

Information for 3rd Party Pre-Shipment Inspection

1	Purchase Order No.	PROC-FE/CB/ECMP-5166/770261/2022
2	Amount of Purchase Order	CNY 17,650,837/-
3	Name/address of Manufacturer/Beneficiary	M/S Challenger Geoinstruments Ltd. Runhe West Street, Wanda Industrial Park, Development Zone, Zhuozhou Hebei Province China
4	Contact person	Contact Person: Zhang Shuai – Frank Tel: +86 312 3628588 E-Mail: frankzhang5595@foxmail.com
5	Local Agent/Contact person	M/s Eastern Global Energy Pvt Limited, G5 Al Mustafa Apartments G-8 Markaz Islamabad Ph: 051 2850486 Contact Person: Abrar Ali Khan Email: easternglobalenergy@gmail.com
6	Description of Material	Multi Geophone Strings and Spares
7	Scope of Work	As per attachment

THIRD PARTY PRE-SHIPMENT INSPECTION 'SCOPE OF WORK'

23,000 No. Multi-Geophone Strings and Spares

ECMP(GS)/SOW/05/2022

Dated: 17-06-2022

Third party inspector shall carry out the pre-shipment inspection at M/s Challenger Geo Instruments Limited, China and must address the following:

Physical inspection of 23,000 No. Multi-Geophone Strings (18000 No. Land Multi-Geophone Strings & 5000 No. Marshy Geophone Strings) and spares as per **Tender Specifications** (Flag C), **Technical Proposal** (Flag D) with **Clarifications/compliance sheet** sought during technical evaluation (Flag E) and **Purchase Order No** PROC-FE/CB/ECMP-5166/770261/2022 (Flag F).

Inspection Phase-I

TPI inspector to inspect equipment as per following inspection process (Sr # 1 to 9);

1. Third Party inspector shall confirm that all the material being provided is **brand new and Quantity** of all items is as per purchase order.
2. Third Party Inspector must inspect **physically 100 %** equipment as per PO quantity and witness the test of randomly selected at least 4% of each of the indented items of purchase order items at Sr. No. 1 & 2 Multi-Geophone Strings (Land & Marshy each) with SMT-200 / SMT 300 / SMT 400 / SGT. *However, the manufacturer will provide the test results of 100 % of items at Sr. #1&2 of PO, to the inspector as well as to OGDCL.*
3. Third Party inspector shall confirm that **Multi-Geophone Strings (Land)** at Sr. No. 1 of PO, are as per tender requirement having austenitic stainless steel spikes (rust proof & non-magnetic) inclusive of **lock washers** and meet the detailed specifications as given at Sr. No. 1 in attachment of OGDCL SOR.
4. Third Party inspector shall confirm that **Multi-Geophone Strings (Marshy)** at Sr. No. 2 of PO, are as per tender requirement having **brass spikes** and meet the detailed specifications as given at Sr. No. 2 in attachment of OGDCL SOR.
5. Third Party inspector shall confirm that **Geophone Coils** at Sr. No. 3 of PO, are as per tender requirement and meet the detailed coil specifications as given at Sr. No. 1 in attachment of OGDCL SOR.
6. Third Party inspector shall confirm that Items at Sr. No. 4 **Land Case** of PO are complete having austenitic stainless steel spikes (rust proof & non-magnetic) inclusive of **lock washers** as per OGDCL SOR.
7. Third Party inspector shall confirm that Items at Sr. No. 5 **Marsh Case** of PO are as per OGDCL SOR having **brass spikes**.
8. Third Party inspector shall confirm the **quality assurance tests**, sampling inspection of raw material and witness the tumble barrel test/drop test, high & low temperature test, bubble water leakage detection test, tensile strength/strength of extension and/or other industry standard tests performed on few randomly selected items, as quoted & confirmed by bidder in its technical quote term & condition 7(c) as (Flag G)
9. Third party inspector shall open few geophone cases of randomly selected 'land geophone strings' and confirm that geophone coil inside the geophone case is **brand new** and as per specifications as given at Sr. No. 1 in attachment of OGDCL SOR, properly soldered with shunt resistor.

Inspection Phase-II

TPI Firm to devise foolproof process including but not limited to the following steps (Step 1 to 4) to ensure safest supply of the inspected material, as per PO/TPI Scope:

- Step-1 Witness packing & labelling of the inspected material to be as per industry standards, and then, seal/mark the material at manufacturer's site.
- Step-2 Witness loading of sealed/marked material into the container(s) at manufacturer's place for transportation to port of shipment & then suitable sealing of the container(s).
- Step-3 Witness booking / shipment of the sealed container(s). In case the sealed container(s) are not allowed for booking without checking by port authorities/shipping line, then the checking and resealing at sea port after clearance, to be witnessed by TPI firm.

Step-4 TPI Firm to provide any proof of booking / loading of sealed container(s) as 'clean shipped on board' (copy of BL etc.) along with TPI Inspection Report for review / acceptance by OGDCL.

10. **Consignment is expected to be shipped in two (02) partial shipments**, therefore, inspector will perform all steps (2 phases) for each partial inspection visit. Soon after each inspection visit, bidder will submit detail inspection report, separately for each phase along with photographs. However, payment will be made after FINAL shipment and arrival/inspection of FULL consignment in Pakistan.
11. Bidder shall quote the **lump sum amount** of both phases for both partial shipments including inspection, witness of packing, sealing, loading and shipment process of **whole consignment**, in its financial quote for financial evaluation purpose. Lump sum amount should be inclusive of all taxes and expenditure like travel, lodging / boarding and stay charges etc.
12. However, if in case, partial shipment is not done and full consignment is shipped as a whole, then only **80% of quoted lump sum cost would be applicable**. Bidder will submit a certificate mentioning this clause.
13. 3rd party inspector will ensure to extend full co-operation with OGDCL professional (if any present as per clause 8(a) of SOR) during inspection.
14. Bidder will ensure that its nominated inspector will contact with manufacturer for inspection, packing, transportation and shipment schedule as soon as service order is issued in order to avoid any delay in shipment of material.
15. The bidder will submit the detailed CV of the persons deputed for inspection along with the bid. Inspector should have **relevant experience** of inspection of electrical and electronics equipment.
16. 3rd Party Pre-Shipment Inspection Company will carry out the inspection as per OGDCL TOR. Any service conditions or general/specific/payment terms conditions of the inspection company will not be acceptable. Company will submit **sign / stamped OGDCL SOR, Terms & conditions, Annexures** and confirm clean acceptance of all terms & conditions given in TOR.
17. Any discrepancy in Part Number / Quantity / Item Description / poor packing/tampered or broken seal, is found during inspection by the inspector, same shall be reported to OGDCL immediately. If any above mentioned discrepancy is found later on, during post shipment inspection in Pakistan that was not reported in pre-shipment inspection report, OGDCL would not pay the inspection charges.
18. Only the bids of independent registered TPI agencies shall be entertained and bid from *subsidiary of the inspection agencies / sub-contractor / partner / joint venture company or associated firm / manufacturer doing operations as supply house/distributor*, shall be rejected.
19. All required documents being provided by the bidder in support of its technical criterion categories, must be in its own name or any of its own offices/setups present in other countries. Certificate of experience/year of incorporation/applicable certificates & registrations/inspections performed/setup/offices/technical experts/financial strength etc. *in name of Sub-Contractor company or partner/joint venture company or associated firm* will **NOT** be considered for technical evaluation purpose.
20. Bidder must attach all necessary documentary evidence required for technical evaluation criteria, in English. If any document is in other language, provide English translated version that will prevail.
21. A Certificate to be provided with the bid on the letter head of the company stating that all enclosed documents and information provided with the bid is genuine, if any document or information is found fake/forged at any later stage, then OGDCL can take any appropriate action including blacklisting etc.
22. Bidders are advised not to attach any irrelevant document/information and should be restricted to only those documents that are required in technical evaluation criterion.

TECHNICAL EVALUATION CRITERIA PRE-SHIPMENT INSPECTION AGENCIES

Bidder obtaining less than **70% on aggregate** or **less than 50% in any criteria** shall be considered non-responsive and will not be considered for Financial Evaluation.

Cat. No	Criteria Category	Points
1	Applicable Certifications & Registrations	40
	Registration with SECP	05
	Registration with FBR	05
	Valid ISO 9001:2015 under inspection category	05
	Valid ISO 14001:2015 under inspection category	05
	Valid certification of PNAC under inspection category	05
	Valid certification of "1236 Inspection category" with PEC	05
	Valid ISO/IEC 17020:2012	05
	Valid ISO/IEC 17025:2017	05
2	No. of Years of Company Experience Please attach certificates: 1. Year of incorporation 2. First inspection performed	10
	More than 20 Years	10
	10 to 20 Years	5
	Less than 10 Years	0
3	Financial Strength - Last 5 years audited accounts or bank statement required showing annual turnover in USD (Millions) or equivalent other currency (Please attach copy of audit reports or bank statements)	10
	USD 03 Million or above	10
	USD 01 Million to 03 Million	05
	Less Than USD 1 Million	0
4	Number of inspections performed worldwide in last 3 years (List of inspections with client name, year of inspection & copy of service orders to be enclosed)	10
	More than 40 inspections	10
	20 to 40 inspections	5
	Less than 20	0
5	In House Technical Capabilities: Attach list of No. of qualified technical experts in Pakistan or other countries available for inspection showing their name, employee ID No, qualification, location and experience etc.	10
	More Than 150	10
	Less Than 150	05
	Less Than 100	0
6	Company should have its own setup (Offices / Service centers) operational worldwide (Attach list of offices with complete address, phone/mobile and verifiable email address, contact person etc)	10
	25 or more countries including the country of inspection	10
	20 to 25 countries	5
	Less Than 20 Countries	0
7	Firms must have its office(s) in Pakistan (Attach list of offices with complete address, phone/mobile and verifiable email address, contact person etc)	10
	Two (02) or more operational offices in Pakistan	10
	01 operational office in Pakistan	05
	No office in Pakistan	0

Note: Only valid required documents for above criteria shall be attached with bid.

