Tender No. : SDG4446L15/06 Tender Date : 31.07.2014

Bid Closing On : 22.10.2014 at 13:00 hrs.(IST) Bid Opening On : 22.10.2014 at 13:00 hrs.(IST)

# Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	101452	GRABNER INSTRUMENTS	8R. OTTO-NEURATH-GASSE1
2	101811	ANTON PAAR GRAZ	GRAZ
3	102325	RUDOLPH RESEARCH ANALYTICAL	NEW JERSEY
4	103135	LEMIS USA, INC.	TEXUS
5	206977	METTLER TOLEDO INDIA PVT LTD.	KOLKATA
6	208394	ANTON PAAR INDIA PVT. LTD	GURGAON

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# OIL INDIA LIMITED

# (A Govt. of India Enterprise)

P.O. Duliajan-786602, Assam Fax No. 91-374-2800533, E-mail:material@oilindia.in

# **ANNEXURE-I**

Tender No. : SDG4446L15/06

	Tender Date : 31.07.2014		
Item No./ Mat. Code	Material Description	Quantity	UOM
<u>10</u> 0C000172	STABINGER VISCOMETER	1	NO
00000112	Stabinger Viscometer is required for simultaneous determination of dynamic viscosity, density, API Gravity, kinematic viscosity and viscosity index of crude oil and petroleum products in a single run.		
	Features: i)The equipment shall determine dynamic viscosity and density and calculate automatically kinematic density, viscosity index, API degree and API specific gravity at different temperature in a single filling. ii)The equipment shall fulfill all requirements of ASTM D7042 and ASTM D2270.		
	iii)Fast and fully automated sample introduction and cleaning iv)Fully automatic, compact, light weight easily transportable bench top device.		
	v)The equipment shall have integrated provision of calculating and displaying API density, API number and API specific gravity at 15 °C, 20 °C, 29.5°C & 60°F.		
	vi)The equipment should have strong metal housing to protect against damage and to prevent liquid entering the equipment vii) Insensitive to vibration		
	Specifications: Test Method: 1. ASTM D7042 for Dynamic Viscosity and Density, Results obtained for viscosity and density should comply with ASTM D 445 and ASTM 4052 respectively.  2. ASTM D2270/ISO 2909 for calculating Viscosity Index Measuring Range:  [In Dynamic Viscosity up to 20 000 mPa o er 20 000 cP.]		
	i) Dynamic Viscosity: up to 20,000 mPa.s or 20,000 cP ii) Density: 0.65-3 g/cm3 iii) Temperature: 15-100 degC		
	iv) The equipment should have integrated provision of calculating and displaying API density, API number and API specific gravity at 15 °C, 20 °C, 29.5 °C & 60°F.		
	Repeatibility: Dynamic Viscosity: 0.1% Density: 0.0002 g/cm3 Temperature: 0.005 degC		
	Reproducibility: Dynamic Viscosity: +/- 0.55-0.85% Density: +/- 0.0005 g/cm3 from 0.65 to 1.5 g/cm3 Temperature: 0.02 degC Resolution:		
	Dynamic Viscosity: 5 significant digits  Density: 0.0001 g/cm3  Temperature: 0.001 degC		

