

JAPAN INTERNATIONAL COOPERATION AGENCY

THE GOVERNMENT OF  
THE HASHEMITE KINGDOM OF JORDAN  
THE MINISTRY OF TOURISM AND ANTIQUITIES  
THE MINISTRY OF PLANNING

DRAFT  
TENDER DOCUMENTS  
FOR  
CONSTRUCTION  
OF  
**DEAD SEA PARKWAY SUB-PROJECT**  
THE TOURISM SECTOR DEVELOPMENT PROJECT

**VOLUME I**  
**INSTRUCTIONS TO TENDERERS**

August 2000

Pacific Consultants International  
Yamashita Sekkei Inc.

**DEAD SEA PARKWAY  
SUB-PROJECT**

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\*\*\* *MPWH Letter head*

## **INVITATION FOR TENDER**

*Date & Ref. No.*

*To: Tenderer*

*Name:*

Loan No: JO-P11

*Address:*

Contract No: \_\_\_\_\_

Dear Sir,

**Subject: Invitation for Tender, Construction of DEAD SEA PARKWAY SUB-PROJECT  
TOURISM SECTOR DEVELOPMENT PROJECT**

THE HASHEMITE KINGDOM OF JORDAN has received an ODA Loan from JAPAN BANK FOR INTERNATIONAL COOPERATION (hereinafter referred to as JBIC) toward the cost of TOURISM SECTOR DEVELOPMENT PROJECT, DEAD SEA PARKWAY SUB-PROJECT and intended to apply the proceeds of the loan to payment under the contract. Disbursement of ODA Loan by JBIC will be subject, in all respects, to the terms and conditions of the Loan Agreement, including the disbursement procedures and the “ Guidelines for Procurement under JBIC ODA Loans” . No Party other than THE HASHEMITE KINGDOM OF JORDAN shall derive any rights from the Loan Agreement or have any claim to loan proceeds. The above Loan Agreement will cover a part of the project cost. As for the remaining portion, THE HASHEMITE KINGDOM OF JORDAN will take appropriate measures for finance.

JBIC requires that Tenderers and Contractors, as well as THE HASHEMITE KINGDOM OF JORDAN, under the Contracts funded with JBIC ODA Loans and other Japanese ODA, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, JBIC;

- (a) will reject a proposal for award if it determines that the tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (b) will recognize a contractor as ineligible, for a period determined by JBIC, to be awarded a contract funded with JBIC ODA Loans if it at any times determines that the contractor has engaged in corrupt or fraudulent practices in competing for, or in executing, another contract funded with JBIC ODA Loans or other Japanese ODA.

THE MINISTRY OF PUBLIC WORKS AND HOUSING (hereinafter referred to as “ MPWH” ) invites sealed tenders from prequalified eligible Tenderers for construction and completion of the DEAD SEA PARKWAY SUB-PROJECT (hereinafter referred to as “ the Works” ) in accordance with the following documents:

VOLUME I - Instructions to Tenderers

■ Appendixes

■ Enclosure

VOLUME II - Specifications

VOLUME III - Bill of Quantities

VOLUME IV - Drawings

VOLUME V - Conditions of Contract

A Tender is required for the Construction of the DEAD SEA PARKWAY SUB-PROJECT and its associated works for the Tourism Sector Development Project as described in the Tender Documents and to be submitted under sealed cover in accordance with the Instruction to Tenderers.

1. Issuing of Tender Documents

THE MINISTRY OF PUBLIC WORKS AND HOUSING (MPWH) will issue the Tender Documents at the GOVERNMENT TENDERS DIRECTORATE from --- th to ---<sup>th</sup> ----- 2000. A set of Tender Document is priced ----- (-----) J.D., including sales tax, which is non-refundable and can be paid in cash or cashier check.. The check must be in the name of The Ministry of Public Works and Housing (MPWH) and must be dated no more than three days before the day of selling.

If the authorized person in the company can not come to purchase these documents in person, he must assign a legal power of attorney to someone to act on his behalf.

2. Project Site Visit

A Site visit will be conducted from 09:00 hours on --- th ----- 2000, at the Dead Sea Parkway Sub-project Site. The Tenderer must attend in person or assign power of attorney to someone to act on his behalf.

3. Clarification Meeting

If the Tenderer has any questions regarding the Tender Documents and/or other detail conditions, the Tenderer must submit written questions to the MPWH GOVERNMENT TENDERS DIRECTORATE by ---<sup>th</sup> ----- 2000.

The Clarification Meeting will be held on ---<sup>th</sup> ----- 2000, time 09:00, at the MPWH GOVERNMENT TENDERS DIRECTORATE.

4. Tender Submission and Tender Opening

The completed Tender should be submitted to the MPWH GOVERNMENT TENDERS DIRECTORATE at the following address between the hours of 09:00 - 11:00 on the ----<sup>th</sup> ----- 2000.

MPWH Government Tenders Directorate  
Eighth Circle, Albiader Street, Amman.

The Tender will be opened on same day of Tender submission at ----- hours.

5. Tenderers will be informed in due course of the result of the Tender Review.

6. All other necessary requirements for the preparation and submission of Tenders are given in the INSTRUCTIONS TO TENDERERS.

THE MINISTRY OF PUBLIC WORKS AND HOUSING (MPWH)  
General Director of Government Tenders Directorate

Nasir Mdadha

THE GOVERNMENT OF  
THE HASHEMITE KINGDOM OF JORDAN  
THE MINISTRY OF TOURISM & ANTIQUITIES  
THE MINISTRY OF PLANNING  
(JO- P11)

DRAFT TENDER DOCUMENTS  
FOR  
CONSTRUCTION

OF

**DEAD SEA PARKWAY SUB-PROJECT**  
THE TOURISM SECTOR DEVELOPMENT PROJECT

**VOLUME I**  
**INSTRUCTIONS TO TENDERERS**

The JICA D/D Study Team  
Joint Venture:  
Pacific Consultants International, Tokyo  
Yamashita Sekkei Inc

**September - 2000**

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## **INSTRUCTIONS TO TENDERERS**

### **1. GENERAL**

- a. THE MINISTRY OF PUBLIC WORKS AND HOUSING (hereinafter referred to as “MPWH”) of THE HASHEMITE KINGDOM OF JORDAN has received a loan from JAPAN BANK OF INTERNATIONAL COOPERATION (JBIC) for the Tourism Sector Development Project, **Dead Sea Parkway Sub-Project**. The MPWH shall apply the loan towards the cost of the project and intends to apply the proceeds of the loan to eligible payments under this contract for which this invitation to tender is issued (hereinafter called "the Contract"). Disbursement of loan by the JBIC will be made only at the request of the MPWH and upon approval by the JBIC in accordance with the terms and conditions of the Loan Agreement No. JO-P11 dated 2<sup>nd</sup> December 1999 including “Guidelines for Procurement under JBIC Loans” and will be subject in all respects to the terms and conditions of the said agreement. No party other than MPWH shall derive any rights from the Loan Agreement or have any claim to loan proceeds.
- b. Fund for the both foreign and local currency portions of the Project covered under this Contract is financed under the said Loan Agreement, and it is intended that proceeds of this loan will be applied to payment for the foreign and local currency portions under the Contract except Taxes and Duties which will be borne by the Government of the Hashemite Kingdom of Jordan (hereinafter referred to as the Government).
- c. The proceeds of the loan are required to be used with due attention to considerations of economy, efficiency and non-discrimination among countries which are eligible for procurement of goods and services (such countries are hereinafter called "The eligible source countries").
- d. Only those contractors who have been prequalified by the MPWH will be eligible to participate in this Tendering. The MPWH is required to submit to the JBIC a complete statement of the source and origin of the equipment, materials and services furnished under the Contract. To assist the MPWH in this matter, the Tenderer shall submit a complete breakdown of the source or origin of all equipment, materials and services furnished under the Contract.
- e. The Tenderer shall familiarize himself with the forgoing requirements and, in submitting a Tender, The Tenderer shall be deemed to have taken account of and complied with the Government laws, regulations, agreement, procurement procedure and other qualifying requirements.

## 2. GENERAL DESCRIPTION OF THE PROJECT

### 2-1 General

The Tenderer is required to submit tender proposal for supply of all labour, materials, equipments and services required to complete supply, fabrication, construction, inspection, testing, packing and transporting to job-site, together with on-site installation and commissioning services related to Work entitled **“DEAD SEA PARKWAY SUB-PROJECT”**

### 2-2 Project feature

Detail description of scope of the work required to the Contractor under this contract package, which shall be completed in a single package and fixed-price contract will be stated in the Volume II, “Specifications” of Tender Documents.

- a. The Dead Sea Parkway starts from the Dead Sea Highway (Rout65) to the south of the Hotels Development Area at the Dead Sea Beach and to the north of Madash Hammara and route continues running east and south east until it intersects with a paved road that diverts from Ma'in main road at an approximate coordinate of N=114.800, E=206.600.
- b. Site Location : See the Location Map Drawing, Appendix A
- c. Nature of Works
  - (a) Total length of Parkway: 11.6km long
  - (b) Road Section: 3.7m x 2 lanes
  - (c) Shoulder width: 1.8m wide for steeped area in both sides  
2.4m wide for other areas in both sides
  - (d) Bridges: 2 Bridges with 12.0m wide including 1.2 m wide of sidewalks in both sides
    - Wadi EL Asal Bridge: 90m long
    - Wadi Hammara Bridge: 120m long
  - (e) Intersection: 2 places (at Route-65 and at Madaba-Ma'in road)
  - (f) Roadside facility at a panoramic point with 2,500 m<sup>2</sup> in each side including in/out road, parking area and resting area with landscaping
  - (g) Other associated construction works
    - Pipe and box culverts
    - Slope stabilization
      - Ground rip rap protection
      - Retaining walls
      - Gravity walls
      - Gabions
    - Curbstone
    - Steel rope guard rails
    - Road furniture

### 3. TENDER DOCUMENTS

a. The Tender Documents consist of the followings:

#### **VOLUME I: TENDERING AND CONTRACTING REQUIREMENT**

- INSTRUCTIONS TO TENDERERS

- FORM OF TENDER

- APPENDIXES

Appendix A: Schedule of Time, Rates and Conditions

Appendix B: Form of Agreement

Appendix C: Form of Tender Security

Appendix D: Form of Performance Security

Appendix E: Foreign Currency Requirement

Appendix F: Form of Advance Payment Security

Appendix G: Drawing List

Appendix H: General Construction Schedule

Appendix I : Temporary Facility Location Map

Appendix J : Site Investigation Report

Appendix K: Query Form

- ENCLOSURES

Enclosure No.1: Power of Attorney

Enclosure No.2: Certification of Submission of Tender Security

Enclosure No.3: Joint Operation Agreement

Enclosure No.4: Letter of Association

Enclosure No.5: Affidavit of Site Inspection

Enclosure No.6: Basic Program of The Work

Enclosure No.7: Contractor's Organization Chart

Enclosure No.8: Outline Construction Plan and Proposed Layout Plan for  
Temporary Works

Enclosure No.9: List of Contractor's Equipment to be used on the Works

Enclosure No.10: List of Major Materials and Plant for the Works

Enclosure No.11: List of Sub-Contractors/ Suppliers

Enclosure No.12: List if Intended Import Material and Plant

Enclosure No.13: Breakdown of Major Rates

Enclosure No.14: Detailed Monthly Cash Flow of Anticipated Contract Payments

#### **VOLUME II- SPECIFICATIONS**

PART-1: Specifications for Highway and Bridge Construction

Volume (I)

Volume (II)

Volume (III)

Volume (IV)

\* Issued by the Ministry of Public Works & Housing

PART-2: Particular Specifications

#### **VOLUME III- BILL OF QUANTITIES**

**VOLUME IV- DRAWINGS**

**VOLUME V - CONDITIONS OF CONTRACT**

PART (I) : GENERAL CONDITIONS OF CONTRACT

PART (II) : SPECIAL CONDITIONS OF CONTRACT

- b. The Tenderer, whether or not submits a tender proposal, shall treat all the Tender Documents as private and confidential. The Tenderer shall not use them other than for the preparation of his tender proposal and shall not in part or in whole reproduce or release them to any third party without prior written consent of the MPWH. The Tenderer, however, may transmit to a third party such part of the Tender Documents as necessary for the purpose of preparing his tender proposal provided that such third party undertakes to keep confidential.

The MPWH may deem any violation of this secrecy obligation by such third party as the same by the Tenderer.

**4. QUALIFICATION OF TENDERER**

- a. Only those Tenderers who have been pre-qualified by the MPWH will be eligible to participate in this tendering.
- b. If a Tenderer has been pre-qualified in association with other companies as a joint venture, consortium and/or with one or more major subcontractors (a subcontractor responsible for more than Thirty percent (30%) of the total value of the work) this group must be jointly maintained in tendering and contracting, except that subcontractors, other than major subcontractors, can be included, excluded or substituted at any time subject to the approval of MPWH.
- c. Any pre-qualified Tenderer may not change his original joint operation partner(s) who has (have) been proposed at the stage of pre-qualification and approved by the MPWH.
- d. No further joint operation is permitted with any other partner.
- e. During the Tender period, the Tenderer is obliged to attend all events announced officially by the MPWH.

**5. VISITING PROJECT SITE**

For the convenience of Tenderers, an official or representative of the MPWH will conduct a job-site visit at the time and on the date specified in the Invitation to Tender. It is mandatory that Tenderers participate in this visit.

Should the Tenderer required further visit and inspection of the site, the Tenderer may visit and inspect the site, on his own responsibility and at his own expense, to obtain all information that may be necessary for the purpose of preparing his Tender and entering into a Contract.

## **6. TENDERER UNDERSTANDING/EXAMINATION OF DOCUMENTS**

- a. The Tenderer shall satisfy himself, by careful inspection as to the nature and location of the works, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the type of equipment and facilities needed for the execution of the works, the general and local conditions, the equipment to be furnished and installed and all other matters which can in any way affect the work under the Contract. No verbal conversation with any officer, agent, or employee of the MPWH shall be deemed to affect or modify any of the terms or obligations of the Tender Documents.
- b. The Site investigation report is included in the Appendix "J" as a guide only for preparing his Tender, but without assurance as their accuracy or applicability and without prejudice to the Tenderer's liability.
- c. The Tenderer shall be responsible for the examination and understanding of all parts of the Tender Documents furnished.
- d. All division or amendment to the Tender Documents shall be made through the formal addenda duly issued by the MPWH.
- e. Any neglect or failure on the part of the Tenderer to obtain reliable information and physical conditions on the spot or elsewhere, or any other matters affecting the execution, completion and maintenance of the Works, the Tender Price and the Contract shall not relieve the Tenderer whose tender proposal is accepted, of the responsibility for completing and handing over the Works as defined in the Contract.

## **7. LANGUAGE AND MEASUREMENT SYSTEM OF TENDER**

All correspondence in connection with the Tender, the Contract and all matters accompanying the Tender shall be in English and all measurement and quantities are to be expressed in units of the SI System.

## **8. INTERPRETATION OF TENDER DOCUMENTS/PRE-TENDER MEETING**

- a. The Tenderer is under obligation to attend a Pre-tender meeting at the Government Tenders Directorate in Amman or anywhere on a date and time specified in the Invitation to Tender.
- b. The meeting will be held for the purpose of clarifying any elements of the proposed work and also for answering all written questions received from the prospective Tenderers before the time of the Pre-Tender Meeting and questions that may arise during the meeting.
- c. Should the Tenderers have any query on any matter concerning the Tender Documents, such query shall be sent to the MPWH in writing in the form provided in Appendix "K" not later than twenty-one (21) days prior to the Tender Opening Date. All queries will be answered by

official Addendum issued by the MPWH Government Tenders Directorate not later than fourteen (14) days prior to the Tender Opening Date. Each Addendum will be distributed to all those who have been issued the Tender Documents and who shall acknowledge receipt of each Addendum by signing and returning the attached Receipt Form. All Addendum issued will become part of the Tender Documents.

#### **9. TAXES AND CUSTOM DUTIES**

- a. The Tender shall obtain all the information on Jordanian income tax, sales taxes, and other taxes and duties, and confirm the requirements thereof on his own responsibility.
- b. All taxes and duties, including custom duties and import taxes, levies in accordance with laws and regulations of the Hashemite Kingdom of Jordan in connection with the performance of the Works to be paid by the Contractor, (those taxes and duties shall be borne by the Government in accordance with the Sub-Clause 1, b of the Instructions to Tenderers), shall be deemed to be included in the Tender Price.
- c. The attention of the Tenderer shall be drawn to the fact that local regulations require special formalities to be complied with in connection with the ordering, purchasing and importing of materials and plant.

#### **10. SIGNING**

- a. A Tender by corporation shall be executed in the official corporate name followed by the signature and designation of the president, secretary or person(s) legally authorized to bind the corporation. A Power of Attorney granting the person to sign the Tender Proposal, as the representative of the corporation or the joint operation, shall be enclosed with the tender proposal.
- b. A Tender by joint operation shall be executed and designated by one of the partners or by an authorized representative as specified hereinbefore.

#### **11. TENDER EXPENSE**

All cost, charges and expenses incurred directly or indirectly by the Tenderer as to site visits and investigations, the preparation and submission of his Tender including all accompanying documents, Tender Security, authentication and other incidental cost shall be borne by the Tenderer.

## 12. WITHDRAWAL

The Tender, once submitted, shall not be withdrawn by the Tenderer, for any reasons whatsoever.

If the Tenderer withdraws before expiration of the Tender Validity, the amount of his Tender Security shall be forfeited to the MPWH by virtue of this Clause.

## 13. PREREQUISITE CONDITIONS

The MPWH reserves the right to:

- : Require clarifications from the Tenderer,
- : Reject any sub-contractor proposed,
- : Reject any alternative proposals deviating from original design requirements,
- : Require the Tenderer to submit satisfactory evidence of the proposed construction method, materials or plant and a like, before signing the Contract or to make additional submittals after signing the Contract.

