retested for Winch operation and line speed in the Test well during the Phase – 2 inspection.
- (c)** Verification of all records of Pressure, Temperature, Shock and Vibration testing carried out after manufacture of downhole tools as applicable.
- (d)** Checking of Export Invoices and discussing necessary modalities for safe transportation of the goods.
- (e)** Technical discussions on any deviations from the Purchase order and provide feed back to OIL with technical justifications for approval of the order amendment by the competent authority.
- (f)** Inspection of Training Manuals and other Engineering Documents.
- (g)** The Inspection and Acceptance report would be prepared jointly and signed by representatives of both the parties at the end of the inspection process.
- (h)** The supplier shall confirm in writing compliance of all the points raised in the minutes of inspection as well as any other subsequent additions / changes, following deliberations with the Phase – 2 Inspectors after arrival at Duliajan, Assam.

- (i) After completion of the Phase – 2 inspection, the supplier will effect dispatch of the unit only on receipt of OIL’s dispatch advice.
- 2.3** After finalizing the tentative readiness of the equipment, the successful bidder should communicate the proposed inspection schedule to OIL, with the confirmed date for inspection, at least three months in advance. OIL, in turn, will confirm the scheduled date of visit of its personnel one month in advance to the successful bidder.
- 2.4** Immediately after placement of the Purchase Order, the successful bidder should communicate the proposed training schedule to OIL for the Field Engineers, Maintenance Engineers, Interpretation Engineers, and Transport Engineers (clause 17.0) at least 04 (four) months in advance for each training program. OIL in turn will confirm acceptance of the schedule of training at least one month in advance for each program.

**(END OF SECTION – III)**

## SECTION - IV

### 1.0 INSTALLATION AND COMMISSIONING

- 1.1 Installation and commissioning includes commissioning of the logging Truck, testing of all the downhole tools in the well and testing of all other goods supplied. The bidder will have to depute personnel with good communication capability in English and with minimum of five years experience in operations and maintenance of wireline logging and downhole tools, to OIL, Duliajan for field commissioning of the entire equipment. The bidders must quote for lumpsum commissioning charges which should include to and fro air-fare of their personnel. OIL will only provide accommodation, local transport, and food to the bidder's personnel free of charge. Immediately after receipt of all the materials by OIL at Duliajan, a written advice will be issued to the supplier asking them to commence installation and commissioning, which must be promptly acknowledged by the supplier. **Commissioning of the Logging Unit along with all the downhole tools and other accessories is to be completed within 04 (four) months from the date of receipt of such an advice from OIL (this four months period excludes the waiting time for well readiness).** Commissioning of the optional equipment will be on mutually agreed terms and conditions, which are to be finalized by the successful bidder and OIL within 02 (two) months from the placement of order for such optional equipment. Supply of short-shipped and warranty replacement items is to be arranged, including Customs Clearance etc. by the suppliers or their authorized representatives at their cost within 03 (three) months from the date of completion of commissioning of the entire equipment. The bidder will be held responsible for any further delay in completion of commissioning of the goods at site and in case of defaulters, the Liquidated Damage Clause (Clause 1.4 below) will be made applicable.
- 1.2 In order to complete the field commissioning of the logging unit, downhole tools and accessories within the stipulated time-frame, all the spares and accessories which will be required during commissioning (due to failure of some components and/or any other materials required) are to be arranged (including Customs Clearance etc.) by the suppliers or their authorized representatives at the earliest, at site at their cost.

**1.3** In addition to all other installation and commissioning jobs, all the downhole tools will be tested in OIL's oil/gas wells by carrying out actual logging operations. Prior to this, all the downhole tools will be calibrated in the base and at site to OIL's satisfaction. Each downhole tool must perform at least 02 nos. of successful logging jobs in two different wells. Each of these logging jobs will have to be carried out in a well-depth of 3500 meters (approx.) or more and the logging interval (with repeat section) would be as required by OIL.

**1.4 LIQUIDATED DAMAGE:**

**Liquidated Damage will be levied for any failure on the part of the supplier in completion of installation and commissioning @ 0.5% per full week or part thereof to a maximum of 20% of the value of the total installation and commissioning.**

**2.0 WARRANTY:**

**2.1** Oil India Limited (OIL) reserves the right to inspect, test and wherever necessary, reject the goods after arrival of the goods at site, only if the said rejection is attributed to be the responsibility of the Bidder. It shall, in no way be limited or waived by reason of the goods being previously inspected, tested and passed by OIL or its representatives prior to the goods shipment from the country of origin.

**2.2** Materials supplied as per the Purchase Order should be under warranty by the suppliers for a **minimum period of 01 (one) year from the date of successful completion of installation and commissioning of the entire equipment at site.** Any item / sub item failed during the above mentioned warranty period is to be replaced / repaired within 03 (three) months from the date of notification of such failure. The warranty of the repaired / replaced items shall be correspondingly extended by a period equal to that from the date of failure to the date of commissioning of the replaced/repaired item. In order to keep the equipment fully operational, all spares and accessories required during the warranty period is to be arranged at site by the suppliers or their authorized representatives, within 03 (three) months, at their cost (including Customs Clearance etc.)