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Annex-B

1. GENERAL

Name of company and address in Pakistan:

Type of company: (Public limited liability, private, limited, private practice, wholly owned subsidiary, sole proprietary, etc.)

Date established:

Name and address of company bankers in Pakistan:

Is your company registered with Income Tax Department in Pakistan? (if so provide)

Registration No. _____

Number of Experts/ Consultant/ Human Resource Base:

CEO / Managing Director / Director's Detail:

Focal Person:

Telephone numbers:

Email Address:



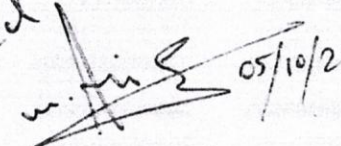
Material MULTI GEOPHONE STRINGS AND SPARES (2500 Nos.)
 Tender Enquiry No. EPUC-TEL/ECMP-5/16/2021
 Due Date
 Evaluation Criteria FULL

SCHEDULE OF REQUIREMENT

Sr No	Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price C & F BY SEA	Total Price C & F BY SEA	Deviated From Tender Spec. If Any
1	LAND MULTI GEOPHONE STRING (SEE ATTACHMENT SR #1)	Number	18000					
2	MARSHY MULTI GEOPHONE STRING (SEE ATTACHMENT SR#2)	Number	5000					
3	GEOPHONE COIL(SEE ATTACHMENT SR#3)	Number	75000					
4	GEOPHONE LAND CASE (SEE ATTACHEMENT SR #4)	Number	3000					
5	GEOPHONE MARSH CASE (SEE ATTACHMENT SR#5)	Number	300					

Note: **NOTE:**

1. Bid Validity: Bids must be **valid for 180 days** from the date of Technical Bid Opening.
2. Bid Bond Amount: USD 56,000/- (United States Dollar Fifty Six Thousand only).
Bid Bond must be valid for 210 days from the date of Technical Bid Opening. Bidders are advised to carefully read all clauses related to Bid Bond in Tender Document.
3. Evaluation Criteria: - Full Consignment Wise CFR Karachi
4. Delivery Period: 120 days from establishment of LC
5. Bidders are advised to carefully read all the terms and conditions of the Tender Document "Master Set of Foreign Tender Document (Press-Single Stage Two Envelop)" available on OGDCL website which is an integral part of this Schedule of Requirement

Noted

 05/10/21
 M. ATIF MALIK
 Dy Chief D.A.E
 ECMP

Flag C.

**ORACLE ATTACHMENT REQUISITION FOR THE PROCUREMENT OF
23000 MULTI-GEOPHONE STRINGS & SPARES ECMP(GS)F-21/2021**

SR #	DESCRIPTION	UNIT	QTY.	INDEX NO.
1	<p>LAND GEOPHONE STRINGS a- Geophone element be designed to offer the Seismic industry standard with high quality product. b- Provide high fidelity data in 2-D & 3-D seismic surveys; allowing full bandwidth (10 to 240 Hz) at 2 msec sampling rate. c- Element is fully compatible with latest 24-bit seismic data recording systems especially 428XL,508XT & G3i HD Systems etc</p> <p>Geophone String Configuration Be consisting of twelve nos. of water proof geophones wired at 4 meters spacing in two parallel groups of six geophones in series using three conductor geophone cable. Lead-in 27.5 meters at both ends using 2/3 -conductor geo-cable. Geo- cable must have molded polyurethane pick-up D-loops spaced at 1 meter intervals. Each Geo-string be collected on a carrying hasp of iron with rust proof coating. The total length of geo- string is 99 meters. Connector Type. Both ends of Geophone strings be terminated with water proof '5517 Push Fit' or Equivalent connector array(male-female) with dust caps having interval of 0.5 m between male & female connectors. The D-loop between the male & female connector must be at a distance of 0.25m. Polarity: SEG polarity standard (geo. +ive to pin on male side) Geo-case: High strength rugged waterproof plastic land case (upright type) with 3.00" to 3.25" inch austenitic stainless steel spike (rust-proof & non-magnetic) for ground coupling, case stress relief equals cable break strength. A digital grade Geo-coil with following specifications: - Natural Frequency: 10 Hz (Tolerance: ± 2.5 %) for resistive Damping. Minimum Allowable Tilt = 10 degrees for specified frequency. Coil resistance: 375 Ohms (Tolerance: ± 2.5 %) with resistive damping Shunt resistance: 1000 Ohms (Tolerance: ± 5%) Spurious frequency: ≥240 Hz. Distortion: ≤ 0.1% Minimum Tilt angle for specified distortion = 10 degree, At frequency of distortion=12 Hz. Open circuit Damping: 0.25 Damping: 68.6% (Tolerance: 0 to +5%) Sensitivity with shunt resistance: 20.9 V/m/s (Tolerance: ±2.5%) Moving mass: 11 g Max Coil travel (peak to peak): 2 mm Operating Temperature: - 40 degrees C to + 100 degrees C (All parameters are specified at +20 to +25 degrees Celsius in vertical position). Cable conductor: Strand construction: 19 wires, Strands formation: Standard Cable O.D: 4.3 mm to 4.6 mm for three conductor wire. Insulation: Extrude approved polypropylene, Jacket: - Approved thermoplastic polyurethane (black color), Hardness: min. 80 shore A Minimum breaking load (3-conductor) 78 kg</p>	No	18,000	55-04-221-F

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AGM (Geophysical Services)
JIC Exploration Directorate
Ext. 2551

Shahid Mahmood Gill
Manager (ECMP)
Ext: 3915

SUFTAN AKHTAR
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Ph: 9257366

SYED ASIF ALI
Dy. Chief Engr(D.A) ECMP -GS
Ext: 3154

2	MARSHY GEOPHONE STRINGS Having marsh cases with the same specifications of basic element and configurations as required for serial No. 1, both sides terminated with marsh '5517 Push Fit' or Equivalent connector array (male-female) with dust caps having interval of 0.5 m between male & female connectors. The D-loop between the male & female connector must be at a distance of 0.25m. Drop cable of one-meter length with outer diameter <u>7.6 mm to 8.3 mm</u> and a molded D-loop be installed at 0.35 meter from the marsh phone case entry point. Two or three leader conductor cable for marshy string, outer diameter be 6.35mm (Tolerance: ±2.5%) Marsh phone case, with single cable connection, fitted with rust proof 3 to 3.25-inch brass spike, water tight and water proof <u>molded</u> T-joint for leader and drop cable.	No	5000	55-04-222-F
3	Geophone coil damped as per specifications at Sr. No 1. Quality of shunt resistor and soldering must be good.	No	75,000	55-04-203-F
4	Geophone Land case complete with austenitic stainless steel spike (rust-proof & non-magnetic), inclusive lock washers etc as per specifications at Sr.No.1	No	3000	55-04-224-F
5	Geophone Marsh case complete with brass spike etc as per specifications at Sr.No.2	No	500	55-04-225-F

Terms and Conditions:

1. Delivery period: **120 Days** (Maximum).
2. The bidder must be **original equipment manufacturer (OEM)** of the quoted Geophone Strings. Bid from middleman, distributor or supply house would not be accepted.
3. The bidder must have **valid quality certification**, ISO9001 or equivalent.
4. Bidder will provide **signed & stamped TOR/SOR** along with item and term & condition wise **compliance sheet**.
5.
 - a. The bidder must have **minimum 10 years' experience** of geophones' manufacturing. Experience will be considered from first sale contract to be provided with bid as proof, mentioning complete contact information of buyer that is name of buyer company, quantity sold, date of contract, email, web address, postal address, fax number etc.
 - b. Bidder will provide **sale record** of minimum sold quantity of **50,000 Nos** multi geophone strings sold to geophysical companies during **last 03 years**. Bidder would submit the Purchase orders / Contract as Sale Record clearly mentioning the details like name of buyer company, email, web address, postal address, contact information, quantity sold, year of sale etc.
 - c. Bidder will provide the satisfactory **performance certificate** from 03 different renowned international Geophysical Companies working for seismic data acquisition that they are using bidder's geophone groups satisfactory mentioning the complete contact information that is name of buyer company, quantity sold, date of contract, email, web address, postal address, fax number etc.
 6. The bidder must provide **samples** for Technical Evaluation as per following;
 - a. Item No. 1 = 02 No (Complete Strings with carrying hasp).
 - b. Item No. 2 = 02 No (Complete String with carrying hasp).
 - c. Item No. 3, 4 & 5 = 05 No each
 - d. 01 Meter Geo-Cable having a molded D-loop and fitted with connector at any one end or both to confirm quality of cable / No of strands/insulation/connector type etc
 - e. Test results for item No.1, 2, 3 of above provided samples performed with SMT/SGT (Geophone Analyzer), would also be submitted along with the bid
 - f. All items should be clearly embossed/ printed or tagged with manufacturer's monogram / name on it in English, for identification. Samples without monogram/name will be considered as rejected.

