

**DETAILED STUDIES AND DESIGN FOR PROTECTION AGAINST EROSION ALONG  
OGDCL BUND AT QADIRPUR GAS FIELD AREA, DISTRICT GHOTKI, SINDH**

**Invitation to Bids for Geotechnical Investigations (Field and Laboratory Works)**

Dear Sir,

Sealed Bids (**Technical and Financial in separate sealed envelopes**) is invited in accordance with the attached **BOQ and qualification criteria** from drilling Contractors/Companies for carrying out the geotechnical investigations for the subject project.

The companies capable of carrying out subject work are requested to provide their Company's Profile And the following documents along with their sealed bids:

1. PEC Registration Certificate
2. FBR & PRA Registration Certificates
3. List of Similar Projects completed during last three years
4. Financial Capability
5. Equipment Capability
6. Personnel Capability
7. Litigation History
8. HSE Policies

The work comprises; execution of boreholes up to 50 m depth below natural surface level (NSL) by straight rotary drilling / heavy percussion boring method, excavation of test pits, performance of SPTs in boreholes, performance of field density tests in test pits, collection of disturbed/undisturbed soil samples, performance of field permeability (constant/ variable head) tests, collection of water samples and laboratory testing of selected soil/water samples. The field and laboratory work shall have to be completed according to the following time schedule:

Sr. No.	Minimum No. of Straight Rotary Drilling Rig/ Heavy Percussion Boring Set Required	Total Time for Completion of Field Investigations	Total Time for Completion of Laboratory Investigations	Total Time for Completion of Field & Laboratory Investigations
1	2	10 days	15days	25days

Your Bid shall be valid for a time period of ninety (90) days after the bid opening. **The work shall be executed under the instructions and full-time supervision of NESPAK Engineer/ Geologist and the successful bidder shall mobilize to the site on Three (03)days' notice after issuance of Letter of Award/Acceptance.**

**The coordinates and ground elevations of all the boreholes and test pits by total station shall have to be provided to NESPAK before completion of investigation at site by the Contractor.** The approved laboratory, where testing is to be carried out, shall be pursued by the successful bidder for timely completion of the assigned laboratory testing.

The successful bidder shall be responsible for providing the field borehole & testpit logs, summary of samples recovered, summary of laboratory test results and detailed laboratory test result sheets to NESPAK, within the contract period. **A premium of up to 25 % will be admissible on the official rates of the laboratory, selected for testing of soil/water samples. This premium has been allowed as**

**compensation to the Contractor for making advance payment to the laboratory and later following-up for obtaining test results in time. The name of the laboratory should be provided on page 2 of 2 (Annexure-1).**

**The bidders shall submit a bid security amounting Rs. 100,000/- at the time of submission of bids in the form of pay order or bank draft in favor of M/s NESPAK.**

Your **most competitive** sealed bids (**inclusive of all taxes**) in accordance with the BOQs and qualification criteria, should reach the office of the undersigned by **1100 hours on or before October 31, 2022**. Technical bids would be opened on the same day at **1130 hours** after their receipt in the presence of those bidders who wish to be present.

Financial bids would be opened after evaluation of Technical bids, at a time, date and venue announced and communicated to the technically responsive bidders in advance. However, the final decision to accept/reject any or all the bids as per PPRA rules solely lies with the under signed. The entire work shall be carried out in accordance with the requirements of the General Bidding Documents for Geotechnical Investigations available at NESPAK website ([www.nespak.com.pk](http://www.nespak.com.pk)). **Payment of the entire work shall be made by NESPAK after receipt of its fee from Client.**

for National Engineering Services Pakistan (Pvt.) Limited

(RAFAQUAT ALI)  
Project Manager  
Water and Agriculture Division  
Address: NESPAK House, 1-C, Block-N, Model Town  
Extension, P.O. Box 1351, Lahore 54700.