General Notes for Bidders :-

(Bidders should confirm each & every point clearly. Deviations, if any, should be highlighted in the quotation.)

- 1.0 The bidders must submit a written undertaking that they would be able to supply all the requisite spares and consumables (including bought out items) for a minimum period of 10 (ten) years from the certified date of completion / successful field commissioning of the Package. Original Equipment Manufacturer's undertaking must be forwarded for the items not manufactured by the bidder.
- 2.0 Installation & Commissioning :
  - 2.1 The successful bidder will be required to install and commission the Logging Unit as indicated vide SECTION-IV above by their competent service engineer.
  - 2.2 Installation/ Commissioning charges must be quoted separately (and should not be clubbed together with main equipment) on lumpsum basis which shall be considered for evaluation of the offers. Total Nos. of days required for commissioning shall also be clearly indicated by the bidders.
  - 2.3 While quoting Installation/Commissioning charges above, bidder should take into account all charges including to and fro fares, boarding/lodging, local transport at Duliajan, Assam and other expenses of supplier's personnel during their stay at Duliajan. OIL may provide accommodation on Chargeable basis subject to availability. Bidder should confirm about providing all these services in their Bid. However, OIL reserves the right to avail such services at its own discretion.
- 3.0 Pre-despatch Inspection and Training at supplier's works:
  - 3.1 OIL may depute representatives for inspection and testing prior to despatch at Ex-works as indicated vide SECTION-III above for which a minimum of 75 days prior intimation has to be given by the supplier.
  - 3.3 Pre-despatch inspection charges, if any, shall be quoted separately which shall be considered for evaluation of the offers. To and fro fares, boarding/ lodging and other en-route expenses of OIL's Inspection team for carrying our inspection shall be borne by OIL.
- 4.0 While quoting training charges above, bidder should take into account all charges including to and fro fares, boarding/lodging, local transport at Duliajan, Assam and other expenses of supplier's personnel during their stay at Duliajan. OIL may provide accommodation on Chargeable basis subject to availability. Bidder should confirm about providing all these services in their Bid.
- 5.0 **Tax & Duties:**
  - (i) All taxes, stamp duties and other levies imposed outside India shall be the responsibility of the Bidder/Seller and charges thereof shall be included in the offered rates.
  - (ii) All Taxes & levies imposed in India, for the services including installation & commissioning, shall be to the Bidder/Seller's account.

- (iii) Income Tax on the value of the Services rendered by the Bidder /Seller in connection with installation/ commissioning etc. shall be deducted at source from the invoices at the appropriate rate under the I.T. Act & Rules from time to time.

6.0 Payment : Payment shall be released as follows:

- i) 80 % of the supply (Logging Unit) value shall be released on supply of the Logging Unit against proof of despatch/shipment of the goods.
- ii) Remaining 20 % of the supply (Logging Unit) value along with installation & commissioning charges shall be paid after successful commissioning and acceptance of the Logging Unit by OIL at site.
- iii) Training charges will be paid only after successful completion of training.

OIL may consider making 100 % payment of the Logging Unit value towards supply of the Logging Unit against proof of dispatch/shipment provided bidders agree to pay interest @ 1% above prevailing Bank Rate (CC rate) of State Bank of India for 20 % of the Logging Unit value and also submit Bank Guarantee for the equivalent amount plus interest valid till successful commissioning of Logging Unit at site. This is in addition to the 10 % of the order value towards Performance Security as per the NIT requirement.

Any offer not complying with the above shall be loaded at one percent above the prevailing Bank Rate (CC rate) of State Bank of India for the duration of commissioning time indicated in the tender plus transit time (3 months) for evaluation purpose.

7.0 Oil India Purchase Order No. must be engraved on the body of the item. Bidder must confirm the same categorically in their quotation.

7.1 The items covered by this enquiry shall be used by Oil India Limited in the PEL/ML areas which are issued/renewed after 01/04/99 and hence Nil Customs Duty during import will be applicable. Indigenous bidder shall be eligible for Deemed Export Benefit against this purchase. Details of Deemed Export are furnished vide Addendum to MM/GLOBAL/E-01/2005 attached.

7.2 Other terms and conditions of the tender shall be as per “General Terms & Conditions” for e- Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders) and its amendments. However, if any of the Clauses of the Bid Rejection Criteria (BRC) / Bid Evaluation Criteria (BEC) mentioned here contradict the Clauses in the “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders) of the tender and/or elsewhere, those mentioned in this BEC / BRC shall prevail.

8.0 Bidders are advised to submit details of previous supply record in tabular format as shown below:

SL NO	Client / Customer Name and Address with contact e-mail id	Order No / Contract No.	Date of order	Open Hole Logging Unit specification (Make, Model ) & Quantity supplied	Completion date	Reference of supporting document enclosed



- 9.0 The Integrity Pact is applicable against this tender .OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure XII of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned by the bidder (along with the Techno-Commercial Unpriced Bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid.