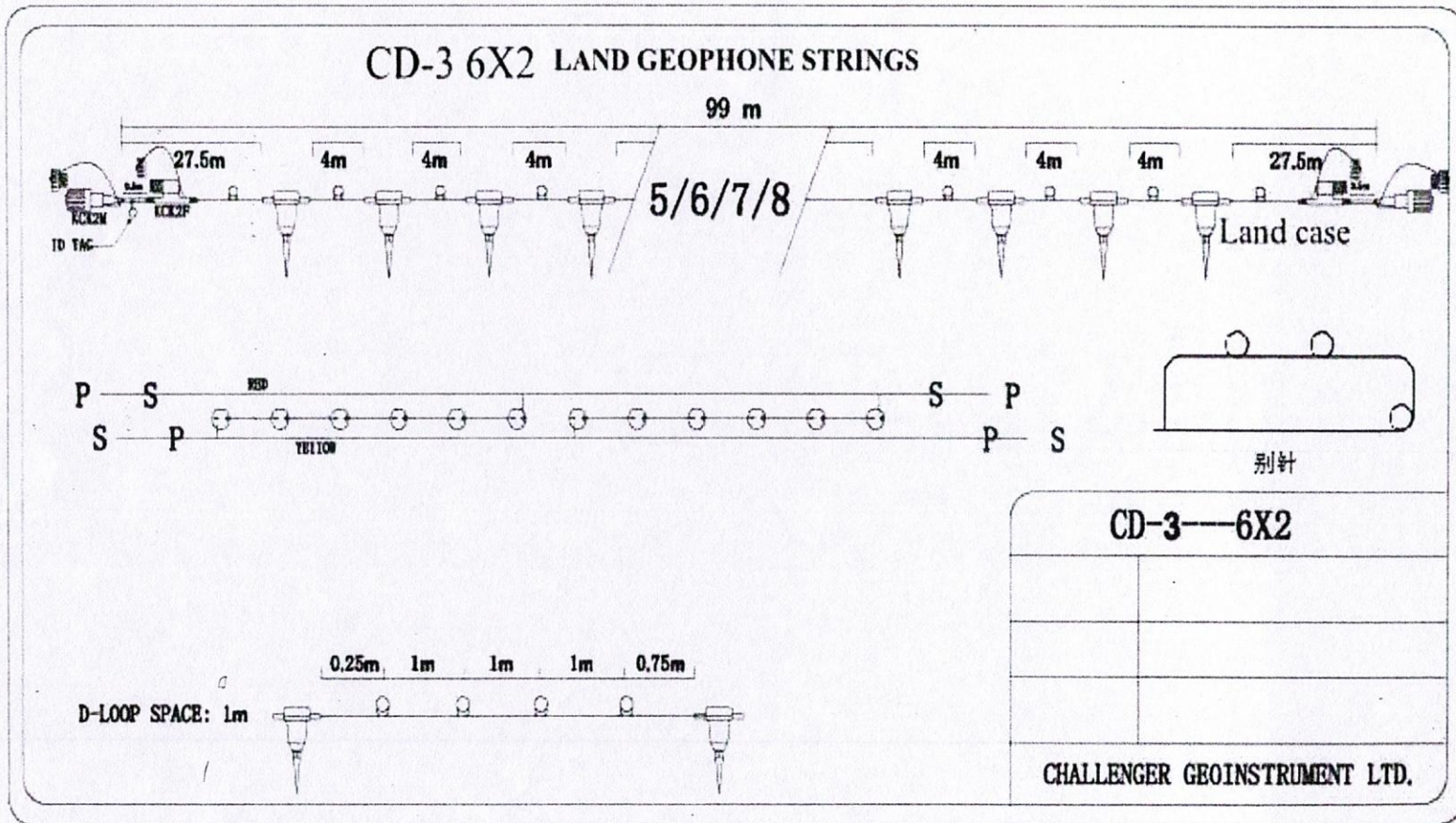
TARIQ MAHMUD
AGS (Geological Services)
Directorate

Khalid Mahmood Gilani
Manager (ECMP)
SULTAN AKHTAR
Dy. Chief Engineer (ECMP-GS)
DH-0567566

SYED ASIF ALI
Dy. Chief Engr(D.A) ECMP-GS
Ext-3154

- g. All samples would be tested in Laboratory as well as in seismic field operation for data acquisition as part of technical evaluation.
- h. The Supplied material will be inspected as per approved sample submitted with the bid.
- i. **Non Submission of samples with the bid will result in its rejection.**
- j. Successful bidder will also submit production samples of items at sr#1&2 (01 each) within 03 weeks after issuance of P.O and after confirmation from OGDCL, LC will be established & bidder will proceed for mass production.
- 7.
- a. Bidder will provide Original Brochure of the indented items in English including **diagrams/drawings of all items** for technical evaluation.
- b. Bidder will confirm to provide Land Geophone String having 0.25 meters' distance from Geophone to nearest molded D-loop, so that all geophones in a string may lay in center while in hanging position in hanger.
- c. Bidder will provide step wise details of all quality tests performed during pre & post manufacturing process of items No 1 & 2 to ascertain its quality standard.
- d. Geophone String/ coil should meet criteria to pass 'tumble barrel' test standards as 3rd party inspection's SOW may include tumble barrel test, temperature test, leakage test or other industry standards test to confirm the quality. Manufacturer will provide a **certificate** that it has facility to perform all standard tests including tumble barrel test, temperature test, leakage test etc.
- e. Bidder will provide a **certificate** that all land and marshy geophones are water proof and leakage free.
- 8.
- a. **3rd Party Pre-shipment inspection (TPI)** of the equipment as per TOR/Scope of Work/Purchase Order will be carried out at manufacturer's place as per OGDCL policy at OGDCL cost before shipment. Without TPI, the equipment will not be accepted. TPI will also be monitored by an OGDCL professional at OGDCL cost. Bidder will provide full co-operation to 3rd party inspection team.
- b. Test record of each land / marshy geophone string by SMT / SGT (Geophone Analyzer), will be provided to OGDCL / third party inspector before shipment (01 soft copy & 01 hard copy).
- c. TPI SOW is limited to physical inspection/random sample testing of equipment that does not void the performance/operational capability & warranty of equipment as already agreed by OEM & defined in OGDCL SOR.
- 9.
- a. Bidder will provide minimum **three years' warranty** for basic element (Geophone Coil) and **one year** for all other material. A **warranty certificate** to be submitted in this regard.
- b. Defective items' replacement during warranty period will be **free of all charges** and the local agent will also be fully responsible for in time warranty replacement.
- c. Bidder must submit a **compatibility certificate** that Geophone Strings (Sr # 1 & 2) will work satisfactorily with latest data acquisition systems (428 XL, G3i HD,508XT Systems etc) and will replace any incompatible item **free of all charges**.
- d. The bidder or its authorized representative will sign the protocol of acceptance, commissioning and start of warranty.
10. The bidder will submit a **certificate** to ensure supply of spare parts for minimum 05 years.
11. Packing of all materials will be as per Geophysical industry standards in pallet form having proper labelling.
12. Evaluation will be on full consignment wise and C & F by Sea price basis.
13. Failure in meeting any criteria mentioned in specifications or any terms & conditions will result in rejection of the bid.
14. All documents being provided must be in English. In case required document is in other language, bidder is required to submit its translated English version along with copy of original document and English translation would prevail.

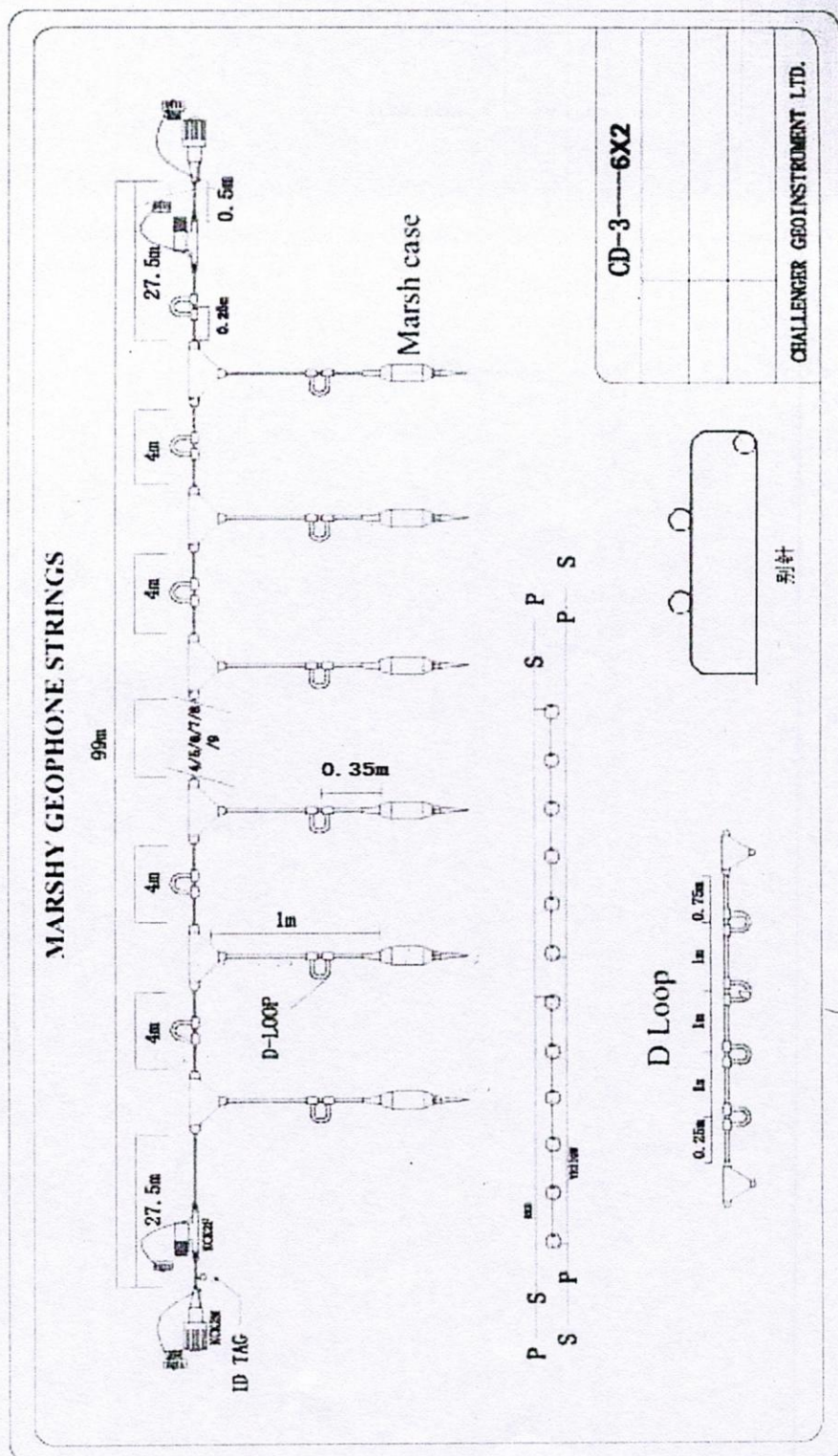
Figure B CD-3(SM-24) Schematic diagram of land geophone string
 (6x2)



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Figure B CD-3(SM-24) Schematic diagram of marsh geophone string
 (6x2)





SECTION 2 TECHNICAL SPECIFICATION

CD-3(SM-24) Type Land Geophone String Operating Instruction

1. Model and Name:

CD-3(SM-24) Type land geophone string

2. Brief introduction:

- Use type CD-3 high precision geophone core.
- It is suitable for oil exploration in land desert and shallow water area where the ambient temperature is $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$.
- It has the performance of moisture proof and rain proof.
- Cable tensile strength up to 78kGF.
- Wide operability and wide application range.