## 14. DOCUMENT COMPRISING THE TENDER

The Tender shall be submitted only in and the form attached hereto as part of the Tender Documents and which shall be completed in strict accordance with instructions herein. Unless otherwise specifically remarked, any proposals made by other forms will not be accepted.

Tender shall comprise the following documents which are categorized into two (2) packages.

**PACKAGE –I DOCUMENTS** shall contain all documents as encountered below with all the information except the value of the Tender. All prices, rates and totals comprising the Tender shall be entirely confined to the **PACKAGE - II DOCUMENTS**.

In case there is discrepancy between the original set and the copies of the Tender, the original shall govern.

### 14-1. Package - I Documents

- a. A notarized Power of Attorney issued by the Tenderer to his legal representative and signatory to the Tender Documents in accordance with Clause 10 herein (marked as Enclosure No. 1).
- b. Certification of submission of Tender Security certifying the Tender Security has included in Package- II Documents (marked as Enclosure No.2)
- c. Joint Operation Agreement (marked as Enclosure No. 3)
- d. Letter of Association (marked as Enclosure No.4)
- e. Affidavit of Site Inspection (marked as Enclosure No. 5).

- f. A Basic Program of the Works (marked as Enclosure No.6).
- g. Organization and key personnel (marked as Enclosure No. 7).
- h. A Construction Plan and Temporary Works Plan (marked as Enclosure No.8).
- i. A List of Contractor's equipment (marked as Enclosure No. 9).
- j. A List of Major Materials and Plant (marked as Enclosure No. 10).
- k. List of sub-contractors/ suppliers (marked as Enclosure No.11).
- l. MPWH, MPWH and Engineer office and Equipment (Marked as Enclosure No. 14)

#### **14-2. Package - II Documents**

- a. Form of Tender
- b. Form of Tender Security (refer to Appendix C)
- c. Foreign Currency Requirement (refer to Appendix E)
- d. List of Intended Import Materials and Plant (marked as Enclosure No.12)
- e. Breakdown of Major Rates. (marked as Enclosure No. 13).
- f. Detailed monthly Cash Flow of Anticipated Contractor Payments. (marked as Enclosure No. 14)
- g. Priced Bill of Quantities and Daywork Rate (refer to Volume III ).

#### **15. TENDER PRICE**

The Tenderer shall be calculated his Tender Price according to the instructions given herein and present these prices in the Form of Tender and Bill of Quantities in a manner specified herein.

##### **15-1. Unit Price base Contract**

- a. Unless stated otherwise in the tendering documents, the Contract shall be for the whole Works as described in Clause 2, based on the schedule of unit rates and prices submitted by the tenderer.
- b. Individual schedule rates and item price, whether quoted on unit price basis or on a lump sum basis in the Bill of Quantities, will be only used for purposes of tender evaluation and comparison, interim payments calculation, and, in some cases, of price basis for issuance of



variation order as prescribed in the Conditions of Contract.

- c. The Bill of Quantities has an entry for each item on which payment will be made and no other allowance of any kind will be made unless specifically provided for in the Tender Documents. In the appropriate spaces provided for in the Bill of Quantities, opposite each Tender item, the Tenderer shall specify the unit rate or lump sum for the work and/or services included under the item. If the rate of an item is not filled in, the cost of that item shall be deemed to be included in the unit rate for other items.
- d. In case of discrepancy between the "Unit Rate" and the corresponding "Total Amount" entered for any item in the Bill of Quantities, the "Unit Rate" shall govern.

## **15-2. Currency of Tender**

All rates and prices and each claim or statement for payment for work complete shall be expressed in terms of Jordanian Dinar.

The foreign currency (International traded currency) percentage quoted by the Tenderer in his Tender shall be on the basis of the justification made by the price analysis submitted by him as described below, giving the breakdown of the foreign and local components of the pay items specified in the Bill of Quantities.

The foreign currency component shall be calculated according to the following principles:

- a. Expenditures estimated to be incurred in Jordan for goods and services obtainable locally should be classified as local component for all Tenderers
- b. A Tenderer from a foreign country should classify all expenditures to be incurred in other eligible source countries of the Japan Bank of International Cooperation of Japan (JBIC) for materials and equipment (C.I.F. port of entry, Jordan) produced in and/or services supplied from such countries including salaries and wages of foreign personnel as well as the Contractor's profits and his office overhead as foreign component expressed in the currencies of such countries and converted into Jordanian Dinar. A Tenderer from a foreign country shall, when so requested by the MPWH, produce letters of credit covering expenditures for material and equipment.
- c. A Tenderer from Jordan shall classify only such expenditures estimated to be incurred in other eligible member countries of the JBIC for materials and equipment (C.I.F. port of entry, Jordan) produced in and/or services supplied from such countries as foreign component expressed in Jordanian Dinar. A Tenderer from Jordan shall, when so requested by the MPWH, produce letters of credit covering such expenditures.
- d. The foreign exchange component in respect of construction equipment shall be limited to the value of depreciation of such equipment during the period of construction.
- e. On the basis of the price analysis made according to the above principles, each Tenderer shall enter

in the Foreign Exchange Form included as Appendix “E”, in the Tender Documents, the required percentage of foreign currency in relation to the total amount of the Tendered Sum.

Should the Contractor fail to submit his detailed price analysis with his Tender, the required percentage of foreign currency shall be considered to be nil irrespective of percentage of foreign currency stated by the Tenderer in Appendix “E”, Foreign Exchange.

- f. The foreign exchange rates that should be applied in the calculation of the unit rates and /or lump sum prices of the Foreign Currency Component are to be entered in Appendix “E”, Foreign Exchange. The rate shall be the T/T Buying Rate for the Jordanian Dinar, available from the Central Bank of Jordan, prevailing twenty-eight (28) days prior to the date of the opening of the Tenders.”  
The Currency Exchange Rate stated in the Appendix “E”, Foreign Exchange, is fixed duration of the Contract Period.

## **16. TENDER VALIDITY**

- a. Tender shall remain valid and open for acceptance for a period of ninety (90) days after the date of Tender opening prescribed in Clause 19. (Tender Opening).
- b. In exceptional circumstances, prior to expiry of the original Tender validity period, the MPWH may request the Tenderer for an extension of the period of Validity. The request and responses thereto shall be made by issuing a “Notice to Tenderer”.
- c. The Tenderer will be required to extend, at his own expense, the validity of his Tender correspondingly. The provision of Clause 7 regarding discharge and forfeiture of Tender Security shall be continue to apply during extended period of Tender validity.

## **17. TENDER SECURITY**

- a. The Tenderer shall furnish, as a part of his Tender, a Tender Security in the form of Bank guarantee in the amount of J.D. ----- issued by bank acceptable to the MPWH. The “Form of Tender Security” is included as Appendix “C” in the Tender documents.
- b. The Tender Security shall be valid for thirty (30) days beyond the validity of the Tender.
- c. Where the Tenderer is a single company, the guarantee shall be in the same name of that company. Where the Tenderer is a joint venture/consortium, the guarantee shall be in the name of joint venture/consortium as expressed in the Tender.
- d. The Tender Security of unsuccessful Tenderers will be discharged/returned as promptly as possible, and in any case not later than thirty (30) days after the expiration of the period of Tender Validity.
- e. The Tender Security of the successful Tenderers will be discharged when the successful Tenderer has signed the Contact Agreement and furnished the required Performance Security.

- f. The Tender Security may be forfeited:
- 1) if a Tenderer withdraw his Tender during the period of Tender validity; or
  - 2) if a Tenderer fail to accept the change in the Tender Price after arithmetical checking in accordance with the Tender Documents
  - 3) in case of the successful Tenderer, if he fails within the specified time limit to:
    - (i) sign the Contract Agreement, or
    - (ii) furnish the required Performance Security

## **18. SUBMISSION OF TENDER**

### **18-1 Format and Signing of Tender**

- a. The Tenderer shall submit one (1) Original and Five (5) copies of all the documents comprising the Tender, clearly marked “ORIGINAL” and “COPY” as appropriate. In case there is discrepancy between the original set and the copies of the Tender, the original shall govern.
- b. The original and copies of the Tender shall be typed in indelible ink. The Tender, Appendix to Tender, Enclosure No. 1 to 14, together with all Collection, Summary, Final Summary and Overall Summary pages of the Bill of Quantities shall be signed by a person (or persons) duly authorized to bind the Tender. Proof of authorization shall be furnished in the form of written Power of Attorney which shall accompany the Tender. All pages of the Tender where necessary entries or amendments have been made in line with addenda (Notice to Tenderers) shall be signed by the person (persons) signing the Tender.
- c. The complete Tender shall be without alteration or erasures, except those to accord with written Notice to Tenderers issued by the MPWH or as necessary to correct errors made by the Tenderer, in which case such corrections shall be initialed by the person (or persons) signing the Tender.
- d. All pages of the Tender, except those referenced in Clause 18-1,b above, shall be initialed by the person (or persons) signing the Tender.

### **18-2. Sealing and Marking of Tender**

- a. The Tenderer shall seal the Original and each Copy of the documents, comprising the Tender, in an inner envelope and outer envelope or container with the list of contents, and signed by the Tenderer, duly marking the envelope or container as “ORIGINAL” and “COPY” as appropriate.
- b. Package –I and Package –II Documents shall be submitted in separate envelope or container in the same manner specified in Sub-clause 18-2, a, above.

- c. Each complete set of Tender Documents shall be in envelope or container and shall consist of:

**PACKAGE – I DOCUMENTS**

Contained in a sealed envelope or container bearing the following identification:

THE MINISTRY OF PUBLIC WORKS AND HOUSING, JORDAN  
GOVERNMENT TENDERS DIRECTORATE  
Eighth Circle, Albiader Street, AMMAN

**TENDER FOR THE TOURISM SECTOR DEVELOPMENT PROJECT  
DEAD SEA PARKWAY SUB-PROJECT  
PACKAGE – I DOCUMENTS**

(Name of Tenderer)

(ORIGINAL or COPY, as appropriate)

**PACKAGE – II DOCUMENTS**

Contained in a sealed envelope or container bearing the following identification:

THE MINISTRY OF PUBLIC WORKS AND HOUSING, JORDAN  
GOVERNMENT TENDERS DIRECTORATE  
Eighth Circle, Albiader Street, AMMAN

**TENDER FOR THE TOURISM SECTOR DEVELOPMENT PROJECT  
DEAD SEA PARKWAY SUB-PROJECT  
PACKAGE – II DOCUMENTS**

(Name of Tenderer)

(ORIGINAL or COPY, as appropriate)

**18-3. Submission**

- a. The envelop or container shall be personally delivered by the Tenderer or his duly authorized representative to the address stated Sub-clause 18-2, c) above, and shall be received by the MPWH only during the submission time and date announced in the Letter of Invitation to Tenderer. The Tender sent by cable, telex or facsimile will not be accepted.  
It is to be fully understood that any risk accompanied by the submission of his Tender Proposal until its physical receipt by the MPWH shall solely rest with the Tenderer.
- b. Each envelope or container will be time/date-stamped by the MPWH as it is received and will be maintained, sealed and safeguarded in the place with routine security and confidentiality.
- c. Any Tender that has been submitted in the period other than specified by the MPWH shall be rejected, for any reasons whatsoever.

- d. No alteration or modification of the Tender, once submitted, shall be accepted.
- e. The Tenderer shall inform the MPWH, within seven (7) days of receipt of Tender Documents, as to whether he intends to submit the Tender or not by filling the form of Request for Tender Acknowledgement "Appendix L".

#### **18-4. Date for Submission of Tender**

- a. Tender must be received by the MPWH Government Tenders Directorate at the MPWH on the date and period specified in the Invitation of Tender.
- b. The MPWH may, at their discretion, extend the closing date for submission of Tenders by issuing a Notice to Tenderers, in accordance with Sub-Clause 16,b), in which case all rights and obligations of the MPWH and the Tenderers previously subject to the original submitting date shall thereafter be subject to the new submitting date as extended.
- c. Any Tender submitted to the MPWH other than during the time and date and time specified for submission of Tenders shall be returned unopened to the Tenderer.

#### **19. TENDER OPENING**

- a. The MPWH will open the Tender in the presence of the Tenderer's representatives who choose to attend the opening of Tender at the Government Tenders Directorate.
- b. The Tenderer's authorized representatives who are present shall sign a register as evidence of attendance.
- c. Any Tender for which an acceptable Notice of Withdrawal has been submitted shall not be opened.
- d. The MPWH will announce the Tenderer's names, withdrawals (if any) and the names of Tenderers who have not submitted their Tenders.
- e. The MPWH shall prepare, for their own records, minutes of the Tender Opening, including the information disclosed to those present in accordance with Sub-Clause 19, b) above.
- f. The MPWH will open Package -I Documents to examine the Tender to determine whether they are complete, whether the documents have been properly signed, and whether the documents are generally in order in accordance with Sub-Clause 18 of the Tender Documents.
- g. Should the Package -I Documents of the Tender be determined by the MPWH to be not in compliance with the requirements of the Tender Documents, then such Tender shall be rejected and returned to the Tenderer.

- h. Deviations and omissions will be recorded. Incomplete Package –I Documents will be returned to the Tenderer and results in termination of the Tender to participate in the subsequent phase of the Tender.

## **20. TENDER EVALUATION**

- a. Evaluation of Tender will be made by the MPWH and MPWH's representative based on the criteria briefly stipulated hereinafter.
- b. Evaluation of Tender shall be processed in "Two Stage System" as follows:
  - 1) Stage –1: Contractual and Technical Evaluation of the Package –I Documents
  - 2) Stage –2: Price appraisal of the Package –II Documents
- c. The MPWH reserve the right to accept or reject any or all Tenders and is not bound to accept the lowest priced tender. The MPWH shall not be liable for any claim regarding the procedure of the evaluation of the Tendering and shall not be bound to give any reasons for his decision to any Tenderer.

### **20-1. Stage – 1: Contractual and Technical Evaluation**

(Package –I Documents)

- a. The Tenders submitted by qualified Tenderers shall be evaluated for contractual and technical qualification.
- b. The weighting system will be utilized for technical evaluation. The Tender scoring more than the predetermined level of each evaluation item will be deemed to be technically qualified.
- c. Contractual appraisal and technical evaluation shall include an examination of:
  - 1) Power of Attorney (Enclosure No.1)  
A notarized Power of Attorney issued by the Tenderer to his legal representative and signatory to the Tender Documents in accordance with Clause 10 herein.
  - 2) Certification of submission of Tender Security (Enclosure No.2)  
Certifying the Tender Security has including in Package –II Documents.
  - 3) Joint Operation Agreement (Enclosure No.3)  
In case the Tenderer joins this Tender on joint operation based, he shall submit the joint operation agreement, giving proof that the Tender is binding upon all the participants of the joint operation and that they are jointly and severally responsible for the tender proposal and the subsequent Contract.
  - 4) Letter of Association (Enclosure No.4)  
In case the Tenderer, whether a single or joint contractor, utilizes a sub-contractor(s) for certain field of work, he shall submit a Letter of Association obtain from each of the

participating sub-contractor(s) giving proof that the participating sub-contractor(s) will work under the control and management of the Tenderer but the Tenderer is wholly and fully responsible for the Tender and the subsequent Contract.

5) Affidavit of Site Inspection (Enclosure No.5)

6) Basic Program of the Works (Enclosure No.6)

Basic Program of Construction and installation of the Works including detailed construction schedule utilizing CPM method. The construction/installation of the Works shall be completed within Twenty-four (24) months from the commencement date including all Key dates/periods stated in the Appendix "H".

7) Organization and Key Personnel (Enclosure No.7).

The ability of the Tenderer to organize and manage the Project shall be evaluated to ensure the quality of performance in consideration of the time of completion of the Works.

The Organization Chart indicating all designations and positions of the construction management and supervisory personnel including their appropriate curricula vitae, and a monthly staff manpower requirement chart for the total Contract Period, divided into local and foreign personnel.

8) Outline Construction Plan and Temporary work plan (Enclosure No. 8).

The Construction plan including, layout plan for temporary works, method statement, description of sequence, and quality and safety control procedures.

A Construction Plan and Proposed Layout Plan for Temporary Works of project sites showing the Tenderer's proposed temporary roads, construction plan, temporary facilities, such as, camps, offices, workshops, storage, etc.. The designated location and area for the Temporary facilities is included in the Appendix "I".

Construction/installation plan proposed by the Tenderer will be examined from the construct ability aspect.

9) A List of Contractor's construction equipment to be used in the Work (Enclosure No. 9).

Items such as quality, capacity and year of service and mobilization of the Contractor's equipment proposed by the Tenderer to be used for the Works shall be evaluated.

10) The list of major materials and plants (Enclosure No. 10).

A List of Major Materials and Plant to be incorporated into the Works as called for in the Specifications together with necessary catalogues, brochures and technical supporting details submitted by the Tenderer will be evaluated.

11) List of sub-contractors/suppliers (Enclosure No.11).

A List of sub-contractors / suppliers together with reference of proposed sub-contractors/suppliers submitted by the Tenderer will be evaluated.

- d. If Package - I Documents of the Tender are found not contractually and technically qualified, then the corresponding Package - II Documents of the Tender will not be opened and will be returned to the Tenderer.