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	Tender Date : 31.07.2014		
Item No./ Mat. Code	Material Description	Quantity	ИОМ
	Supported Measuring Units i) Dynamic Viscosity: mPa#s, cP ii) Kinematic Viscosity: mm²/s, cSt iii) Density: g/cm³, kg/m³ iv)Temperature: °C and/or °F		
	Sample Volume: Min 2.5 ml without auto sampler and minimum 5ml with auto sampler		
	Operating Temperature: 15-100 degC		
	Temperature Control:  1. A built-in thermoelectric Peltier solid state thermostat to control temperature for viscosity and density measurement at set value with counter cooling facility.  2. Adequate thermal insulation to protect against hot surfaces  3. The bidder to provide details of Temperature Controller. In case of 3rd party product, address of OEM/authorized dealer to be provided.  4. The bidder shall provide calibration certificates of the Temperature Controller		
	Temperature Compensation: Automatic		
	Viscosity Compensation: Automatic		
	Display: Backlighted LED/LCD display of adequate dimension		
	Memory: In-built memory for storage of minimum 350 data sets		
	Operation: Touch pad and PC control		
	Interfaces: Dual RS-232/ USB		
	Power: 220-230V/50Hz		
	Spares/Accessories: 1. Calibration Standards: Four calibration standards of capacity 100 ml (minimum) each, certified by NABL or equivalent Laboratories for viscosity and density at 20, 40, 60, 80 and 100 degC.		
	2. Temperature Calibration Kit: A Temperature Calibrator for temperature calibration of the equipment with suitable sensor.		
	3. Hot Filling Attachment: a)The equipment shall be supplied with Hot Filling Attachment to keep sample warm in the syringe, sample inlet and outlet and for the measuring tube in absent of the Auto sampler. b)The Hot Filling Attachment shall allow or ease the filling and measuring of samples with a high melting point or high viscosity at ambient temperature. c)Heating via the Peltier system and thermal insulation to protect hot surface d)Wetted part made of copper/PEEK/PTFE		

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Item No./   Material Description		Tender Date : 31.07.2014		
e)Easy to connect to the main equipment ()The bidder must provide details of the Hot Filling Attachment with details & drawings.  4. Auto sampler: Instrument should have integrated heated automatic sample handling unit. Fully automatic handling of samples with melting points up to 80°C. The needle, needle hose, sensor plate and the waste block should be electrically heated. System should allow heating up highly viscous samples which are solid at room temperature or keep them warm to decrease their viscosity. System should fully automatically fill the samples from vial into the measuring cells of viscometer, cleaning and drying the cells after measurement automatically. Filling viscosity - 0.2 to 1000 mPa#s at filling temperature Maximum temperature: 80 °C Minimum sample volume - 5 ml Volume of sample vial - 12-15 ml Heating-up time - Less than one hour Sample throughout- Upto 15 per hour Vials per magazine- 40 Typical solvent: Minimum 500 ml of sample solvent, completely miscible with the sample (crude oil, petroleum products) to be supplied. Drying Solvent: Minimum 500 ml of drying solvent, miscible with the sample solvent to be supplied Thermometer: For calibration and adjustment of the temperature control, a digital thermometer with a probe diameter of 6.25 mm and a maximal length of 80 mm shall be supplied. 6. Syringe: Minimum 20 nos Disposal syringes with Luer-lock of capacity 5 ml each Minimum 20 nos Disposal syringes with Luer-lock of capacity 10 ml each 7. PC and printer i. Branded PC from Hp, Lenovo, Dell, Sony, Toshiba etc with min. 320 GB HDD, 4GB RAM, DVD R/W, 17 inch TFT Monitor, Key Board, Optical Mouse etc., 64 bit Windows 7 or higher Operating System ii. Hp laserjet or equivalent printer compatible with the supplied and allows a fully automated workflow including LIMS connection. 9. Carrying case: Carrying case for easy transportation of the equipment.		Material Description	Quantity	UOM
Instrument should have integrated heated automatic sample handling unit. Fully automatic handling of samples with melting points up to 80°C. The needle, needle hose, sensor plate and the waste block should be electrically heated. System should allow heating up highly viscous samples which are solid at room temperature or keep them warm to decrease their viscosity. System should fully automatically fill the samples from vial into the measuring cells of viscometer, cleaning and drying the cells after measurement automatically. Filling viscosity • 0.2 to 1000 mPa#s at filling temperature Maximum temperature: 80 °C Minimum sample volume • 5 ml Volume of sample vial- 12-15 ml Heating-up time- Less than one hour Sample throughout- Upto 15 per hour Vials per magazine- 40 Typical solvent- consumption- 10 ml  5. Solvents: Sample Solvent- Minimum 500 ml of sample solvent, completely miscible with the sample (crude oil, petroleum products) to be supplied. Drying Solvent: Minimum 500 ml of drying solvent, miscible with the sample solvent to be supplied. Thermometer: For calibration and adjustment of the temperature control, a digital thermometer with a probe diameter of 6.25 mm and a maximal length of 80 mm shall be supplied.  6. Syringe: Minimum 20 nos Disposal syringes with Luer-lock of capacity 5 ml each Minimum 20 nos Disposal syringes with Luer-lock of capacity 10 ml each 7. PC and printer  i. Branded PC from Hp. Lenovo, Dell, Sony, Toshiba etc with min. 320 GB HDD, 4GB RAM, DVD RW, 17 inch TFT Monitor, Key Board, Optical Mouse etc., 64 bit Windows 7 or higher Operating System  ii. Hp laserjet or equivalent printer compatible with the supplied PC.  iii. Antivirus with minimum no no year validity  8. Software package for operation of the entire system and data acquisition 2. Compatible with the operating system of the PC to be supplied and allows a fully automated workflow including LIMS connection.  9. Carrying case: Carrying case for easy transportation of the equipment.	Wat. Code	f)The bidder must provide details of the Hot Filling Attachment with details &		
Sample Solvent: Minimum 500 ml of sample solvent, completely miscible with the sample (crude oil, petroleum products) to be supplied.  Drying Solvent: Minimum 500 ml of drying solvent, miscible with the sample solvent to be supplied  Thermometer: For calibration and adjustment of the temperature control, a digital thermometer with a probe diameter of 6.25 mm and a maximal length of 80 mm shall be supplied.  6. Syringe: Minimum 20 nos Disposal syringes with Luer-lock of capacity 5 ml each  Minimum 20 nos Disposal syringes with Luer-lock of capacity 10 ml each  7. PC and printer  i. Branded PC from Hp, Lenovo, Dell, Sony, Toshiba etc with min. 320 GB HDD, 4GB RAM, DVD R/W, 17 inch TFT Monitor, Key Board, Optical Mouse etc., 64 bit Windows 7 or higher Operating System  ii. Hp laserjet or equivalent printer compatible with the supplied PC.  iii. Antivirus with minimum one year validity  8. Software package  1. Software package  1. Software package for operation of the entire system and data acquisition  2. Compatible with the operating system of the PC to be supplied and allows a fully automated workflow including LIMS connection.  9. Carrying case: Carrying case for easy transportation of the equipment.		Instrument should have integrated heated automatic sample handling unit. Fully automatic handling of samples with melting points up to 80°C. The needle, needle hose, sensor plate and the waste block should be electrically heated. System should allow heating up highly viscous samples which are solid at room temperature or keep them warm to decrease their viscosity. System should fully automatically fill the samples from vial into the measuring cells of viscometer, cleaning and drying the cells after measurement automatically. Filling viscosity - 0.2 to 1000 mPa#s at filling temperature Maximum temperature: 80 °C Minimum sample volume- 5 ml Volume of sample vial- 12-15 ml Heating-up time- Less than one hour Sample throughout- Upto 15 per hour Vials per magazine- 40		
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10 Installation & Commissioning 1 AU		-		
	10	Installation & Commissioning	1	AU