3. Technical index

- CD-3(SM-24) Technical index list of high precision geophone core

Natural Frequency(Hz)	10±2.5%
Coil Resistance (Ω)	375
Open Circuit Damping	0.25
Damping With Calibration -Shunt(1000 Ω)	0.69+5%-0%
Open Circuit Sensitivity (v/m/s)	28.8
Sensitivity With Calibration -Shunt(1000 Ω) (v/m/s)	20.95±2.5%
Resistance With Calibration -Shunt(1000 Ω)	272.73±2.5%
Distortion (%)	<0.1
Spurious Frequency(Hz)	≥240
Moving Mass (g)	11
Typical Case To Coil Motion p-p (mm)	2
Allowable Tilt	10°
Unit Diameter (mm)	25.4
Unit Height (mm)	33.5
Unit Mass (g)	87
Operating Temperature	-40°C- +100°C
Limited Warranty Period (Year)	3

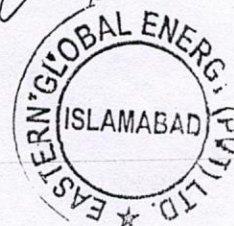
All parameters are specified at 20°C measured at 12 Hz in 0.7in/s peak to peak velocity

涿州昌迪石油仪器有限公司

Challenger Geoinstruments Ltd

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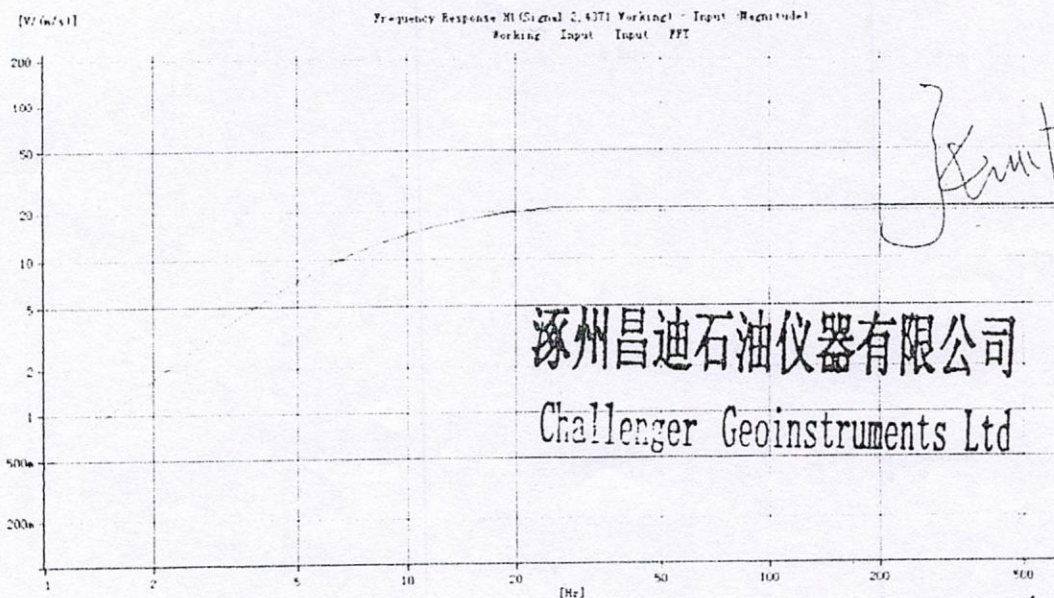




b. List of geophone string indicators (20°C) (M stands for series number, N stands for parallel number)

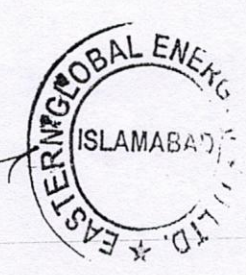
Product model	30DX-10Hz
Natural Frequency (Hz)	10±2.5%
Closed-circuit damping	0.69+5%-0%
Closed circuit sensitivity (V/m/s)	20.95×M±2.5%
Closed circuit resistance (Ω)	272.73 ×M/N±2.5%
Insulation resistance	>200 MΩ
Strength of extension	≥78 kgf

c. CD-3(SM-24) Amplitude-frequency response curve of high precision seismometer



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Annexure A CD-3(SM-24) List of parts and components of land geophone

SN	Code	Name	Quantity	Note
1	020217002	CD-1 top shell	12	
2	030114040	Nylon pull clasp	13	
3	030120003	CD-1 Φ 4.6mm Double hole waterproof cap	12	
4	020217001	CD-1 bottom shell, for CD-3 core.	12	
5	030120005	M3.5 \times 14 Stainless steel cross slotted head tapping screw	48	
6	030114003	Tail pin M10 \times 75MM	12	
7	030114002	Spring washer Lightweight stainless steel Φ 10	12	
8	010302011	WT-3A1(460) pitch 75MM	99	
9	030114077	Big pins	1	

Note: Suitable for assembling CD-3 (SM-24) high precision geophone core.

Annexure B CD-3 (SM-24) land geophone accessories catalog

Easily damaged parts:		
Nylon pull clasp	Waterproof cap	Tail pin
Consumable:		
Φ 2 heat shrink tubing	silicone oil	Spring washer Lightweight stainless steel Φ 10
Stainless steel cross slotted head tapping screw M3.5 \times 14		
Equipped tools:		
Cross groove knife	14mm open spanner	Electric soldering iron

涿州昌迪石油仪器有限公司

Annexure C CD-3(SM-24) Geophone core and accessories list coding

Challenger Geoinstruments Ltd

SN	Code	Name	Note
1	020103010	CD-3 (SM-24) geophone core with 1K resistance	

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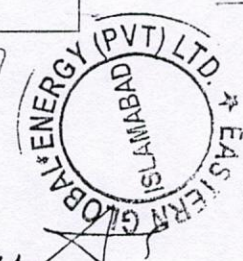
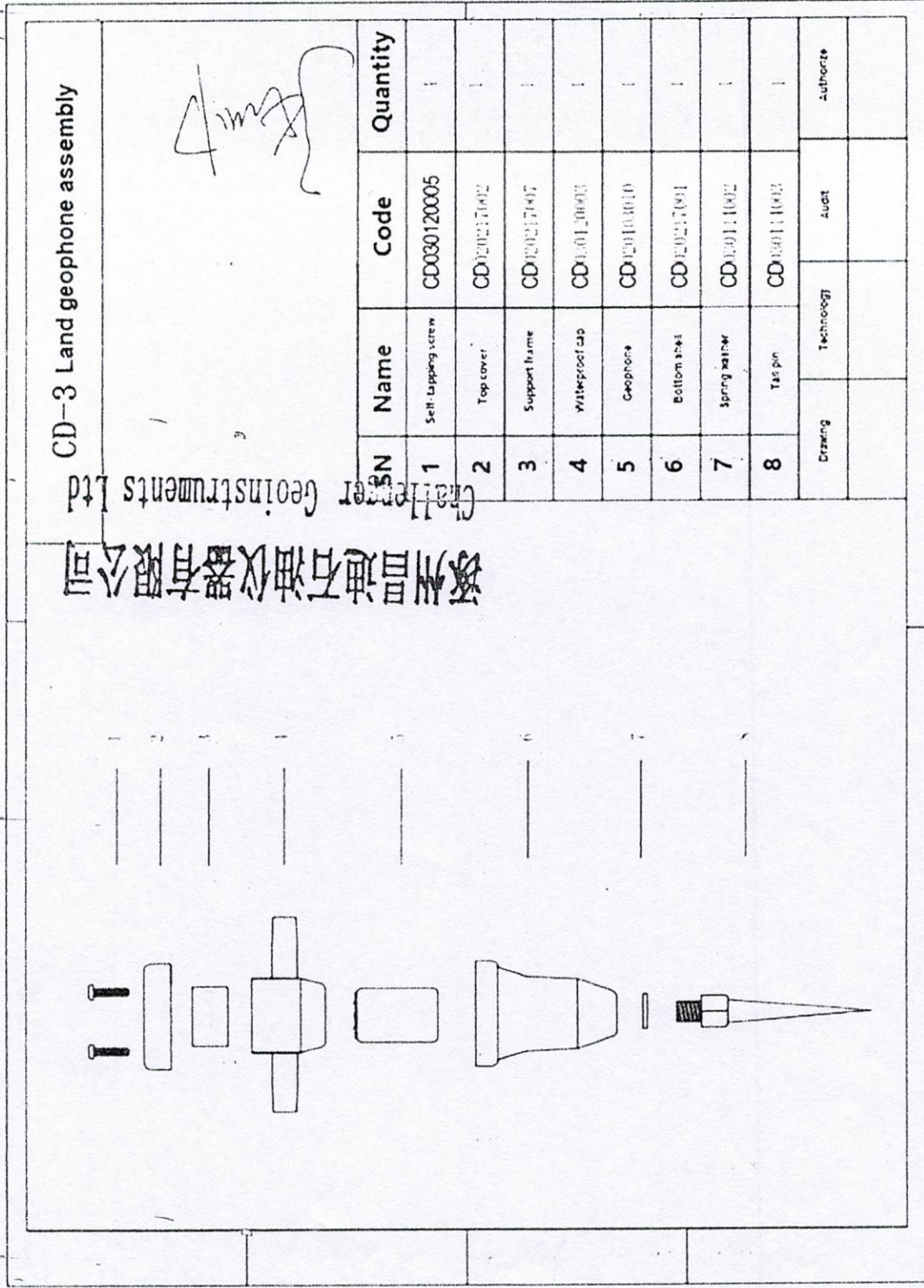


Figure A CD-3 (SM-24) Assembly diagram of land geophone

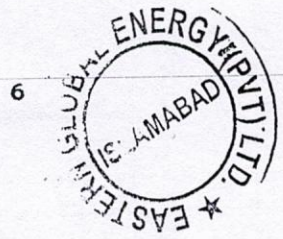


CD-3 Land geophone assembly

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Challenger Geoinstruments Ltd

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CD-3 Type Marsh geophone string Operating Instruction

1. Model and Name:

CD-3(SM-24) Type Marsh geophone string

2. Brief introduction:

- f. Use type CD-3 high precision geophone core.
- g. It is suitable for oil exploration in land desert and shallow water area where the ambient temperature is $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$.
- h. It has the performance of moisture proof and rain proof.
- i. Cable tensile strength up to 150kGF.
- j. Wide operability and wide application range.