## **20-2. Stage –2: Price Evaluation**

(Package –II Document)

- a. The MPWH will open the Package - II Documents of the Tenders, which have been contractually and technically qualified, in the presence of those Tenderer's authorized representative at Government Tenders Directorate, at the time and date to be notified at the address included in their Tenders.
- b. The Contractually and Technically Qualified Tenderer's authorized representatives who are present shall sign a register as evidence of attendance.
- c. The MPWH shall prepare, for their own records, minutes of the Package II Tender Document Opening, including the information disclosed to those present.
- d. The MPWH will open the Package - II Documents to examine Tender to determine whether they are complete, whether the documents have been properly signed, and whether the documents are generally in order.
- e. Should the Package - II Documents of the Tender be determined by the MPWH to be not in compliance with the requirements of the Tender Documents, then such Tender shall be rejected and returned to the Tenderer.
- f. At this opening, the Tenderers satisfying the requirements of Package - II Documents will have their names and *Tender Prices* announced.
- g. The Tenders that have passed the contractual and technical evaluation and the foregoing requirements will then be checked arithmetically and evaluated financially.
- h. Any arithmetic errors in computation and summation will be corrected by the MPWH as follows:
- 1) Where there is a discrepancy between amount quoted in figures and quoted in words, the amount in words will govern and
  - 2) Where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit rate and the quantity, the unit rate as quoted will govern, unless in the opinion of the MPWH there is an obviously gross misplacement of the decimal point on the unit rate, in which event the total amount as quoted will govern and the unit



rate will be corrected.

- i. The amount stated in the Tender will be adjusted by the MPWH in accordance with the above procedures for the correction of errors with the concurrence of the Tenderer, and it shall be considered as binding upon the Tenderer. If the Tenderer will not accept the corrected amount of the Tender, his Tender will be rejected and his Tender Security will be forfeited.
- j. The Tender Prices and Breakdown of Major Rates will be evaluated in comparison with the estimated cost of the Project, which has been authorized by the MPWH.  
Where there is a gross discrepancy between the prices of the Work in the Tender and in the MPWH estimation, the Tenderer may be asked for further clarification of his Tender.

## **21. CLARIFICATION OF TENDER**

To assist the examination, evaluation and comparison of the Tender, the MPWH may ask the Tenderer for clarification of his Tender. The request for clarification and response shall be in writing and no change in the proposed prices or substance of the Tender shall be permitted.

## **22. ACCEPTANCE OF TENDER**

- a. The MPWH shall accept only the Tender which is considered the most advantageous and in the best interest of the MPWH.
- b. The decision of the MPWH with respect to acceptance of Tender shall be final and no correspondence or communication on the matter will be entered into.
- c. The MPWH reserves the right to reject any or all Tenders, to waive any required formality in the Tenders received, and to disregard any Tender which is obviously unbalanced, particularly on the major items. The right is also reserved to reject the Tender of any Tenderer who has previously failed to satisfactorily perform or complete any construction contract undertaken by him.
- d. Acceptance of Tender will be communicated to the successful Tenderer by a Letter of Acceptance to the address indicated in his Tender.

## **23. AWARD OF THE CONTRACT**

- a. The successful Tenderer will receive a Letter of Acceptance from the MPWH and will be required to enter into a Contract Agreement. Award of this Tender shall be subject to prior approval of the MINISTRY OF PUBLIC WORKS AND HOUSING, The Hashemite Kingdom of Jordan and JBIC.  
The MPWH reserves the right to cancel the Letter of Acceptance at any time before signing the Contract without any liability to the successful Tenderer.

- b. After receipt of the Letter of Acceptance, the successful Tenderer shall submit a Performance Security within fourteen (14) days as specified in the Conditions of Contract and sign the Contract in the form attached within the time specified in the said notice. In return for submission of the Performance Security, the Tender Security shall be released to the successful Tenderer.
- c. The awarded Tenderer shall dispatch a duly authorized person(s) at his cost to the place when the MPWH designates for negotiating and entering into a Contract Agreement.
- d. The MPWH will issue the “Notice to Proceed” the Work within fourteen (14) days after receipt of the Performance Security submitted by the Contractor. The commencement of the Contract will start within thirty (30) days from the issuing date of the written Notice to Proceed the Work, when the Contractor commence the work as defined as the Date of Commencement of the Works.

## **APPENDIX**

APPENDIX A	:Schedule of Time, Rates and Conditions
APPENDIX B	:Form of Agreement
APPENDIX C	:Form of Tender Security
APPENDIX D	:Form of Performance Security
APPENDIX E	:Foreign Currency Requirement
APPENDIX F	:Form of Advance Payment Security
APPENDIX G	:Drawing List
APPENDIX H	:General Construction Schedule
APPENDIX I	:Temporary Facilities Location Map
APPENDIX J	:Site Investigation Report
APPENDIX K	:Query Form
APPENDIX L	:Tender Acknowledgement
APPENDIX M	:List of Eligibility Countries

## **APPENDIX A**

### **SCHEDULE OF TIME, RATE AND CONDITIONS**

**SCHEDULE OF TIME, RATES AND CONDITIONS**

<b><u>Subject</u></b>	<b><u>Sub-Clause in Conditions of Contract</u></b>
Ruling Language	5.1 English
Amount of performance Security	10.1 Ten percent (10%) of the respective currency component of the total contract Sum stated in the Contract Agreement
Submission of Performance Security	10.2 within fourteen (14) days from after receipt of Letter of Acceptance
Minimum amount of Third Party Insurance	23.2 JD. 600,000-
Period for submission of Insurance	25.1 Within twenty-eight (28) day of the commencement date
Time for Completion of the Works	43.1 Twenty-four (24) months after Commencement date
Period for commencement from the Employer's Notice to Proceed	ITT 23, d Twenty-eight (28) days
Delay damages for the Works	47.1 a 1/1,000 (0.1%) of the final Contract Sum per day, in the currencies and proportions in which the Contract Sum is payable.
Maximum amount of liquidated damages	47.1 a Five percent (5 %) of the final Contract Sum
Defect liability period	49.1 365 Days
Number of Installment	60.2 Monthly progress payment
Period for Engineer's review of Contractor's monthly statement	60.2 Twenty-eight (28) days
Plant and Materials for payment when delivered to the Site	60.3 Eighty percent (80%) of plant and materials rate
Percentage of retention	60.5 Five percent (5%) of the Accepted Contract Sum
Limit of Retention Money	60.5 Five percent (5%) of the Accepted Contract Sum
Payment of Retention Money	60.6 Fifty percent (50%) upon issuance of Taking-Over Certificate Fifty percent (50%) upon expiration pf Defect Liability Period
Total Advance Payment	60.7, a) Fifteen percent (15%) of the Accepted Contract Sum
Repayment amortization of Advance Payment	60.7, a) Twenty percent (20%) from progress payments
Completion of repayment of Advance Payment	60.7, b) Prior to eighty percent (80%) of Contract Sum certified
Period of Interim Payment	60.8 Within fifty-six (56) days from receipt of Contractor's monthly statement
Interest Rate	60.8 _____ %, _____
Time for Payment	60.11 Forty-five (45) days after delivery of payment certificate to the Employer
Currencies and proportions	72.2 _____ %, _____ _____ %, _____

## **APPENDIX B**

### **FORM OF AGREEMENT**

**THE HASHEMITE KINGDOM OF JORDAN**  
**THE MINISTRY OF TOURISM & ANTIQUITIES**

**FORM OF AGREEMENT**

**FOR**

**THE TOURISM SECTOR DEVELOPMENT PROJECT**  
**DEAD SEA PARKWAY SUB-PROJECT**

**FORM OF AGREEMENT**  
**FOR**  
**CONSTRUCTION**  
**OF**  
**TOURISM SECTOR DEVELOPMENT PROJECT**  
**DEAD SEA PARKWAY SUB-PROJECT**

LONE AGREEMENT NO. JO-P11

THIS FORM OF AGREEMENT made on the ----- day of -----, 2000

BY AND BETWEEN

THE MINISTRY OF PUBLIC WORKS AND HOUSING of THE HASHEMITE KINGDOM OF JORDAN, Mr. Nasir Madadha, the General Director of Government Tenders Directorate, with address at Eighth Circle, Albiader Street, Amman, The Hashemite Kingdom of Jordan, hereinafter referred to as the "EMPLOYER".

AND

---

Organized and existing under the law of the -----, for this purpose represented by Mr.----- duly authorized to negotiate and sign this Contract Agreement by virtue of Power of Attorney dated -----,  
Having its office in -----,  
Hereinafter referred to as the "CONTRACTOR".



WITNESSTH

WHEREAS the EMPLOYER is desirous that the execution and completion of the Works included in the Contract Agreement;

NOR THEREFORE BOTH PARTIES HERETO AGREE AS FOLLOWS:

1. In this Contract Agreement words and expression shall have the same meaning as are respectively assigned to them in the Contract Documents hereinafter referred to.
2. The following documents (hereinafter referred to as the "Contract Documents") shall be deemed to form and be read and as an integral part of this Contract Agreement, namely;
  - (a) The Tender and Appendix to Tender
  - (b) The Conditions of Contract
  - (c) The Specification
  - (d) The Drawings
  - (e) The Bill of Quantities
  - (f) Instructions to Tenderers
  - (g) The Notice to Tenderers
  - (h) The Letter of Acceptance
  - (i) The addenda and Supplements to any of the above documents
  - (j) The accomplished Prequalification Documents
  - (k) Ant other documents forming part of the Contract such as Letter of Approve by the Engineer, etc.
3. In consideration of the payments to be made to the CONTRACTOR as hereinafter mentioned the CONTRACTOR hereby covenants with the EMPLOYER to execute and complete the Works in conformity in all respects with the provisions of the Contract Documents.
4. The EMPLOYER hereby covenants to pay the CONTRACTOR in consideration of the execution and completion of the Works the Contract Price at the times and in the manner prescribed in the Contract Documents.

5. The Contract Price to be paid by the EMPLOYER to the CONTRACTOR subject to the requirements of this Contract is:

a. amount in works Jordanian Dinar \_\_\_\_\_  
\_\_\_\_\_  
(J.D. \_\_\_\_\_)

b. amount in works United States Dollar \_\_\_\_\_  
\_\_\_\_\_  
(US\$. \_\_\_\_\_)

6. The payment to the CONTRACTOR shall be made in Jordanian Dinar and United States Dollar. The amount of Jordanian Dinar and Foreign Currencies certified by THE MINISTRY OF PUBLIC WORKS AND HOUSING, Project Management Unit (PMU) shall be paid by bank check issued by the MOTA in favor of the CONTRACTOR.

7. Advance Payment being fifteen percent (15%) of the respective currencies, equal to;

a. amount in works Jordanian Dinar \_\_\_\_\_  
\_\_\_\_\_  
(J.D. \_\_\_\_\_)

b. amount in works United States Dollar \_\_\_\_\_  
\_\_\_\_\_  
(US\$. \_\_\_\_\_)

shall be made by the EMPLOYER to the3 CONTRACTOR, against an invoice from the CONTRACTOR and submission of Bank Guarantee for Advance Payment acceptable to the EMPLOYER, for the amounts received.

The Advance Payment Bank Guarantee shall be denominated in the respective currencies.

8. The Time for Completion of the Works shall be within Twenty-four (24) months from the Commencement Day.

The Maintenance Period shall be Three-hundred Sixty-five (365) calendar days calculated according to Sub-Clause 49.1 of the Conditions of Contract.

9. This Contact Agreement shall become effective upon the date the latest of the following conditions have been satisfied;
- a. Each of the parties shall have signed this Contract Agreement
  - b. The CONTRACTOR shall have provided to the EMPLOYER an acceptable Performance Guarantee.
  - c. Relevant approval of this Contact Agreement has been obtained from the Government of the Hashemite Kingdom of Jordan, and concurrence by the JBIC.

IN WITNESS WHEREFORE, the parties have caused this Contract Agreement to be executed by their respective duly authorized and empowered officers, on the day and year first above written.

CONTRACTOR

THE MINISTRY OF PUBLIC WORKS AND  
HOUSING  
GOVERNMENT TENDERS DIRECTORATE

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Witness:

Witness:

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## **APPENDIX C**

### **FORM OF TENDER SECURITY**

## FORM OF TENDER SECURITY

The Ministry of Public Works and Housing  
Government Tenders Directorate

### TENDER SECURITY

KNOWN BY ALL MEN these presents that, we, \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ agree to provide this TENDER SECURITY to the  
Ministry of Public Works and Housing of the Hashemite Kingdom of Jordan, (hereinafter referred to  
as the "EMPLOYER"), at the following terms:

1. \_\_\_\_\_,  
\_\_\_\_\_

(hereinafter referred to as the "TENDERER"), has prepared a TENDER in accordance with  
the Tender Documents for the Construction of DEAD SEA PARKWAY SUB-PROJECT for  
the TOURISM SECTOR DEVELOPMENT PROJECT, and it is a condition of the aforesaid  
Tender Documents that the Tenderer shall furnish a Tender Security in each of the respective  
currency components of the Tender Price.

2. In submitting his Tender, the Tenderer agrees to furnish a TENDER SECURITY through the  
above named BANK in the sums of;

a. amount in words Jordanian Dinar \_\_\_\_\_  
\_\_\_\_\_

(J.D. \_\_\_\_\_)

3. We agree to be the GUARANTOR to the EMPLOYER for the TENDER SECURITY in the  
above sum.

4. In the Tenderer, who has submitted the Tender, does not abide by the TENDER or any related conditions contained in the Tender Documents, we agree to pay above sums to the EMPLOYER within fourteen (14) days after receiving written notification from the EMPLOYER of the default of the TENDERER.
  
5. This TENDER SECURITY is effective from \_\_\_\_\_ to \_\_\_\_\_, 2000.  
We agree that we may be requested to extend the aforementioned effective period. The TENDER SECURITY shall be effective from the date for submission of Tenders until hundred twenty (120) days after the date of Tender Opening and required extension thereof.
  
6. Notification to pay shall be issued by the EMPLOYER not later than thirty (30) days after the expiry date of the TENDER SECURITY.
  
7. This TENDER SECURITY will be ineffective if;
  - a. The TENDERER has accomplished his works in accordance with the Tender Documents even if the expiry date is not due yet.
  
  - b. No notification to pay is issued by the EMPLOYER after thirty (30) days from the expiry date of the TENDER SECURITY and is no longer effective.

8. The TENDER SECURITY shall be returned to us after the Guarantee has been fulfilled or becomes ineffective.

IN WITNESS WHEREOF, the authorized representative of the \_\_\_\_\_  
\_\_\_\_\_, has hereunto affixed his signature, this  
date \_\_\_\_\_, 2000.

Signature: \_\_\_\_\_

Name of Signatory: \_\_\_\_\_

Position: \_\_\_\_\_

Note: to be signed and sealed by the authorized representative of the Guarantor.

## **APPENDIX D**

### **FORM OF PERFORMANCE SECURITY**



## FORM OF PERFORMANCE SECURITY

The Ministry of Public Works and Housing  
Government Tenders Directorate

### PERFORMANCE SECURITY

1. WHEREAS THE MINISTRY OF PUBLIC WORKS AND HOUSING of the Hashemite Kingdom of Jordan, (hereinafter referred to as the “EMPLOYER”) has awarded a Contract for the TOURISM SECTOR DEVELOPMENT PROJECT, DEAD SEA PARKWAY SUB-PROJECT to \_\_\_\_\_

\_\_\_\_\_, (hereinafter referred to as the “CONTRACTOR”) in the sums of :

a. amount in words Jordanian Dinar, \_\_\_\_\_  
\_\_\_\_\_  
(J.D. \_\_\_\_\_)

b. amount in words United States Dollar, \_\_\_\_\_  
\_\_\_\_\_  
(US\$. \_\_\_\_\_)

WHEREAS the CONTRACTOR is bound by the said Contract to submit to the EMPLOYER a PERFORMANCE SECURITY for the amount of:

a. amount in words Jordanian Dinar, \_\_\_\_\_  
\_\_\_\_\_  
(J.D. \_\_\_\_\_), which is correspond to ten percent (10%) of the local currency portion of the Contract Sum.

b. amount in words United States Dollar, \_\_\_\_\_

\_\_\_\_\_

(US\$. \_\_\_\_\_ ) which is correspond to ten percent (10%) of the foreign currency portion of the Contract Sum.

2. Now, We, underwriters responsible and representative of

\_\_\_\_\_

(hereinafter referred to as the “GUARANTOR”) and fully authorized to sign and to incur obligation in the name of the GUARANTOR, hereby declare that the GUARANTOR shall guarantee the EMPLOYER the full amount as set forth Clause 2 above.

3. After the CONTRACTOR has signed the Contract Agreement with the EMPLOYER, the GUARANTOR shall be liable to pay the full amount as aforesaid upon first written demand from the EMPLOYER if the CONTRACTOR fails to comply with the terms and conditions of the Contract.

Provided always that no alteration in terms and conditions of the Contract Agreement between the EMPLOYER and the CONTRACTOR or in the nature of the Works to be constructed, completed and maintained thereunder and no allowance of time by the EMPLOYER under the Contract nor any forbearance or forgiveness in or respect of any matter concerning the Contract on the part of the EMPLOYER shall in any way release the GUARANTOR from any liability under this GUARANTEE.

The GUARANTOR shall deliver the said amount to the EMPLOYER immediately without delay against your receipt accompanied by your written statement certifying that the CONTRACTOR failed to comply with the Contract terms and conditions and without it being necessary to give any reason.

4. The GUARANTOR shall be valid for the whole of the Time for Completion and any extension thereof, the Maintenance Period and for the period thereafter until the receipt by the CONTRACTOR of a Maintenance Certificate issued in accordance with Conditions of Contract Sub-Clause 10.1.

5. If at any during the validity period of the GUARANTEE, the EMPLOYER grants an extension of time to the CONTRACTOR, or the Contract, the GUARANTOR shall extend this GUARANTEE under the same conditions for the required time.
  
6. Until the EMPLOYER shall issue an instruction to the GUARANTOR to the effect that this GUARANTEE may be released, the GUARANTOR undertakes, notwithstanding the validity period as stated in Clause 5 herein, to extend the validity under the same conditions for successive period at a time and to forward the appropriate extension to the EMPLOYER.
  