OIL's Independent External Monitors at present are as under:

- (I) SHRI N. GOPALASWAMI, I.A.S ( Retd) ,  
Former Chief Election Commissioner of India  
E-mail Id : gopalaswamin@gmail.com
- (II) SHRI RAMESH CHANDRA AGARWAL , IPS( Retd)  
Former Director General of Police  
E-mail Id : rcagarwal@rediffmail.com

**(END OF SECTION – IV)**

**LOGGING TOOL SPECIFICATION SHEET**

[Ref. Clause no. 10.0 (d), Section – II]

<b>TOOL NAME:</b>		
<b>PARAMETER DESCRIPTION</b>	<b>PARAMETER VALUE</b>	<b>REMARKS</b>
Max. Tool OD		
Max. Temp Rating		
Max Pressure Rating		
Min Hole Size		
Max. Hole Size		
Casing OD Range		
Measurement Principle		
Measurement Range		
Vertical Resolution		
Depth of Investigation		
Sensitivity		
Accuracy:		
Primary Output Curves		
Secondary Output Curves		
Combinability		
Any Other Parameter		

<b>OIL NIT Clause No.</b>	<b>OIL NIT Clause Description</b>	<b>Bidder's Response</b>	<b>Any Deviation from NIT Clause (Yes / No)</b>	<b>Reason for Deviation</b>

## SECTION – V

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

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

The bids must conform to the specifications, terms, and conditions given in the NIT. Bids shall be rejected in case the items offered do not conform to the required minimum / maximum parameters stipulated in the technical specifications and to the respective international /national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the following requirements shall have to be particularly met by the bidders, without which the offer will be considered as non-responsive and rejected:

#### **(A) TECHNICAL :**

##### **1.0 EXPERIENCE OF BIDDER**

##### **1.1 Experience as a Manufacturer:**

The Bidder should be Manufacturer of Open-Hole Wireline Logging Units. The bidder should satisfy the following clauses and documentary evidence should be enclosed along with the techno-commercial bid:

- a) The Bidder should have minimum 05 (Five) years of experience in manufacturing Open-Hole Wireline Logging unit.
- b) The Bidder should have manufactured and sold minimum 05 (Five) numbers of Open-Hole Wire line Logging Units to various companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 05 (Five) years.
- c) The Purchase Orders mentioned above must have been effected to purchasers/clients based in **at least 02 (Two) different countries.**

***For clauses (a), (b), & (c) above, the reckoned period shall be the period prior to the date of closing of the techno-commercial bid of this tender.***

- d) Documentary evidence in respect of the above should be submitted with the bid in the form of copies of relevant Purchase Orders along with the following documents:-
  - (i) Dispatch documents (Invoice, Bill of Loading/Consignment, etc.), and
  - (ii) Successful Commissioning Report.

- e) In addition to the above, the bidder shall also furnish certificates/documents (which are to be submitted along with the bid) from at least 02 (Two) of their Customers certifying the satisfactory functioning of the Logging Units and Tools sold to them by the bidder. In case such documents are genuinely of confidential in nature or cannot be shared, then the CEO of that bidding company must give an undertaking to the effect that his company has executed /completed such Orders and the Logging Units/Logging Tools sold by his company are performing to the best of satisfaction of the customers/ clients.
- f) Bids should be from Manufacturer of Open Hole Wireline Logging Units. In case the bidder is not a manufacturer of Open Hole Logging Units, its bid can also be considered provided the Open Hole Wireline Logging Units offered is from Parent / Subsidiary / Co-subsidiary of any tier of same Group Company (any such relationship should be on 100% basis) who is a manufacturer of Open Hole Logging Units, provided (i) the bidder submits documentary evidence regarding existence of such a relationship between the Bidder and the Manufacturer, (ii) the Manufacturer authorizes the Bidder to sell their products and services (viz. Installation & Commissioning services, Training services, etc.) mentioned in this tender document and submits a back-up authority letter from the concerned Manufacturer in its techno-commercial bid. However, in such case, the manufacturer (the Parent / Subsidiary / Co-subsidiary company of the bidder) of the offered Open Hole Logging Unit on its own should meet the technical experience clauses as stipulated in the Para 1.1 (a), (b) & (c) above.

**1.2 Experience as a Service Provider:**

- a) The bidder must have **minimum of 2 (two) years of experience** in providing Wire-line Logging Services to companies which are in the business of “Exploration & Production of Hydrocarbon” **in India**.
- b) The bidder should have provided Wire-line Logging services to at least **02 (two) different countries other than its country of origin during the last 5 (five) years**.
- c) The bidder must have its base in **India** with capability to provide immediate support / solutions to the Logging Units / Tools if required by OIL.
- \* The above Wireline Logging services provided by the Bidder may be as Parent

/Subsidiary / Co-subsidiary of any tier of same Group Company (any such relationship should be on 100% basis).