3. Technical index (The test temperature is 20°C)

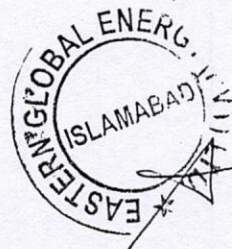
a. CD-3(SM-24) Technical index list of high precision geophone core

Natural Frequency(Hz)	$10 \pm 2.5\%$
Coil Resistance (Ω)	375
Open Circuit Damping	0.25
Damping With Calibration -Shunt(1000 Ω)	$0.69 \pm 5\% - 0\%$
Open Circuit Sensitivity (v/m/s)	28.8
Sensitivity With Calibration -Shunt(1000 Ω) (v/m/s)	$20.95 \pm 2.5\%$
Resistance With Calibration -Shunt(1000 Ω)	$272.73 \pm 2.5\%$
Distortion (%)	< 0.1
Spurious Frequency(Hz)	≥ 240
Moving Mass (g)	11
Typical Case To Coil Motion p-p (mm)	2
Allowable Tilt	10°
Unit Diameter (mm)	25.4
Unit Height (mm)	33.5
Unit Mass (g)	87
Operating Temperature	$-40^{\circ}\text{C} - +100^{\circ}\text{C}$
Limited Warranty Period (Year)	

All parameters are specified at 20°C measured at 12 Hz in 0.7in/s peak to peak velocity

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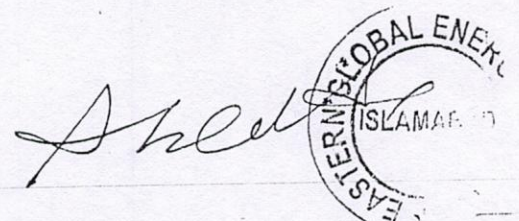
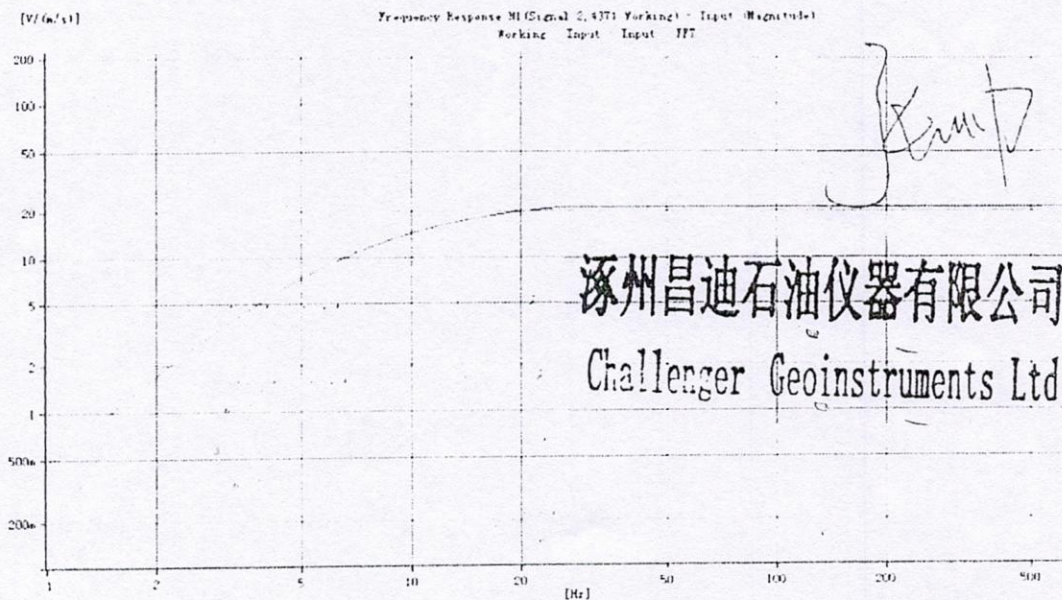




b. List of geophone string indicators (20°C) (M stands for series number, N stands for parallel number)

Product model	30DX-10Hz
Natural Frequency (Hz)	10±2.5%
Closed-circuit damping	0.69+5%–0%
Closed circuit sensitivity (V/m/s)	20.95×M±2.5%
Closed circuit resistance (Ω)	272.73 ×M/N±2.5%
Insulation resistance	>1000 MΩ
Strength of extension	≥150 kgf

c. CD-3(SM-24) Amplitude-frequency response curve of high precision seismometer





Annexure A CD-3(SM-24) List of parts and components of marsh geophone

SN	Code	Name	Quantity	Note
1	020217002	CD-1 top shell	12	
2	030114040	Nylon pull clasp	13	
3	030120003	CD-1 Φ 7.8mm Double hole waterproof cap	12	
4	020217001	CD-1 bottom shell, for CD-3 core.	12	
5	010302010	FWT-2A3 Φ 7.8mm	12	
6	030114003	Tail pin M10*75MM	12	
7	030114002	Spring washer Lightweight stainless steel Φ 10	12	
8	010302012	FWT-3A2(Φ 6.35) pitch 75MM	99	
9	030114077	Big pins	1	

Note: Suitable for assembling CD-3 (SM-24) high precision geophone core.

Annexure B CD-3 (SM-24) Marsh geophone accessories catalog

Easily damaged parts:		
Nylon pull clasp	Waterproof rubber plug, Wire cover	Tail pin
Consumable:		
Φ 2 heat shrink tubing	silicone oil	Spring washer Lightweight stainless steel Φ 10
Equipped tools:		
Electric soldering iron	Open spanner	Specialized tooling

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Annexure C CD-3(SM-24) Geophone core and accessories list coding

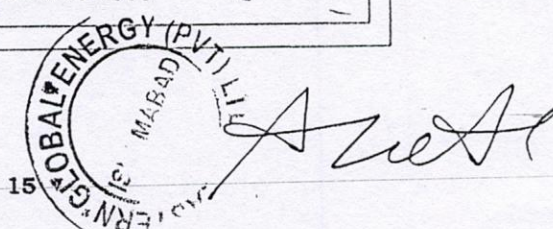
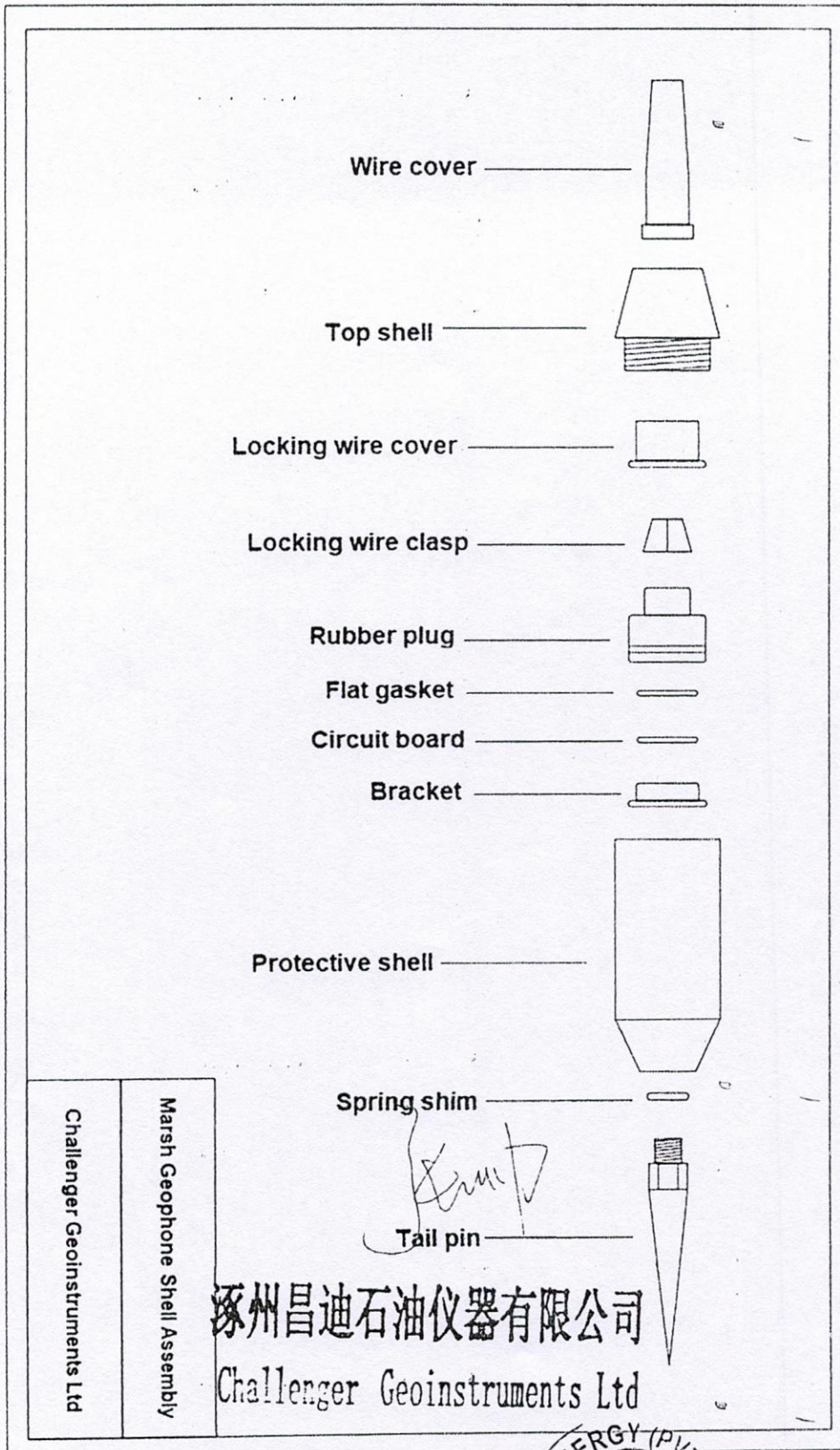
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SN	Code	Name	Note
1	020103010	CD-3 (SM-24) geophone core with 1K resistance	