8. As a declaration of good faith, the legal representative of the GUARANTOR hereby signs, seals and delivers this GUARANTEE on the date \_\_\_\_\_ , \_\_\_\_\_, 2000.

In witness whereof, the authorized representative of the

Has hereunder affixed his signature, this date \_\_\_\_\_ , \_\_\_\_\_, 2000.

Signature: \_\_\_\_\_

Name of Signatory: \_\_\_\_\_

Position: \_\_\_\_\_

Note: to be signed and sealed by authorized representative of the Guarantor.

## **APPENDIX E**

### **FOREIGN CURRENCY REQUIREMENT**

**APPENDIX E**

**FOREIGN CURRENCY REQUIREMENT**

DESCRIPTION	TOTAL AMOUNT IN JORDANIAN DINAR (J.D.) (carry from BOQ)	CURRENCY REQUIREMENT		
		LOCAL CURRENCY	FOREIGN CURRENCY	
		JORDANIAN DINER (J.D.)	UNITED STATES DOLLAR (US\$ )	Exchange Rate
I PRELIMINARIES	(1)			
II CONSTRUCTION COST	(1)			
III PROFIT				
IV SALES TAX ( % )				
<b>TOTAL</b>				* -2 (4)
* -1		(2)	(3)	

Note:

\*-1: Column (1) must the same amount stated in the General Summary page of the Bill of Quantities.

Column (3) shall be the United States Doller equivalent the amount of J.D. stated in the Foreign Portion columns of the Bill of Quantities.

\*-2: Column (4) shall be the T/T buying rate published by the Central Bank on the 28 days prior to the Tender Submission.

The Rate(s) in column (4) shall be fixed duration of Contract Period in accordance with the Clause 72.1 of the Conditions of Contract.

\*-3: Price in Column (2) and (3) shall be carried to the Form of Tender

\_\_\_\_\_  
(Signature and name of authorized representative of Tenderer)

\_\_\_\_\_  
(name of Tenderer)

## **APPENDIX F**

### **FORM OF ADVANCE PAYMENT SECURITY**

## FORM OF ADVANCE PAYMENT SECURITY

The Ministry of Public Works and Housing  
Government Tenders Directorate

### ADVANCE PAYMENT SECURITY

1. WHEREAS the Ministry of Public Works and Housing of the Hashemite Kingdom of Jordan, (hereinafter referred to as the "EMPLOYER") has signed a Contract Agreement with: (hereinafter referred to as the "CONTRACTOR") for the TOURISM SECTOR DEVELOPMENT PROJECT, DEAD SEA PARKWAY SUB-PROJECT on \_\_\_\_\_, 2000,
  
2. WHEREAS according to the Contract, an Advance Payment consisting of fifteen percent (15%) of the respective currencies component of the Contract Price (hereinafter referred to as the "ADVANCE PAYMENT") shall be paid by the EMPLOYER to the CONTRACTOR.
  
3. Now, We, underwriters responsible and representative of \_\_\_\_\_, \_\_\_\_\_ (hereinafter referred to as the "GUARANTOR") and fully authorized to sign and to incur obligation in the name of the GUARANTOR, hereby declare that the GUARANTOR shall guarantee the EMPLOYER up to the full amounts of;
  - a. amount in words Jordanian Dinar, \_\_\_\_\_  
\_\_\_\_\_  
(J.D. \_\_\_\_\_ )
  
  - b. amount in words Unites States Dollar, \_\_\_\_\_  
\_\_\_\_\_  
(US\$. \_\_\_\_\_)
  
4. If the CONTRACTOR, after receiving the ADVANCE PAYMENT, should fail to commence or

4. If the CONTRACTOR, after receiving the ADVANCE PAYMENT, should fail to commence or continue the Works or refuse to repay or default in the repayments of the ADVANCE PAYMENT, whatever the reason, the GUARANTOR shall forthwith return to the EMPLOYER the whole, or the remaining ADVANCE PAYMENT after deduction of any of the ADVANCE PAYMENT received by the EMPLOYER. The GUARANTOR shall deliver the money owed to the EMPLOYER upon the EMPLOYER's first demand, without delay and without the necessity of a previous notice, or judicial procedure and without it being necessary to prove to the GUARANTOR the shortcoming of the CONTRACTOR.
  
5. We understand that the total amount of this Guarantee may be successively reduced but only after each payment by the CONTRACTOR has been made in accordance with the requirements of the Contract and then only after we have received a written official notification from the EMPLOYER of the amount of reduction that shall be applied.
  
6. This Guarantee shall remain valid until the EMPLOYER shall issue a written instruction to us to the effect that the CONTRACTOR has completely discharged his payment obligation under the aforementioned Contract excluding fourteen day (14) days claim period.
  
7. The GUARANTOR hereby waives the priority right to claim for attachment and disposal of the property of Debtor for the settlement of the obligation of Debtor prior to the payment of the Guaranteed amount.



8. This Guarantee is hereby execute by seal and hand by the responsible representative of the GUARANTOR this \_\_\_\_\_day of \_\_\_\_\_, 2000.

Signature: \_\_\_\_\_

Name of Signatory: \_\_\_\_\_

Position: \_\_\_\_\_

Note: to be signed and sealed by authorized representative of the Guarantor.

## **APPENDIX G**

### **DRAWING LIST**

**DRAWING LIST**

APPENDIX G

<b>NO.</b>	<b>DRAWING NO.</b>	<b>DRAWING TITLE</b>	<b>SCALE</b>
<b>KEY DRAWINGS</b>			
1	DSPW-01	List of Drawings	....
2	DSPW-02	Abbreviations and Legend	....
3	DSPW-03	Key Location Plan	....
4	DSPW-04	Typical Cross Section	1/50 1/200
5	DSPW-05	Typical Superelevated Section	As shown
6	DSPW-06	Miscellaneous Tables	....
7	DSPW-07	Emergency Escape Ramp Details	As shown
<b>PLAN-PROFILE</b>			
8	DSPW-10	Key plan and General Notes for Plan-Profile	N.T.S
9	DSPW-11	Plan and Profile Sta. 0+000 - Sta. 0+640	1/1,000
10	DSPW-12	Plan and Profile Sta. 0+640 - Sta. 1+280	1/1,000
11	DSPW-13	Plan and Profile Sta. 1+280 - Sta. 1+920	1/1,000
12	DSPW-14	Plan and Profile Sta. 1+920 - Sta. 2+560	1/1,000
13	DSPW-15	Plan and Profile Sta. 2+560 - Sta. 3+200	1/1,000
14	DSPW-16	Plan and Profile Sta. 3+200 - Sta. 3+840	1/1,000
15	DSPW-17	Plan and Profile Sta. 3+840 - Sta. 4+480	1/1,000
16	DSPW-18	Plan and Profile Sta. 4+480 - Sta. 5+120	1/1,000
17	DSPW-19	Plan and Profile Sta. 5+120 - Sta. 5+760	1/1,000
18	DSPW-20	Plan and Profile Sta. 5+760 - Sta. 6+400	1/1,000
19	DSPW-21	Plan and Profile Sta. 6+400 - Sta. 7+040	1/1,000
20	DSPW-22	Plan and Profile Sta. 7+040 - sta. 7+680	1/1,000
21	DSPW-23	Plan and Profile Sta. 7+680 - Sta. 8+320	1/1,000
22	DSPW-24	Plan and Profile Sta. 8+320 - Sta. 8+960	1/1,000
23	DSPW-25	Plan and Profile Sta. 8+960 - Sta. 9+600	1/1,000

**DRAWING LIST**

APPENDIX G

<b>NO.</b>	<b>DRAWING NO.</b>	<b>DRAWING TITLE</b>	<b>SCALE</b>
24	DSPW-26	Plan and Profile Sta. 9+600 - Sta. 10+240	1/1,000
25	DSPW-27	Plan and Profile Sta. 10+240 - sta. 10+880	1/1,000
26	DSPW-28	Plan and Profile Sta. 10+8800 - Sta. 11+520	1/1,000
27	DSPW-29	Plan and Profile Sta. 11+520 - Sta. 11+643.70	1/1,000
<b>DEAD SEA INTERSECTION</b>			
28	DSPW-35	General Plan	1/1,000
29	DSPW-36	Geometric Design	1/500
30	DSPW-37	Profiles	1/500
31	DSPW-38	Marking and Signing	1/500
<b>MAIN INTERSECTION</b>			
32	DSPW-40	General	1/1,000
33	DSPW-41	Geometric Design	1/500
34	DSPW-42	Profiles	1/500
35	DSPW-43	Marking and Signing	1/500
<b>PARKWAY FACILITY</b>			
36	DSPW-45	General	1/1,000
37	DSPW-46	Geometric Design	1/500
38	DSPW-47	Profiles	1/1,000
39	DSPW-48	Marking and Signing	1/500
40	DSPW-49	Landscaping and Storm Water Drainage Details (1 of 2)	1/500
41	DSPW-50	Landscaping and Storm Water Drainage Details (2 of 2)	As shown
<b>STRUCTURAL DRAWINGS - General</b>			
42	DSPW-60	General Structural Notes and Details	....
43	DSPW-61	Retaining Wall Joint & Backfill Drain Details	....

**DRAWING LIST**

APPENDIX G

<b>NO.</b>	<b>DRAWING NO.</b>	<b>DRAWING TITLE</b>	<b>SCALE</b>
44	DSPW-62	T-Shape Retaining Wall	As shown
45	DSPW-63	T-Shape Retaining Wall with Sloped Embankment	As shown
46	DSPW-64	L-Shape Retaining Wall	As shown
47	DSPW-65	Gabion Details	....
<b>STRUCTURAL DRAWINGS - Wadi Abu El-Asal Bridge</b>			
48	DSPW-70	General Plan & Elevation	1/250
49	DSPW-71	Foundation Plan	1/250
50	DSPW-72	Abutments Details	As shown
51	DSPW-73	Piers Details	As shown
52	DSPW-74	Prestressed Girders Plan	As shown
53	DSPW-75	Prestressed Girders Details	As shown
54	DSPW-76	Diaphragms Sectional Plan Details	1/20
<b>STRUCTURAL DRAWINGS - Wadi Himara Bridge</b>			
55	DSPW-80	General Plan & Elevation	1/250
56	DSPW-80'	R.W. Hights Behinde Abutments	1/100
57	DSPW-81	Foundation Plan	1/250
58	DSPW-82	Abutments Details	As shown
59	DSPW-82'	Abutment Reinforcement Details	As shown
60	DSPW-83	Piers Details	As shown
61	DSPW-84	Prestressed Girders Plan	As shown
62	DSPW-85	Prestressed Girders Details	As shown
63	DSPW-86	Diaphragms Sectional Plan Details	1/20
<b>STRUCTURAL DRAWINGS - Bridges General Details</b>			
64	DSPW-90	Deck Slab Details	As shown

**DRAWING LIST**

APPENDIX G

<b>NO.</b>	<b>DRAWING NO.</b>	<b>DRAWING TITLE</b>	<b>SCALE</b>
65	DSPW-91	Prestressed Girders Details & Girder - Diaphragm Openings	As shown
66	DSPW-92	Diaphragms Details	As shown
67	DSPW-93	Miscellaneous Details	As shown
<b>DRAINAGE</b>			
68	DSPW-100	General Culvert and Embankment Protection Details	....
69	DSPW-101	Single Cell Box Culvert & Miscellaneous Drainage Details	As shown
70	DSPW-102	Pipe Culvert Details	....
71	DSPW-103	Wing - Wall Details	....
72	DSPW-104	Typical Culvert Energy Dissipater (1 of 2)	....
73	DSPW-105	Typical Culvert Energy Dissipater (2 of 2)	....
74	DSPW-106	Check Dams and Channels Details	....
75	DSPW-107	Miscellaneous Drainage Table	....
<b>SIGNING</b>			
76	DSPW-115	Traffic Signs Schedule	....
77	DSPW-116	Warning, Regulatory and Mandatory Signs	....
78	DSPW-117	Informative Signs (1 of 3)	....
79	DSPW-118	Informative Signs (2 of 3)	....
80	DSPW-119	Informative Signs (3 of 3)	....
81	DSPW-120	Lettering Size Details	....
82	DSPW-121	Sign Support Details	....
83	DSPW-122	Road Marking Details	....
<b>MISCELLANEOUS DETAILS</b>			
84	DSPW-130	Single Guardrail, Tiling & Curb Stone Details	As shown
85	DSPW-131	Steel Bridge Parapet	As shown

**DRAWING LIST**

APPENDIX G

<b>NO.</b>	<b>DRAWING NO.</b>	<b>DRAWING TITLE</b>	<b>SCALE</b>
<b>RETAINING WALL ELEVATIONS</b>			
86	DSPW-135	Retaining Wall Elevations ( 1 of 5 )	As shown
87	DSPW-136	Retaining Wall Elevations ( 2 of 5 )	As shown
88	DSPW-137	Retaining Wall Elevations ( 3 of 5 )	As shown
89	DSPW-138	Retaining Wall Elevations ( 4 of 5 )	As shown
90	DSPW-139	Retaining Wall Elevations ( 5 of 5 )	As shown

## **APPENDIX H**

### **GENERAL CONSTRUCTION SCHEDULE**





## **APPENDIX I**

### **TEMPORARY FACILITIES LOCATION MAP**

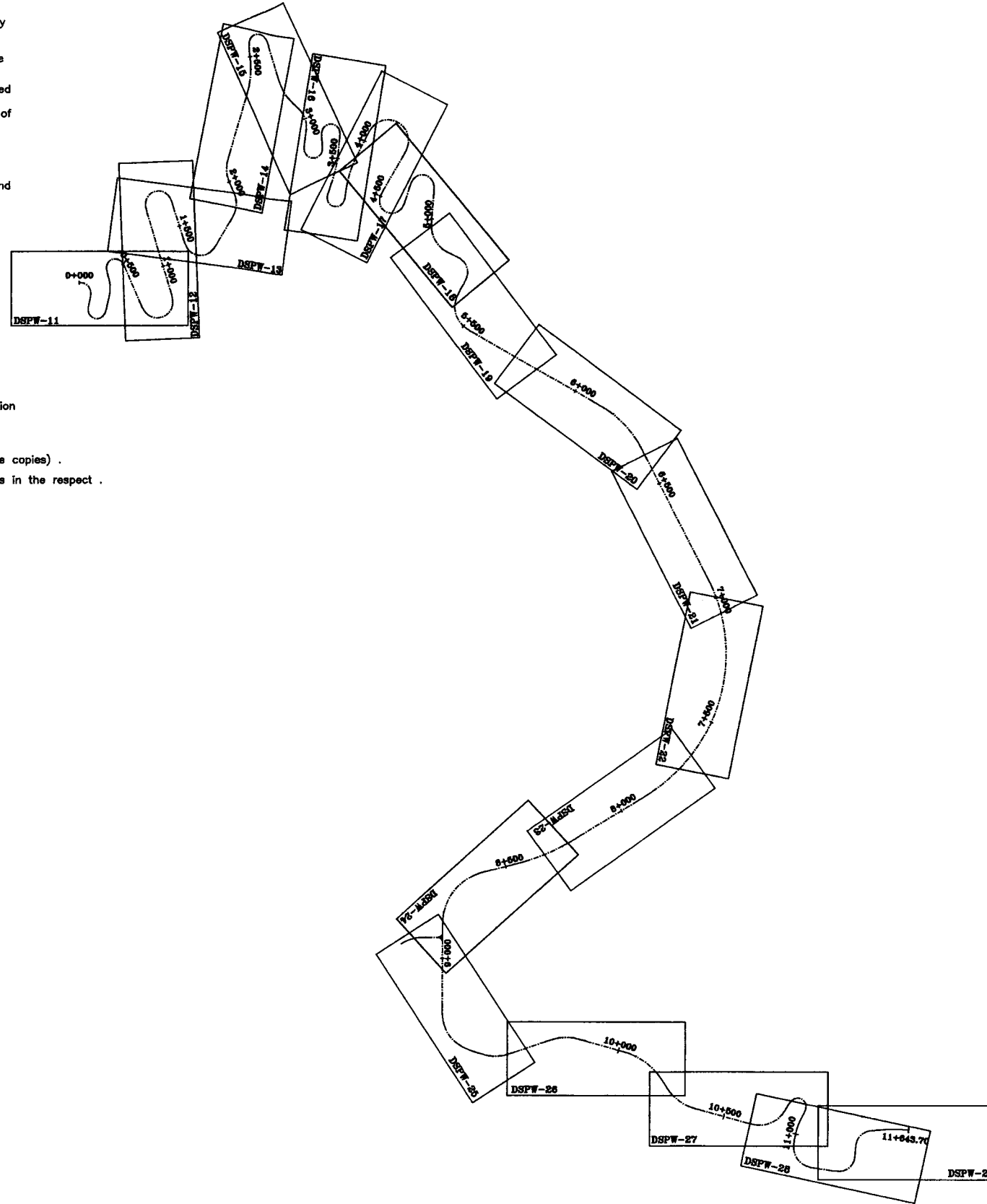
## IMPORTANT GEOTECHNICAL NOTES :-

- 1) The contractor and at his own expense must carry out full geological, geotechnical and seismic investigations to fully satisfy himself of the nature of the soil conditions for the first 5.5Km of the project in addition to the required locations at wadi ABU EL-ASAL & wadi HIMARA bridges and any other required locations subject to the approval of the engineer. The contractor must submit well in advance of starting any construction work his work plans for the geotechnical investigation incorporated within his construction work plans.
- 2) The contractor and through his first graded geotechnical consulting company must submit drawings showing proposed locations and depths of bore holes, test pits, seismic layout, ...etc. in addition to his methodology of work to the approval of the engineer. Following are the proposed locations of bore holes that represent the minimum number of of bore holes to be drilled within the alignment unless otherwise instructed by the engineer:  
stations [ 0+492, 1+030, 1+700, 1+970, 2+155, 2+230, 2+370, 2+500, 2+800, 3+225, 3+290, 3+550, 3+600, 3+940, 4+025, 4+200, 4+700, 4+850, in addition to bore holes at bridges & other structures]
- 3) The soil investigation must include but not be limited to :-
  - a) Drilling the required and approved no. of bore holes to the required depths to determine the nature, type and properties of the materials in addition to the depth and fluctuation of the water level along the route.
  - b) The approved and required no. of test pits.
  - c) Perform all required laboratory testing to the approval of the engineer to determine the physical and mechanical properties of the material along the route according to ASTM and/or B.S standards.
  - d) Seismic analysis and testing.
  - e) Analysis of all field and laboratory investigations in order to determine and evaluate the properties of the materials and determine the factors which contribute to the erosion of side slopes and potential global problems.
  - f) Perform slope stability analysis wherever required to determine the safe cut and fill slopes and optimum and most economical protection measures for both cut and fill sections.
  - g) verify the bearing capacity assumed in the design for bridges, retaining walls and any other structures. The contractor should also adjust the design of bridge sub-structure and retaining walls to the approval of the engineer if the results vary from the values assumed in the design.
- 4) All the above must be carried out in full coordination and to the approval of the engineer.
- 5) The contractor will not be paid or given extension of time to do all the above even if the results of the investigation urged the need of re-alignment of the route, revision of the proposed cut & fill slopes and the revision and/or addition of protection measures. The redesign for all above elements (if required) should be carried out by the contractor and shown on his shopdrawings to the approval of the engineer.
- 6) The contractor should submit the results of the above investigation, analysis and verification in a formal report (five copies).
- 7) The contractor shall bear the risk of any error which might appear in the soil information and can't claim damages in the respect.