# QUALIFICATION OF BIDDING CONTRACTORS FOR

## Geotechnical Investigations for

### DETAILED STUDIES AND DESIGN FOR PROTECTION AGAINST EROSION ALONG OGDCL BUND AT QADIRPUR GAS FIELD AREA, DISTRICT GHOTKI, SINDH

#### 1. Qualification Criteria

Qualification will be based on the criteria given in the following paras regarding the Applicant's experience, personnel and equipment capabilities, financial position and litigation history, as demonstrated by the Applicant's responses in the Forms attached as Annex-A to this Document. The Employer reserves the right to waive minor deviations, if these do not materially affect the capability of an Applicant to perform the contract by the Applicant.

Experience and resources of the Company intended to be employed as sub-contractor shall be taken into account in determining the Applicant's compliance with the qualifying criteria. However, for joint venture, collective experience, resources and financial soundness of all partners shall be considered.

#### 1.1 General Information

The Applicant shall provide general information of his firm as per the format specified in the Application Form A-1 attached in Annex-A.

#### 1.2 Experience of the Firm

The Applicant shall meet the following minimum criteria:

- 1) Successful experience as contractor in the execution of at least five (5) projects involving bulk of geotechnical investigations within the last three (03) years. This experience should specifically be of geotechnical investigations of similar nature. The Applicant will supply information as per the format specified in the Application Form A-2 attached in Annex-A.

#### 1.3 Personnel Capabilities

The Applicant must have or assured the availability of suitably qualified and experience personnel to fulfill the positions tabulated below. The Applicant will supply information as per the format specified in the Application Form A-3 attached in Annex-A.

Sr. No.	Position	Qualification	Minimum No. Required	Minimum Experience (Years)
1	Technical Manager	B.Sc. Civil Engg.	1	5

2	Site Geologist/ Supervisor / Engineer	M. Sc. Geology/ B.Sc. Civil Engg. / B.Sc. Geological Engg.	2	2
3	HSE Supervisor	HSE Certification course	1	1
4	Driller	Literate	2	3
5	Skilled Labor	-	As required	-

#### 1.4 *Equipment Capabilities*

The Applicant should own, or have assured access to the following key items of equipment in full working order, and must demonstrate that, based on known commitments, these will be available for deployment on the proposed works.

<b>Sr. No.</b>	<b>Equipment Type &amp; Characteristics</b>	<b>Minimum Number Required</b>
1	Straight Rotary Drilling rigs complete in all respects including drilling rods, bits, mud pumps etc. along with at least one stand-by rig.	2
2	Percussion boring set ( $\geq 200$ mm diameter) complete in all respects including tripod, chisel/bit etc.	2
3	Casing set having various diameters for all types of boring at least 25 m in length with casing bits.	2
4	Standard penetration test equipment completes in all respects including all rods, split spoon sampler, hammer and containers etc.	2
5	Denison/Pitcher/Shelby samplers and tubes	4
6	Hydraulic jacks with all accessories for the extraction of casings	2
7	Electrically operated sounder for groundwater level measurement	2
8	Testpit excavation equipment, complete in all respects	2
9	Field density test apparatus complete in all respect as per ASTM requirements.	2
10	Field permeability test apparatus complete in all respect as per ASTM requirements.	2
11	Wooden box for the preservation of undisturbed soil samples	As required
12	Transport for mobilization of equipment	As required
13	UDS tubes and Split Spoon Sampler	As required

The Applicant will supply information as per the format specified in the Application Form A-4 attached in Annex-A.

#### 1.5 *Financial Capabilities*

The Applicant shall meet the following minimum criteria:

- 1) Annual turnover which is also termed as income from contracting for procurement of

geotechnical investigations and is defined as billing for works completed during the last three (3) years of at least Rs. 8.0 million or the said figure has been achieved in any year during the last three (3) years.

The Applicant shall also provide evidence of financial health such as bank account statements, available line of credits, etc., to show the soundness of the Applicant's financial position for procurement of geotechnical investigations works. The Applicant will provide annual turnover of the geotechnical investigation works carried out by him during the last three years. The Applicant will supply annual turnover information as per the format specified in the Application Form A-5 attached in Annex-A.