Figure A CD-3 (SM-24) Assembly diagram of marsh geophone





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Geoinstruments Ltd.**

Runhe West Street, Wanda
Industrial Park, Development
Zone, Zhuozhou, Hebei Province,
P.R. China
Tel: +86 312 3628588
Fax: +86 312 3628708
web: www.changdiwutan.com/en

Flag E

Compliance sheet of tender No. PROC-FE/CB/ECMP-5166/2021

Required terms and conditions	Yes/Accept	No	Note
1. Delivery period: 120 Days (Maximum).	✓		
2. The bidder must be original equipment manufacturer (OEM) of the quoted Geophone Strings. Bid from middleman, distributor or supply house would not be accepted.	✓		
3. The bidder must have valid quality certification, ISO9001 or equivalent.	✓		
4. Bidder will provide signed & stamped TOR/SOR along with item and term & condition wise compliance sheet.	✓		
5 a. The bidder must have minimum 10 years' experience of geophones' manufacturing. Experience will be considered from first sale contract to be provided with bid as proof, mentioning complete contact information of buyer that is name of buyer company, quantity sold, date of contract, email, web address, postal address, fax number etc. b. Bidder will provide sale record of minimum sold quantity of 50,000 Nos multi geophone strings sold to geophysical companies during last 03 years. Bidder would submit the Purchase orders I Contract as Sale Record clearly mentioning the details like name of buyer company, email, web address, postal address, contact information, quantity sold, year of sale etc. c. Bidder will provide the satisfactory performance certificate from 03 different renowned international Geophysical Companies working for seismic data acquisition that they are using bidder's geophone groups satisfactory mentioning the complete contact information that is name of buyer company, quantity sold, date of contract, email, web address, postal address, fax number etc.	✓		
6. The bidder must provide samples for Technical Evaluation as per following: a. Item No. 1 = 02 No (Complete Strings with carrying hasp). b. Item No. 2 = 02 No (Complete String with carrying hasp). c. Item No. 3, 4 & 5 = 05 No each d. 01 Meter Geo-Cable having a molded D-loop and fitted with connector at any one end or both to confirm quality of cable 1 No. of strands/insulation/connector type etc.	✓		

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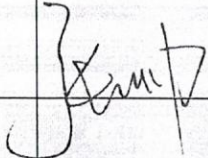
Stamp

Flag E



**Challenger
Geoinstruments Ltd.**

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<p>e. Test results for item No. 1, 2, 3 of above provided samples performed with SMT/SGT (Geophone Analyzer), would also be submitted along with the bid</p> <p>f. All items should be clearly embossed/ printed or tagged with manufacturer's monogram I name on it in English, for identification. Samples without mono am/name will be considered as rejected.</p> <p>g. All samples would be tested in Laboratory as well as in seismic field operation for data acquisition as part of technical evaluation.</p> <p>h. The Supplied material will be inspected as per approved sample submitted with the bid.</p> <p>I. Non Submission of samples with the bid will result in its rejection.</p> <p>J. Successful bidder will also submit production samples of items at sr # 1 &2 (01 each) within 03 weeks after issuance of P.O and after confirmation from OGDCL, LC will be established & bidder will proceed for mass production.</p>			
<p>7 a. Bidder will provide Original Brochure of the indented items in English including diagrams/drawings of all items for technical evaluation.</p> <p>b. Bidder will confirm to provide Land Geophone String having 0.25 meters' distance from Geophone to nearest molded D-loop, so that all geophones in a string may lay in center while in hanging position in hanger.</p> <p>c. Bidder will provide step wise details of all quality tests performed during pre & post manufacturing process of items No 1 & 2 to ascertain its quality standard.</p> <p>d. Geophone String/ coil should meet criteria to pass 'tumble barrel' test standards as 3rct party inspection's SOW may include tumble barrel test, temperature test, leakage test or other industry standards test to confirm the quality. Manufacturer will provide a certificate that it has facility to perform all standard tests including tumble barrel test, temperature test, leakage test etc.</p> <p>e. Bidder will provide a certificate that all land and marshy geophones are water proof and leakage free.</p>	√		
<p>8 a. 3rd Party Pre-shipment inspection (TPI) of the equipment as per TOR/Scope of Work/Purchase Order will be carried out at manufacturer's place as per OGDCL policy at OGDCL cost before shipment. Without TPI, the equipment will not be accepted. TPI will also be monitored by an OGDCL professional at OGDCL cost. Bidder will provide full co-operation to 3rd party inspection team.</p> <p>b, Test record of each land I marshy geophone string by SMT I SGT (Geophone Analyzer), will be provided to</p>			

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OGDCL I third party inspector before shipment (01 soft copy & 01 hard copy).			
c. TPI SOW is limited to physical inspection/random sample testing of equipment that does not void the performance/operational capability & warranty of equipment as already agreed by OEM & defined in OGDCL SOR.			
9 a. Bidder will provide minimum three years' warranty for basic element (Geophone Coil) and one year for all other material. A warranty certificate to be submitted in this regard. b. Defective items' replacement during warranty period will be free of all charges and the local agent will also be fully responsible for in time warranty replacement. c. Bidder must submit a compatibility certificate that Geophone Strings (Sr # 1 & 2) will work satisfactorily with latest data acquisition systems (428 XL, G3 i HD,508XT Systems etc) and will replace any incompatible item free of all charges. d. The bidder or its authorized representative will sign the protocol of acceptance, commissioning and start of warranty.	✓		
10. The bidder will submit a certificate to ensure supply of spare parts for minimum 05 years.	✓		
11. Packing of all materials will be as per Geophysical industry standards in pallet form having proper labelling.	✓		
12. Evaluation will be on full consignment wise and C & F by Sea price basis.	✓		
13. Failure in meeting any criteria mentioned in specifications or any terms & conditions will result in rejection of the bid.	✓		
14. All documents being provided must be in English. In case required document is in other language, bidder is required to submit its translated English version along with copy of original document and English translation would prevail.	✓		

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Challenger Geoinstruments Ltd

16 Dec 2021



Challenger
Geoinstruments Ltd.

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Industrial Park, Development
Zone, Zhuozhou, Hebei Province,
P.R. China
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Fax: +86 312 3628708
web: www.changdiwutan.com/en

Technical clarification letter for item 1, 2 & 3

Date: 16 Dec 2021,

To: OGDCL Company Ltd.

Attn.: Senior Manager Materials & Contracts

Subject: Bid Proposal for PROC-FE/CB/ECMP-5166/2021 (As per Press Advertisement) MULTI
GEOPHONE STRINGS AND SPARES (2300 Nos.)

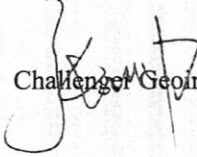
Dear Sir,

We hereby confirm that for the item 1, 2 & 3:

1. WPSR 428XL 220M FDU 1-4 LINK /CABLE WITH FDU428 CONNECTIONG ASSEMBLIES (WITH
OUT FDU CARD & LID ASSEMBLY)
2. 428XL DUU1 LID ASSEMBLY
3. G3I RECEIVER LINE CABLE, 220M LENGTH, 4 TAKEOUT EACH @ 55M

We confirm that the items mentioned above damping is 68.6% (Tolerance 0to +5%) as per SOR.

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16 Dec 2021



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Notification for 3ed Part Inspection

Date: 16 Dec 2021,

To: OGDCL Company Ltd.

Attn.: Senior Manager Materials & Contracts

Subject: Bid Proposal for PROC-FE/CB/ECMP-5166/2021 (As per Press Advertisement) MULTI
GEOPHONE STRINGS AND SPARES (2300 Nos.)

Dear Sir,

We hereby confirm and accept: "3rd party inspection will be carried out in view of clarifications/confirmations received during evaluation process and as per production sample."

涿州昌迪石油仪器有限公司
Challenger Geoinstruments Ltd

Challenger Geoinstruments Ltd

16 Dec 2021



OIL & GAS DEVELOPMENT COMPANY LIMITED
Procurement Department

Fax : 051-9209673 & 9209803-7
Telex : 5892 OGDC PK & 5867 OGDC PK

Phone : 9218058
Cable : OILGASCORP

Flag F.