## GENERAL NOTES :-

- 1) Contractor immediately on award of contract must :
  - a- Locate and concrete all survey points (Bench Marks, Reference Points, PIs...etc) and set out the centerline and stations accordingly.
  - b- Take levels of natural ground and existing asphalt and submit to the engineer bringing to his attention any discrepancy from those shown on drawings.
  - c- Prepare shop-drawings for all works and propose solutions for all discrepancies from design drawings. These drawings must be submitted to the engineer, giving him sufficient time to study and review.
- 2) The engineer will study the above mentioned drawings and will have to approve / or ask to be revised before commencement of any work.
- 3) The contractor is to allow for all the above in his unit rates as no extension of time and / or extra payments will be considered.
- 4) The contractor shall read the drawings in conjunction with all other contract documents.
- 5) Field adjustments in alignment, grades and location of drainage structures may be made by the engineers representative so as to best fit localized conditions.
- 6) Quantities shown in the bills of quantities are approximate. payment for completed and accepted work shall be on the basis of field measured quantities as stated in the specifications.
- 7) Quantities shown represent the true original in-place volume of materials to be excavated and true compacted volumes of embankments.
- 8) The contractor's attention is directed to the provisions of the conditions of contract concerning utility lines and setting out.
- 9) All coordinates are based on the Palestine grid.
- 10) The contractor to submit a detailed survey showing the exact locations and heights of the retaining walls subjected to the approval of the engineer.
- 11) The exact locations of guardrails and pedestrian railing are to be determined on site by the engineer.
- 12) Slope protection locations mentioned in the drawings are approximate. it is the responsibility of the engineer to define the final locations and heights to best suit site conditions.
- 13) The contractor must and at his own expense prepare as built drawings and submit to the engineer. He must point out any alterations for corrections required if so instructed. No separate payment will be made. Cost deemed to be included in his unit bid prices. above includes final x-sections to a scale agreeable to the engineer.
- 14) No work will be allowed prior to placing all the required temporary signs, traffic lights, flag men, etc, wherever and whenever required. No separate payment will be made. Cost deemed to be included in unit bid price.
- 15) Contractor to allow in his unit rates for the construction and maintenance of all required diversions and should note the penalty which will be imposed if diversions are not constantly and properly maintained to the satisfaction of the engineer's representative.
- 16) The contractor must submit well in advance of any work detailed plans showing proposed detours and diversions. Traffic in both directions must be allowed to flow at all times. Contractor must obtain engineer's and police permission prior to starting constructing and diversion.
- 17) Contractor to liaison and cooperate with all utility departments in locating existing utility lines, cables, manholes and poles etc. Any damage due to any reason is the responsibility of the contractor and he must immediately correct and bear all cost.
- 18) Contractor must immediately on being awarded the project, contact all authorities concerned - the electricity authorities, the water authorities etc. And make sure of the location and depth of all utility ducts, cables, pipes etc. Contractor shall either relocate any that would interfere with his work, especially the relocation of the overhead and underground electric cables and posts or arrange for relocation to be done by the respective authorities, all to the approval of the engineer and the authorities concerned.
- 19) Box culvert dimensions shown on drawings are as follows : 4 ( 3 x 2 )
 

no. of cells	_____
height of each cell	_____
span of culvert	_____
- 20) Only paved ditches are shown on the plan profile drawings.  
all other ditches are shown on relevant cross - sections



<b>Project:</b> Tourism Sector Development Project in the Hashemite Kingdom of Jordan	
<b>Executing Agency:</b> The Ministry of Tourism and Antiquities The Ministry of Planning	
<b>SUB-PROJECT:</b> Dead Sea Parkway	
<b>Note:</b> This detailed design has been executed by a team of consultants as shown below in accordance with the agreement between Japan International Cooperation Agency (JICA) and JICA Study Team. The copyright of this drawing rests with JICA.	
<b>Designed by:</b> Japan International Cooperation Agency (JICA)	
<b>JICA Study Team:</b> Joint Venture of Pacific Consultants International and Yamasita Sekkel Inc.	
<b>Subcontracted Local Consultant:</b> <b>consolidated consultants</b> engineering & environment Tel: 4612377 - Fax: 4612360 - AMMAN - JORDAN	
<b>Drawing Title:</b>  KEY PLAN	
<b>Scale:</b> NOT TO SCALE	<b>Drawing No.:</b> DSPW-10

## **APPENDIX J**

### **SITE INVESTIGATION REPORT**

# TOUKAN & SAKET

Geo - Research & Foundation  
Engineering Office

Drilling , Sampling , Testing  
Engineering Geology , Foundations,  
Geomechanics,  
& Material Testing



# مكتب طوقان والساكت

للدراست الهندسية الجيولوجية والأساسات

تنقيب ، اخذ عينات ، تحليل ،  
مسح هندسي جيولوجي ، دراسة  
اساسات وميكانيكا الصخور والتربة  
وفحص المراد

Ref : F.TS/246/1999

Date : 21/09/1999

Messrs : JICA Study Team

Att : Mr . Takahide Fujihira

## Project : Dead Sea Parkway Development Site Investigation - Report

Dear Sirs ,

Reference to your letter dated 21, Sept, 1999 , please find below clarification to the raised points :

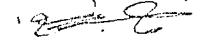
- 1- We would like to confirm that the bedrock at the location of the drilled six boreholes of Kurnub sandstone unit is rippable by means of heavy douzers and might need rock breakers . The underlying rock below the Kurnub sandstone , ( Um ishrin , Dardur Ma'in , Um irna formations ) are strongly cemented and highly abrasive and might need blasting for the excavation . No drilling was performed through the mentioned formations .
- 2- We think there is no need for protection measures at this stage , due to good stability of the rock . Additional protection measures such as gabions and walls in wadi location could be suggested by our supervising geotechnical engineer during excavation and construction . The suggested side cut slopes could be provided easily due to large space limits available .  
Engineering parameters for materials were provided in the report .
- 3- No chemical tests were carried out on the explored rock , due to the fact that the rock is free from Sulphates or Chlorides .

Hopping the above clarification is to your satisfaction . If you need additional information , please do not hesitate to contract us .

It is an honour to serve you .

Best Regards

Yours Faithfully

  
Dr. S. Saket

# TOUKAN & SAKET

Geo - Research & Foundation  
Engineering Office

Drilling , Sampling , Testing  
Engineering Geology , Foundations,  
Geomechanics,  
& Material Testing



مكتب طوقان والسكيت  
للدراسات الهندسية الجيولوجية والأساسات  
تثقيب ، أخذ عينات ، تحليل ،  
مسح هندسي جيولوجي ، دراسة  
اساسات وميكانيكا الصخور والتربة  
وفحص الموارد

Ref : F.TS/246/1999

Date : 21/09/1999

Messrs : JICA Study Team

Att : Mr . Takahide Fujihira

Project : Dead Sea Parkway Development  
Site Investigation - Report

Dear Sirs ,

Reference to your letter dated 21, Sept, 1999 , please find below clarification to the raised points :

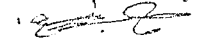
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Hopping the above clarification is to your satisfaction . If you need additional information , please do not hesitate to contract us .

It is an honour to serve you .

Best Regards

Yours Faithfully

  
Dr. S. Saket

**TOUKAN & SAKET**

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& Material Testing



مكتب طوقان والساكت  
للدراسات الهندسية الجيولوجية والأساسات  
تفتيح ، اخذ عينات ، تحليل ،  
مسح هندسي جيوراجي ، دراسة  
اساسات وميكانيكا الصخور والتربة  
وفحص المراد

Ref : R99/25/1999

Date: 12/08/1999

Messrs : **JICA Study Team**

**Site Investigation**  
**Of**  
**Dead Sea Parkway Development Project**

Dear Sirs,

Upon your request, concerning the above mentioned project , we have the honour to submit for your consideration the attached report in which we summarized the results of the investigation undertaken by our firm.

We take the opportunity to express to you our highest consideration

Best Regards

Sincerely yours,

Toukan & Saket

  
Dr . S.Saket



## Contents

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1.0 Introduction	1
2.0 Scope of Works	1
3.0 Geomorphology & General Geology	2
3.1 Geomorphology	3
3.2 General Geology	3
3.3 General Description of the material along the Route	5
4.0 Method of Investigation	6
5.0 Field Works	7
5.1 Drilling	7
5.2 Sampling	7
5.3 Insitu Testing	7
5.4 Drilling Results	8
6.0 Geomechanics .	8
7.0 Conclusions & Recommendations	9
7.1 Foundation Type & Depth.	10&11





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Site Investigation  
Of  
Dead Sea Parkway Development Project

**1.0 Introduction**

Upon the request of Messrs. JICA Study Team , sub-soil investigation was carried out for the proposed route and bridge sites, in accordance with the British Standards Specification, CP 2001 for site investigation .

The investigation was carried out by performing 6 boreholes, drilled at locations determined by the geotechnical Engineer to a depth of ranging between 10.0 and 35.0m .

The proposed project consists of a route connecting the Ma'in road and the Dead Sea passing by the panoramic complex project .

The drilling was concentrated at the bridge sites and at the proposed main cut locations . ( see site plan ) .

**2.0 Scope of Work**

The purpose of this study was to determine the ground conditions at the bridge and cut sites , in order to provide full information about the ground conditions and geotechnical properties of foundation materials and all other information that would assists in the Engineer in the design of proper and safe foundation and side cut slopes .

In addition representative samples were collected from the wadies for laboratory testing to assist in the design of the road .



The works included the following :

- Field visits and general description of the proposed project .
- Setting up locations of boreholes.
- Drilling 6 boreholes and carrying out the necessary field tests.
- Recovery of representative samples .
- Carrying out the required laboratory tests.

Analysis of the site investigation data, laboratory testing and geotechnical interpretation form the basis of this report.

### **3.0 Geomorphology & General Geology**

#### **3.1 Geomorphology**

The proposed route could be divided into two main geomorphological features :

- Lower stretch
- Upper plateau

The lower stretch is the section between station 00 + 00 and 5 + 000 . The lowest elevation at the intersection with the Dead Sea highway point ( station 00+000 ) is – 350m and the elevation at station 5 + 000 is about 120m . The terrain along this stretch is very rugged , intersected by many deeply insized gullies . This stretch is not accessible for vehicles .

The upper plateau runs on wide and long terraces and intersects two main wadies ; Wadi Himara and Wadi Al Asal . Two bridges are proposed on those wadies .



The highest point of this stretch is 170m at the intersection with ma'in road ( station 9.000 ) and the lowest is 120 at station 5+ 000 .

Most of the proposed rock cut height in the design is less than 12m except for cuts adjacent to the proposed bridge at station 7+090 . The proposed cut height at station 6+850 is 23m and at station 7+300 is 18m .

### 3.2 General Geology

The rock formation outcropping along the proposed route are mainly of sedimentary origin . They could be sub – divided as follows :

- Kurnub Sandstone
- Dardur Formation
- Ma'in Formation
- Lisan Marl
- Um Ishrin sandstone Formation

Generally the above formations could be briefly described as follows and shown on the attached geologic map figure ( 1 ) , Appendix B .

#### - Kurnub Sandstone

This group crops out at the wide terrace and consists of white , medium to coarse grained and pebbly , planar cross – bedded sandstone passing upwards to trough cross- bedding sandstone in the lower part . The upper part is varicoloured , red mauve , pink , grey white and yellow , medium grained sandstone with level bedded , burrow – mettled horizons and both planner and trough cross – bedding , toward the top , channel – fill sandstone with plane fragments are common .

Kurnub group is of Cretaceuos in age .



### - Dardur Formation

This formation crops out at the top of the cliff and consist of four member

- a- black to dark green shale , dolomitic limestone and of laminated marl .
- b- Cross – bedded , white sandstone with dolomitic sandstone and marl .
- c- Dolomitic limestone , mainly intercalations of shale , marl , clay and mud cracks .
- d- Fine to medium white , sandstone intercalated by green to yellow siltstone and clay,

The formation of Triassic in age .

### • Kurnub Sandstone Group

#### • Ma'in Formation

This group . crops out at the middle of the cliff and consist of alternating of thinly bedded sandstone , siltstone and clay with some carbonate with trace fossils and ripple – marks and mud cracks and of Triassic in age .

This formation is divided into , Nimra and Himara groups .

#### • Iisan Marl Formation

This formation rest unconformably on the older rocks at the middle of the cliff , and consists of :

- a- thinly laminated marl with gypsum .
- b- cross bedded calcarenit and siliciclastic sand and gravel .
- c- cross bedded cemented calcarenitic and oolitic beach rock the beds were deposited in saline lake .



◦ Umra Ishrin Sandstone Formation

This formation crops out at the base of the cliff and consist of red brown to yellowish medium to coarse – grained sandstone with planner and trough cross – bedding and siltstone . It was deposited by fluvial barided streams and of Cambrian age .

**3.3 General Description of the Material Along the Route**

The rock formations along the proposed route could be described as follows :

Station 0.0 + 000 to 00 + 600	Um Ishrin formation composed of sandstone , brownish red and reddish siltstone bands , cross bedding , occasionally covered with gravels and boulders .
Station 00 + 600 to 1 + 800	( Dardur – Ma'in formation ) composed of brownish reddish sandstone strongly cemented , cross bedded , coarse grained , highly jointed .
Station 1 + 800 to 3 + 900	Debris material ( Lisan Marl gravel formation ) composed of boulders , rounded cobbles , gravels and creamish sand , under lain by sandstone friable , weakly to strongly cemented, water streams and springs were observed .
Station 3 + 900 to 9 + 000	Massive varicoloured , strongly cemented Kurnub sandstone , coarse grained , jointed .



#### 4.0 Method of Investigation

All drilling, sampling and testing were performed in accordance with the British Standards, CP 2001.

The sub-surface was explored by Hands of England , land Rover mounted type rig, advance by rotary drilling allowing the performance of Standard and cone penetration tests and taking representative samples.

Dry drilling to refusal in boreholes was used to recover representative samples.

The boreholes were monitored for any ingress of water during dry drilling.

Representative samples were obtained during the drilling operation and were placed in tight plastic bags and wooden boxes for description.

Standard and cone penetration tests were carried out in accordance with the BS Standards 1377(Test 19 ) and the results were recorded on the boreholes logs at depths to which they refer.

The penetration tests were executed with 2 inches standard sampling spoon with catchers and driven by dropping a 140 lbs. Weight hammer with a 30 inches fall height. The 2 inches diameter spoon was lowered to the bottom of the boreholes and penetrated about 6 inches in the materials, whereupon the penetration test was started.

The "N" value is the number of blows required to produce one foot of penetration.

In defining the density of the non-cohesive materials, very loose material was considered to have standard penetration values less than 4 blows per foot, loose, between 4 and 10 blows per foot, medium dense, between 10 and 30 blows per foot, dense, between 30 and 50 blows per foot , and very dense, more than 50 blows per foot .



## 5.0 Field Works

### 5.1 Drilling

The locations of boreholes were chosen so as to represent the study area and provide as much information as possible.

A total of 6 boreholes were drilled . The locations of the drilled boreholes are shown on the attached plan .

The positioning and depth of the boreholes were determined by the geotechnical Engineer of the client .

### 5.2 Sampling

Continuous samples of the drilled materials were collected at regular depth intervals of 1.0m and at each lithological change of the material . The samples were labeled, described and logged. Representative samples were also obtained for laboratory testing and classification .

Additional bulk samples were collected for compaction and CBR tests .

### 5.3 Insitu Testing

In order to obtain an estimate of the density insitu , cone Penetration tests were performed every 1.0m as specified by the client .

The penetration tests results indicate that the penetrated material is very dense with the CPT, "N" value, more than 50 blows per foot . (see borehole logs ).

Refusal results were obtained on strongly cemented parts of the sandstone .



#### 5.4 Drilling Results

The drilled boreholes show that the penetrated rock is mainly vari-coloured sandstone of kurnub group . The bedrock is ranging between strongly cemented to weakly cemented , friable sandstone .