### ***1.6 Litigation History***

The Applicant should provide accurate information on any litigation or arbitration resulting from Contracts completed or under execution over the last three (03) years. The Applicant will supply information as per the format specified in the Application Form A-6 attached in Annex-A. A consistent/ overwhelming history of award against the Applicant may result in rejection of the application. In case an Applicant claims Nil litigation, he shall submit the same statement on the letter head of his company.

### ***1.7 Application of Health, Safety and Environmental Standards***

The Applicant should provide the HSE Policies and supporting documentary evidence for the following:

- i) First Aid Box
- ii) Personnel Protective Equipments (PPEs)
- iii) Standard Operating Procedures (SOPs)
- iv) Health, Safety and Environmental (HSE) Policies
- v) HSE staff

The Applicant will supply information as per the format specified in the Application Form A-7 attached in Annex-A.

## Application Form A-1

Page \_\_\_ of \_\_\_ Pages

**General Information**

All individual Applicants applying for qualification are requested to complete the information in this form. Nationality information (if applicable) is also to be provided for foreign owners as required under the PEC Bye-Laws as a Partnership.

1.	Name of Firm	
2.	Head Office Address	
3.	Telephone	Contact Person: Name: Title: Cell No.
4.	Fax	E-mail
5.	Place of Incorporation/Registration Certificates of the firm*	Year of incorporation/registration

**\* Registration certificates must include:**

- Valid registration with Pakistan Engineering Council (PEC)
- Valid registration with Federal Board of Revenue (FBR)
- Valid registration with concerned Provincial Revenue Authority (PRA)
- Proof of active taxpayer of FBR & PRA

**Experience of the Firm**

Name of Applicant: \_\_\_\_\_

Sr. No.	Name of Project	Value of Geotechnical Contract* (Pak Rs.)	Contract Duration

*\*Attach copy of Letter of Awards / Project Completion Certificates for any five (5) latest projects involving bulk of geotechnical investigations within the last three (03) years.*

**Personnel Capabilities**

*Name of Applicant:* \_\_\_\_\_

Sr. No.	Name of Person	Qualification	Designation/ Position*	Total Experience

***\*Attach CVs of the Key Staff Members.***



**Equipment Capabilities**

*Name of Applicant:* \_\_\_\_\_

Sr. No.	Equipment Description	Capacity	Number of Equipment	Working Condition a) Very good b) Good c) Satisfactory	Current Location

**Financial Capabilities**

*Name of Applicant:* \_\_\_\_\_

<b>Year</b>	<b>Annual Turnover (in PKR)</b>
2020 - 2021	
2019 - 2020	
2018 - 2019	

*Note: Financial soundness certificate from the bank(s) as specified in section 1.5 must be provided by the Applicant*

**Litigation History**

*Name of Applicant:* \_\_\_\_\_

<b>Year</b>	<b>Award for or against Applicant</b>	<b>Name of Client, cause of litigation, and matter in dispute</b>	<b>Disputed amount (current value Pak Rs. or equivalent)</b>

**Health, Safety and Environmental (HSE) Policies Personal Protective Equipment (PPE) and Standard Operating Procedures (SOP) of the Contractor**

*Name of Applicant:* \_\_\_\_\_

*The Applicant should provide the following policies/supporting documentary evidence as required in Para 1.7.*

**A. HSE Policies**

Please attach HSE Policies

**B. Details of PPE Available with the Contractor**

<b>Sr. No.</b>	<b>Type of PPE</b>	<b>Total Number</b>

**C. Details of SOPs of the Contractor**

Please attach the copies of SOPs

**CONSULTANCY SERVICES FOR DETAILED STUDIES AND DESIGN FOR PROTECTION AGAINST EROSION  
ALONG OGDCL BUND AT QADIRPUR GAS FIELD AREA, DISTRICT GHOTKI, SINDH**