No. PROC-FE/CB/ECMP-5166/770261/2022 Date: 27-MAY-2022
To CHALLENGER GEONSTRUMENTS LTD
Supp. No 51043
Address RUNHE WEST STREET, WANDA INDUSTRIAL PARK, DEVELOPMENT ZONE, ZHUOZHOU HEBEI PROVINCE, CHINA

Subject: **Purchase Order No. PROC-FE/CB/ECMP-5166/770261/2022 For Procurement Of MULTI GEOPHONE STRINGS AND SPARES Against Your Quotation No. NIL**
Dear Sir,

We are pleased to issue purchase order in response to your above cited bid as detailed below :-

Sr.	Description	Index No.	UOM	Qty	Unit Value	Total Value	Item Type
					C & F BY SEA	C & F BY SEA	
					CNY	CNY	
1	MULTI GEOPHONE STRING LAND (SEE ATTACHMENT)	55-04-221-F	Number	18000	638.8100	11,498,580.00	S-S
2	MARSHY GEOPHONE STRING (SEE ATTACHMENT)	55-04-222-F	Number	5000	918.4100	4,592,050.00	S-S
3	COILS, GEOPHONE (SEE ATTACHMENT)	55-04-203-F	Number	75000	20.2300	1,517,250.00	S-S
4	GEOPHONE LAND CASE (SEE ATTACHMENT)	55-04-224-F	Number	3000	12.7400	38,220.00	S-S
5	GEOPHONE MARSH CASE (SEE ATTACHMENT)	55-04-225-F	Number	300	15.7900	4,737.00	S-S
Total :						17,650,837.00	
CNY Seventeen Million Six Hundred Fifty Thousand Eight Hundred Thirty Seven Only							

Indent # ECMP(GS)F-21/2021
Name & Address of Manufacturer CHALLENGER GEONSTRUMENTS LTD., CHINA
Delivery Period 120 DAYS Port of Shipment CHINA
Country of Origin CHINA Port of Discharge KARACHI
Banker's Address Bank of China Zhuozhou Sub-Branch; Account No: 100148064717; Swift Code: BKCH CN 33220
Special Note (1) TENDER SPECIFICATIONS, SUBSEQUENT CLARIFICATIONS & CONFIRMATIONS OBTAINED TO BE TREATED AN INTEGRAL PART OF THIS PURCHASE ORDER. (2) PRODUCTION SAMPLES OF ITEMS AT SR. # 1 & 2 (01 EACH) TO BE SUBMITTED WITHIN 03 WEEKS OF ISSUANCE OF PURCHASE ORDER PRIOR TO MASS PRODUCTION, AS PER TOR.

*"Condition of Contract (General/Special) of tender enquiry, should be treated a part of the Purchase Order".
Letter of credit shall be established as per Terms & Conditions attached herewith.*

Vetted

SUFTAN AKHTAR
Dy. Chief Engineer (ECMP-GS)
Ph: 9257366 EXT: 3041

31/05/2022
MANAGER (SCM) FOREIGN
SYED EJAZ ABBAS RIZVI
Manager (SCM) Foreign
Ext: 3780, 3852

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Challenger Geoinstruments Ltd

OTHER TERMS AND CONDITIONS OF THE PO/LC
TO BE STRICTLY COMPLIED BY THE BENEFICIARY

(CFR Karachi Basis)

1. **CONSIGNEE:**

The goods must be consigned to the L/C establishing bank and notify party Oil & Gas Development Company Ltd. (OGDCL), Plot No. 21, OGDCL Warehouse, West Wharf Road, Karachi. Telephone No. 021-32311108, 32313119, E-mail: abdulwaheed_kunbhar@ogdcl.com

2. **PACKING:**

The Packing of the merchandise must conform to the International Standards and the packing list along-with Commercial Invoice must be placed inside the container without fail.

3. **MARKING:**

3.1 All Packages/boxes must bear the Purchase Order No. as Shipping Marks, Country of Origin and Weight in Kilograms (Gross/Net). The marks must tally with shipping documents like Bill of Lading (B/L) and manifest there should not be any difference.

3.2 In addition to the above mentioned shipping marks, the following procedure of color code marking is to be adopted / made on each side of the package/box/container while dispatching the material: -

"There will be an isosceles triangle with or less than six inches side, triangle side marked in black lines, letters "OGDCL" inscribed inside, the letters to be not less than 1½" tall and will be in black. On big packages/boxes/containers, the sides or triangle and letters will be increased appropriately. Underneath the triangle there will be two color code bars in "GREEN" color size six inches in length and 1½" in width. If the above color codes marking is not appropriate/suitable, the sizes and color may be changed".

3.3 Each item of the consignment should also be marked with item # of the Purchase Order.

4. **SHIPPING DOCUMENTS.**

Shipping documents shall consist of the following:

4.1 Original Clean Master Bill of Lading on Freight Pre-Paid Basis signed by the carrier or their authorized agent showing clean shipped on board. Freight forwarders, Third party, Short form, blank back and House Bill of Lading is not acceptable.

4.2 Detail invoice showing commodity description, quantity, unit/total price, total No. of packages, etc. containing original signatures.

4.3 Packing List, (Showing total number of packages, gross/net weight & measurement and Box No. in case of more than one boxes such as Box No. 1/10, 2/1010/10 and so on and detail of equipment in each box.

4.4 Certificate of origin.

4.5 Certificate of compliance of the credit terms as per clause No. 2 in respect of Packing.

4.6 Insurance declaration. A copy of E-mail sent to Insurance Company in compliance to the Clause No. 9 hereunder.

4.7 Copy of E-mail sent in compliance to the Clause No. 6.1 hereunder.

4.8 Third Party Pre-Shipment Inspection Report duly verified by OGDCL officials.

5. **INSTRUCTIONS FOR COMPLETING SHIPPING DOCUMENTS:**

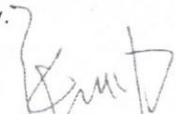
5.1 The shipping invoice should be marked on top in capital words.

a) Complete, first and last consignment (if all the contractual material is shipped in one lot.)

b) First partial shipment/second partial shipment (and so on). Final and last shipment as the case may if shipments are effected in parts.

5.2 All Invoices should be signed, and must indicate value of each items total value and also show 'SHIPPING MARKS' as provided in the contract.

5.3 All containers of cargo must carry copy of invoice. A compliance certificate in this regard shall be provided along with the shipping documents. In case of noncompliance the beneficiary shall pay the penalty imposed by the Custom Authority.


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Challenger Geoinstruments Ltd

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6. **SHIPMENT INTIMATION:**

6.1 The beneficiary within 24-48 hours of making shipment must send E-mail to (1) Dy. Chief Material Officer, Plot No. 21, West Wharf, Karachi, E-mail: abdulwaheed.kunbhar@ogdcl.com (2) Manager (SCM) Foreign, OGDCL House Plot No. 3 (New NO. 3013)F-6/G6, Blue Area, Jinnah Avenue, Islamabad, E-mail: ejaz.rizvi@ogdcl.com (3) Manager Accounts (Imports) on E-mail: imtiazh.sherazi@ogdcl.com (4) National Insurance Company Limited, Karachi on E-mail: sanaullah.shaikh@nicl.com.pk OR ghulam.akbar@nicl.com.pk, OR info@nicl.com.pk intimating them the following:

- a) L/C numbers and Purchase Order / Contract No.
- b) Name of the Ship & Shipping Line.
- c) Bill of Lading No. & Date.
- d) Total CFR value of the consignment shipped.
- e) Port of shipment.
- f) No. of boxes/packages/pieces.
- g) Net and gross weight.
- h) Expected time of arrival (ETA) of ship.

7. **SHIPMENT INSTRUCTIONS**

- a) The contractor/supplier/vendor is requested to ensure that Commercial Invoice / Packing List shall be pasted on the inner side of the door of container for FCL Shipments and on Boxes / Crates / Cartons etc. for LCL Shipments. Non-Compliance to this instruction may result in penalty imposed by Custom Authorities which shall be recovered from the Contractor/Supplier/Vendor.
- b) Please ensure that in case of CFR purchase order / contracts the local charges at Karachi Seaport/Airport must be included in the freight cost.
- c) The freight forwarders/shipping agents at country of origin must include the corresponding local charges such as delivery order/port handling & container rentals for free time etc. company shall pay only the wharfage/demurrage charges. They should also ensure that there should be only one local agent of the shipping company who should handle such matters. In case OGDCL had to pay such charges, it shall be recovered from the contractor.

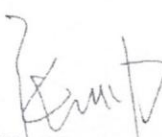
8. **INSTRUCTION REGARDING TRANSMISSION/NEGOTIATION OF SHIPPING DOCUMENTS**8.1 **ORIGINAL NEGOTIABLE DOCUMENTS:**

- a) The beneficiary immediately upon making shipment(s) should negotiate the original clean shipping documents free from any discrepancy with negotiating bank as indicated in the L/C.
- b) If clean documents free from any discrepancy are not negotiated within negotiation period mentioned in the L/C, or if the documents are withheld by the Bank on account of any discrepancy whatsoever the demurrage or financial impact if any incurred due to late negotiation of clean documents will be on beneficiary's account.
- c) Original/negotiable documents must contain at least four sets of the shipping documents mentioned under Clause No. 5 above.
- d) The original shipping documents should be dispatched through courier service by the negotiating bank at the beneficiary's cost within 24-48 hours after receipt from the beneficiary.
- e) The discrepant documents with minor discrepancies will be accepted subject to the consent of Procurement Department to facilitate prompt clearance of the consignment on the condition that demurrage, if any due to the discrepancies reported by L/C opening bank will be on beneficiary account.

8.2 **NON-NEGOTIABLE DOCUMENTS:**

- a) Complete sets of non-negotiable shipping documents along with one set of Parts Catalogue, Brochures, Technical Literature must be dispatched OR E-mailed to the Manager (SCM) Foreign at the following address immediately upon shipment is effected: -

MANAGER (SCM) FOREIGN
OIL & GAS DEVELOPMENT COMPANY LIMITED
OGDC HOUSE, PLOT NO. 3 (NEW NO. 3013),
F-6/G-6, BLUE AREA, JINNAH AVENUE,
ISLAMABAD, PAKISTAN.
PHONE NO. 0092-51-92002 3652
E-mail: ejaz.rizvi@ogdcl.com


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Challenger Geoinstruments Ltd

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b) Complete sets of non-negotiable shipping documents must be dispatched OR E-mailed to Dy. Chief Material Officer at the following address immediately upon shipment is effected: -

DEPUTY CHIEF MATERIAL OFFICER,

OIL & GAS DEVELOPMENT COMPANY LIMITED,

PLOT NO. 21, WEST WHARF ROAD, KARACHI, PAKISTAN.