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- Special Notes: 1. The bids must conform to the specifications, special 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.
  - 2. The bidder shall be preferably a Manufacturer of the equipment. In case the bidder is not a manufacturer, he shall be an authorized representative / dealer / supplier of the equipment of manufacturer. The authorized representative / dealer / supplier shall produce authority letter in original from its manufacturer authorizing them to submit the bid along with the offer.

### 3. Installation / Commissioning & Training:

- a. The successful bidder shall install and commission the equipment at Chemical Department, Oil India Ltd., Duliajan, Assam, India by their competent service engineer (s). The party shall demonstrate all specification and operation at the time of installation.
- b. The supplier shall replace defective parts if found any, during installation or during the warranty period. This replacement shall be done within a month's time at supplier's cost.
- c. The supplier's service engineer must demonstrate the performance of the system as specified in the offer and also must provide training to OIL's technical/scientific staff on operation, application and trouble shooting of the system after installation. Basic instrumentation drawings/ configuration, manuals are to be supplied along with the unit for ready reference.
- d. Installation & Commissioning of the unit shall be carried out by supplier's competent engineer(s) at Duliajan, Assam (India). During Installation & Commissioning, the supplier shall demonstrate / train OIL personnel about the operation and maintenance of the equipment. Installation / Commissioning charges, if any must be quoted separately on lumpsum basis which shall be considered for evaluation of the offer.