\* Experience of the bidder, as above, ***the reckoned period shall be the period prior to the date of closing of the techno-commercial bid of this tender.***

d) **Documentary evidence in respect of the above should be submitted with the bid in the form of copies of relevant Contract Orders along with the following documents:-**

(i) **satisfactory completion / performance report, or**

(ii) **proof of release of Performance Security after completion of the contract, (or)**

(iii) **proof of settlement / release of final payment against the contract.**

**2.0** Wherever two or more sets of the same equipment/item are required, the bidders must quote all the sets of the same item that are identical in all respects i.e. the same category of equipments must be of same make, model and compatible in all respects. The bidder must quote accordingly as mentioned in this clause.

**3.0** Bids with qualifying conditions like “**the product is under development and would be supplied by the time ..... etc.,**” will be summarily rejected.

**4.0** Offers of **Left-Hand driven** (Steering on Left Hand Side inside the driver’s cabin) Logging Truck will be rejected.

**5.0** Offers of Logging Trucks **not meeting** the following requirements will be rejected.

a. **Overall Width not more than 2.60 meters.**

b. **Actual individual load on each of the axles shall be within 85% (Eighty Five percent) of the maximum Loading Capacity for the respective axles. i.e. Total Weight of the unit with all items/equipments shall be within 85% (Eighty Five percent) of *Maximum Permissible Gross Vehicle Weight* of the chassis**

**6.0** Offers other than **diesel fuel** driven Logging Trucks will be rejected.

**7.0 Surface Logging System:** The offered surface logging system must be capable of performing the logging operations and services with the type of tools as described in the **Clause 10.1 to 10.16 (Section II)** of this document. The bidder must confirm compliance on this point in its bid.

**8.0 System Up gradation Capabilities:** The system must have the capacity to be upgraded as mentioned in **clause 12.0 of Section II**. System capability for taking up specialized logging surveys through up gradation is mandatory for acceptance of the offer.

The bidder must confirm compliance on this point in its bid.

**9.0** Offer for Training and Inspection should be as per the clauses mentioned in **Section III** of this Tender document.

**10.0 Delivery:**

i) Delivery will be essence of the contract. Delivery required against this tender is maximum 15 (fifteen) months from the date of opening of LC in case order is placed on the foreign supplier OR within 15 (fifteen) months from the date of receipt of order in case order is placed on indigenous supplier. Date of clean Bill of Lading (B/L in case of foreign supplier) or Consignment Note date (C/Note date in case of foreign supplier) shall be considered as delivery date.

ii) Bidder must comply the above schedule and confirm in their Techno-Commercial bid. Bids not meeting time schedule as mentioned in the tender shall be summarily rejected.

iii) In the event of the Seller's default in maintaining the quoted delivery schedule, seller shall be liable to pay liquidated damages @ 0.5% per week or part thereof of the material value of the order subject to a maximum of 7.5%. Liquidated damages amount, if any, shall be adjusted/deducted while processing the balance payment which is payable after commissioning.

**11.0 WARRANTY:**

The bidders should offer a Warranty Period of at least 1 (one) year for the entire equipment supplied starting from the date of completion of successful field commissioning of the entire equipment. Any item / sub-item failed during the warranty period are to be replaced / repaired within **3** (three) months and the warranty for such items should be extended as mentioned in **clause 2.0 of Section – IV** of this document. The bidder must confirm compliance on this point in its bid.

## **12.0 COMMITMENT FOR SPARES :**

Bidders must submit a written undertaking that all the spares and consumables will be supplied on chargeable basis for a minimum period of 10 ( Ten ) years from the date of closing of bids. The bidder must confirm compliance on this point in its bid.

- 13.0** The Bidder must confirm in its bid that it would carry out installation and commissioning of the Logging Truck at Duliajan, Assam (India) as per **clause 1.0 of Section-IV** of this tender document. Any bidder not offering for Installation and Commissioning of all the systems/equipment shall be treated as non-responsive. The bidder must confirm compliance on this point in its bid.

## **(B) COMMERCIAL :**

- 1.0 Bids are invited under Single Stage Two Bid System. Bidders shall quote accordingly under Single Stage Two Bid System. **Please note that no price details should be furnished in the Techno-Commercial Unpriced Bid.** The “Unpriced Bid” shall contain all techno-commercial details except the prices which shall be kept blank. The “Priced Bid” must contain the price schedule and the bidder’s commercial terms and conditions. Any offer not complying with above submission procedure will be summarily rejected.
- 2.0 Bid security of **US \$ 4,58,900.00 or ₹ 2,06,50,500.00** shall be furnished as a part of the **Techno-Commercial Unpriced Bid. Any bid not accompanied by a proper bid security in ORIGINAL will be rejected without any further consideration.** For exemption for submission of Bid Security, please refer Clause No. 9.8 (Section A) of “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders). Bank Guarantee towards Bid Security shall remain valid till 31<sup>st</sup> May 2015.
- 3.0 Validity of the bid shall be minimum 6 months (180 days) from the bid closing date. Bids with lesser validity will be rejected.
- 4.0 Successful bidder will be required to furnish a Performance Bank Guarantee @ 10% of the order value. The Performance Bank Guarantee must be valid for one year from the date of successful commissioning of the equipment. Bidder must confirm the same in their Techno-Commercial Unpriced Bid. Offers not complying with this clause will be rejected.
- 5.0 Bidders must confirm that Goods, materials or plants(s) to be supplied shall be new of recent make and of the best quality and workmanship and shall be guaranteed for a minimum period of twelve months from the date of successful completion of field commissioning of the Units at site at Duliajan, Assam (India) against any defects arising from faulty materials, workmanship or design. Defensive goods/materials or any item / sub-item failed during the warranty period notified by OIL is to be replaced / repaired within 3 (three) months on FOR Duliajan basis at no extra cost to OIL and warranty for such items should be extended as mentioned in clause 2.0 of SECTION-IV of this document. This guarantee shall survive and hold good notwithstanding inspection, payment for and acceptance of the goods.