No cavities or water table were detected in any of the drilled boreholes . Only jointed rock was encountered where partial loss of drilling air circulation was observed . For more details see boreholes logs attached in Appendix B .

#### 6.0 Geomechanics

A laboratory testing program was devised and performed on representative samples obtained from the study area , to establish the engineering properties of the material involved. The only tests that could be performed on such material are :

- Grainsize analysis
- Unconfined compression test
- Direct shear test
- Compaction
- California Bearing Ratio

The results of the grainsize analysis of the tested samples are summarized in (Table 1). The material is composed of silt, between 1.5 % and 6.0 % and sand between 94.0 % and 98.5 % .

The unconfined compressive strength of the tested samples show a range between 22.6 kg/cm<sup>2</sup> and 293.2 kg/cm<sup>2</sup> ( table 2 ) .





The direct shear test performed on remoulded samples of sandy material obtained from the drilled boreholes , show that the cohesion is zero , with a peak friction angles between 35.0 and 45.0 degrees . The results are summarized in table (3) and shown as curves .

The specific gravity of the tested samples show a range between 2.610 and 2.650 ( Table 4 ) .

The compaction tests performed on a two samples obtained from the surface, show that the maximum dry density is ranged between 1.88 gr/cm<sup>3</sup> and 1.940 gr/cm<sup>3</sup> with an optimum moisture content of 3.5 % to 4.5 % . The results are presented as curves and summarized on table (5) attached .

The CBR values of the same samples ranged between 21.0 % and 28.0 % curves are attached to this report and summarized on table (5) attached .

All tests results tables are attached in Appendix A, and presented as curves attached in Appendix C .

## **7.0 Conclusions & Recommendation**

As a result of this study and tests, the following conclusions could be summarized :

- The drilled boreholes show that the penetrated rock is vary – colored sandstone , fine to coarse grained .
- The bedrock is ranging between weakly cemented , friable to strongly cemented .
- The rock is uniform in terms of lithology and density .
- The bedrock was encountered in all of the drilled boreholes .
- No cavities or water table were encountered in the drilled boreholes .

In order to have a safe slopes and stable foundation, the following is recommended :



## 6.1 Foundation Type and Depth

In order to have safe structures, the foundation materials beneath the structures must have an adequate bearing capacity to support the design loads with an appropriate factor of safety and acceptable tolerable settlements.

To have safe foundation to support the structure, the following is suggested :

- Since the foundation material at the bridges site is sandstone rock, therefore footing type foundation could be employed at the proposed design level or at a minimum depth of 2.0m in to the bedrock, with an allowable bearing capacity of 5.0 kg/cm<sup>2</sup>.

Generally, the following parameter could be estimated to be used for design :

Friction angle ( $\phi$ )	45-50°	( Intact rock )
	27-38	( along a joint )
	25-34	( Residual )
Cohesion ( C )	= 0°	
Wet unit weight	= 2.0 T/m <sup>3</sup>	
Poisson's Ratio	= 0.23	
Stiffness Modulus	= 1150 kg/cm <sup>2</sup>	
Coefficient of Friction at base	= 0.81	
Subgrade Modulus	= 50 – 100 kg/cm <sup>2</sup>	

- \* The study area is characterized by semi – arid climate, warm and dry in the summer with rainy winter .
- \* As far as the seismic activity in the area , Jordan has not witnessed any serious earth quakes in the last 60 years . It is a general practice to consider the study area within zone 1 of the unified building code . Research in Jordan concluded that one earth quake with magnitude 6½ every 100 years and one earth quake with magnitude 7½ every 500 years might take place .

The intensity factor is 0.75 for zone A and it is 0.5 for zone B . of mercalli scale .



- \* The bedrock (Kurnub sandstone ) at the location of boreholes is rippable by means of heavy douzers and might need rock breakers . The underlying rock ( Um Ishreen, Dardur, Mai'n formation ) are strongly cemented and highly abrasive and might need blasting for excavation .
- \* A horizontal peak ground acceleration of at least 0.19g is suggested to be adopted in the design of the foundations .
- \* In order to have safe cut slopes , a side cut slope of 1H : 3V is suggested for cut height of less than 10 meters . The slope height more than 10m should be provided with 2.5m wide bench and the upper slope be cut at 1H : 4V as shown on figures 2 & 3 .

The excavation side cut slopes and protection measures , if needed , should be under the supervision of our experienced geotechnical engineers . Modification of the side cut stopes and protection measures such as gabion in wadies , if needed , could be suggested during construction .

- \* The rock is free from chemically aggressive or reaction material .

The recommendation given in this report are solely based on the results of the drilled boreholes at the time investigation and our understanding , and concept of the project . Further check of the material during excavation and at the foundation level by our geotechnical engineer is very important .



## Appendix A

### Summary Of Tests Results

- Table (1) - Grainsize Analysis & Moisture Content
- Table (2) - Unconfined Compression Tests Results
- Table (3) - Direct Shear Tests Results
- Table (4) - Specific Gravity Tests Results
- Table (5) - Compaction & C B R Tests Results


Summary Of Tests Results

Borehole No. & Depth ( m )	Grainsize Analysis		Moisture Content ( % )
	Sand	Silt	
BH.1 5.0	97.0	3.0	2.3
BH.1 10.0	95.0	5.0	2.9
BH.1 13.0	96.5	3.5	2.4
BH.1 17.0	96.9	3.1	3.0
BH.2 5.0	96.9	3.1	2.6
BH.2 10.0	96.2	3.8	2.9
BH.2 15.0	95.3	4.7	3.1
BH.2 20.0	98.0	2.0	3.4
BH.2 23.0	97.6	2.4	2.7
BH.3 3.0	94.0	6.0	2.5
BH.3 6.0	98.5	1.5	3.1
BH.3 9.0	95.5	4.5	3.3
BH.4 3.0	97.5	2.5	2.7
BH.4 6.0	96.9	3.1	3.0
BH.4 9.0	97.5	2.5	3.2
BH.5 5.0	95.9	4.1	3.4
BH.5 10.0	96.5	3.5	3.1
BH.5 15.0	95.2	4.8	3.8
BH.5 20.0	96.0	4.0	3.5
BH.5 25.0	97.1	2.9	3.6
BH.5 30.0	96.5	3.5	3.9

Table (1)



Continued

Porehole No. & Depth (m)	Grainsize Analysis		Moisture Content (%)
	Sand	SH:	
DH.6 2.8	97.8	4.1	2.5
DH.6 6.0	97.8	2.9	2.8
DH.6 9.0	98.5	1.5	3.0
DH.6 12.0	91.9	5.1	3.1

Table (1)



Unconfined Compression Test Results

Sample No. Depth	Compressive Strength (kg/cm <sup>2</sup> )
BH.1 4.5m	120.8
BH.1 7.5m	230.4
BH.2 11.4m	32.6
BH.2 15.7m	46.8
BH.2 19.8m	260.9
BH.3 4.5m	28.1
BH.3 6.7m	201.9
BH.4 5.8m	31.4
BH.5 15.0m	88.7
BH.5 18.2m	293.2
BH.5 24.0m	71.3
BH.6 5.5m	60.3

Table (2)



Continued

Borehole No. & Depth ( m )	Grainsize Analysis		Moisture Content ( % )
	Sand	SH	
BH.6 3.0	95.9	4.1	2.5
BH.6 6.0	97.3	2.2	2.8
BH.6 9.0	98.5	1.5	3.0
BH.6 12.0	94.9	5.1	3.4





Unconfined Compression Tests Results

Borehole No. & Depth	Compressive Strength (kg / cm <sup>2</sup> )
BH.1 4.5m	120.8
BH.1 7.5m	230.4
BH.2 11.4m	22.6
BH.2 15.7m	46.8
BH.2 19.8m	260.9
BH.3 4.5m	28.1
BH.3 6.7m	201.9
BH.4 5.8m	31.4
BH.5 15.6m	88.7
BH.5 18.2m	293.2
BH.5 24.6m	71.3
BH.6 5.5m	40.3

Table (2)



### Direct Shear Test Results

Boreholes No. & Depth (m)	Friction Angle ( Degree )  ( $\phi_p$ )
BH.1 8.0	40.0
BH.1 15.0	38.0
BH.2 15.0	35.0
BH.3 5.0	37.0
BH.4 5.0	39.0
BH.5 10.0	45.0
BH.5 23.0	42.0
BH.6 8.0	36.0

Table(3)



Specific Gravity Tests Results

Boreholes No . & Depth ( m )	Specific Gravity
BH.1 5.0	2.610
BH.2 15.0	2.630
BH.3 6.0	2.610
BH.4 6.0	2.650
BH.5 15.0	2.640
BH.6 6.0	2.630

Table (4)

Compaction and ( C B R Tests Results )

Sample No .	Max . Dry Density ( gr/cm <sup>3</sup> )	O . M . C ( % )	C B R at O . M . C (%)
1-	1.930	3.50	26.0
2-	1.900	4.0	23.0
3-	1.940	3.8	28.0
4-	1.880	4.5	21.0

Table (5)



### Appendix B

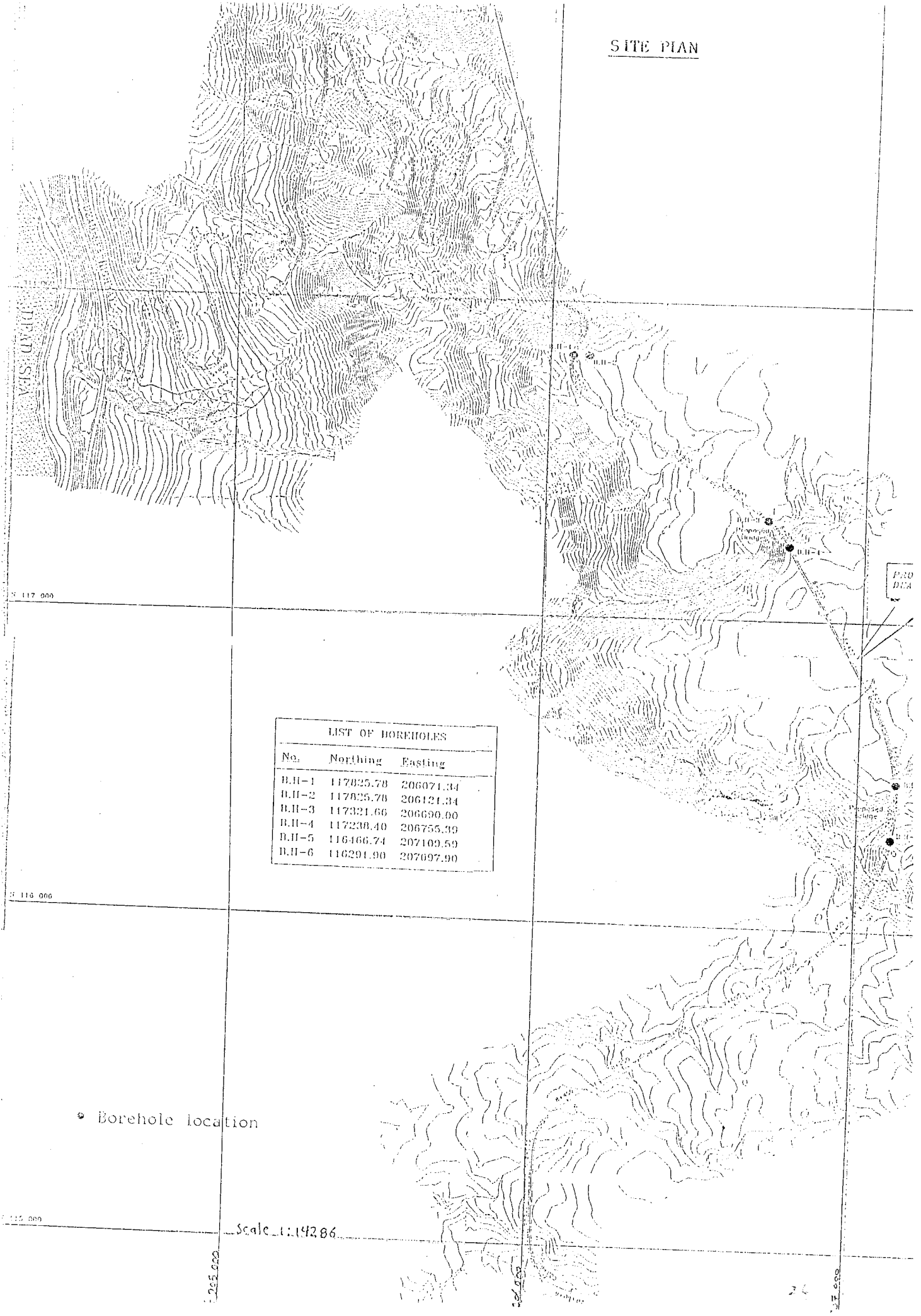
- General Geologic Map
- Boreholes Logs

SITE PLAN

LIST OF BOREHOLES		
No.	Northing	Easting
B.H-1	117025.70	206071.34
B.H-2	117025.70	206121.34
B.H-3	117321.66	206690.00
B.H-4	117230.40	206755.99
B.H-5	116466.74	207109.59
B.H-6	116291.90	207097.90

• Borehole location

Scale 1:14286



117 000

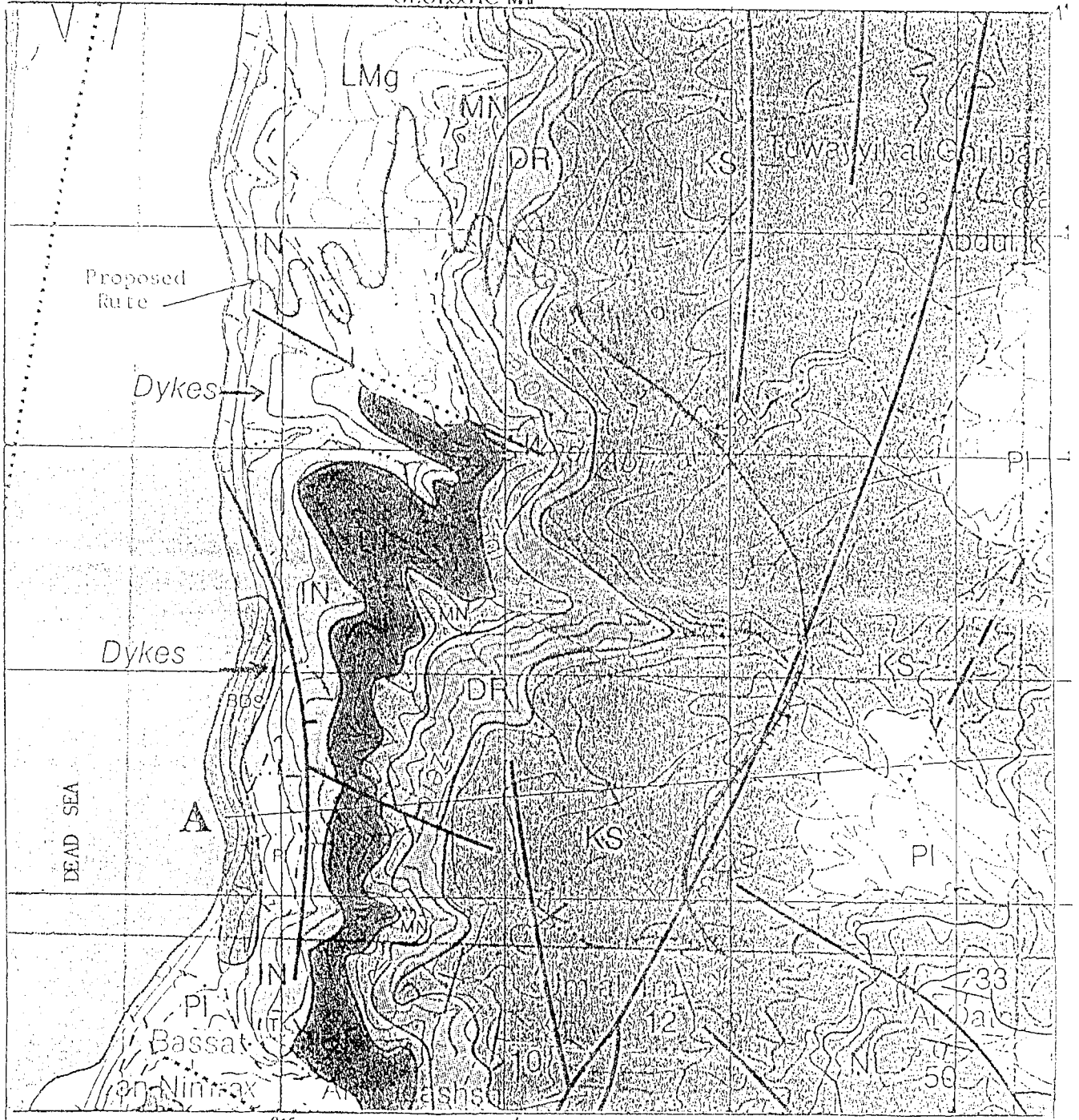
116 000

115 000

117 000

117 000

GEOLOGIC MAP



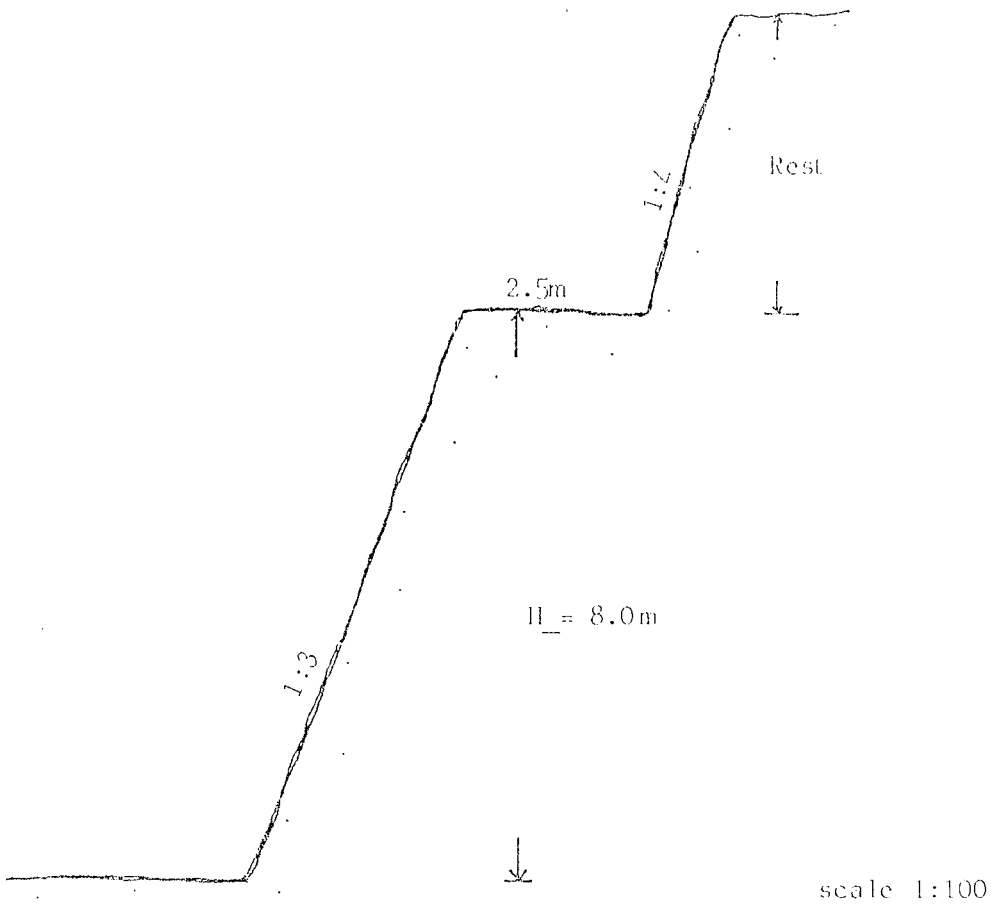
LEGEND

- KS Kurnub group
- DR Dardour formation
- MN Main formation
- Um Irna formation Um Irna formation
- IN Um Ishrin formation
- LMg Lisan formation
- PI Fluviatile gravel

