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Tender No. & Date	:	SDG8786P19/06
Tender Fee	:	INR 6,000.00 OR USD 100.00
Bid Security Amount	:	INR 1, 14,100.00 OR USD 1,660.00
Bidding Type	:	SINGLE STAGE TWO BID SYSTEM
Period of Sale of Bid Documents	:	From 11.09.2018 to 24.10.2018; 15:30 Hrs (IST)
Bid Closing on	:	31.10.2018 (at 11.00 Hrs. IST)
Bid Opening on	:	31.10.2018 (at 14.00 Hrs. IST)
Bid Validity	:	Bid should be valid for 120 days from bid closing date.
Bid Bond Validity	:	Bid Bond Should be valid up to 31.05.2019
Performance Guarantee	:	Applicable @ 10% of Order value
Integrity Pact	:	Applicable
List of Annexures Applicable	:	Annexure-I–Specification and various notes to bidders Annexure- II- Bid evaluation & Rejection Criteria Annexure- III - Check List (Technical & Commercial) Annexure-IV - Certificate of Annual Turnover & Net Worth Annexure-V – Technical Evaluation Matrix (Technical specifications) Annexure – VI - Technical Evaluation Matrix (BEC/BRC) Annexure K- Format of undertaking by Bidders towards submission of authentic information/documents

AA:: SPECIFICATION & QUANTITY OF THE ITEMS TO BE PROCURED

Item no	Material Description	Quantity
10	<p>Scope of supply</p> <p>The Scope of supply would cover supply, services, installation, testing and commissioning of controlled multidimensional TCD,FID,FPD based Natural Gas Analyzer having provision of Automated Gas sampling Valve and Electronic Pneumatics control system comprising of PC based human machine interfacing station for the analysis of natural gas from C1 through C5 hydrocarbons and C6+ composite using a TCD, hydrocarbon components in Natural Gas from C1 (methane) to C12 (Dodecane), using a boiling point capillary column and an FID in addition to analyze N2,O2,H2S and CO2 in a single run as per IS4576/ASTM D1945/ISO 6975 methods.</p> <p>Item description, Technical specifications, Calibration mixture standard, and terms and conditions for supplying the GC are given below.</p> <p>Analysis Requirement:</p> <p>The NGA should have extensive self-diagnostics facility and should consist of three channels which may be run simultaneously or separately for three different type of application as follows:</p> <p>2.2.1 Channel 1:</p> <p>2.2.1.1 Should provide a guaranteed compositional analysis of O2, N2, CO2, H2S, and C1 through C5 hydrocarbons and C6+ composite in natural gas using a TCD. In addition to the facility for injection of gas sample with gas tight syringe, this channel should also be equipped with a gas sampling valve for sample introduction directly from gas cylinder.</p> <p>2.2.1.2 Column configuration and valve operation should be designed so that the lowest boiling C6 (2, 2-dimethylbutane) must be included in the back-flush on TCD channel. Separation and measurement of O2 and N2 individually is a requirement.</p> <p>2.2.1.3 TCD detection limit:</p> <p>2.2.1.3.1 O2 and C6+ composite minimum 0.01% & maximum 2%</p> <p>2.2.1.3.2 H2S minimum 0.1% maximum 2%</p> <p>2.2.1.3.3 N2 minimum 0.1% maximum 10%</p> <p>2.2.1.3.4 C1 minimum 70% maximum 99%</p> <p>2.2.1.3.5 All other components minimum 0.01% maximum 10%</p>	01 No.

2.2.2 Channel 2:

2.2.2.1 The other Channel should provide a capillary separation of hydrocarbon components in Natural Gas from C1 (methane) to C12 (Dodecane), using a boiling point capillary column and an FID. In addition to the facility of sample introduction through gas sampling valve, this channel should also have a liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary channel. Syringe injection facility should also be there for both gas and liquid samples.

2.2.2.2 FID detection limit:-

For Gas Sample:

- a) C1, i.e Methane, minimum 70% maximum 99%
- b) C2 i.e Ethane & C3 i.e Propane minimum 0.01% maximum 10%
- c) C4 i.e Butane onwards upto C6+ Trace to 3%.

2.2.3 Equipment data processing software should have capability to produce a composite report by merging the TCD signal for CO₂, H₂S, N₂, O₂, C₆+ from Channel 1 and FID signal for C1-C12 from Channel 2 and H₂S signal from FPD channel-3.

2.2.3 Channel-3 (FPD Channel for H₂S detection)

2.3.0 Instrument features:

2.3.1 Fully automatic microprocessor controlled GC with self-test during start up and self diagnosis facility.

2.3.2 Key Board and PC control of the system. Complete control of all GC parameters from PC is essential.

2.3.3 Chromatograph should have built-in graphical user interface, for ease of operation & total control through software.

2.3.4 EPC / PPC on all channels, carrier, injector, split, vent, detector and auxiliary gases with gas flow monitors.

2.3.5 Automatic lighting up of FID on reaching set temperature according to instrument method.

2.3.6 Auto shut down in case of leak or drop in carrier gas pressure.

2.3.7 Real time graphical signal output at all times.

2.3.8 System to be fully factory tested and calibrated.

2.3.9 Analysis Time: <30 min.

2.3.10 Menu driven user friendly Windows XP based S/W.

2.3.11 Snapshot facility for partial view of analysis results during run.

2.3.12 Real time display of Chromatogram / baseline and instrument status with key instrument parameters even when no run is in progress.

2.4.0 Oven capability:

2.4.1 Oven Temperature Range: 10 Deg C above Ambient to 450 Deg C

2.4.2 Oven heating rate: 50 Deg C to 250 Deg C in 2 minutes.

2.4.3 Oven cooling Rate: 250 Deg C # 50 Deg C in 5 minutes.

2.4.4 Column Overheat Protection: User settable up to 450 Deg C

2.5.0 Background correction: Should have for both the channels (FID & TCD) and also for FPD channel.

2.6.0 Columns & Valves: All columns, valves required for accomplishing the above analysis requirements must be included and the published application note in support of the corresponding application capability of the supplied system should be furnished as documentary evidence.

2.7.0 Detector Capability: FID

2.7.1 Minimum detectable level: <3.0 picogram C /Second

2.7.2 Auto flame ignition and flame out detection.

2.7.3 Flame out warning and ready interlock.

2.7.4 Signal filtration selection through software/touch screen graphics

2.8.0 Detector Capability: TCD

2.8.1 Minimum detectable :< 1ppm Nonane (C-9)

2.8.2 Automatic bridge balancing

2.8.3 Single or dual columns connection possibility

2.9.0 Sample Injection:

2.9.1 Gas Samples: Automatic gas sampling valves must be fitted to inject the sample automatically to both the TCD and FID channel. The system should have a sample loop purge feature to prevent contamination from liquid to gas or gas to liquid samples. The facility for injection through gas tight syringe should also be available.

2.9.2 Liquid Samples: The FID channel should also be connected to a liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary column. Syringe injection facility should also be there for liquid samples.

3.0 CALIBRATION STANDARD MIXTURE.

3.1(A) Certified Calibration Gas Mixture (one for detection of natural gas from C1to C6+) and another from C2 to C12 supplied separately in two DIFFERENT WS steel cylinder/ Aluminium can along with the supplied equipment. The relevant calibration gas mixture duly certified by NABL or equivalent laboratory (third party calibration certificate) as mentioned below must be supplied along with the instrument. The capacity of the calibration gas mixture

should be 10 liter with filling pressure of 100 to 120 psi with following specification.

NATURAL GAS CALIBRATION MIXTURE COMPOSITION AND SPECIFICATION FOR TCD

Name of the component	Mole%	Preparation tolerance	Certificate of Accuracy
N2	1 %	+/-10%	+/- 2%
CO2	1 %	+/-10%	+/- 2%
C2	6 %	+/-5%	+/- 1%
C3	3 %	+/-5%	+/- 1%
iC4	1 %	+/-10%	+/- 2%
nC4	1 %	+/-10%	+/- 2%
iC5	0.5 %	+/-10%	+/- 2%
nC5	0.5 %	+/-10%	+/- 2%
C6+	1 %	+/-10%	+/- 2%
C1 (Methane) (BALANCED)		+/-1%	+/- 0.5%

Mixture Specifications

PRIMARY REFERENCE GAS MIXTURE STANDARD (Primary reference gas mixtures (PRGMS) should be supplied in 10 litre aluminium cane/ WS steel cylinder with proper connection (IS 3224) with Gas Mixture Pressure of about 100 psi. The price of the gas mixture should be included in the main equipment.

Stability of Gas Mixture: 12 TO 18 months from the date of delivery

Composition: All units are in Mole %

Measurement of uncertainty is required against each component in line with ISO: 10723

The supplier should be Accredited Laboratory in accordance with ISO/IEC 17025:2005 equivalent to NABL India / UKAS ,UK for both CALIBRATION AND TESTING for Natural Gas by accurate E1 CLASS STANDARD ONLY.

The Supplier should submit Performance Evaluation Certificate in accordance with ISO -10723 for their online Gas Chromatograph which they use for analysis and calibration of Natural Gas Mixture. Traceability Certificate: (along with Chromatograms for the run) from NABL India / UKAS, UK OR equivalent accredited laboratories and essentially traceable to National / International standard. Each mixture composition should be of Primary reference gas mixtures (PRGMs) that are certified and issued by NABL (or equivalent in the chain of ILAC) accredited Lab or NMI, NPL India Or NPL UK, preferably calibration certificate should bear the logo that certifying agency NABL/UKAS ISO/IEC 17025:2005, certified copies of certificates /scope of accreditation provided by the accreditation agencies should be provided.

Preparation Method: Gravimetric Method as per ISO 6142 using

most accurate E1 class

Method of analysis: As per ISO 6143:2001

Traceable weights, the weights must be traceable to NPL.

Test Certificate (meeting requirement of NABL) for the standard gas to be submitted along with the Cylinder.

Calibration Mixture certificate must have the following information.

The contents of the certificate shall include information described in ISO guide 31: 1996 and should provide the following as a minimum:

Identity of the producer & identification of the reference material

Description of the material & its use

Instruction on the correct use of the material

The assigned property values & the methods used to derive those values

Date of certification & the period of validity of the certificate

Safety instructions

An indication of the level of homogeneity of the material

Signature & names of the certifying officers signing the analysis certificate

Traceability & statement of uncertainty level at a state level of confidence

Mole% of components

Cylinder number

Gas pressure

Stability period

Minimum pressure of utilization

Impurities shall also be indicated in the certificate

3.1(B) CALIBRATION GAS MIXTURE COMPOSITION FOR FID GASES in 10 liter capacity aluminium can.

Name of the component	Mole%	Preparation tolerance	Certificate of Accuracy
C2	5 %	+/-5%	+/- 1%
C3	3 %	+/-5%	+/- 1%
iC4	1 %	+/-10%	+/- 2%
nC4	1 %	+/-10%	+/- 2%
iC5	0.5 %	+/-10%	+/- 2%
nC5	0.5 %	+/-10%	+/- 2%
C6	0.30	+/-10%	+/- 2%
C7	0.15	+/-10%	+/- 2%
C8	0.15	+/-10%	+/- 2%

C9	0.15	+/-10%	+/- 2%
C10	0.05	+/-10%	+/- 2%
C11	0.05	+/-10%	+/- 2%
C12	0.05	+/-10%	+/- 2%
C1	BALANCE	+/-1%	+/- 0.5%
<p>Mixture Specifications</p> <p>PRIMARY REFERENCE GAS MIXTURE STANDARD (Primary reference gas mixtures (PRGMS) should be supplied in 10 litre aluminium cane/ WS steel cylinder with proper connection (IS 3224) with Gas Mixture Pressure of about 100 psi. The price of the gas mixture should be included in the main equipment.</p> <p>Stability of Gas Mixture: 12 TO 18 months from the date of delivery</p> <p>Composition: All units are in Mole %</p> <p>Measurement of uncertainty is required against each component in line with ISO: 10723</p> <p>The supplier should be Accredited Laboratory in accordance with ISO/IEC 17025:2005 equivalent to NABL India / UKAS, UK for both CALIBRATION AND TESTING for Natural Gas by accurate E1 CLASS STANDARD ONLY.</p> <p>The Supplier should submit Performance Evaluation Certificate in accordance with ISO -10723 for their online Gas Chromatograph which they use for analysis and calibration of Natural Gas Mixture.</p> <p>Traceability Certificate: (along with Chromatograms for the run) from NABL India / UKAS, UK OR equivalent accredited laboratories and essentially traceable to National / International standard. Each mixture composition should be of Primary reference gas mixtures (PRGMS) that are certified and issued by NABL (or equivalent in the chain of ILAC) accredited Lab or NMI, NPL India Or NPL UK, preferably calibration certificate should bear the logo that certifying agency NABL/UKAS ISO/IEC 17025:2005, certified copies of certificates /scope of accreditation provided by the accreditation agencies should be provided.</p> <p>Preparation Method: Gravimetric Method as per ISO 6142 using most accurate E1 class</p> <p>Method of analysis: As per ISO 6143:2001 Traceable weights, the weights must be traceable to NPL.</p> <p>Test Certificate (meeting requirement of NABL) for the standard gas to be submitted along with the Cylinder.</p> <p>Calibration Mixture certificate must have the following information.</p>			

The contents of the certificate shall include information described in ISO guide 31: 1996 and should provide the following as a minimum:
Identity of the producer & identification of the reference material
Description of the material & its use
Instruction on the correct use of the material
The assigned property values & the methods used to derive those values
Date of certification & the period of validity of the certificate
Safety instructions
An indication of the level of homogeneity of the material
Signature & names of the certifying officers signing the analysis certificate
Traceability & statement of uncertainty level at a state level of confidence
Mole% of components
Cylinder number
Gas pressure
Stability period
Minimum pressure of utilization
Impurities shall also be indicated in the certificate

3.1 (c) CALIBRATION STANDARD for SULPHUR 100ml to 500ml capacity bottle

Calibration of sulphur components including hydrogen sulphide with tetrahydrothiophene (THT) .