- 6.0 The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- 7.0 Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- 8.0 Bidders shall quote directly and not through Agents in India. Offers made by Indian Agents on behalf of their foreign principals will be rejected. Similarly offers from unsolicited bidders will be rejected.
- 9.0 Bids containing incorrect statement will be rejected.
- 10.0 Bidders are required to submit the summary of the prices in their Priced Bid as per bid format (Summary), given below:**

(i) **Price Bid Format ( SUMMARY ) for Foreign Bidders :**

- (A) Cost of items covered under **Section - I and Section - II except Clause No. 13 (Section – II, Optional tools)**
- (B) Cost of spares, accessories, consumables, PCBs and Panels etc. as per **Clause Nos. 16.1 thru 16.8 of Section - II**
- (C) Cost of Commissioning spares, if any
- (D) Grand Total Material Cost, ( A + B + C )
- (E) Packing, FCA (Gateway airport) Charges for Explosives, RA Sources and perishable consumable as per **Clause No. 16.11 of Section - II**
- (F) Packing & FOB (seaport) charges for Remaining items
- (G) Total FOB/FCA port/airport value, ( D + E + F ) above
- (H) Air Freight charges for Explosives, RA Sources and perishable consumable as per **Clause No. 16.11 of Section - II** upto Kolkata, India
- (I) Ocean Freight Charges for Remaining items upto Kolkata, India
- (J) Insurance Charges
- (K) Total CIF Kolkata value, ( G + H + I +J)
- (L) Training charges at bidder's works as per **Clause No. 1.0 of Section - III**
- (M) Pre-despatch/shipment Inspection charges as per **Clause No. 2.0 of Section - III**
- (N) Installation/Commissioning charges as per **Section - IV**
- (O) Total Value, ( K + L + M + N ) above
- (P) Total value in words :
- (Q) Gross Weight :
- (R) Gross Volume :

(ii) **Price Bid Format ( SUMMARY ) for Indigenous Bidders :**

- (A) Cost of items covered under **Section - I and Section - II except Clause No. 13 (Optional tools, Section - II)**
- (B) Cost of spares, accessories, consumables, PCBs and Panels etc. as per **Clause Nos. 16.1 thru 16.8 of Section - II**
- (C) Cost of Commissioning spares, if any
- (D) Grand Total Material Cost, ( A + B + C )
- (E) Packing and Forwarding Charges
- (F) Total Ex-works value, ( D + E ) above
- (G) Excise Duty including Cess, (Please indicate applicable rate of Duty & Cess)
- (H) Sales Tax, (Please indicate applicable rate of Tax)
- (I) Total FOR Dispatching station value, ( F + G + H ) above
- (J) Road Transportation charges to Duliajan
- (K) Insurance Charges upto Duliajan
- (L) Total FOR Duliajan value, ( I + J + K ) above
- (M) Training charges at bidder's works as per **Clause No. 1.0 of Section-III**
- (N) Pre-dispatch/shipment Inspection charges as per **Clause No. 2.0 of Section - III**
- (O) Installation/Commissioning charges as per **Section - IV**
- (P) Total Value, ( L + M + N + O ) above
- (Q) Total value in words :
- (R) Gross Weight :
- (S) Gross Volume :

**NOTE :**

1. Cost of the individual items should be shown separately.
2. Details of the Commissioning Spares indicating the qty, description and unit prices must be shown separately.
3. The total FCA charges and FCA value of the items to be air freighted should be shown separately indicating the Gateway air port. Similarly for the items which are to be sea freighted, the FOB charges and FOB value should be indicated.