**GEOTECHNICAL INVESTIGATIONS  
BILL OF QUANTITIES**

Sr. No.	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
<b>A.</b>	<b>FIELD INVESTIGATIONS</b>				
A1	Mobilization and demobilization of at least <b>Two (02)</b> Straight Rotary/Light Percussion drilling rigs along with all accessories at site including setting-up & shifting of equipment from one investigation point to another. The equipment should be sufficient to complete the investigations within the time schedule.	L.S.	Job		
A2	Execution of <b>Five (5)</b> boreholes up to a maximum depth of 10 m below crest level by straight rotary drilling method including backfilling of boreholes to their original position by using cement-sand-bentonite mix.	L.M.	50		
A3	Performance of Standard Penetration Tests (SPTs) in boreholes along with collection of SPT samples at 1 m depth interval in general, or as necessary, including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	40		
A4	Collection of undisturbed soil samples from boreholes through Shelby/Denison/Pitcher samplers, including their waxing, labelling, packing, storage & transportation to an approved testing laboratory.	No.	10		
A5	Excavation of <b>Five (5)</b> testpits of up to 1.5 m depth below NSL including backfilling of pits to their original position.	L.M.	7.5		
A6	Performance of field density tests by sand replacement method in testpits generally @ 1 test/pit at selected horizons including determination of in-situ bulk and dry density and collection of small disturbed samples in moisture tins for moisture content determination in laboratory by oven drying method as well as labelling, packing, storage & transportation to an approved testing laboratory.	No.	5		
A7	Collection of composite bulk samples from testpits including their labelling, packing, storage & transportation to an approved laboratory.	No.	5		
A8	Excavation of testpits 1.5 x 1.5 x 1.5 m in borrow areas for construction material	No.	4		
A9	Collection of composite bulk samples from borrow areas testpits including their labelling, packing, storage & transportation to an approved laboratory.	No.	4		
A10	Performing field permeability test in boreholes using constant head or falling head method, by drilling a separate borehole adjacent to original location using hand auger up to about 5 m below existing ground level. The drilling of Auger holes as well as back filling of auger holes to their original position using cement-sand bentonite mix is also included in this item.	No.	5		
A11	Collection of water samples (if encountered) from boreholes including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	2		
	<b>Sub-Total A</b>	<b>Rs.</b>			

Establishment of coordinates and ground elevations of all the boreholes & testpits using **TOTAL STATION** are included in the scope of work. The coordinates should be provided with reference to a permanent local bench mark.

All soil / water samples shall be stored and transported as per ASTM standards. The area and clearance ratio of the sampling tubes should be as per ASTM requirements.

Contractor will be responsible for arrangement of Personnel Protective Equipments (PPEs) such as safety helmets and jackets for NESPAK site supervisory / visiting staff.

**CONSULTANCY SERVICES FOR DETAILED STUDIES AND DESIGN FOR PROTECTION  
AGAINST EROSION ALONG OGDCL BUND AT QADIRPUR GAS FIELD AREA, DISTRICT  
GHOTKI, SINDH**

**GEOTECHNICAL INVESTIGATIONS  
BILL OF QUANTITIES**

<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Rate (Rs.)</b>	<b>Amount (Rs.)</b>
<b>B.</b>	<b>LABORATORY TESTING</b>				
B1	Sieve analysis	No.	30		
B2	Hydrometer analysis	No.	15		
B3	Atterberg Limits + Classification	No.	15		
B4	Bulk & Dry density	No.	15		
B5	Consolidation with Swell Potential Measurements	No.	5		
B6	Direct Shear	No.	15		
B7	Unconfined Compression	No.	15		
B8	Standard Ptoctor Test	No.	10		
B9	Lab permeability test by falling/constant head method on construction material samples	No.	5		
B10	Complete chemical analysis of water samples i/c TDS, Cl, SO4 & pH	No.	2		
B11	Sulphate and Chloride and organic matter content of Soil	No.	5		
	<b>Sub-Total B</b>	<b>Rs.</b>			-
<b>Name of Laboratory:</b>					
<b>Total (A+B)=</b>				<b>Rs.</b>	

Number of laboratory tests depends on following:

1. Number of boreholes executed and samples recovered.
2. Whether raising of bund is required or not as raising will involve construction material testing