4.0 TECHNICAL SPECIFICATION & GENERAL REQUIREMENTS OF The Natural Gas Analyzer:

The Gas Chromatography should have microprocessor controlled with detectors such as FID, TCD & FPD for analysis of Natural Gas and H₂S along with all accessories required for immediate commissioning in Duliajan, Assam, including UPS (5KVA with one hour back up) for smooth operation and functioning of the system.

4.1 The unit should be a dedicated and guaranteed instrument capable of analyzing Natural gas. For Natural Gas it should be capable of analysis from C₁ to C₁₂ component along with N₂, O₂, CO₂ and H₂S in one single GC run. The analysis method should be in compliance with IS4576/ASTM D1945/ISO 6975 methods and GPA 2286 extended standard

4.2 The handling and operating software should be latest version and should be upgraded from time to time.

4.3 Calibration gas mixture for Natural Gas from authentic sources should be supplied with composition listed in annexure.

4.4 The unit should be operable in 230VAC, 50 HZ and should be complete in all respects including initial commissioning spares for straightway commissioning in Laboratory.

4.5 Instrument should comply with the scope of ASTM IS4576/ASTM D1945/ISO 6975 methods and GPA 2286 extended standard or latest upgraded standard.

4.6 The Gas Chromatograph should have extensive self-diagnostics facility and the system may be run simultaneously or separately for

two different type of application as follows: All Automatic Gas Sampling valve, loop, tubing & columns for H2S Analysis channel should be made of sulfur resistant material.

Channel 1:

4.7 Should provide a guaranteed analysis of O₂, N₂, CO₂, H₂S, and C₁ through C₅ hydrocarbons and C₆₊ composite in natural gas using a TCD and H₂S Gas in series with FPD. This channel should be equipped with automatic gas sampling valve made of sulfur resistant material for sample introduction directly from gas cylinder.

4.8 Column configuration and valve operation should be designed so that the lowest boiling C₆ (2, 2-dimethylbutane) must be included in the back-flush on TCD channel. Separation and measurement of O₂ and N₂ individually is a requirement.

4.9 TCD detection limit:

4.9 O₂ and C₆₊ composite minimum 0.01% & maximum 2%

4.10 H₂S minimum 0.1% maximum 2%

4.11 N₂ minimum 0.1% maximum 10%

4.12 C₁ minimum 70% maximum 99%

4.13 All other components minimum 0.01% maximum 10%

Channel 2:

4.14 The other Channel should provide a capillary separation of hydrocarbon components in Natural Gas from C₁ (methane) to C₁₂ (Dodecane), using a boiling point capillary column and an FID. In addition to the facility of sample introduction through Automatic gas sampling valve, this channel should also have an Automatic liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary channel. Sample will be injected through automatic gas or liquid sampling valve.

4.15 FID detection limit:-

For Gas Sample:

a) Hydrocarbon components in Natural Gas up to C₁₂ (Dodecane) from 1ppm to 100%

5.0 INSTRUMENT REQUIREMENT:

Fully automatic microprocessor controlled GC with self-test during start up and self diagnosis facility.

All Automatic Gas Sampling valve, loop, tubing & columns for H₂S Analysis channel should be made of sulfur resistant material & mounted in a separate heated valve oven to avoid sample condensation & sample degradation.

5.1 Key Board or LED and PC control of the system. Complete control of all GC parameters from PC is essential.

5.2 Chromatograph should have built-in graphical user interface, for ease of operation & total control through software.

5.3 EPC / PPC/IEC on all channels, carrier, injector, split, vent, detector and auxiliary gases with gas flow monitors.

5.4 Automatic lighting up of FID on reaching set temperature according to instrument method.

5.5 Auto shut down in case of leak or drop in carrier gas pressure.

5.6 Real time graphical signal output at all times.

5.7 System to be fully factory tested and calibrated.

5.8 Analysis Time: <30 -35 minutes

5.9 Menu driven user friendly Windows XP or suitable operating system based S/W.

5.10 Snapshot facility for partial view of analysis results during run.

5.11 Real time display of Chromatogram / baseline and instrument status with key instrument parameters even when no run is in progress.

5.12 Fully automated microprocessor controlled with extensive self diagnostic facilities.

5.13 Capable to calculate the carrier gas linear velocity and the column void time.

5.14 Smart maintenance - Facility to access injectors and detectors with minimal effort using tool-free options and eliminate any downtime during maintenance with options of back-up injectors and detector modules

5.15 The system needs to have the flexibility of the instant connect injectors & detectors for Swapping detectors or upgrading from single to multi-detector by the user & it is to be easy enough so that even a laboratory personnel can perform the replacement without any special training needed.

Oven capability:

5.16 Oven Temperature: Ambient to 450°C with ramps 4 or above with settable maximum 125°C/minute or more and fast cool down of the oven temperature. Typical Retention Time Repeatability: <0.0008 min or better

5.17 Cooling down from 450°C to 50°C in less than 5 minutes;

5.18 Six independent heated zones for individual control of injectors and detectors plus auxiliary zone;

5.19 LAN interface; Simple start and stop buttons interface with status LED indicators

5.20 Oven heating rate: 50 Deg C - 250 Deg C in 2 minutes.

5.21 Oven cooling Rate: 250 Deg C - 50 Deg C in 5 minutes.

5.22 Column Overheat Protection: User settable up to 450 Deg C

5.23 Facility to install heated column oven & add on oven for installing more detectors & injectors in future.

6.0 Columns & Valves: All columns, valves(Make: valco) required for accomplishing the above analysis requirements must be included and the published application note in support of the corresponding application capability of the supplied system should be furnished as documentary evidence. All Automatic Gas Sampling valve, loop, tubing & columns for H2S Analysis channel should be made of sulfur resistant material.

7.0 Detector Capability: FID

7.1 Minimum detectable level: <1.4 picogram C /Second

7.2 Auto flame ignition and flame out detection.

7.3 Flame out warning and ready interlock.

7.4 Signal filtration selection through software/touch screen graphics

<p>Detector Capability: TCD</p> <p>7.5 Minimum detectable :< 400 pg tridecane /ml or 1ppm Nonane (C-9)</p> <p>7.6 Automatic bridge balancing</p> <p>7.7 Single or dual columns connection possibility</p> <p>Detector Capability: FPD</p> <p>7.8 Minimum detectable amount: 100 fg P/s and 5 pg S/s (Methyl Parathion)</p> <p>7.9 Dynamic range: 104 (P), >103 (S)</p> <p>7.10 Selectivity: P/C = 106:1, and S/C=106:1</p> <p>7.11 Maximum temperature: 450 °C base temperature, 200 °C cell temperature; in steps of 0.1 °C</p> <p>8.0 Sample Injection:</p> <p>Gas Samples: Automatic gas sampling valves must be fitted to inject the sample automatically to TCD, FPD and FID channel. The system should have a sample loop purge feature to prevent contamination from liquid to gas or gas to liquid samples. Sample will be injected through automatic gas sampling valve</p> <p>Liquid Samples: The FID channel should be connected to an Automatic liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary column. Sample will be injected through automatic liquid sampling valve.</p> <p>9.0 Data handling Software:</p> <p>9.1 The software should be compatible with 32-bit Windows XP (SP2)/Windows Vista Business operating system or latest suitable operating system and should provide complete control of the system, apart from the following features:</p> <p>9.2 Should have custom report generator facility using Microsoft Word</p> <p>9.3 Should have Real time display of all chromatograms.</p> <p>9.4 Should have Dynamic data exchange facility.</p> <p>9.5 Should have facility for automatic calculation of Specific Gravity, Calorific value, Sp heat etc from the chromatographic composition. Natural Gas Calculating software should be quoted.</p> <p>10.0 General Requirements of Data Handling Chromatographic Software</p> <p>10.1 Latest software should be Windows 7 operative.</p> <p>10.2 The offered software shall be the Original Full version single user license software. Software should be quoted with Part number.</p> <p>The software should able to analyze natural gas using all channels of the instruments by simultaneous injection of the sample in the channels through GSV</p> <p>10.3 Peak Identification requirements:</p> <p>(a) Individual and group peak identification</p> <p>(b) Drag and drop peak identification</p> <p>10.4 Calibration facilities required:</p>	
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- (a) Single level, Bracketing, Multilevel Calibration as per IS4576/ASTM D1945/ISO 6975 and GPA 2286 extended standard method
- (b) Use of Absolute and relative response factors
- (c) Calculations as per IS4576/ASTM D1945, ISO 6976, GPA 2261 procedure

10.5 Management Procedures:

Traceability of Analysis and Calibration, Trend Analysis, Approval of Analysis.

LIMS Connectivity

Remote diagnostics

Can able to store different 3 to 4 storage methods

10.6 The offered GC should have internal memory. In case of PC crashed data should not be lost. The software should have interface with memory for data security.

10.7 The software should take control of the instrument for the analysis of Natural gas and should comply with ASTM- D1945/IS4576. Through this software, the analyzer should be able to analyze the Natural gas from C1 to C6+ (composite) including N2, O2, and CO2 in one single GC run. After the sample is analyzed, the data must be checked to determine its validity and the quality of the analysis which was performed. The unnormalized total of the molecular percentages of compounds analyzed should be within plus or minus one percent of one-hundred percent.

10.8 Accurate Calculation of Gas and liquid hydrocarbon Properties: Following points shall be considered.

i. Automatic results calculations and reporting.

ii. ASTM D1945/IS 4576,ISO 6976, GPA 2261 or equivalent

iii. Software should also include calculations for Oxygen correction.

iv. Software should be able to convert mole % to vol. %, and weight%. It should have the facility for data integration and automatic calculation of Specific Gravity, Calorific value, Sp heat etc from the chromatographic composition with proper unit such as BTU,K Calorie , Joule etc.

10.9 The software should be able to acquire data from the detectors and should have a single point control of all gas chromatographic parameters.

10.10 The software should have the facility for interactive graphics, tool bar facility for online editing , recalculation , batch data processing, overlay, peak integration, programmable integration control, baseline compensation, options for continuous averaging of calibration data, weighted regression etc..

	<p>10.11 Should have facility to recall multiple chromatograms simultaneously on the screen to compare the stored run with the current runs.</p> <p>10.12 Should have Real time display of all chromatograms.</p> <p>10.13 Software should have the facility to give the analysis report of Natural gas from the channels into an integrated single report as per the methods. The software should also have user program facility to generate ISO and ASTM reports after a chromatographic run.</p> <p>10.14 Report Generation: Following facilities should be in the software for report generation:</p> <p>(a) Customized report generation and calculations as per requirement.</p> <p>(b) The software should also have the facility to calculate and report dry and wet calorific value, compressibility factors, density, specific gravity fuel mass ratio, air based upon oxygen content and Wobbe Index number as per international standard procedure. The international standards should be clearly indicated in the report.</p> <p>(c) LIMS Compatibility, LAN Compatibility, User-friendly reporting formats and conversion to spread sheets and transmissions to other computers should be possible. Ethernet port for LIMS connection & unit networking. RS 232C port LIMS connection & USB port for external printer. Necessary software for LIMS compatibility to be offered.</p> <p>d) Merging of TCD signal and FID signals to determine complete composition of hydrocarbon under test run</p>	
20	Installation and commissioning	1 AU

BB:: SPECIAL NOTES TO BIDDERS:

1. The items listed in the scope of supply and scope of services is only minimum indicative requirement. Vendor shall supply the main equipment with all other supportive items such as Standard gas calibration mixture, computer including software and hardware to meet the required functionalities of the GC mentioned in this tender document and to complete the job successfully.