- Fault
- Proposed Route
- Dip & strike
- Wadi

Scale 1:25000

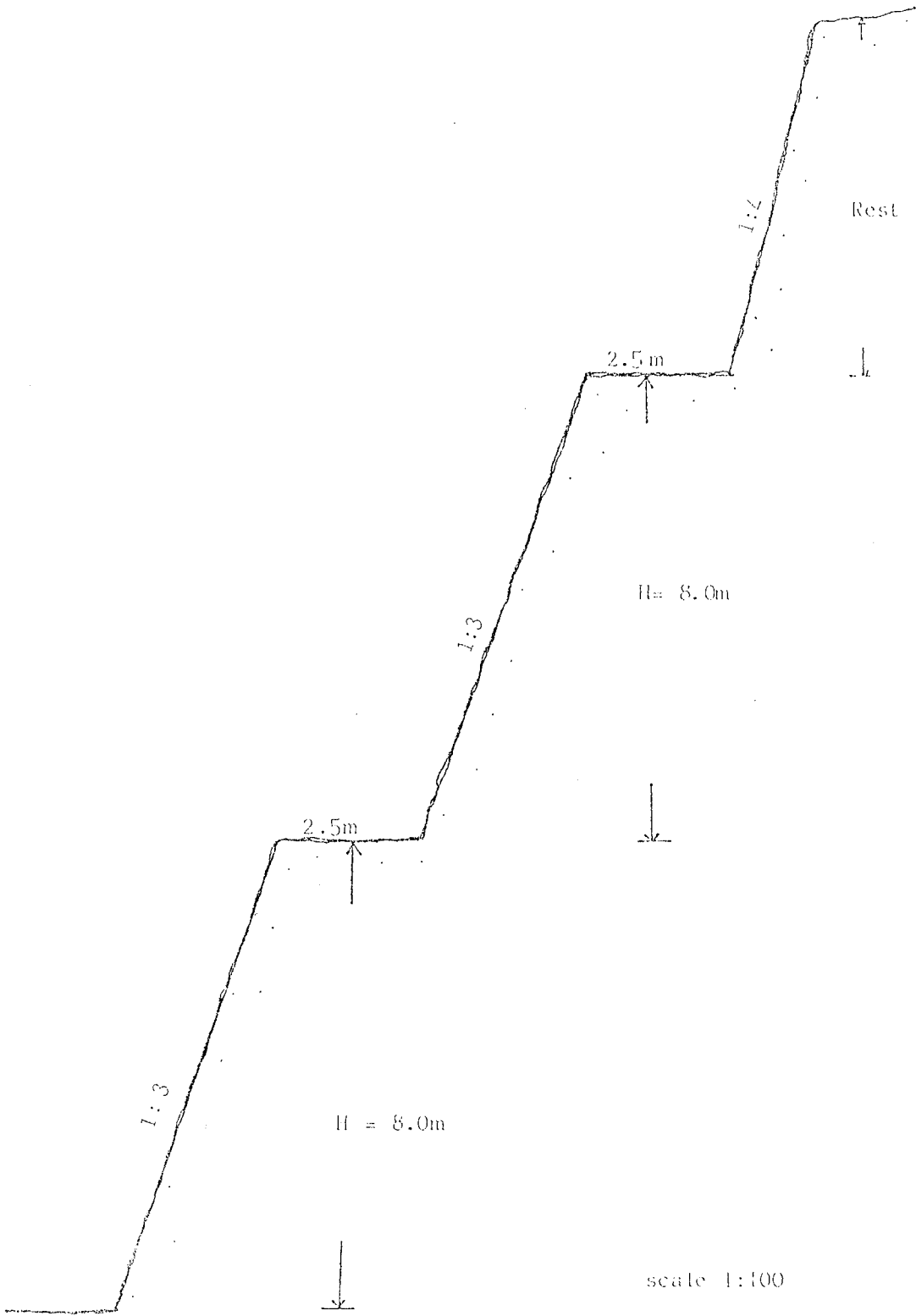
Figure (1)



Proposed typical side cut slope for stations 00+500→  
5+750 & 8+300→8+500

Figure(2)





Proposed typical side cut slope for stations 6+850 & 7+300.

Figure(3)

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BOREHOLE LOG DATA SHEET

PROJECT : Dead Sea Parkway			TYPE & SIZE OF DRILLING : Rotary 4 1/2"								
BOREHOLE NO : BH1			Coordinate :		E : 206071.34		Started : 23/7/1999				
					N : 117825.75		Date : Finished : 24/7/1999				
Depth (M)	L O G	DESCRIPTION ELEVATION : 136.36	REC (%)	ROD (%)	SPT "N"	MC (%)	LL	PI	$\gamma$ (gr/cm <sup>3</sup> )	Sample No.	
1		SANDSTONE , fine to coarse , vari – coloured , moderately cemented , very dense .			50/12cm						
2					50/2						
3		SANDSTONE , fine to coarse , rosy ferrous , friable , partly strongly cemented , very dense .			50/12						
4					Ref						
5					59	00	Ref				
6							Ref				
7					62	16	50/9				
8					77	19	50/8				
9						50/16					
10		SANDSTONE , medium to coarse , cream Whitish , partly rosy , strongly cemented , very dense .				Ref					
11					50/11						
12					Ref						
13					50/13						
14					50/8						
15		SANDSTONE , fine to coarse , vari – coloured , Partly strongly cemented , very dense .				50/6					
16					50/6						
17					50/5						
18					Ref						
					50/10						



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**BOREHOLE LOG DATA SHEET**

PROJECT : Dead Sea Parkway		TYPE & SIZE OF DRILLING : Rotary 4 1/2"								
BOREHOLE NO : BH2		Coordinate : E: 206121.34 N: 117625.73			Started : 24/7/1999 Date : Finished: 27/7/1999					
Depth (M)	L. O. G.	DESCRIPTION	REC (%)	ROD (%)	SPT. "N"	MC (%)	LL	PI	γ (gr/cm <sup>3</sup> )	Sample No.
1		SANDSTONE , fine to coarse , vari - coloured , strongly cemented , very dense .			50/3cm					
2					50/4					
3		SANDSTONE , medium to coarse , creamish white friable , partly strongly cemented , very dense .			50/16					
4					50/22					
5					67/30					
6					50/13					
7					50/18					
8				80	19	50/Ref				
9						56/30				
10						50/7				
11				76	21	Ref				
12						Ref				
13					50/19					
14					50/23					
15					59/30					
16			82	17	50/4					
17		SANDSTONE , fine to coarse , vari - coloured , Partly strongly cemented , very dense .			Ref					
18					Ref					







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**BOREHOLE LOG DATA SHEET**

PROJECT : Dead Sea Parkway		TYPE & SIZE OF DRILLING : Rotary 4 1/2"							
BOREHOLE NO : BH5		Coordinate : E : 207169.59 N : 116366.74				Started : 29/7/1999 Finished : 01/8/1999			
Depth (M)	L O G	DESCRIPTION	REC (%)	RQD (%)	SPT. "N"	MC (%)	LL	PI	Sample No. (gr/cm <sup>3</sup> )
1		SANDSTONE , fine to coarse , vari - coloured , strongly cemented , very dense .			50/1cm				
2					Ref				
3		SANDSTONE , fine to coarse , Rosy , creamish friable , weakly cemented , very dense .			50/12				
4					50/15				
5					50/21				
6					50/18				
7				Ref					
8		Sandstone , fine to coarse , vari - coloured , weakly cemented , friable , with thin bands of strongly cemented , very dense .			Ref				
9					50/11				
10					50/17				
11					Ref				
12				50/3cm					
13				Ref					
14			68	00	50/13				
15					50/20				
16			82	17	50/18				
17					50/6				
18					50/13				











## Appendix C

### Tests Results Curves

- Grainsize Analysis Curves
- Direct Shear Tests Curves
- Compaction Curves
- C B R Curves

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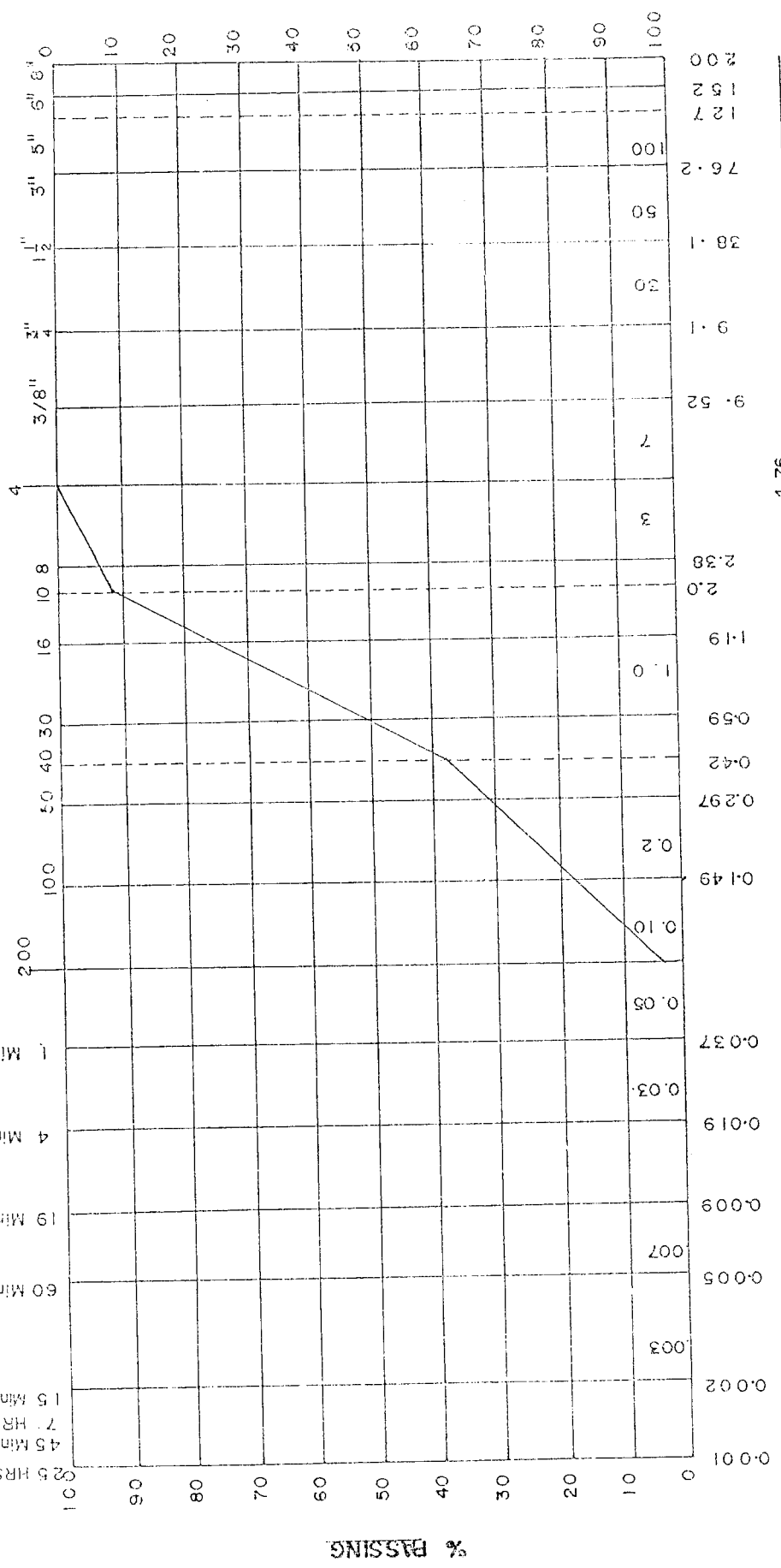
DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## HYDROMETER ANALYSIS

2.5 HRS  
 4.5 HRS  
 7 HRS  
 15 Min  
 60 Min  
 19 Min  
 4 Min  
 1 Min

## SIEVE ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES											
	FINE	MEDIUM	COARSE	FINE	COARSE	FINE	COARSE													
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002	0.003	0.005	0.007	0.009	0.019	0.03	0.037	0.05	0.075	0.15	0.3	0.6	1.18	2.5	4.75	7.5	15	30	60	100
0.002																				

# TOUKAN & SAKET

Geo. Research

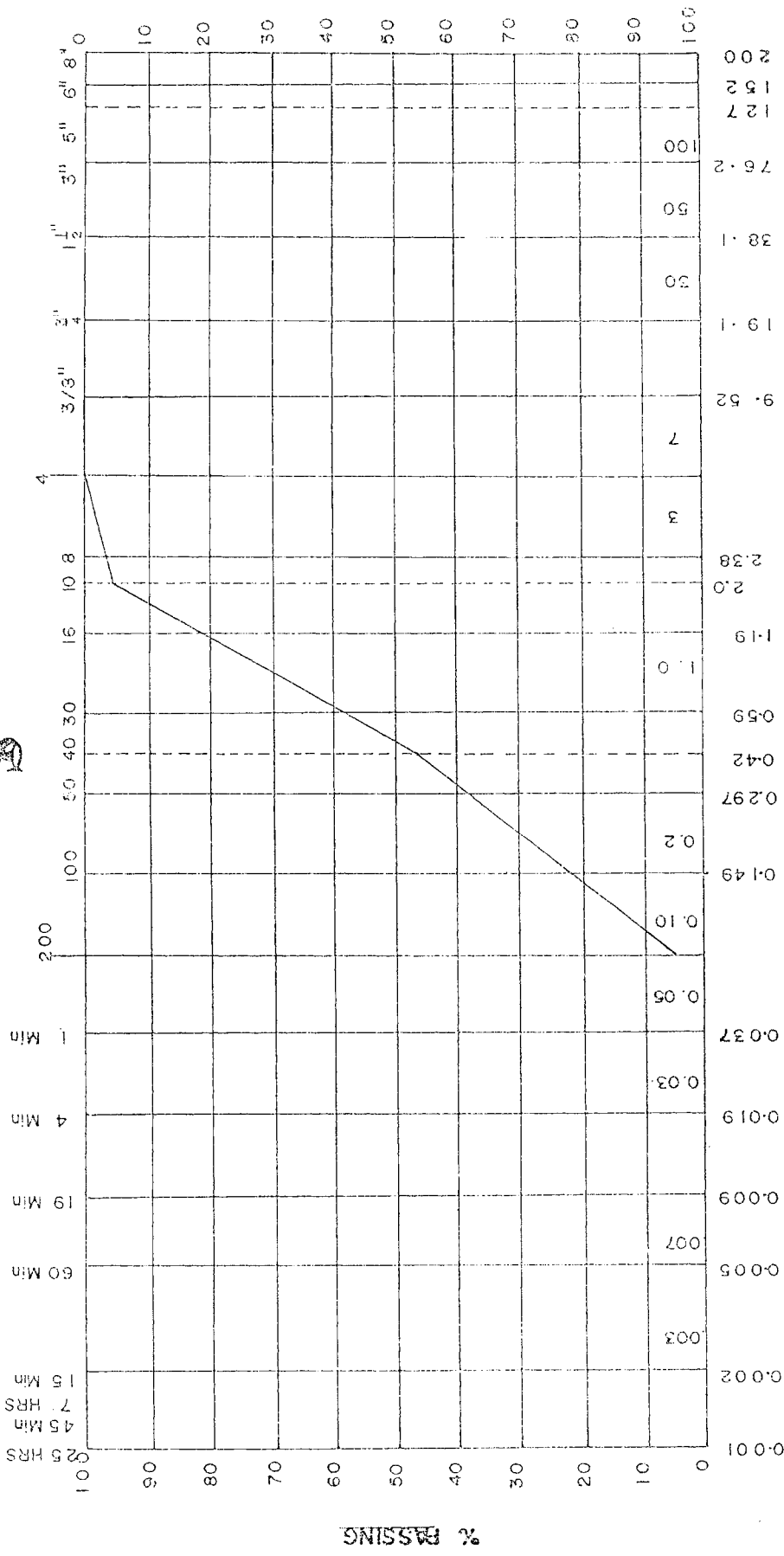


DATE -----  
 SAMPLE No -----

PROJECT -----

## HYDROMETER ANALYSIS

## SIEVE ANALYSIS



CLAY	SILT			SAND			GRAVEL			COBBLES
	GRAVEL %	SAND %	SILT %	FINE	COARSE	MEDIUM	COARSE	FINE	COARSE	
SAMPLE No BH.1 (10.0)m		95.0	5.0							
REMARKS										