PHONE NO. 0092-21-2311108, 2313119-23, E-mail: abdulwaheed_kunbhar@ogdcl.com

c) The shipping documents should be couriered through any reliable courier company at shipper's cost so that the same must be received at least 10 days before arrival of the vessel.

9. **INSURANCE:**

Insurance from port of shipment/delivery will be covered by openers and declaration shall be made by the beneficiary to Insurance Company i.e. M/S National Insurance Company Limited, NICL Building, South Zone, Abbasi Shaheed Road, off Shahra-e-Faisal Road, Karachi (Pakistan). E-mail: "sanaullah.shaikh@nicl.com.pk" OR ghulam.akbar@nicl.com.pk, OR info@nicl.com.pk and Manager (Accounts) /OGDC LTD., E-mail: imtiazh_sherazi@ogdcl.com immediately after shipment giving full details of shipment e.g. value of shipment description of material, name of vessel, B/L with date, port of shipment, contract and Letter of Credit Numbers.

10. **DEMURRAGE DUE TO DELAY IN RECEIPT OF ORIGINAL / NEGOTIABLE DOCUMENT / TRANSSHIPMENT AND SHIPPING LINES AGENTS:**

10.1 If clean documents are not negotiated within negotiation period of the L/C or documents are withheld by bank on account of any discrepancy, the demurrage charges, if any incurred due to late negotiation of the clean documents and paid by the OGDCL. will be realized from the beneficiary directly by raising debit advice, or by deducting the amount paid from the L/C value or by encashing Performance Bond (where applicable) to the extent of demurrage amount. In case the demurrage amount exceeds the value of Performance Bond the balance amount will be payable by the beneficiary.

10.2 Transshipment is totally prohibited under this L/C. The beneficiary must ensure that no transshipment takes place against this L/C, and demurrage paid by OGDCL due to transshipment will be on beneficiary's account.

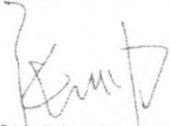
10.3 Any demurrage paid by OGDCL due to inconsistency in B/L and manifest will be recovered from beneficiary.

11. **LIQUIDATED DAMAGES.**



a) If the contractor fails to deliver any or all of the goods within the time period(s) specified in the Contract, the Purchaser shall, without prejudice to other remedies under the contract, deduct from the contract price / Bank Guarantee as liquidated damages, a sum not more than 0.5% of the contract price per week or part thereof for first four weeks, 1.00% per week for next four weeks and 1.5% per week exceeding four weeks up to maximum extent of 10 % of the contract value.

b) In case the Purchaser is satisfied that the delayed / defective shipment was due to some mistake or circumstances beyond the control of the contractor and the contractor has not intentionally or negligently contributed in the delay, the Purchaser may impose Liquidated Damages for not more than a sum equivalent to 0.5% of the delayed or defective shipment per week or part thereof for first two weeks, 1.00 % per week for next three weeks and 1.5% per week exceeding five weeks but not exceeding 10% of the contract value of the delayed/ defective shipment provided that the contractor takes immediate remedial measures for the replacement of defective shipment and takes prompt steps to mitigate the delay. The Purchaser may however, impose Liquidated Damages as per (a) above if the delayed or defective shipment has affected the project completion schedule or has resulted in production losses.

c) Even after imposition of LDs, if the supplier fails to materialize the delivery (material and or services); the Purchaser reserves the right to cancel Purchase order/contract/LC and to forfeit the Guarantee (if applicable) after intimating the supplier for such cancellation / forfeiture.


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12. **AMENDMENT / EXTENSION OF L/C:**

The beneficiary will positively confirm shipment of all ordered goods within L/C validity or make request for extension of shipment and negotiation dates at least 15 to 30 days prior to the expiry of L/C. If shipment is not effected within L/C validity or request for extension is not received 15 to 30 days prior to expiry of L/C validity, no request for grant of extension in shipment and negotiation will be entertained under any circumstances. In case of extension in shipment/negotiation period, the beneficiary will be required to extend the validity of his performance bond (where applicable) accordingly. All charges on this account will be on beneficiary's account.

13. **CHARGES FOR L/C ESTABLISHMENT:**

- 13.1 All charges of credit opening bank for credit will be borne by the OGDCL.
- 13.2 All charges of corresponding bank such as negotiation of documents, adding confirmation to credit etc. will be to the account of beneficiary.
- 13.3 All charges for amendments / extension in L/C will be to the account of beneficiary.

14. **PAYMENT TERMS:**

The eighty percent (80%) payment will be made against each shipment upon submission of original shipping documents to the LC opening bank, whereas balance twenty percent (20%) payment will be released after receipt, inspection and acceptance of material at OGDCL Stores. Furthermore, payment of balance twenty percent (20%) will be released upon issuance of Acceptance / Delivery Certificate from OGDCL to L/C beneficiary confirming receipt & acceptance of material along with submission of commercial invoice of remaining value.

Purchase Order # PROC-FE/CB/ECMP-5166/770261/2022

Accepted by:

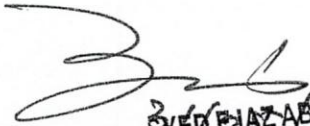
Signature

Name of the signatory in Block Letters.....ZHANG SHUAI

Company Title of the Signatory.....Regional Sales Rep., Great Asia Region

Company Seal.....



涿州昌迪石油仪器有限公司
Challenger Geoinstruments Ltd


SYED EJAZ ABBAS RIZVI
 Manager (SCM) Foreign
 Purchase Order Issuance Authority
 Oil & Gas Development Company Ltd.
 052



SECTION 3 TEST AND QUALITY CONTROL STANDARDS

Letter of quality commitment

Dear customer, our Challenger Geoinstruments Ltd is identified as "  and "  ". In order to complete the production task on schedule, according to plan, with quality and quantity guaranteed, and meet the seismic exploration requirements of customers, we make the following statements and commitments:

1. Standardization

Cd-3 geophone string is designed and produced according to GB/T24260-2020 national standard of the People's Republic of China. And the mainstream exploration instrument 428XL; 508XT; G3iHD system matches unconditionally.

2. Factory quality inspection of production process

- a) Conducting bubble water leakage detection; Test geophone string insulation resistance with 500V electronic megohm meter. (Geophone string should be placed in water during test).
- b) SMT-200 geophone special tester to test geophone resistance, frequency, damping, sensitivity, distortion and other parameters.

3. Routine experiment

- a) Sampling inspection, which belongs to the inspection of raw materials and structural design.
- b) High and low temperature test. Geophone parameters are detected after samples are held for 2 hours at -40°C and 70°C respectively.
- c) Drop test, 3000 simulated drop tests are carried out in the 1.2m deep drum of the sample. Up to 10,000 times.

4. After-sales commitment:

- a) Promise to provide all qualified products tested.
- b) Core warranty for 3 years, other one year.
- c) Spare parts warranty period of more than 5 years.

涿州昌迪石油仪器有限公司

Challenger Geoinstruments Ltd

Challenger Geoinstruments Ltd

26 Oct 2021

Handwritten signature





Challenger
Geoinstruments Ltd.

Runhe West Street, Wanda
Industrial Park, Development
Zone, Zhuozhou, Hebei Province,
P.R. China
Tel: +86 312 3628588
Fax: +86 312 3628708
web: www.changdiwutan.com/en

Challenger Geoinstruments Ltd

Letter of Water Proof and Leakage Free Certificate

Dear customer, our Challenger Geoinstruments Ltd is identified as  and . In order to complete the production task on schedule, according to plan, with quality and quantity guaranteed, and meet the seismic exploration requirements of customers, we make the following statements and commitments:

1. Standardization

CD-3 geophone string is designed and produced according to GB/T24260-2020 national standard of the People's Republic of China. And the mainstream exploration instrument 428XL; 508XT; G3iHD system matches unconditionally.

2. Product quality inspection before leave factory

- a. Water leakage detection; Test geophone string insulation resistance with 500V electronic megohm meter. (Geophone string should be placed in water during test).
- b. Ensure that each geophone string (land string and swamp string) meets the design requirements of water and leakage.

Challenger Geoinstruments Ltd

涿州昌迪石油仪器有限公司

Challenger Geoinstruments Ltd

16 Dec 2021



**Challenger
Geoinstruments Ltd.**

Runhe West Street, Wanda
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Pre Quality Test

Starting at 2021/10/29 13:36:31 NoNA

SMT-200 Geophone Tester Version 2.02 Serial nr. 2619

Spec Ser Par Shunt Mass Fdist VelDist Excur DataCorr Tests

CD-31 1 1000 11 12 0.7 0.0020 IABC

Tested: Pol Res Freq Damp Sens Dist Imp RC Reject: TempTime

Min: -1 267 9.75 0.68620.4 0

Nom: 273 10 0.686 20.9 712 @20.0

Max: 1 279 10.250.72121.4 0.10

Num: ohm Hz V/m/s % ohm

Note 0

1 1 273 10.070.70721.0 0.02 703 20 Test OK 15 13:49:52

Ended at 2021/10/29 14:12:15

涿州昌迪石油仪器有限公司

Challenger Geoinstruments Ltd





**Challenger
Geoinstruments Ltd.**

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P.R. China
Tel: +86 312 3628588
Fax: +86 312 3628708
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Post Quality Test

Starting at 2021/10/30 10:21:42 NoNA

SMT-200 Geophone Tester Version 2.02 Serial nr. 2619

Spec Ser	Par	Shunt	Mass	Fdist	VelDist	Excur	DataCorr	Tests
CD-36	2	1000 11	12	0.7	0.0021	IABC		

Tested:	Pol	Res	Freq	Damp	Sens	Dist	Imp	RC	Reject:	TempTime
Min: -1	810	9.9	0.686	124.40						
Nom:	818	10	0.686	125.7	2135			@20.0		
Max: 1	826	10.1	0.721	126.90.05						

Num:	ohm	Hz	V/m/s	%	ohm
Note 0					

1	1	819	10.010.699	125.90.02	2129 22	Test OK	18	10:26:12
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Ended at 2021/10/30 10:47:16

涿州昌迪石油仪器有限公司
Challenger Geoinstruments Ltd