2. All accessories and Standards mentioned above should be separately quoted. However, the quoted price will be considered for price bid evaluation

3. The quoted GC should be of latest proven model as on date of submission of offer and the year of launching of the offer model should not be more than 5 years old from the date of bid closing date of the Tender. No refurbished built system other than original manufacturer's yard will be accepted. Bidder will be required to submit a list of customers to whom the same system has been supplied in India & Abroad and is being used for similar analysis purpose. E-mail ID of contact person, verifiable purchase order

number and any other details for verification purposes are required to be submitted with bid .

4. List of consumables/ spares are to be quoted separately and the price of such spares and consumables are not be considered while evaluating the bid techno-commercially.

5. Bidder should provide all accessories/spares including calibration standard/reference for initial commissioning free of cost along with the main equipment.

6. Supplier must provide repair kit of the equipment free of cost.

7. Authorized agent or a permanent office of the vendor with service facilities shall be available in India or else their bid will not be considered for evaluation.

8. The offered GC should have all the design feature requirements as indicated in the ASTM/IP/ISO methods

9. Valve Diagram with column should be attached along with the quote.

10. The vendor should submit the test report of analyzer (CHROMATOGRAM) directly faxed from the original GC manufacturing Site.

11. The vendor should dispatch the GC from the factory or country of origin only after getting the acceptance certificate/letter from concerned authority

12. Original Port of shipment document with serial number of the equipment should be provided prior to dispatch.

13. Warrantee / Guarantee: The Vendor shall provide minimum 01 year (excluding the outage period) warranty to the offered items starting from the date of successful completion in OIL premises. During warranty period if any item of the offered systems fails or performance of the offered systems are not satisfactory, vendor has to replace/rectify the same within 30 days from the date of intimation by OIL, without any financial implication to OIL including courier charges, transportation and taxes for supplying the spares up to OIL premises to be borne by the vendor. In case of failure on the part of the successful bidder to rectify a fault of supplied items / equipment or software, within 30 days of reporting the problem, a penalty at the rate of 0.5% of total value of the order per day will be imposed till rectification of fault, subject to a maximum of 7.5% of the total value of the order. For any delay beyond 45days, the warranty period for all the items shall be extended on a pro-rata basis.

14. All visits (including to & fro transportation for Duliajan & accommodation at Duliajan) by bidders personnel for warranty related work shall have to be borne by the successful bidder.

15. Technical support: Vendor shall provide after sell services for minimum 10 years after successful commissioning by providing prompt action in any type of technical issues, modification, spares etc. A written undertaking shall have to be submitted

16. System license: The system with all functionalities shall be licensed to OIL usage after the successful commissioning. Vendor to handover license copy of all installed software after successful commissioning of the system.

17. Software up gradation: If any software up gradation required / released for the supplied system after the expiry of warrantee of the system, same shall be supplied to

OIL by vendor free of cost without any price implication. A written undertaking shall have to be submitted.

18. Inspection & test certificates: Vendor shall submit the inspection and test certificates, calibration reports traceable to applicable national and international standards for purchaser's review.

19. Installation and Commissioning of supplied system: Installation and commissioning of the total system is in vendor's scope. Vendor is to consider the following points in respect of installation and commissioning activities. Commissioning schedule:

20. After the receipt of the items at OIL site, vendor shall have to mobilize required manpower / tools etc. to execute the installation and commissioning jobs at OIL site.

21. Vendor to provide all consumables and test standards required for commissioning of the system at OIL site along with the equipment.

22. Calibration:

22.1. For calibration purpose the bidder should supply calibration gas mixture for FID, TCD and H₂S calibration as per the specification mentioned in the scope of supply.

22.2 The guaranteed calibration frequency of the Instrument must be indicated by the bidder. If the calibration goes out during this period the bidder has to rectify it at his own cost. The calibration procedure should be very clearly indicated in the tender.

22.3 Calibration if required to be done only by the manufacturer and it should be ensured during the visit for comprehensive AMC.

23. Training:

23.1 Vendor shall organize onsite training to OIL Employees/executives covering all aspects of operation and maintenance of the instruments after successful commissioning of the same.

23.2 The training period shall be at least five days (excluding installation & commissioning) covering both for operation and maintenance.

23.3 Manual should cover all aspects of normal operation, maintenance, trouble shooting, do, don'ts etc. Vendor must provide both soft & hard copy of the manual with the Equipment.

23.4 Training to be organized during commissioning of the instrument.

25. Comprehensive Annual Maintenance Contract (AMC): The comprehensive AMC cost after post warranty period shall be taken into consideration for bid evaluation.

25.1 The party has to provide the year wise cost break up for Comprehensive AMC for four years (yearly 2 visits) and the total 4 year cost of 8 visits for comprehensive AMC should not be more than 15% of the cost of main equipment.

25.2 Bidder shall also provide the separate lists of consumables/spares which are included in the supplier's scope in comprehensive AMC and which are not in supplier's scope.

25.3 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.

25.4 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 up gradation.

25.5 Normal (Preventive) visit: To check the normal healthiness of the system and attending problem reported by OIL. Also vendor to carry out any software up gradation 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.

25.6 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.

26. Accommodation: All visits (including transport to and from Duliajan and accommodation at Duliajan) by bidders' personnel for AMC related work shall have to be borne by the successful bidder.

27. Local conveyance shall be provided by OIL at Duliajan.

28. Payment terms: Pro rata basis against the submitted invoice after the completion of each visit.

29. Deviation from purchaser's requirement: Bidder shall be specific to OIL's requirement and shall offer as per OIL's terms & conditions and requirements. If there is any deviation, bidder shall indicate the deviation clearly with sufficient justification. Not indicating any deviation by the bidder shall be considered as full acceptance of the OIL's terms & conditions

30. Bidder to sign and submit completely filled up Technical Check List, Technical Evaluation Matrix for technical specification and BEC-BRC for Bid Evaluation.

31. The supplier shall arrange to submit a separate performance bank guarantee for the AMC. The AMC PBG value and validity shall be mentioned in the AMC Contract.

CC:: GENERAL NOTES TO BIDDERS:

Sl No	Clause description
1.0	Tender Fee – Tender fee must be paid online through OIL’s payment gateway only and no other instrument (Cash/DD/Cheques/Cashier Cheque, etc) will be acceptable.
2.0	Bid Security/EMD/Performance Bank Guarantee – Must be paid either through online mode or Submission of Bank Guarantee/LC only. No DD/Cheques/Cashier Cheque or any other mode will be acceptable.
3.0	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.
4.0	Bid must be submitted online through OIL’s e-procurement portal. Bid submitted in any other form will be rejected.
5.0	<p>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 scribing tender no. and due date to The GM Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before 13:00 hrs (IST) on the Bid Closing Date mentioned in the Tender.</p> <p>a) Original Bid Security along with two duplicate copies of Bid Security. b) Any other documents which have been particularly asked for in this tender for submission.</p> <p>The Bank Guarantee issued by bank must be routed through SFMS platform as per following details:</p> <p>a. (i) “MT760/ MT760 COV for issuance of bank guarantee (ii) MT767/ MT767 COV for amendment of bank guarantee</p> <p>The above message/intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129. Branch Address: Axis Bank Ltd., Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, Dist- Dibrugarh, Pin- 786602.</p> <p>b. The vendor shall submit to OIL the copy of the SFMS message as sent by the issuing bank branch along with the original bank guarantee.</p>
6.0	Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time, failing which the offer shall be rejected.
7.0	The tender is invited under SINGLE STAGE-TWO BID SYSTEM . The bidder has to submit both the “TECHNO-COMMERCIAL UNPRICED BID” and “PRICED BID” 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.

Notes and Attachments

→ Only Price Details Should Be Uploaded

Technical attachments

→ All technical bid documents except price details

Please do refer “**NEW INSTRUCTION TO BIDDER FOR SUBMISSION**” for the above two points and also please refer “ **New Vendor Manual (effective 12.04.2017)** ” available in the login Page of the OIL’s E-tender Portal.



Click here for the New Manual & Instruction

8.0	In Technical Bid opening, only Technical Rfx will be opened. Therefore, the bidder should ensure that “TECHNO-COMMERCIAL UNPRICED BID should contain details as mentioned in the technical specifications as well as BEC/ BRC and upload the same in the Technical RFX Response-> User - > Technical Bid. No price should be given in above Technical Rfx otherwise the offer will be rejected. Please go through the help document in details before uploading the document and ensure uploading of technical bid in the Technical RFX Response-> User - > Technical Bid only. The “PRICE BID” must contain the price schedule and the bidder’s commercial terms and conditions. Details of prices as per Bid format / Commercial bid can be uploaded as Attachment under the attachment option under “Notes & Attachments”.
9.0	PRICED BIDS OF ONLY THOSE BIDDERS WILL BE OPENED WHOSE OFFERS ARE FOUND TO BE TECHNO-COMMERCIALLY ACCEPTABLE.
10.0	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 rejection of its offer without seeking any clarifications.
11.0	Please mention clearly in your quotation the Net. Weight, Gross Weight & Volume, Indian Agent's Name and its Commission, Payment Terms, Ocean Freight/Air Freight Charges, Port of Loading, Delivery period, Country of origin with manufacturer's name, etc.
12.0	To ascertain the substantial responsiveness of the bid, OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by OIL, failing which the offer will be summarily rejected.
13.0	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.
14.0	All the Bids must be Digitally Signed using “Class 3” [Organization] digital certificate (e-commerce application) only as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than “Class 3” digital certificate, will be liable for rejection.
15.0	<p>Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.</p> <p>"In order to bid for OIL e-tenders all the vendors are required to obtain a legally valid Digital Certificate Class III [Organization] along with Encryption Certificate as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. Digital Signature Certificate comes in a pair of Signing/verification and Encryption/decryption certificate. Bidder should have both the Signing/verification and Encryption/Decryption certificate for Signing and encryption, decryption purpose respectively. The driver needs to be installed once, without which the DSC will not be recognized. While participating on e-Tendering the DSC token should be connected to your system.</p> <p>Encryption certificate is mandatorily required for submission of bid. In case bidder created response with one certificate (using encryption key) and bidder change his Digital Signature Certificate then old certificate (used for encryption) is required in order to decrypt his encrypted response for getting the edit mode of the response. Once decryption is done, bidder may use new DSC certificate for uploading and submission of their offer. It is the sole responsibility of the bidder to keep their DSC certificate properly. In case of loss of the certificate, OIL INDIA LTD is not responsible."</p>
16.0	Bidders to note that Govt. of India under Micro, Small and Medium Enterprises Development (MSMED) Act 2006, has proclaimed the Public Procurement Policy, 2012 with effect from 1st April, 2012 in respect of procurement of goods and services, produced and provided by micro and small enterprises, by its Ministries, Departments and Public Sector Undertakings for promotion and development of Micro and Small Enterprises. A new Clause on applicability of Public Procurement Policy for procurement of goods from Micro and Small Enterprises (MSE) in the tender is furnished vide Amendment to General Terms and Conditions for Global Tender (MM/GLOBAL/E-01/2005). Bidders are requested to take note of the same and to submit their offers accordingly.
17.0	The items shall be brand new, unused & of prime quality. The manufacturer 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 shipment or 12 months from date of commissioning of the item, whichever is earlier. The defective materials, if any, rejected by OIL shall be replaced by the supplier at their own expense. Bidders must confirm the same in their quotations.
18.0	Any deviation(s) from the tender specification should be clearly highlighted specifying justification in support of deviation.
19.0	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- VI 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. 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. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid

	<p>shall be rejected straightway. OIL's Independent External Monitors at present are as under:</p> <p>SHRI RAJIV MATHUR, IPS (Retd.), Former Director (IB) Govt. of India e-Mail ID : rajivmathur23@gmail.com</p> <p>SHRI SATYANANDA MISHRA, IAS(Retd.) Former Chief Information Commissioner & Ex-Secretary, DOPT, Govt. of India E-mail Id : satyanandamishra@hotmail.com</p> <p>SHRI JAGMOHAN GARG, Ex-Vigilance Commissioner, CVC e-Mail id : jagmohan.garg@gmail.com</p>
20.0	Original Bid Closing Date shall be considered by OIL for evaluation of BRC Criteria in case of any extension of the original bid closing date.
21.0	<p>Performance Security clause (Clause No. 10.0 of Section-A) of "General Terms & Conditions for Global Tenders (MM/GLOBAL/01/2005)" has been amended and the new clause is detailed in the Amendment dated 25.04.2016 issued to MM/GLOBAL/01/2005. Successful bidder will be required to furnish a Performance Bank Guarantee @10% of the order value which should remain valid for the period execution, including extension, if any and the entire warranty period in line with tender requirement. The successful bidder shall submit Performance Security within 30 days of award, failing which OIL reserves the right to cancel the order and forfeit their Bid Security. Bidders should undertake in their bids to submit Performance Security as stated above. Bidders to note the same and to confirm its acceptance in their offers.</p> <p>The Bank Guarantee issued by bank must be routed through SFMS platform as per following details:</p> <p>a. (i) "MT760/ MT760 COV for issuance of bank guarantee (ii) MT767/ MT767 COV for amendment of bank guarantee</p> <p>The above message/intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Duliajan Branch, IFS Code: UTIB0001129. Branch Address: Axis Bank Ltd., Duliajan Branch, Daily Bazar, Jyotinagar, Duliajan, Dist- Dibrugarh, Pin- 786602.</p> <p>b. The vendor shall submit to OIL the copy of the SFMS message as sent by the issuing bank branch along with the original bank guarantee.</p>
22.0	Bidder to sign and submit completely filled up Bidder's Response Sheet & Commercial check list.
23.0	<p>Payment terms: Payment shall be released as follows-</p> <p>(i) 80% of order value for material supply shall be released on supply against proof of dispatch/shipment.</p> <p>(ii) Remaining 20% along with the installation/ commissioning cum training charges shall be paid after successful commissioning and acceptance of material by OIL at site.</p>