4. The items covered under this enquiry shall be used by OIL in the PEL/ML areas issued/renewed after 01/04/99, applicable Customs Duty for import of goods shall be ZERO. Indigenous bidders shall be eligible for Deemed Export and should quote Deemed Export prices. Excise Duty under Deemed Export exempted.
  5. Banking charges in the country of the foreign bidder shall be borne by the bidder.
  6. Successful bidder shall offer the Logging Unit for Pre-despatch/shipment Inspection by OIL's team of technical/commercial executives. Pre-despatch/shipment Inspection charges, if any, must be quoted separately on lumpsum basis which shall be considered for evaluation of the offers. The to and fro fares, boarding/lodging and other enroute expenses of OIL's Engineers shall be borne by OIL.
  7. Training charges (as per Section – IV), if any must be quoted separately on lumpsum basis which shall be considered for evaluation of the offers. Training charges at OIL's premises should include amongst others to and fro fares, boarding/lodging, local transport at Duliajan and other expenses of supplier's training personnel during their stay at Duliajan, Assam(India). In case of training at Bidder's premises, to and fro fares, boarding/lodging and other en-route expenses of OIL's personnel shall be borne by OIL.
  8. Installation/Commissioning charges (as per Section – IV) must be quoted separately on lumpsum basis which shall be considered for evaluation of the offers. These charges should include amongst others to and fro fares, boarding/lodging, local transport at Duliajan and other expenses of supplier's commissioning personnel during their stay at Duliajan, Assam(India).
  9. Bidders must categorically indicate Pre-despatch/shipment Inspection, Training and Installation / Commissioning charges in their offers and must confirm providing the same in their Techno-Commercial bids.
  10. All Income, Service, Corporate Taxes etc. towards the services provided under installation / Commissioning and Training shall be borne by the supplier and will be deducted at source at the time of releasing the payment.
- 11.0 **Offers received without Integrity Pact duly signed by the authorised signatory of the bidder will be rejected.**

**(II) BID EVALUATION CRITERIA (BEC) :**

**The Bids conforming to the specifications, terms and conditions stipulated in the tender and considered to be responsive after subjecting to the Bid Rejection Criteria will be considered for further evaluation as per the Bid Evaluation Criteria mentioned below:**

**A. TECHNICAL:**

All materials as indicated in the material description of the tender should be offered. If any of the items are not offered by the bidder, the offer will not be considered for evaluation.

**1.0 SPARES AND CONSUMABLES :**

- 1.1 Cost of spares, explosives, consumables, critical items and accessories, panels, PCBs etc. as mentioned in **clause 16.1 thru 16.8 of Section - II will be considered for Bid evaluation.**
- 1.2 Explosives, Radio-Active sources and perishable consumables like paper, film etc., are to be Air Freighted up to Kolkata, India and accordingly air freighted charges for these items shall be considered for evaluation.
- 1.3 Bid evaluation will be done only for those bids which offer full quantities of goods as mentioned in the Sections I through IV.

**(B) COMMERCIAL:**

- 1.0 The evaluation of bids will be done as per the Price Schedule (SUMMARY) detailed vide Para 10.0 of BRC above.
- 2.0 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.
- 3.0 For conversion of foreign currency into Indian currency, B.C. selling (Market) rate declared by State Bank of India, one day prior to the date of price bid opening shall be considered. However, if the time lag between the opening of the bids and final decision exceed 3(three) months, then B.C. Selling(Market) rate of exchange declared by SBI on the date prior to the date of final decision shall be adopted for conversion and evaluation.
- 4.0 Offers not complying with the payment terms indicated in the enquiry shall be loaded with one percent above the prevailing Bank rate (CC rate) of State Bank of India for duration of commissioning time indicated in the tender plus transit time (3 months) for evaluation purpose.
- 5.0 To ascertain the inter-se-ranking, the comparison of the responsive bids will be made as under, subject to corrections / adjustments given herein.
- 5.1 **When only foreign bids are involved :**  
**Comparison of bids will be done on the basis of "Total Value" which is estimated as under:**

- (A) Cost of items covered under **Section - I and Section - II except Clause No. 13 (Optional tools, Section - II)**
- (B) Cost of spares, accessories, consumables, PCBs and Panels etc. as per **Clause Nos. 16.1 thru 16.8 of Section - II**
- (C) Cost of Commissioning spares, if any
- (D) Grand Total Material Cost, ( A + B + C )
- (E) Packing, FCA (Gateway airport) Charges for Explosives, RA Sources and perishable consumable as per **Clause No. 16.11 of Section - II**

- (F) Packing & FOB (seaport) charges for Remaining items
- (G) Total FOB/FCA Port / airport value, ( D + E +F) above
- (H) Air Freight charges for Explosives, RA Sources and perishable consumable as per **Clause No. 16.11 of Section - II** upto Kolkata, India
- (I) Ocean Freight Charges for Remaining items upto Kolkata, India
- (J) Insurance Charges @ 1% of Total FOB/FCA Value vide ( G ) above
- (K) Banking Charges @ 0.5% of Total FOB/FCA Value vide ( G ) above in case of payment through Letter of Credit ( If confirmed L/C required at buyers account, 1.5% of Total FOB/FCA Value will be loaded )
- (L) Total CIF Kolkata Value, ( G + H + I + J +K ) above
- (M) Training charges at bidder's works as per **Clause No. 1.0 of Section - III**
- (N) Pre-dispatch / shipment Inspection charges as per **Clause No. 2.0 of Section - III**
- (O) Installation/Commissioning charges as per **Section - IV**
- (P) Total Value, ( L + M + N + O ) above

Note : Banking charge in the country of the foreign bidder shall be borne by the bidder.