While quoting Installation/Commissioning & Training charges, bidder should take into account all charges including to and fro fares, boarding/lodging, and other daily expenses of the commissioning personnel. OIL may provide accommodation on chargeable basis subject to availability. Income, Service, Corporate Taxes etc, if any, towards Installation/ Commissioning and training will be to supplier's account and will be deducted at source.

Moreover, if Income / Service taxes are not categorically mentioned in their offer, then such offers shall be loaded with the applicable rate of taxes for evaluation purpose.

#### 4. Payment : Payment shall be released as follows :

- i) 80 % of the of the order value shall be paid against proof of despatch/shipment of the goods.
- ii) Remaining 20 % of the order value along with commissioning charges, shall be paid after successful commissioning and acceptance of the unit by OIL.
- iii) OIL may also consider making 100 % payment towards supply of the units against proof of despatch provided bidders agree to pay interest for 20 % of the order value and also submit Bank Guarantee for the amount equivalent to 20 % of the order value.
- iv) Payment towards Installation/Commissioning shall be released on successful completion of the Installation/Commissioning programme.

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 evaluation purpose.

#### 5. Annual Maintenance Contract:

The supplier shall quote for the cost of comprehensive AMC for a period of three years after expiry of warranty period which will be considered for Bid evaluation.

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#### Scope of AMC:

4.1 The Nature of AMC is Comprehensive AMC. The cost of spares required for maintaining the GC shall be in bidder's scope without any additional price implication to OIL. Bidder to maintain ready stock available to meet any breakdown due to failure of components.

- 4.2 The bidder has to quote for onsite comprehensive AMC charges for supplied equipment including software for 3 years on a per year basis separately.
- 4.3 Contractual Period: In case OIL exercises the option to enter into comprehensive AMC with the bidder, a separate contract agreement shall be made between the bidder and OIL for the AMC with the above terms and conditions after completion of 1 year period of warranty.
- 4.4 Types of visit: There will be two types of visit to OIL site Normal and Emergency visit. One competent engineer from the bidder has to visit Duliajan at least once in 6 months for preventive and corrective maintenance of all supplied equipment including software upgradation.
- 4.5 Normal (Preventive) visit: To check the normal healthiness of the system and attending problem reported by OIL. Also vendor to carry out any software upgradattion or configuration of existing hardware/software, if felt necessary, as per OIL's requirement. Such a visit shall be planned on a mutually agreed schedule.
- 4.6 Emergency visit: There will be no limit for emergency visit. To attend any emergency situation reported by OIL, vendor shall mobilize their competent engineer to OIL site within one week of the intimation.
- 4.7 Accommodation: All visits (including transport to and from Duliajan and accommodation at Duliajan) by bidder's personnel for AMC related work shall have to be borne by the successful bidder.
- 4.8 Payment terms: Pro rata basis against the submitted invoice after the completion of each visit.
- 5. The bidder shall quote for 2 years spare parts with price details separately which shall not be considered for bid evaluation. However, procurement of these spares shall be at OIL's discretion.
- 6. The system shall be completed in all respect with all other essential accessories required for smooth, efficient running and immediate commissioning after receipt at Duliajan, Assam.
- 7. In the event of an order, bidder shall provide Operation manual and maintenance and troubleshooting manual (hard copy as well as soft copies) along with the supply.

#### **SPECIAL CLAUSE**

- 1. The items shall be brand new, unused & of prime quality. Bidder shall warrant (in the event of an order) that the product supplied will be free from all defects & fault in material, workmanship & manufacture and shall be in full conformity with ordered specifications. This clause shall be valid for 18 months from date of despatch or 12 months from date of commissioning of the items, whichever is earlier. The defective materials, if any, rejected by us shall be replaced by the supplier at their own expense. Bidders must confirm the same while quoting.
- 2. Validity of the offers should be 120 days from the date of bid opening. Bids with lesser validity shall be rejected.

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3. Quotation must be submitted in triplicate.

4. The items covered by this tender 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/01/2005 enclosed.