24.0	Liquidated Damages: Refer to “General Terms & Conditions” for e-Procurement as per Booklet No. MM/GLOBAL/E-01/2005 for E-procurement (ICB Tenders). In case of deduction of LD, LD amount will be deducted along with applicable rate of GST.
25.0	<p>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 & concessional IGST during import will be applicable for foreign bidders . Indigenous bidder shall be eligible for concessional rate of GST against Essentiality Certificate for invoice valuing INR 10 lakh and above.</p> <p>In the event of an order on indigenous bidder, OIL will issue Project Authority Certificate (PAC) under Deemed Export, where import content is declared by the bidder for availing Custom Duty benefit on the import content.</p> <p>Supplier shall arrange to provide all necessary documents to apply for the essentiality certificate on receipt of request from OIL, if any. Further, supplier shall affect dispatch only on receipt of relevant certificates from OIL, failing which all related liabilities shall be to Supplier’s account.</p>
26.0	Bidders to note that Ministry of Petroleum & Natural Gas, Government of India implemented PPLC Policy to provide Purchase Preference (linked with local content) by notification no. Ref. O-27011/44/2016-ONG-II/FP dtd.25.04.2017. A new Clause on applicability of Purchase Preference (linked with local content) policy in the tender is furnished as Annexure-V of the tender document. Bidders are requested to take note of the same and to submit their offers accordingly wherever applicable.
27.0	<p><u>Clauses related to GST</u></p> <ol style="list-style-type: none"> 1. For the purposes of levy and imposition of GST, the expressions shall have the following meanings: <ol style="list-style-type: none"> (a) GST - means any tax imposed on the supply of goods and/or services under GST Law. (b) Cess – means any applicable cess, existing or future on the supply of Goods and Services as per Goods and Services Tax (Compensation to States) Act, 2017. (c) GST Law - means IGST Act 2017, CGST Act 2017, UTGST Act, 2017 and SGST Act, 2017 and all related ancillary Rules and Notifications issued in this regard from time to time. 2. The rates quoted by the bidders shall be inclusive of all taxes, duties and levies. However, bidders are required to provide separately the rate and amount of all types of taxes, duties and levies. In case, the quoted information related to various taxes, duties & levies subsequently proves wrong, incorrect or misleading, OIL will have no liability to reimburse the difference in the duty/ tax, if the finally assessed amount is on the higher side and OIL will have to right to recover the difference in case the rate of duty/ taxes finally assessed is on the lower side. Further, bidders have to clearly show the amount of GST separately in the Tax Invoices. Further, it is the responsibility of the bidders to make all possible efforts to make their accounting / IT system GST compliant in order to ensure availability of Input Tax Credit (ITC) to Oil India Ltd. 3. Offers without giving any of the details of the taxes (Including rates and amounts) as specified above will be considered as inclusive of all taxes including GST. When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned

	<p>by OIL on the Purchase Order/ Contracts will be binding on the bidder.</p> <p>4. Bidders are required to pass on the benefit arising out of introduction of GST, including seamless flow of Input Tax Credit, reduction in Tax Rate on inputs as well as final goods by way of reduction of price as contemplated in the provision relating to Anti-Profitteering Measure vide Section 171 of the CGST Act, 2017. Accordingly, for supplies made under GST, the bidders should confirm that benefit of lower costs has been passed on to OIL by way of lower prices/taxes and also provide details of the same as applicable. OIL reserves the right to examine such details about costs of inputs/input services of the bidders to ensure that the intended benefits of GST have been passed on to OIL.</p> <p>5. Oil India Ltd. shall declare the value of free issue of materials and services, if any, involved in the execution of the contract. The Contractor should consider the same while working out the GST liability, if any. Further in cases where GST is leviable on any facilities provided by OIL and used by bidders and the consideration for which is recovered by OIL in the form of reduction in the invoice raised by bidders then OIL will raise GST invoices on such transactions and the same will be reimbursed by bidders.</p> <p>6. When Input tax credit is available for Set Off Evaluation of L-1 prices shall be done based on Quoted price after deduction of Input Tax Credit (ITC) of GST, if available to OIL. OIL shall evaluate the offers on the basis of the quoted rates only and any claim subsequently by the bidders for additional payment/liability shall not be admitted and has to be borne by the bidders</p> <p>When Input tax credit is NOT available for Set Off Evaluation of L-1 prices shall be done based on Quoted price only. OIL shall evaluate the offers on the basis of the quoted rates only and any claim subsequently by the bidders for additional payment/liability shall not be admitted and has to be borne by the bidders</p> <p>7. Bidders agree to do all things not limited to providing GST compliant Tax Invoices or other documentation as per GST law relating to the supply of goods and/or services covered in the instant contract like raising of and /or acceptance or rejection of credit notes / debit notes as the case may be, payment of taxes, timely filing of valid statutory Returns for the tax period on the Goods and Service Tax Network (GSTN), submission of general information as and when called for by OIL in the customized format shared by OIL in order to enable OIL to update its database etc. that may be necessary to match the invoices on GSTN common portal and enable OIL to claim input tax credit in relation to any GST payable under this Contract or in respect of any supply under this Contract.</p> <p>8. In case Input Tax Credit of GST is denied or demand is recovered from OIL by the Central / State Authorities on account of any non-compliance by bidders, including non-payment of GST charged and recovered, the Vendor/Supplier/Contractor shall indemnify OIL in respect of all claims of tax, penalty and/or interest, loss, damages, costs, expenses and liability that may arise due to such non-compliance. OIL, at its discretion, may also withhold/recover such disputed amount from the pending payments of the bidders.</p>
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BID EVALUATION CRITERIA (BEC)/BID REJECTION CRITERIA (BRC)

GENERAL CONFORMITY

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

(I) BID REJECTION CRITERIA (BRC)

(A) TECHNICAL:

1.0 BIDDER'S ELIGIBILITY:

1.1 **The bidder should be an Original Equipment Manufacturer (OEM)** of the tendered item (s).

OR

1.2 **The bidder should be an authorized dealer/authorized distributor /authorized supplier/wholly owned subsidiary** of an Original equipment manufacturer (OEM) of the tendered item(s).

2.0 **IN CASE THE BIDDER IS AN ORIGINAL EQUIPMENT MANUFACTURER (OEM):**

The bidder must comply to the following:

2.1 The bidder (OEM) should have at least 5 (five) years of manufacturing experience of each tendered item/ equipment preceding to the original Bid Closing date of the tender.

2.2 In addition to above, the bidder (OEM) should have supply experience of successfully executed at least one order of 50% tendered quantity (rounded off to the next higher integer) of each tendered item/ equipment to various clients (other than their own subsidiaries/sister concerns), either directly by them or through their authorized dealers/distributor/supplier/subsidiaries, during last 5 (five) years preceding to the original bid closing date of the tender.

2.3 Documentary evidences to substantiate manufacturing & supply records must be submitted in the form of copies of relevant Purchase Order(s) and any one of the

following documents evidencing satisfactory execution of those Purchase Order(s), such as:

- (i) Satisfactory supply / completion / installation report (OR)
- (ii) Bill of Lading, Commercial Invoice / Payment Invoice (OR)
- (iii) Consignee receipt / delivery receipt (OR)
- (iv) Central Excise Gate Pass/Tax Invoice issued under relevant rules of Central Excise/ Vat/ GST Invoice.
- (v) Any other documents which shall prove that the bidder has successfully executed such order (s).

Note: The Purchase Order date need not be within 5 (five) years preceding original bid closing date of this tender. However, the execution of supply should be within 5 (five) years preceding original bid closing date of this tender.

3.0 **IN CASE, THE BIDDER IS AN AUTHORIZED DEALER/ AUTHORIZED DISTRIBUTOR / AUTHORIZED SUPPLIER / WHOLLY OWNED SUBSIDIARY OF OEM:**

The bidder must fulfil the following requirements:

- 3.1 The bidder's OEM (the Principal) should have at least 5 (five) years of manufacturing experience of each tendered item/ equipment proceeding to the original Bid Closing date of the tender.
- 3.2 Additionally, the bidder himself/themselves should have supply experience of successfully executed at least one order of 50% tendered quantity (rounded off to the next higher integer) of each tendered item/ equipment to various clients (other than their own subsidiaries/sister concerns), during last 5 (five) years preceding to the original bid closing date of the tender.
- 3.3 Documentary evidences to substantiate manufacturing & supply records must be submitted in the form of copies of relevant Purchase Order(s) and any of the following documents evidencing satisfactory execution of those Purchase Order(s), such as:
 - (i) Satisfactory supply / completion / installation report (OR)
 - (ii) Bill of Lading, Commercial Invoice / Payment Invoice (OR)
 - (iii) Consignee receipt/ delivery receipt (OR)
 - (iv) Central Excise Gate Pass/Tax Invoice issued under relevant rules of Central Excise/ Vat/ GST Invoice.
 - (v) Any other documents which shall prove that the bidder has successfully executed such order (s).

Note: The Purchase Order date need not be within 5 (five) years preceding original bid closing date of this tender. However, the execution of supply should be within 5 (five) years preceding original bid closing date of this tender.

- 3.4 The bidder shall submit valid **Authorization Certificate/Letter** issued by its Original Equipment Manufacturer (OEM), confirming the Bidder's status as their authorized supplier / dealer / distributor/wholly owned subsidiary (as the case may be) to sell their products with proper warranty and guarantee back -up. Such authorization certificate/ letter shall be valid for the entire period of

execution of the order. Offers shall be rejected straightway, if such authority letter is not submitted along with the technical bid.

NOTES TO BIDDER:

- a. Authorization letter must be issued on the official letter head of the OEM clearly mentioning the status of Bidder i.e., whether 'authorized dealer' or 'authorized distributor' or 'authorized supplier' or wholly owned subsidiary of Original Equipment Manufacturer (OEM), failing which the bid shall not be considered for evaluation and in that case the offer shall be rejected straightway.
 - b. Authorization letter issued by the OEM in any other form such as Direct Chanel Partner /Indirect Chanel Partner/Chanel Partner/ seller/ Reseller/Sub Dealer / Sub Distributor/Sister Concern shall not be considered for bid evaluation and the offer shall be rejected.
 - c. In case the bidder is a wholly owned subsidiary company of the parent company (OEM), in addition to the authorization letter including warranty/guarantee back-up, the bidder shall also upload/submit the documents such as board resolution / certificate of incorporation / any other legal certificate along with their offer that would establish the relation between the parent company with the subsidiary company without which the bid will not be evaluated and will be rejected straightway.
- 4.0 Bidders showing supply experience towards supply to its sister concern/ subsidiaries shall not be considered as experience for the purpose of meeting BRC.
- 5.0 Authorization letter and warranty/guarantee back-up as aforesaid must be issued to the bidder by the Original Equipment Manufacturer (OEM) in their official letter head only. Such certificates/authority letter issued by a party other than the OEM shall not be considered as valid authorization letter and in such case the bid shall be rejected without any further reference.
- 6.0 Unsolicited bids shall be straightway rejected.
- 7.0 Bidder/OEM must submit an undertaking along with the Technical Bid that their offered equipment is not going to become obsolete during the next 5 (five) years from the date of successful installation & Commissioning, if order is awarded on them by OIL and must guarantee uninterrupted supply of spares and availability of services for at least for ten (10) years with effect from the successful installation & Commissioning of the equipment, without which offer will not be considered for evaluation/placement of order.
- 8.0 Delivery require against this tender is maximum 06 (six) months from the date of opening of LC in case order is placed on foreign supplier OR within 06 (six) months from the date of receipt of order in case order is placed on indigenous supplier. Date of clean Bill of lading (in case of foreign supplier) or consignment note (C/note in case of indigenous supplier) shall be considered as delivery date. Bidder must comply the above schedule and confirm in their techno-commercial bid. Bids not meeting time schedule as mentioned above shall be summarily rejected.

(B) FINANCIAL CRITERIA:

- 1.0 **Annual Turnover:** The bidder shall have an annual financial turnover of minimum **US\$ 41,400.00 or Rs 28,50,400.00** during any of the preceding 03 (three) financial years reckoned from the original bid closing date, irrespective of whether their bid is for all the tendered items or not of the tender.
- 2.0 "Net Worth" of the bidder should be positive for the financial/accounting year just preceding to the original Bid Closing Date of the Tender (i.e. FY 2017 - 18).
- 3.0 Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that 'the balance sheet/Financial Statements for the financial year 2017 - 18 have actually not been audited so far'.