5.2 **When only domestic bids are involved :**

**Comparison of bids will be done on the basis of "Total Value" which is estimated as under:**

- (A) Cost of items covered under **Section - I and Section - II except Clause No. 13 (Optional tools, Section - II)**
- (B) Cost of spares, accessories, consumables, PCBs and Panels etc. as per **Clause Nos. 16.1 thru 16.8 of Section - II**
- (C) Cost of Commissioning spares, if any
- (D) Grand Total Material Cost, ( A + B + C )
- (E) Packing and Forwarding Charges
- (F) Total Ex-works value, ( D + E ) above
- (G) Sales Tax, as applicable on ( F ) above
- (H) Total FOR Dispatching station value, ( F + G ) above
- (I) Road Transportation charges to Duliajan as per quote
- (J) Insurance Charges @0.5% of Total FOR Dispatching station value ( H ) above
- (K) Assam Entry Tax
- (L) Total FOR Duliajan value, ( H + I + J +K ) above
- (M) Training charges at bidder's works as per **Clause No. 1.0 of Section - III**
- (N) Pre-dispatch/shipment Inspection charges as per **Clause No. 2.0 of Section - III**
- (O) Installation/Commissioning charges as per **Section - IV**

**(P)** Total Value, ( L + M + N +O) above

Note : Excise Duty in case of the indigenous bidder is EXEMPTED

6.3 When both Foreign and Domestic bids are involved :

The Total Value of domestic bidder (inclusive of customs duty on imported raw material and components etc, and applicable terminal excise duty on the finished products and Sales Tax) excluding inland transportation to destination and Insurance charges worked out as per Para 5.2 above and Total Value of the foreign bidder worked out as per Para 5.1 above excluding inland transportation to destination will be compared. No price preference will be allowed to indigenous bidders except that for capital goods, the domestic manufacturers would be accorded a price preference to offset CST to the extent of 4 % or actuals, which ever is less subject to 30 % local content norms as stipulated for World Bank Funded project to the satisfaction of OIL. When more than one domestic bidders fall within price preference range, inter-se-ranking will be done on Total Value basis.

Note: If the Government of India revises these evaluation criteria the same as applicable on the bid closing date will be adopted for evaluation of the offers.

6.0 Other terms and conditions of the enquiry shall be as per General Terms and Conditions for Global Tender. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BEC / BRC) mentioned here contradict the Clauses in the General Terms & Conditions of Global Tender of the tender and/or elsewhere, those mentioned in this BEC / BRC shall prevail.

**COMMERCIAL CHECK LIST**

THE CHECK LIST MUST BE COMPLETED AND RETURNED WITH YOUR OFFER. PLEASE ENSURE THAT ALL THESE POINTS ARE COVERED IN YOUR OFFER. THESE WILL ENSURE THAT YOUR OFFER IS PROPERLY EVALUATED. PLEASE SELECT "Yes" OR "No" TO THE FOLLOWING QUESTIONS, IN THE RIGHT HAND COLUMN.

Sl#	REQUIREMENT	COMPLIANCE
1.0	Whether bid submitted under Single Stage Two Bid System?	Yes / No
2.0	Whether quoted as manufacturer ?	Yes / No
2.1	Whether quoted as Supply House / Distributor. To Specify-	Yes / No
2.2	If quoted as Supply House / Distributor,	Yes / No
	(a) Whether submitted valid and proper authorization letter from manufacturer confirming that bidder is their authorized Supply House for the product offered ?	Yes / No
	(b) Whether manufacturer's back-up Warranty/Guarantee certificate submitted?	Yes / No
3.0	Whether ORIGINAL Bid Bond (not copy of Bid Bond) Sent separately as per the format vide <b>ANNEXURE – VII (Revised)</b> mentioned in the "General Terms & Conditions" for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement? If YES, provide details	Yes / No
	(a) Amount :	
	(b) Name of issuing Bank :	
	(c) Validity of Bid Bond :	
3.1	Whether offered firm prices ?	Yes / No
3.2	Whether quoted offer validity of Six months from the date of closing of tenders ?	Yes / No
3.3	Whether quoted a firm delivery period? Delivery in months_____	Yes / No __months
3.4	Whether agreed to the NIT Warranty clause ?	Yes / No
3.5	Whether confirmed acceptance of tender Payment Terms.	Yes / No
3.6	Whether confirmed to submit PBG as asked for in NIT ?	Yes / No
3.61	Whether agreed to submit PBG within 30 days of placement of order ?	Yes / No
3.7	Whether Price submitted as per Price Schedule (refer Para 10.0 of BRC vide section-V?)	Yes / No
3.71	Whether the quoted price is inclusive of Commissioning spares?	Yes / No
3.72	Whether all the items of tender quoted?	Yes / No
6.73	Whether confirmed that all spares & consumables will be supplied for a minimum period of <b>10 years</b> ?	Yes / No
3.74	Whether cost of Recommended Spares for 2 years of operations quoted ?	Yes / No
3.8	Whether quoted as per NIT (without any deviations)?	Yes / No
3.81	Whether quoted any deviation?	Yes / No
3.82	Whether deviation separately highlighted?	Yes / No
3.9	Whether indicated the country of origin for the items quoted?	Yes / No
3.91	Whether technical literature / catalogue enclosed?	Yes / No
3.92	Whether weight & volume of items offered indicated?	Yes / No
4.0	For Foreign Bidders - Whether offered FOB / FCA port of despatch including sea / air worthy packing & forwarding ?	Yes / No