Note:

(a) For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the technical bid:-

- i) A certificate issued by a practicing Chartered Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in ANNEXURE-IV

OR

ii) Audited Balance Sheet along with Profit & Loss account. In case of Foreign bidders, self-attested/digitally signed printed published accounts are also acceptable

- (b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.
- 4.0 In case the Audited Balance Sheet and Profit & Loss Account submitted along with the bid are in currencies other than INR or US\$, the bidder shall have to convert the figures in equivalent INR or US\$ considering the prevailing conversion rate on the date of Balance Sheet and Profit & Loss Account. A CA certificate is to be submitted by the bidder regarding converted figures in equivalent INR or US\$.

(C) COMMERCIAL

Commercial Bid Rejection Criteria will be as per Section D of General Terms & Conditions of Global Tender (MM/GLOBAL/E-01/2005) with following Special Bid Rejection Criteria.

- 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 Technical (i.e. Unpriced) bid**. The “Unpriced Bid” shall contain all techno-commercial details except the prices, which shall be kept blank. The “Price Bid” must contain the price schedule and the bidder’s commercial terms and conditions.

Bidder not complying with above submission procedure will be rejected.

- 2.0 The prices offered shall 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.
- 3.0 Bids received in physical form against online invitation through e-portal shall be rejected (except the documents specifically called for in hard copies, if any). Similarly, Bids received after the bid closing date and time shall be rejected. Also, modifications to bids received after the bid closing date & time shall not be considered.
- 4.0 Bids containing incorrect statement shall be rejected.
- 5.0 Validity of the bid shall be **minimum 120 days** from the date of Bid Closing Date. Bids with lesser validity will be straightway rejected.
- 6.0 **Bid security in ORIGINAL of INR 1, 14,100.00 OR USD 1,660.00** shall be furnished as a part of the TECHNICAL BID. **Any bid not accompanied by a proper bid security in ORIGINAL will be rejected without any further consideration**. A bid shall be rejected straightway if Original Bid Security is not received within the stipulated date & time mentioned in the Tender and/or if the Bid Security validity is shorter than the validity indicated in Tender and/or if the Bid Security amount is lesser than the amount indicated in the Tender.
- 6.1 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).
- 7.0 Successful bidder shall be required to furnish a Performance Security equivalent to ten (10%) of total evaluated value of Order, which should remain valid throughout the period execution, including extension, if any. The successful bidder shall submit Performance Security within 30 days of award, failing which OIL reserves the right to cancel the order and forfeit their Bid Security. Bidders should undertake in their bids to submit Performance Security as stated above

- 8.0 Offers should be submitted along with Integrity Pact duly signed by the authorized signatory of the bidder. If any bidder refuses to sign Integrity Pact or declined to submit Integrity Pact with the offer, their bid shall be rejected straightway.
- 9.0 All the tendered items are to be procured from the same source; hence bidders are requested to quote accordingly for all the items, else their bid will be rejected straightway.
- 10.0 Bidders are required to submit the summary of the prices in their price bids as per bid format (Summary), given below **(strike out whichever is not applicable)**.

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

- (A) Basic Material Value (to indicate HSN code)(item wise):**
(B) Pre-despatch Inspection Charges, if any:
(C) Packing & FOB charges (item wise):
(D) Total FOB Value, A+B+C:
(E) Ocean Freight Charges up to Kolkata, India (item wise):
(F) Banking & Insurance, @1.5% of D :
(G) CIF Value, D+E+F :
(H) IGST @ 5% on G:
(I) Compensatory Cess, if any:
(J) CIF+GST Value, G+H+I :
(K) Training Charges, if any:
(L) Applicable rate of GST on K:
(M) Installation & Commissioning Charges, if any:
(N) Applicable rate of GST on M:
(O) AMC Charges, if any:
(P) Applicable rate of GST Charges on O:
(Q) Cost of AMC operational/maintenance spares, if any:
(R) Applicable rate of GST charges on Q:
(S) Total, J+K+L+M+N+O+P+Q+R:
(T) Total Value in words :
(U) Gross Weight:
(V) Gross Volume :

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

- (A) Basic Material Value (to indicate HSN code) (item wise):**
(B) Pre-despatch Inspection Charges, if any:
(C) Packing & Forwarding charges, if any (item wise):
(D) Total Ex-Works Value, A+B+C:
(E) Applicable rate of GST on D:
(F) Compensatory Cess, if any:
(G) Total FOR Despatching Station Value, D+E+F:
(H) Inland Freight Charges upto Duliajan, Assam including GST (item wise):
(I) Transit Insurance Charges, if any including GST:
(J) Training Charges, if any:
(K) Applicable rate of GST on J:
(L) Installation & Commissioning Charges, if any:
(M) Applicable rate of GST on L:
(N) AMC Charges, if any:
(O) Applicable rate of GST on N:
(P) Cost of AMC operational/maintenance spares, if any:

- (Q) Applicable rate of GST on P:**
- (R) Total, G+H+I+J+K+L+M+N+O+P+Q:**
- (S) Total Value in words :**
- (T) Gross Weight:**
- (U) Gross Volume:**
- (V) Import Content, if any:**

Note: i) Please indicate HSN /SAC Code of the quoted material, accessories & services. Cost of the individual items should be shown separately.

ii) Domestic Bidders must quote inland freight charges up to Duliajan. In case bidder fails to quote inland freight charges, highest freight quoted by domestic bidder (considering pro-rata distance) against this tender or OIL's estimated freight, whichever is higher, shall be loaded to their offer for comparison purpose.

iii) For enquiries with duty exemption benefit – The items covered under this enquiry shall be used by OIL in the PEL/ML areas issued/renewed after 01/04/99 and hence, applicable customs duty for import of goods shall be zero for foreign bidders. However, IGST @5% shall be applicable during import. IGST /Concessional GST @5% shall be applicable for Indigenous bidders also.

11.0 Bidder shall accept and comply with the following clauses as given in the Bid Document, failing which bid shall be liable for rejection:

- i) Liquidated Damages
- ii) Warranty/Guarantee of material
- iii) Arbitration / Resolution of Dispute
- iv) Force Majeure
- v) Applicable Laws

12.0 A bid shall be rejected straightway if it does not conform to any one of the following clauses:

- a) Validity of bid shorter than the validity indicated in the Tender.
- b) Original Bid Security not received within the stipulated date & time mentioned in the Tender.
- c) Bid Security with (i) validity shorter than the validity indicated in Tender and/or (ii) Bid Security amount lesser than the amount indicated in the Tender.

(II) BID EVALUATION CRITERIA

The bids conforming to the specifications, terms and conditions stipulated in the enquiry and considered to be responsive after subjecting to the Bid Rejection Criteria will be considered for further evaluation as per General Terms and Conditions for Global Tender and the Bid Evaluation Criteria given below:

- 1.0 The evaluation of bids shall be done as per the Price Bid Format (SUMMARY) provided under (I), (C), Commercial Para 11.0 and detailed below.
- 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 To ascertain the inter-se-ranking, bid prices shall be converted into Indian Rupees and the comparison of responsive bids shall be made as under, subject to corrections / adjustments, if any.

4.1 When only foreign bidders are involved:

The Total Value of Foreign bidder as worked out as per para **10 (i) S** shall be compared

NOTE: *Banking charge in the country of the foreign bidder shall be borne by the bidder. Banking charge 1% for payment through Letter of Credit. And 1.5 % if confirmed LC at buyer's account is required.

4.2 When only domestic bidders are involved or when more than one domestic bidders are in contention in case of mixed response:

The Total Value of Domestic bidder as worked out as per para **10 (ii) R** shall be compared

4.3 When both foreign and domestic bidders are involved:

The Total Value of domestic bidder as worked out as per para **10 (ii) R (excluding H & I)** above and Total Value of the foreign bidder worked out as per Para **10 (i) S** above will be compared.

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.

Note: When more than one domestic bidders fall within price preference range, inter-se-ranking will be done on Grand Total Value basis. 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.

- 5.0 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 Evaluation Criteria (BEC) mentioned here contradict the Clauses in the General Terms & Conditions of Global Tender of the tender and/or elsewhere, those mentioned in this BEC 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.

(A)

(B) COMMERCIAL CHECK-LIST

<u>Sl#</u>	<u>REQUIREMENT</u>	<u>COMPLIANCE</u>
1.0	Whether bid submitted under Single Stage Composite Bid System?	Yes / No
2.0	Whether quoted as manufacturer?	Yes / No
2.1	Whether quoted as OEM Dealer / Supply House. To Specify-	
2.2	If quoted as OEM Dealer / Supply House	
	(a) Whether submitted valid and proper authorization letter from manufacturer confirming that bidder is their authorized Dealer / supply House for the product offered ?	
	(b) Whether manufacturer's back-up Warranty/Guarantee certificate submitted?	
3.0	Whether ORIGINAL Bid Bond (not copy of Bid Bond) as per Revised Format Sent separately? If YES, provide details	Yes / No
	(a) Amount :	
	(b) Name of issuing Bank :	
	(c) Validity of Bid Bond :	
4.0	Whether offered firm prices ?	Yes / No
4.1	Whether quoted offer validity of 120 days from the bid closing date of tender?	Yes / No
4.2	Whether quoted a firm delivery period?	Yes / No
4.3	Whether agreed to the NIT Warranty clause?	Yes / No
5.0	Whether confirmed to submit PBG as asked for in NIT?	Yes / No
5.1	Whether agreed to submit PBG within 30 days of placement of order?	Yes / No
6.0	Whether Price submitted as per Price Schedule indicated in the tender?	Yes / No
6.1	Whether cost of Recommended Spares for 2 years of operations quoted?	YES/NO
7.0	Whether quoted as per NIT (without any deviations)?	Yes / No
7.0	Whether quoted any deviation?	Yes / No
7.1	Whether deviation separately highlighted?	Yes / No
8.0	Whether indicated the country of origin for the items quoted?	Yes / No

8.1	Whether technical literature / catalogue enclosed?	Yes / No
8.2	Whether weight & volume of items offered indicated?	Yes / No
9.0	For Foreign Bidders - Whether offered FOB / FCA port of despatch including sea / air worthy packing & forwarding?	Yes / No
9.1	For Foreign Bidders – Whether port of shipment indicated. To specify:	Yes / No
9.2	For Foreign Bidders only - Whether indicated ocean freight up to Kolkata port (Excluding marine insurance) ?	Yes / No
9.3	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?	
10.0	For Indian Bidders – Whether indicated the place from where the goods will be dispatched. To specify :	Yes / No
10.1	For Indian Bidders – Whether road transportation charges up to Duliajan quoted?	Yes / No
10.2	For Indian Bidders only - Whether offered Ex-works price including packing/forwarding charges?	Yes / No
10.3	For Indian Bidders only - Whether indicated import content in the offer?	Yes / No
10.4	For Indian Bidders only - Whether offered Deemed Export prices?	Yes / No
10.5	For Indian Bidders only – Whether all applicable Taxes & Duties have been quoted?	Yes / No
11.0	Whether all BRC/BEC clauses accepted ?	Yes / No

(B) TO BE FILLED UP IN DETAIL:

Sl No	Requirement	Bidder's Reply
01	Mention Bid validity quoted	
02	Mention Payment Terms quoted	
03	Mention Guarantee/Warranty Terms quoted	
04	Mention Delivery Period quoted	
05	Mention Port of Despatch / Despatching Station	
08	Confirm submission Integrity pact, if required as per NIT	
09	Confirm submission PBG, if required as per NIT	
10	Compliance to: a) Liquidated Damage b) Warranty/Guarantee c) Arbitration/Resolution of Dispute d) Force Majeure e) Applicable laws	
11	Exception/Deviations quoted, if any, to be given in details or refer to respective page of the bid documents	

Signature _____

Name _____

Designation _____



CERTIFICATE OF ANNUAL TURNOVER & NET WORTH

TO BE ISSUED BY PRACTISING **CHARTARD ACCOUNTANTS' FIRM** ON THEIR LETTER HEAD

TO WHOM IT MAY CONCERN

This is to certify that the following financial positions extracted from the audited financial statements of M/s.....(Name of the bidder) for the last three (3) completed accounting years upto..... **(as the case may be)** are correct

YEAR	TURN OVER In INR (Rs.) Crores/ US \$ Million) *	NET WORTH In INR (Rs.) Crores / US \$ Million) *

*Rate of conversion (if used any): USD 1.00 = INR

Place:

Date:

Seal

Membership No:

Registration Code:

Signature

***Applicable only for GLOBAL tenders**

TECHNICAL EVALUATION SHEET

TECHNICAL EVALUATION MATRIX (TO BE FILLED IN BY BIDDER DULY SIGNED)				
TECHNICAL SPECIFICATIONS				
Sl. No.	Clause No of Tender Document: Technical Specification/ Scope of Work	Description Bidders Remarks Complied/ Not Complied/ Deviation	Bidder to indicate Relevant Page No of their Bid to support the remarks/ compliance	
1	<p>SCOPE OF SUPPLY The Scope of supply would cover supply ,services, installation, testing and commissioning of controlled multidimensional TCD,FID,FPD based Natural Gas Analyzer having provision of Automated Gas sampling Valve and Electronic Pneumatics control system comprising of PC based human machine interfacing station for the analysis of natural gas from C1 through C5 hydrocarbons and C6+ composite using a TCD, hydrocarbon components in Natural Gas from C1 (methane) to C12 (Dodecane), using a boiling point capillary column and an FID in addition to analyze N2,O2,H2S and CO2 in a single run as per IS4576/ASTM D1945/ISO 6975 methods. Item description, Technical specifications, Calibration mixture standard, and terms and conditions for supplying the GC are given below.</p> <p>Analysis Requirement:</p>			

		<p>The NGA should have extensive self-diagnostics facility and should consist of three channels which may be run simultaneously or separately for three different type of application as follows:</p>		
	2	<p>2.2.1 Channel 1:</p> <p>2.2.1.1 Should provide a guaranteed compositional analysis of O2, N2, CO2, H2S, and C1 through C5 hydrocarbons and C6+ composite in natural gas using a TCD. In addition to the facility for injection of gas sample with gas tight syringe, this channel should also be equipped with a gas sampling valve for sample introduction directly from gas cylinder.</p> <p>2.2.1.2 Column configuration and valve operation should be designed so that the lowest boiling C6 (2, 2-dimethylbutane) must be included in the back-flush on TCD channel. Separation and measurement of O2 and N2 individually is a requirement.</p> <p>2.2.1.3 TCD detection limit:</p> <p>2.2.1.3.1 O2 and C6+ composite minimum 0.01% & maximum 2%</p> <p>2.2.1.3.2 H2S minimum 0.1% maximum 2%</p> <p>2.2.1.3.3 N2 minimum 0.1% maximum 10%</p> <p>2.2.1.3.4 C1 minimum 70% maximum 99%</p> <p>2.2.1.3.5 All other components minimum 0.01% maximum 10%</p>		

3	<p>2.2.2 Channel 2:</p> <p>2.2.2.1 The other Channel should provide a capillary separation of hydrocarbon components in Natural Gas from C1 (methane) to C12 (Dodecane), using a boiling point capillary column and an FID. In addition to the facility of sample introduction through gas sampling valve, this channel should also have a liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary channel. Syringe injection facility should also be there for both gas and liquid samples.</p> <p>2.2.2.2 FID detection limit:-</p> <p>For Gas Sample:</p> <p>a) C1, i.e Methane, minimum 70% maximum 99%</p> <p>b) C2 i.e Ethane & C3 i.e Propane minimum 0.01% maximum 10%</p> <p>c) C4 i.e Butane onwards upto C6+ Trace to 3%.</p> <p>2.2.3 Equipment data processing software should have capability to produce a composite report by merging the TCD signal for CO₂, H₂S, N₂, O₂, C₆+ from Channel 1 and FID signal for C1-C12 from Channel 2 and H₂S signal from FPD channel-3.</p> <p>2.2.3 Channel-3 (FPD Channel for H₂S detection)</p>		
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4	<p>2.3.0 Instrument features:</p> <p>2.3.1 Fully automatic microprocessor controlled GC with self-test during start up and self diagnosis facility.</p> <p>2.3.2 Key Board and PC control of the system. Complete control of all GC parameters from PC is essential.</p> <p>2.3.3 Chromatograph should have built-in graphical user interface, for ease of operation & total control through software.</p> <p>2.3.4 EPC / PPC on all channels, carrier, injector, split, vent, detector and auxiliary gases with gas flow monitors.</p> <p>2.3.5 Automatic lighting up of FID on reaching set temperature according to instrument method.</p> <p>2.3.6 Auto shut down in case of leak or drop in carrier gas pressure.</p> <p>2.3.7 Real time graphical signal output at all times.</p> <p>2.3.8 System to be fully factory tested and calibrated.</p> <p>2.3.9 Analysis Time: <30 min.</p> <p>2.3.10 Menu driven user friendly Windows XP based S/W.</p> <p>2.3.11 Snapshot facility for partial view of analysis results during run.</p> <p>2.3.12 Real time display of Chromatogram / baseline and instrument status with key instrument parameters even when no run is in progress.</p>		
5	<p>2.4.0 Oven capability:</p> <p>2.4.1 Oven Temperature Range: 10 Deg C above Ambient to 450 Deg C</p> <p>2.4.2 Oven heating rate: 50 Deg C to 250 Deg C in 2 minutes.</p> <p>2.4.3 Oven cooling Rate: 250 Deg C # 50 Deg C in 5 minutes.</p> <p>2.4.4 Column Overheat Protection: User settable up to 450 Deg C</p>		

	6	2.5.0 Background correction: Should have for both the channels (FID & TCD) and also for FPD channel.		
	7	2.6.0 Columns & Valves: All columns, valves required for accomplishing the above analysis requirements must be included and the published application note in support of the corresponding application capability of the supplied system should be furnished as documentary evidence.		
	8	<p>2.7.0 Detector Capability: FID</p> <p>2.7.1 Minimum detectable level: <3.0 picogram C /Second</p> <p>2.7.2 Auto flame ignition and flame out detection.</p> <p>2.7.3 Flame out warning and ready interlock.</p> <p>2.7.4 Signal filtration selection through software/touch screen graphics</p>		
	9	<p>2.8.0 Detector Capability: TCD</p> <p>2.8.1 Minimum detectable :< 1ppm Nonane (C-9)</p> <p>2.8.2 Automatic bridge balancing</p> <p>2.8.3 Single or dual columns connection possibility</p>		
	10	<p>2.9.0 Sample Injection:</p> <p>2.9.1 Gas Samples: Automatic gas sampling valves must be fitted to inject the sample automatically to both the TCD and FID channel. The system should have a sample loop purge feature to prevent contamination from liquid to gas or gas to liquid samples. The facility for injection through gas tight syringe should also be available.</p> <p>2.9.2 Liquid Samples: The FID channel should also be connected to a liquid sampling valve with backpressure</p>		

		facility for homogenous introduction of pressurized liquid sample on the capillary column. Syringe injection facility should also be there for liquid samples.																																														
	11	<p>3.0 CALIBRATION STANDARD MIXTURE.</p> <p>3.1(A) Certified Calibration Gas Mixture(one for detection of natural gas from C1to C6+) and another from C2 to C12 supplied separately in two DIFFERENT WS steel cylinder/ Aluminium can along with the supplied equipment. The relevant calibration gas mixture duly certified by NABL or equivalent laboratory (third party calibration certificate) as mentioned below must be supplied along with the instrument . The capacity of the calibration gas mixture should be 10 litre with filling pressure of 100 to 120 psi with following specification.</p>																																														
	12	<p>NATURAL GAS CALIBRATION MIXTURE COMPOSITION AND SPECIFICATION FOR TCD</p> <table border="1"> <thead> <tr> <th>Name of the Certificate componen</th> <th>Mole%</th> <th>Preparation tolerance</th> <th>of Accuracy</th> </tr> </thead> <tbody> <tr> <td>N2</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>CO2</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C2</td> <td>6 %</td> <td>+/-5%</td> <td>+/- 1%</td> </tr> <tr> <td>C3</td> <td>3 %</td> <td>+/-5%</td> <td>+/- 1%</td> </tr> <tr> <td>iC4</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>nC4</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>iC5</td> <td>0.5 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>nC5</td> <td>0.5 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C6+</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C1 (Methane)</td> <td>(BALANCED)</td> <td>+/-1%</td> <td>+/- 0.5%</td> </tr> </tbody> </table>	Name of the Certificate componen	Mole%	Preparation tolerance	of Accuracy	N2	1 %	+/-10%	+/- 2%	CO2	1 %	+/-10%	+/- 2%	C2	6 %	+/-5%	+/- 1%	C3	3 %	+/-5%	+/- 1%	iC4	1 %	+/-10%	+/- 2%	nC4	1 %	+/-10%	+/- 2%	iC5	0.5 %	+/-10%	+/- 2%	nC5	0.5 %	+/-10%	+/- 2%	C6+	1 %	+/-10%	+/- 2%	C1 (Methane)	(BALANCED)	+/-1%	+/- 0.5%		
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13	<p>Mixture Specifications</p> <p>PRIMARY REFERENCE GAS MIXTURE STANDARD(Primary reference gas mixtures (PRGMS) should be supplied in 10 litre aluminium can/ WS steel cylinder with proper connection (IS 3224) with Gas Mixture Pressure of about 100 psi. The price of the gas mixture should be included in the main equipment .</p>		
14	<p>Stability of Gas Mixture: 12 TO 18 months from the date of delivery</p>		
15	<p>Composition: All units are in Mole %. Measurement of uncertainty is required against each component in line with ISO: 10723</p>		
16	<p>The supplier should be Accredited Laboratory in accordance with ISO/IEC 17025:2005 equivalent to NABL India / UKAS ,UK for both CALIBRATION AND TESTING for Natural Gas by accurate E1 CLASS STANDARD ONLY.</p> <p>The Supplier should submit Performance Evaluation Certificate in accordance with ISO -10723 for their online Gas Chromatograph which they use for analysis and calibration of Natural Gas Mixture. Traceability Certificate: (along with Chromatograms for the run) from NABL India / UKAS, UK OR equivalent accredited laboratories and essentially traceable to National / International standard. Each mixture composition should be of Primary reference gas mixtures (PRGMs) that are certified and issued by NABL (or equivalent in the chain of ILAC) accredited Lab or NMI, NPL India Or NPL UK, preferably calibration certificate should bear the logo that certifying agency NABL/UKAS ISO/IEC 17025:2005, certified copies of certificates /scope of accreditation provided by the</p>		

		<p>accreditation agencies should be provided.</p> <p>Preparation Method: Gravimetric Method as per ISO 6142 using most accurate E1 class</p> <p>Method of analysis: As per ISO 6143:2001 Traceable weights, the weights must be traceable to NPL.</p>		
	17	<p>Test Certificate (meeting requirement of NABL) for the standard gas to be submitted along with the Cylinder.</p> <p>Calibration Mixture certificate must have the following information.</p> <p>The contents of the certificate shall include information described in ISO guide 31: 1996 and should provide the following as a minimum:</p> <ul style="list-style-type: none"> Identity of the producer & identification of the reference material Description of the material & its use Instruction on the correct use of the material The assigned property values & the methods used to derive those values Date of certification & the period of validity of the certificate Safety instructions An indication of the level of homogeneity of the material Signature & names of the certifying officers signing the analysis certificate Traceability & statement of uncertainty level at a state level of confidence Mole% of components Cylinder number Gas pressure Stability period Minimum pressure of utilization 		

		Impurities shall also be indicated in the certificate																																																										
		3.1(B) CALIBRATION GAS MIXTURE COMPOSITION AND FOR FID GASES in 10 liter capacity aluminium cane.																																																										
		<table border="1"> <thead> <tr> <th>Name of the Certificate component</th> <th>Mole%</th> <th>Preparation tolerance</th> <th>of Accuracy</th> </tr> </thead> <tbody> <tr> <td>C2</td> <td>5 %</td> <td>+/-5%</td> <td>+/- 1%</td> </tr> <tr> <td>C3</td> <td>3 %</td> <td>+/-5%</td> <td>+/- 1%</td> </tr> <tr> <td>iC4</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>nC4</td> <td>1 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>iC5</td> <td>0.5 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>nC5</td> <td>0.5 %</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C6</td> <td>0.30</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C7</td> <td>0.15</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C8</td> <td>0.15</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C9</td> <td>0.15</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C10</td> <td>0.05</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C11</td> <td>0.05</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> <tr> <td>C12</td> <td>0.05</td> <td>+/-10%</td> <td>+/- 2%</td> </tr> </tbody> </table>	Name of the Certificate component	Mole%	Preparation tolerance	of Accuracy	C2	5 %	+/-5%	+/- 1%	C3	3 %	+/-5%	+/- 1%	iC4	1 %	+/-10%	+/- 2%	nC4	1 %	+/-10%	+/- 2%	iC5	0.5 %	+/-10%	+/- 2%	nC5	0.5 %	+/-10%	+/- 2%	C6	0.30	+/-10%	+/- 2%	C7	0.15	+/-10%	+/- 2%	C8	0.15	+/-10%	+/- 2%	C9	0.15	+/-10%	+/- 2%	C10	0.05	+/-10%	+/- 2%	C11	0.05	+/-10%	+/- 2%	C12	0.05	+/-10%	+/- 2%		
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		C1 BALANCE +/-1% +/- 0.5%		
	19	3.1 (C) CALIBRATION STANDARD for SULPHUR 100ml to 500ml capacity bottle Calibration of sulphur components including hydrogen sulphide with tetrahydrothiophene (THT) .		
	20	4.0 TECHNICAL SPECIFICATION & GENERAL REQUIREMENTS OF THE Natural Gas Analyzer: The Gas Chromatography should have microprocessor controlled with detectors such as FID ,TCD & FPD for analysis of Natural Gas and H2S along with all accessories required for immediate commissioning in Duliajan, Assam , including UPS (5KVA with one hour back up) for smooth operation and functioning of the system. 4.1 The unit should be a dedicated and guaranteed instrument capable of analyzing Natural gas. For Natural Gas it should be capable of analysis from C1 to C12 component along with N2, O2, CO2 and H2S in one single GC run. The analysis method should be in compliance with IS4576/ASTM D1945/ISO 6975 methods and GPA 2286 extended standard 4.2 The handling and operating software should be latest version and should be upgraded from time to time. 4.3 Calibration gas mixture for Natural Gas from authentic sources should be supplied with composition listed in annexure. 4.4 The unit should be operable in 230VAC, 50 HZ and should be complete in all respects including initial commissioning spares for straightway commissioning in		