4.1	For Foreign Bidders – Whether port of shipment indicated. To specify:	Yes / No
4.2	For Foreign Bidders only - Whether indicated ocean freight up to Kolkata port (Excluding marine insurance ) ?	Yes / No
4.3	Whether Indian Agent applicable ?	Yes / No
	If YES, whether following details of Indian Agent provided?	
	(a) Name & address of the agent in India – To indicate	
	(b) Amount of agency commission – To indicate	
	(c) Whether agency commission included in quoted material value?	
5.0	For Indian Bidders – Whether indicated the place from where the goods will be dispatched. To specify :	Yes / No
5.1	For Indian Bidders – Whether road transportation charges up to Duliajan quoted?	Yes / No
5.2	For Indian Bidders only - Whether offered Ex-works price including packing/forwarding charges?	Yes / No
5.3	For Indian Bidders only - Whether indicated import content in the offer ?	Yes / No
5.4	For Indian Bidders only - Whether offered Deemed Export prices?	Yes / No
5.5	For Indian Bidders only – Whether all applicable Taxes & Duties have been quoted ?	Yes / No
6.0	Whether all BRC/BEC clauses accepted ?	Yes / No
7.0	Whether confirmed to offer the equipment for Pre-despatch/shipment Inspection & testing?	Yes / No
7.1	Whether Pre-despatch/shipment inspection & testing charges applicable?	Yes / No
7.2	If Pre-despatch/shipment inspection & testing charges applicable, whether quoted separately on lumpsum basis?	Yes / No
7.3.	Whether confirmed to carry out Installation & Commissioning of the equipment at Duliajan(Assam) ?	Yes / No
7.4	Whether Installation & Commissioning charge applicable?	Yes / No
7.5	If Installation/ Commissioning charges applicable, whether separately quoted on lumpsum basis?	Yes / No
7.6	Whether to & fro air fares, boarding/lodging of the commissioning personnel at Duliajan, Assam(India) included in the quoted charges ?	Yes / No
7.7	Whether confirmed that all Service, Income, Corporate tax etc. applicable under Installation/ Commissioning & Training (as applicable) are included in the prices quoted ?	Yes / No
8.0	Whether <b>Integrity Pact</b> with digital signature uploaded?	Yes / No
9.0	Whether all the clauses in the Integrity Pact has been accepted?	Yes / No

Offer Ref ..... Dated .....



(A) Bidder to furnish items as per Para 5.4 of SECTION – I as under which may be procured against order from the successful bidder.

Price quoted for this list shall not be considered for bid evaluation purpose.

Srl. No.	Item No.	Item Description	Part Number	Cost per Unit	Remark

(B) 13.0 OPTIONAL TOOLS as per Para 13.0 of SECTION-II : Price for the optional items will NOT be considered for bid evaluation purpose.

Srl. No.	Item No.	Item Description	Part Number	Cost per Unit	Remark

**Tender No.** : SDG2887L14/09  
**Tender Date** : 18.03.2014  
**Bid Closing On** : 14.05.2014 at 11:00 hrs.(IST)  
**Bid Opening On** : 14.05.2014 at 14:00 hrs.(IST)

**Tender issued to following parties only:**

Slno	V_Code	Vendor Name	City/Country
1	102065	BAKER HUGHES OILFIELD OPERATIONS INC	HOUSTON
2	300008	HALLIBURTON EXPORT COMPANY PTE LTD	SINGAPORE
3	200062	WEATHERFORD OIL TOOL M.E. LTD.	MUMBAI
4	103097	SCHLUMBERGER TECHNICAL SERVICE INC.	DUBAI

## NOTICE

Other than the vendors to whom the enquiry has been issued, interested vendors who wish to participate in the tender may apply with proper credentials and other relevant details so as to reach Head-Materials, Oil India Limited, P.O. Duliajan, Dist. Dibrugarh, Assam – 786602 (E-mail : [material@oilindia.in](mailto:material@oilindia.in) , Fax : 0374-2800533 ) within 10 days of publication of the tender in OIL's website.

The vendors must fulfill the following conditions for issuance of tender:

- i) The party should have experience Criteria mentioned in the Bid Rejection Criteria of the tender.
- ii) Annual turnover of the firm in any of the last 3(three) financial years or current financial year should be more than Rs 103 Crores.

NOTE: i) Relevant documents in support of experience, last order and annual turnover must be submitted along with the application.

ii) Application without complete supporting document will not be considered.

iii) Issuance of tender does not necessarily mean the party is acceptable. Acceptance will be assessed based on Bid Rejection Criteria/Bid Evaluation Criteria and other requirement mentioned in the tender.

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