		<p>Laboratory.</p> <p>4.5 Instrument should comply with the scope of ASTM IS4576/ASTM D1945/ISO 6975 methods and GPA 2286 extended standard or latest upgraded standard.</p> <p>4.6 The Gas Chromatograph should have extensive self-diagnostics facility and the system may be run simultaneously or separately for two different type of application as follows: All Automatic Gas Sampling valve, loop, tubing & columns for H2S Analysis channel should be made of sulfur resistant material.</p> <p>Channel 1:</p> <p>4.7 Should provide a guaranteed analysis of O2, N2, CO2, H2S, and C1 through C5 hydrocarbons and C6+ composite in natural gas using a TCD and H2S Gas in series with FPD. This channel should be equipped with automatic gas sampling valve made of sulfur resistant material for sample introduction directly from gas cylinder.</p> <p>4.8 Column configuration and valve operation should be designed so that the lowest boiling C6 (2, 2-dimethylbutane) must be included in the back-flush on TCD channel. Separation and measurement of O2 and N2 individually is a requirement.</p>		
	21			
	22	<p>4.9 TCD detection limit:</p> <p>4.10 O2 and C6+ composite minimum 0.01% & maximum 2%</p> <p>4.11 H2S minimum 0.1% maximum 2%</p> <p>4.12 N2 minimum 0.1% maximum 10%</p> <p>4.13 C1 minimum 70% maximum 99%</p> <p>4.14 All other components minimum 0.01% maximum 10%</p>		

	23	<p>Channel 2: 4.15 The other Channel should provide a capillary separation of hydrocarbon components in Natural Gas from C1 (methane) to C12 (Dodecane), using a boiling point capillary column and an FID. In addition to the facility of sample introduction through Automatic gas sampling valve, this channel should also have an Automatic liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary channel. Sample will be injected through automatic gas or liquid sampling valve.</p>		
	24	<p>4.16 FID detection limit:- For Gas Sample: a) Hydrocarbon components in Natural Gas up to C12 (Dodecane) from 1ppm to 100%</p>		
	25	<p>5.0 INSTRUMENT REQUIREMENT: Fully automatic microprocessor controlled GC with self-test during start up and self diagnosis facility. All Automatic Gas Sampling valve, loop, tubing & columns for H2S Analysis channel should be made of sulfur resistant material & mounted in a separate heated valve oven to avoid sample condensation & sample degradation. 5.1 Key Board or LED and PC control of the system. Complete control of all GC parameters from PC is essential. 5.2 Chromatograph should have built-in graphical user interface, for ease of operation & total control through software. 5.3 EPC / PPC/IEC on all channels, carrier, injector, split, vent, detector and auxiliary gases with gas flow</p>		

		<p>monitors.</p> <p>5.4 Automatic lighting up of FID on reaching set temperature according to instrument method.</p> <p>5.5 Auto shut down in case of leak or drop in carrier gas pressure.</p> <p>5.6 Real time graphical signal output at all times.</p> <p>5.7 System to be fully factory tested and calibrated.</p> <p>5.8 Analysis Time: <30 -35 minutes</p> <p>5.9 Menu driven user friendly Windows XP or suitable operating system based S/W.</p> <p>5.10 Snapshot facility for partial view of analysis results during run.</p> <p>5.11 Real time display of Chromatogram / baseline and instrument status with key instrument parameters even when no run is in progress.</p> <p>5.12 Fully automated microprocessor controlled with extensive self diagnostic facilities.</p> <p>5.13 Capable to calculate the carrier gas linear velocity and the column void time.</p> <p>5.14 Smart maintenance – Facility to access injectors and detectors with minimal effort using tool-free options and eliminate any downtime during maintenance with options of back-up injectors and detector modules</p> <p>5.15 The system needs to have the flexibility of the instant connect injectors & detectors for Swapping detectors or upgrading from single to multi-detector by the user & it is to be easy enough so that even a laboratory personnel can perform the replacement without any special training needed.</p>		
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	26	<p>Oven capability: 5.16 Oven Temperature: Ambient to 450°C with ramps 4 or above with settable maximum 125°C/minute or more and fast cool down of the oven temperature. Typical Retention Time Repeatability: <0.0008 min or better 5.17 Cooling down from 450°C to 50°C in less than 5 minutes; 5.18 Six independent heated zones for individual control of injectors and detectors plus auxiliary zone; 5.19 LAN interface; Simple start and stop buttons interface with status LED indicators 5.20 Oven heating rate: 50 Deg C - 250 Deg C in 2 minutes. 5.21 Oven cooling Rate: 250 Deg C - 50 Deg C in 5 minutes. 5.22 Column Overheat Protection: User settable up to 450 Deg C 5.23 Facility to install heated column oven & add on oven for installing more detectors & injectors in future.</p>		
	27	<p>6.0 Columns & Valves: All columns, valves(Make: valco) required for accomplishing the above analysis requirements must be included and the published application note in support of the corresponding application capability of the supplied system should be furnished as documentary evidence. All Automatic Gas Sampling valve, loop, tubing & columns for H2S Analysis channel should be made of sulfur resistant material.</p>		

	28	<p>7.0 Detector Capability: FID 7.1 Minimum detectable level: <1.4 picogram C /Second 7.2 Auto flame ignition and flame out detection. 7.3 Flame out warning and ready interlock. 7.4 Signal filtration selection through software/touch screen graphics Detector Capability: TCD 7.5 Minimum detectable :< 400 pg tridecane /ml or 1ppm Nonane (C-9) 7.6 Automatic bridge balancing 7.7 Single or dual columns connection possibility Detector Capability: FPD 7.8 Minimum detectable amount: 100 fg P/s and 5 pg S/s (Methyl Parathion) 7.9 Dynamic range: 10⁴ (P), >10³ (S) 7.10 Selectivity: P/C = 106:1, and S/C=106:1 7.11 Maximum temperature: 450 °C base temperature, 200 °C cell temperature; in steps of 0.1 °C</p>		
	29	<p>8.0 Sample Injection: Gas Samples: Automatic gas sampling valves must be fitted to inject the sample automatically to TCD, FPD and FID channel. The system should have a sample loop purge feature to prevent contamination from liquid to gas or gas to liquid samples. Sample will be injected through automatic gas sampling valve Liquid Samples: The FID channel should be connected to an Automatic liquid sampling valve with backpressure facility for homogenous introduction of pressurized liquid sample on the capillary column. Sample will be injected through automatic liquid sampling valve.</p>		

	30	<p>9.0 Data handling Software:</p> <p>10.1 The software should be compatible with 32-bit Windows XP (SP2)/Windows Vista Business operating system or latest suitable operating system and should provide complete control of the system, apart from the following features:</p> <p>10.2 Should have custom report generator facility using Microsoft Word</p> <p>10.3 Should have Real time display of all chromatograms.</p> <p>10.3 Should have Dynamic data exchange facility.</p> <p>10.4 Should have facility for automatic calculation of Specific Gravity, Calorific value, Sp heat etc from the chromatographic composition. Natural Gas Calculating software should be quoted.</p>		
	31	<p>10.0 General Requirements of Data Handling Chromatographic Software</p> <p>10.1 Latest software should be Windows 7 operative.</p> <p>10.2 The offered software shall be the Original Full version single user license software. Software should be quoted with Part number.</p>		
	32	<p>10.3 Peak Identification requirements:</p> <p>(a) Individual and group peak identification</p> <p>(b) Drag and drop peak identification</p>		
	33	<p>10.4 Calibration facilities required:</p> <p>(a) Single level, Bracketing, Multilevel Calibration as per IS4576/ASTM D1945/ISO 6975 and GPA 2286 extended standard method</p> <p>(b) Use of Absolute and relative response factors</p>		

		(c) Calculations as per IS4576/ASTM D1945, ISO 6976, GPA 2261 procedure		
	34	10.5 Management Procedures: Traceability of Analysis and Calibration, Trend Analysis, Approval of Analysis. LIMS Connectivity Remote diagnostics Can able to store different 3 to 4 storage methods		
	35	10.6 The offered GC should have internal memory. In case of PC crashed data should not be lost. The software should have interface with memory for data security.		
	36	10.7 The software should take control of the instrument for the analysis of Natural gas and should comply with ASTM- D1945/ IS4576. Through this software, the analyzer should be able to analyze the Natural gas from C1 to C6+ (composite) including N2, O2, and CO2 in one single GC run. After the sample is analyzed, the data must be checked to determine its validity and the quality of the analysis which was performed. The unnormalized total of the molecular percentages of compounds analyzed should be within plus or minus one percent of one-hundred percent.		

	37	<p>10.8 Accurate Calculation of Gas and liquid hydrocarbon Properties: Following points shall be considered.</p> <p>i. Automatic results calculations and reporting. ii. ASTM D1945/IS 4576,ISO 6976, GPA 2261 or equivalent iii. Software should also include calculations for Oxygen correction. iv. Software should be able to convert mole % to vol. %, and weight%. It should have the facility for data integration and automatic calculation of Specific Gravity, Calorific value, Sp heat etc from the chromatographic composition with proper unit such as BTU,K Calorie , Joule etc.</p>		
	38	<p>10.9 The software should be able to acquire data from the detectors and should have a single point control of all gas chromatographic parameters.</p>		
	39	<p>10.10 The software should have the facility for interactive graphics, tool bar facility for online editing , recalculation , batch data processing, overlay, peak integration, programmable integration control, baseline compensation, options for continuous averaging of calibration data, weighted regression etc..</p>		
	40	<p>10.11 Should have facility to recall multiple chromatograms simultaneously on the screen to compare the stored run with the current runs.</p>		
	41	<p>10.12 Should have Real time display of all chromatograms.</p>		

	42	10.13 Software should have the facility to give the analysis report of Natural gas from the channels into an integrated single report as per the methods. The software should also have user program facility to generate ISO and ASTM reports after a chromatographic run.		
	43	10.14 Report Generation: Following facilities should be in the software for report generation:		
	44	<p>a) Customized report generation and calculations as per requirement.</p> <p>(b) The software should also have the facility to calculate and report dry and wet calorific value, compressibility factors, density , specific gravity fuel mass ratio, air based upon oxygen content and Wobbe Index number as per international standard procedure. The international standards should be clearly indicated in the report.</p> <p>(c) LIMS Compatibility, LAN Compatibility, User-friendly reporting formats and conversion to spread sheets and transmissions to other computers should be possible. Ethernet port for LIMS connection & unit networking. RS 232C port LIMS connection & USB port for external printer. Necessary software for LIMS compatibility to be offered.</p> <p>d) Merging of TCD signal and FID signals to determine complete composition of hydrocarbon under test run</p>		
		GENERAL NOTES TO BIDDERS		

	1	The items listed in the scope of supply and scope of services is only minimum indicative requirement. Vendor shall supply the main equipment with all other supportive items such as Standard gas calibration mixture, computer including software and hardware to meet the required functionalities of the GC mentioned in this tender document and to complete the job successfully.		
	2	All accessories and Standards mentioned above should be separately quoted. However, the quoted price will be considered for price bid evaluation		
	3	The quoted GC should be of latest proven model as on date of submission of offer and the year of lanching of the offer model should not be more than 5 years old from the date of bid closing date of the Tender. No refurbished built system other than original manufacturer's yard will be accepted. Bidder will be required to submit a list of customers to whom the same system has been supplied in India & Abroad and is being used for similar analysis purpose .E-mail ID of contact person, verifiable purchase order number and any other details for verification purposes are required to be submitted with bid.		
	4	List of consumables/ spares are to be quoted separately and the price of such spares and consumables are not be considered while evaluating the bid techno-commercially.		

5	Bidder should provide all accessories/spares including calibration standard/reference for initial commissioning free of cost along with the main equipment.		
6	Supplier must provide repair kit of the equipment free of cost.		
7	Authorized agent or a permanent office of the vendor with service facilities shall be available in India or else their bid will not be considered for evaluation.		
8	The offered GC should have all the design feature requirements as indicated in the ASTM/IP/ISO methods		
9	Valve Diagram with column should be attached along with the quote.		
10	The vendor should submit the test report of analyzer (CHROMATOGRAM) directly faxed from the original GC manufacturing Site.		
11	The vendor should dispatch the GC from the factory or country of origin only after getting the acceptance certificate/letter from concerned authority		
12	Original Port of shipment document with serial number of the equipment should be provided prior to dispatch.		
13	Warrantee / Guarantee: The Vendor shall provide minimum 01 year (excluding the outage period) warranty to the offered items starting from the date of		

		successful completion in OIL premises. During warranty period if any item of the offered systems fails or performance of the offered systems are not satisfactory, vendor has to replace/rectify the same within 30 days from the date of intimation by OIL, without any financial implication to OIL including courier charges, transportation and taxes for supplying the spares upto OIL premises to be borne by the vendor. In case of failure on the part of the successful bidder to rectify a fault of supplied items / equipment or software, within 30 days of reporting the problem, a penalty at the rate of 0.5% of total value of the order per day will be imposed till rectification of fault, subject to a maximum of 7.5% of the total value of the order. For any delay beyond 45days, the warranty period for all the items shall be extended on a pro-rata basis.		
	14	All visits (including to & fro transportation for Duliajan & accommodation at Duliajan) by bidders personnel for warranty related work shall have to be borne by the successful bidder.		
	15	Technical support: Vendor shall provide after sell services for minimum 10 years after successful commissioning by providing prompt action in any type of technical issues, modification, spares etc. A written undertaking shall have to be submitted		
	16	System license: The system with all functionalities shall be licensed to OIL usage after the successful commissioning. Vendor to handover license copy of all installed software after successful commissioning of the system.		

17	Software up gradation: If any software up gradation required / released for the supplied system after the expiry of warrantee of the system, same shall be supplied to OIL by vendor free of cost without any price implication. A written undertaking shall have to be submitted.		
18	Inspection & test certificates: Vendor shall submit the inspection and test certificates, calibration reports traceable to applicable national and international standards for purchaser's review.		
19	Installation and Commissioning of supplied system: Installation and commissioning of the total system is in vendor's scope. Vendor is to consider the following points in respect of installation and commissioning activities. Commissioning schedule:		
20	After the receipt of the items at OIL site, vendor shall have to mobilize required manpower / tools etc. to execute the installation and commissioning jobs at OIL site.		
21	Vendor to provide all consumables and test standards required for commissioning of the system at OIL site along with the equipment.		
22	Calibration:		
22.1	For calibration purpose the bidder should supply calibration gas mixture for FID, TCD and H2S calibration as per the specification mentioned in the scope of supply.		

22.2	The guaranteed calibration frequency of the Instrument must be indicated by the bidder. If the calibration goes out during this period the bidder has to rectify it at his own cost. The calibration procedure should be very clearly indicated in the tender.		
22.3	Calibration if required to be done only by the manufacturer and it should be ensured during the visit for comprehensive AMC.		
23	Training:		
23.1	Vendor shall organize onsite training to OIL Employees/executives covering all aspects of operation and maintenance of the instruments after successful commissioning of the same.		
23.2	The training period shall be at least five days (excluding installation & commissioning) covering both for operation and maintenance.		
23.3	Manual should cover all aspects of normal operation, maintenance, trouble shooting, do, don'ts etc. Vendor must provide both soft & hard copy of the manual with the Equipment.		
24	TRAINING: Training to be organized during commissioning of the instrument.		
25	Comprehensive Annual Maintenance Contract (AMC): The comprehensive AMC cost after post warranty period shall be taken into consideration for bid evaluation.		

25.1	The party has to provide the year wise cost break up for Comprehensive AMC for four years (yearly 2 visits) and the total 4 year cost of 8 visits for comprehensive AMC should not be more than 15% of the cost of main equipment .		
25.2	Bidder shall also provide the separate lists of consumables/spares which are included in the supplier's scope in comprehensive AMC and which are not in supplier's scope.		
25.3	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.		
25.4	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 up gradation.		
25.5	Normal (Preventive) visit: To check the normal healthiness of the system and attending problem reported by OIL. Also vendor to carry out any software upgradation 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.		
25.6	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 with in one week of the intimation.		

26	Accommodation: All visits (including transport to and from Duliajan and accommodation at Duliajan) by bidders personnel for AMC related work shall have to be borne by the successful bidder.		
27	Local conveyance shall be provided by OIL at Duliajan.		
28	Payment terms: Pro rata basis against the submitted invoice after the completion of each visit.		
29	Deviation from purchaser's requirement: Bidder shall be specific to OIL's requirement and shall offer as per OIL's terms & conditions and requirements. If there is any deviation, bidder shall indicate the deviation clearly with sufficient justification. Not indicating any deviation by the bidder shall be considered as full acceptance of the OIL's terms & conditions		
30	Bidder to sign and submit completely filled up Technical Check List, Technical Evaluation Matrix for technical specification and BEC-BRC for Bid Evaluation.		
31	The supplier shall arrange to submit a separate performance bank guarantee for the AMC. The AMC PBG value and validity shall be mentioned in the AMC Contract.		
32	Bidder should categorically confirm in the technical bid a delivery schedule within six (06) months, FOB Port of dispatch, after establishment of letter of credit (in case of foreign bidder) or for despatch of the equipment within six (06) months after receipt of formal order (in case of indigenous bidder) failing which their offer will be rejected.		

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ANNEXURE – VI

TECHNICAL EVALUATION MATRIX (TO BE FILLED IN BY BIDDER DULY SIGNED)				
BID EVALUATION CRITERIA				
SI no	BEC/BRC Clause no	Description	Bidders remark complied/not complied/deviation	Bidder to indicate relevant page no of their bid to support the bid/compliance
<p>General Conformity: The bids shall conform generally to the specifications and terms & conditions given in the bid document. Bids shall be liable for rejection in case the materials/services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bids to the stipulated specifications, the following requirements shall have to be particularly met by the bidders, without which the offer will be considered as non-responsive and rejected.</p>				
<u>Bid Rejection Criteria (BRC)</u>				
(A) <u>Technical:</u>				
1	1.0	Bidder's Eligibility:		
2	1.1	The bidder should be an Original Equipment Manufacturer (OEM) of the tendered item (s). (OR)		
3	1.2	The bidder should be an authorized dealer/authorized distributor /authorized supplier/wholly owned subsidiary of an Original equipment manufacturer (OEM) of the tendered item(s).		
4	2.0	In Case The Bidder Is an Original Equipment Manufacturer (OEM): The bidder must comply with the following:		

5	2.1	The bidder (OEM) should have at least 5 (five) years of manufacturing experience of each tendered item/ equipment preceding to the original Bid Closing date of the tender.		
6	2.2	In addition to above, the bidder (OEM) should have supply experience of successfully executed at least one order of 50% tendered quantity (rounded off to the next higher integer) of each tendered item/ equipment to various clients (other than their own subsidiaries/sister concerns), either directly by them or through their authorized dealers/distributor/supplier/subsidiaries, during last 5 (five) years preceding to the original bid closing date of the tender.		
7	2.3	Documentary evidences to substantiate manufacturing & supply records must be submitted in the form of copies of relevant Purchase Order(s) and any one of the following documents evidencing satisfactory execution of those Purchase Order(s), such as:		
8	2.3.(i)	Satisfactory supply / completion / installation report (OR)		
9	2.3.(ii)	Bill of Lading, Commercial Invoice / Payment Invoice (OR)		
10	2.3.(iii)	Consignee receipt delivery receipt (OR)		
11	2.3.(iv)	Central Excise Gate Pass/Tax Invoice issued under relevant rules of Central Excise/ Vat./GST Invoice		
12	2.3.(v)	Any other documents which shall prove that the bidder has successfully executed such order (s).		
13	Note: The Purchase Order date need not be within 5 (five) years preceding original bid closing date of this tender. However, the execution of supply should be within 5 (five) years preceding original bid closing date of this tender.			
14	3.0	In Case, The Bidder Is An Authorized Dealer/ Authorized Distributor / Authorized Supplier / Wholly Owned Subsidiary Of OEM: The bidder must fulfil the flowing requirements:		
15	3.1	The bidder's OEM (the Principal) should have at least 5 (five) years of manufacturing experience of each tendered item/ equipment proceeding to the original Bid Closing date of the tender.		
16	3.2	Additionally, the bidder himself/themselves should have supply experience of successfully executed at least one order of 50% tendered quantity (rounded off to the next higher integer) of each tendered item/ equipment to various clients (other than their own subsidiaries/sister concerns),during last 5 (five) years preceding to the original bid closing date of the tender.		
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18	3.3.(i)	Satisfactory supply / completion / installation report (OR)		
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		Invoice		
22	3.3.(v)	Any other documents which shall prove that the bidder has successfully executed such order (s).		
23		Note: The Purchase Order date need not be within 5 (five) years preceding original bid closing date of this tender. However, the execution of supply should be within 5 (five) years preceding original bid closing date of this tender.		
24	3.4	The bidder shall submit valid Authorization Certificate/Letter issued by its Original Equipment Manufacturer (OEM), confirming the Bidder's status as their authorized supplier / dealer / distributor/wholly owned subsidiary (as the case may be) to sell their products with proper warranty and guarantee back -up. Such authorization certificate/ letter shall be valid for the entire period of execution of the order. Offers shall be rejected straightway, if such authority letter is not submitted along with the technical bid.		
25	3.5	Notes to bidder		
26	3.5.A	Authorization letter must be issued on the official letter head of the OEM clearly mentioning the status of Bidder i.e., whether 'authorized dealer' or 'authorized distributor' or 'authorized supplier' or wholly owned subsidiary of Original Equipment Manufacturer (OEM), failing which the bid shall not be considered for evaluation and in that case the offer shall be rejected straightway.		
27	3.5.B	Authorization letter issued by the OEM in any other form such as Direct Chanel Partner /Indirect Chanel Partner/Chanel Partner/ seller/ Reseller/Sub Dealer / Sub Distributor/Sister Concern shall not be considered for bid evaluation and the offer shall be rejected.		
28	3.5.C	In case the bidder is a wholly owned subsidiary company of the parent company (OEM), in addition to the authorization letter including warranty/guarantee back-up, the bidder shall also upload/submit the documents such as board resolution / certificate of incorporation / any other legal certificate along with their offer that would establish the relation between the parent company with the subsidiary company without which the bid will not be evaluated and will be rejected straightway.		
29	4.0	Bidders showing supply experience towards supply to its sister concern/ subsidiaries shall not be considered as experience for the purpose of meeting BRC.		
30	5.0	Authorization letter and warranty/guarantee back-up as aforesaid must be issued to the bidder by the Original Equipment Manufacturer (OEM) in their official letter head only. Such certificates/authority letter issued by a party other than the OEM shall not be considered as valid authorization letter and in such case the bid shall be rejected without any further reference.		
31	6.0	Unsolicited bids shall be straightway rejected.		
32	7.0	Bidder/OEM must submit an undertaking along with the Technical Bid that their offered equipment is not going to become obsolete during the next 5 (five) years from the date of successful installation & Commissioning, if order is awarded on them by OIL and must guarantee uninterrupted supply of spares and availability of services for at least for ten (10) years with effect from the successful installation & Commissioning of the equipment, without which offer will not		

		be considered for evaluation/placement of order.		
33	8.0	Delivery require against this tender is maximum 06 (six) months from the date of opening of LC in case order is placed on foreign supplier OR within 06 (six) months from the date of receipt of order in case order is placed on indigenous supplier. Date of clean Bill of lading (in case of foreign supplier) or consignment note (C/note in case of indigenous supplier) shall be considered as delivery date. Bidder must comply the above schedule and confirm in their techno-commercial bid. Bids not meeting time schedule as mentioned above shall be summarily rejected.		

Format of undertaking by Bidders towards submission of authentic information/documents
(To be typed on the letter head of the bidder)

Ref. No _____

Date _____

Sub: Undertaking of authenticity of information/documents submitted

Ref: Your tender No. _____ Dated _____

To,
The HOD-Materials
Materials Deptt,
OIL, Duliajan

Sir,

With reference to our quotation against your above-referred tender, we hereby undertake that no fraudulent information/documents have been submitted by us.

We take full responsibility for the submission of authentic information/documents against the above cited bid.

We also agree that, during any stage of the tender/contract agreement, in case any of the information/documents submitted by us are found to be false/forged/fraudulent, OIL has right to reject our bid at any stage including forfeiture of our EMD and/or PBG and/or cancel the award of contract and/or carry out any other penal action on us, as deemed fit.

Yours faithfully,
For (type name of the firm here)

Signature of Authorised Signatory

Name :

Designation :

Phone No.

Place :

Date :

(Affix Seal of the Organization here, if applicable)