% PASSING

% RETAINED

# TOUKAN & SAKET

Geo. Research

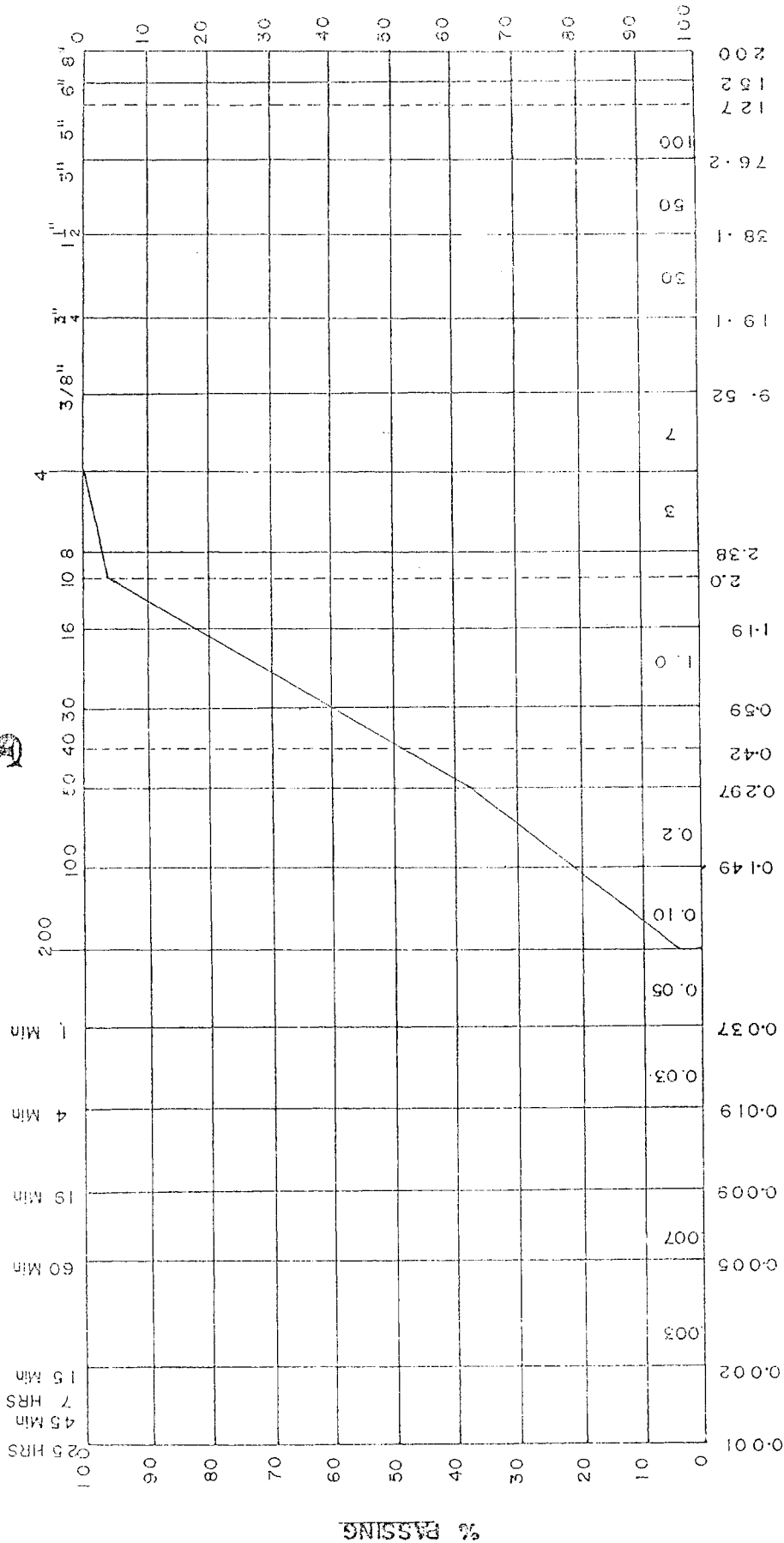


DATE -----  
 SAMPLE No -----

PROJECT -----

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	SILT %	FINE	MEDIUM	COARSE	FINE	COARSE	
SAMPLE No BH.1 (13.0)m	---	96.5	3.5	0.074	0.425	4.76	19.1	76.2	127
REMARKS	---								

# TOUKAN & SAKET

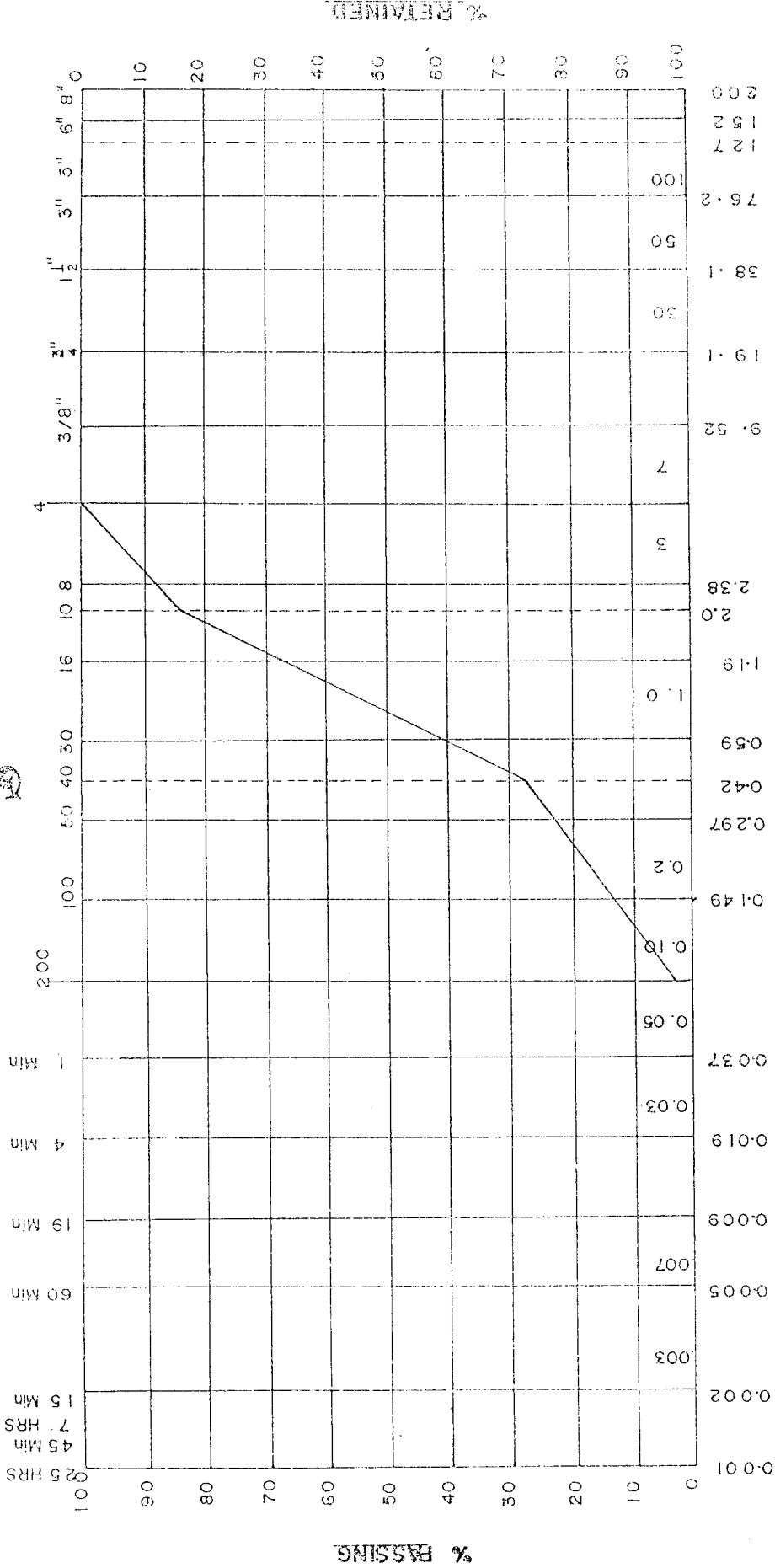
Geo. Research

DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

HYDROMETER ANALYSIS

SIEVE ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	SILT %	FINE	MEDIUM	COARSE	FINE	COARSE	
SAMPLE No BH.1 (17.0)m		96.9	3.1						
REMARKS	-----								



# TOKKAN & SAKET

Geo. Research

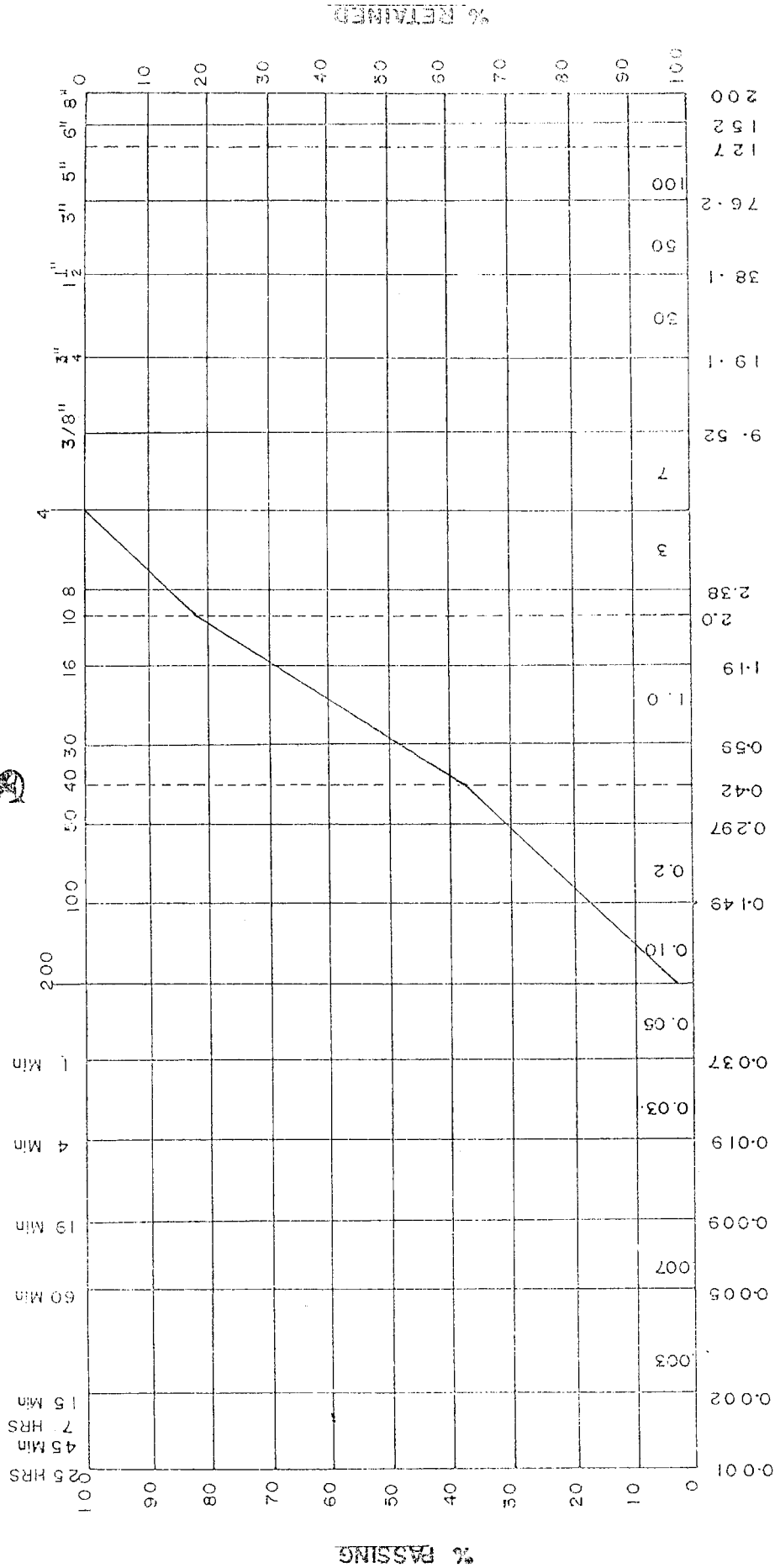


DATE -----  
 SAMPLE No -----

PROJECT -----

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	SILT %	FINE	MEDIUM	COARSE	FINE	COARSE	
SAMPLE No BH.2 (5.0)m		96.9	3.1				19.1	38.1	76.2
							2.38	4.76	127
							2.0		152
							0.59		200
							0.42		
							0.297		
							0.2		
							0.149		
							0.10		
							0.05		
							0.037		
							0.03		
							0.019		
							0.009		
							0.007		
							0.005		
							0.002		
							0.001		

REMARKS -----

# YOUKAN & SAKET

Geo. Research

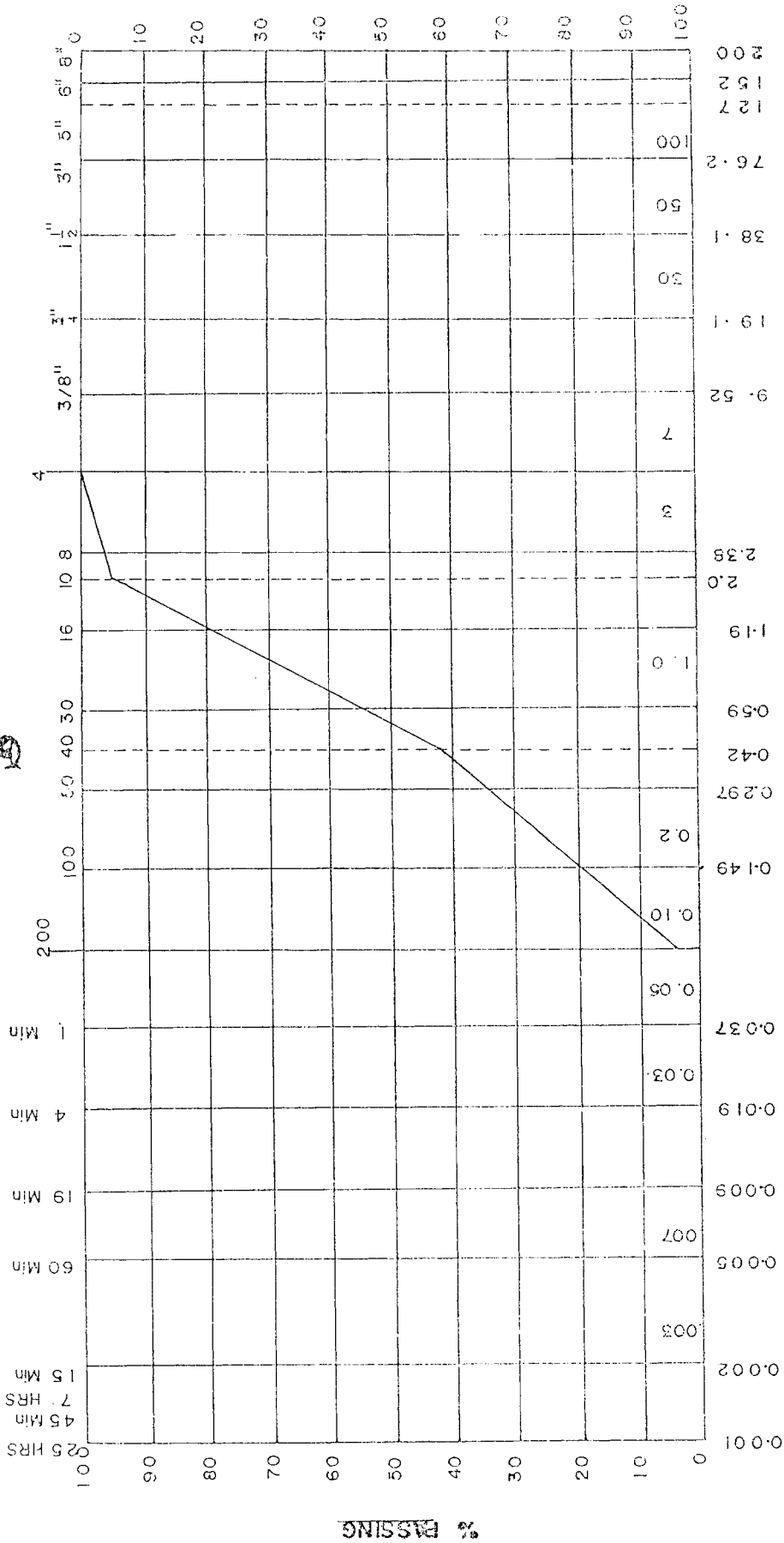


DATE \_\_\_\_\_  
SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	FINE	COARSE		
SAMPLE No BH.2 (10.0)m	GRAVEL % ---	SAND % 96.2	SILT % 3.8	CLAY % ---	REMARKS				

# TOUKAN & SAKET

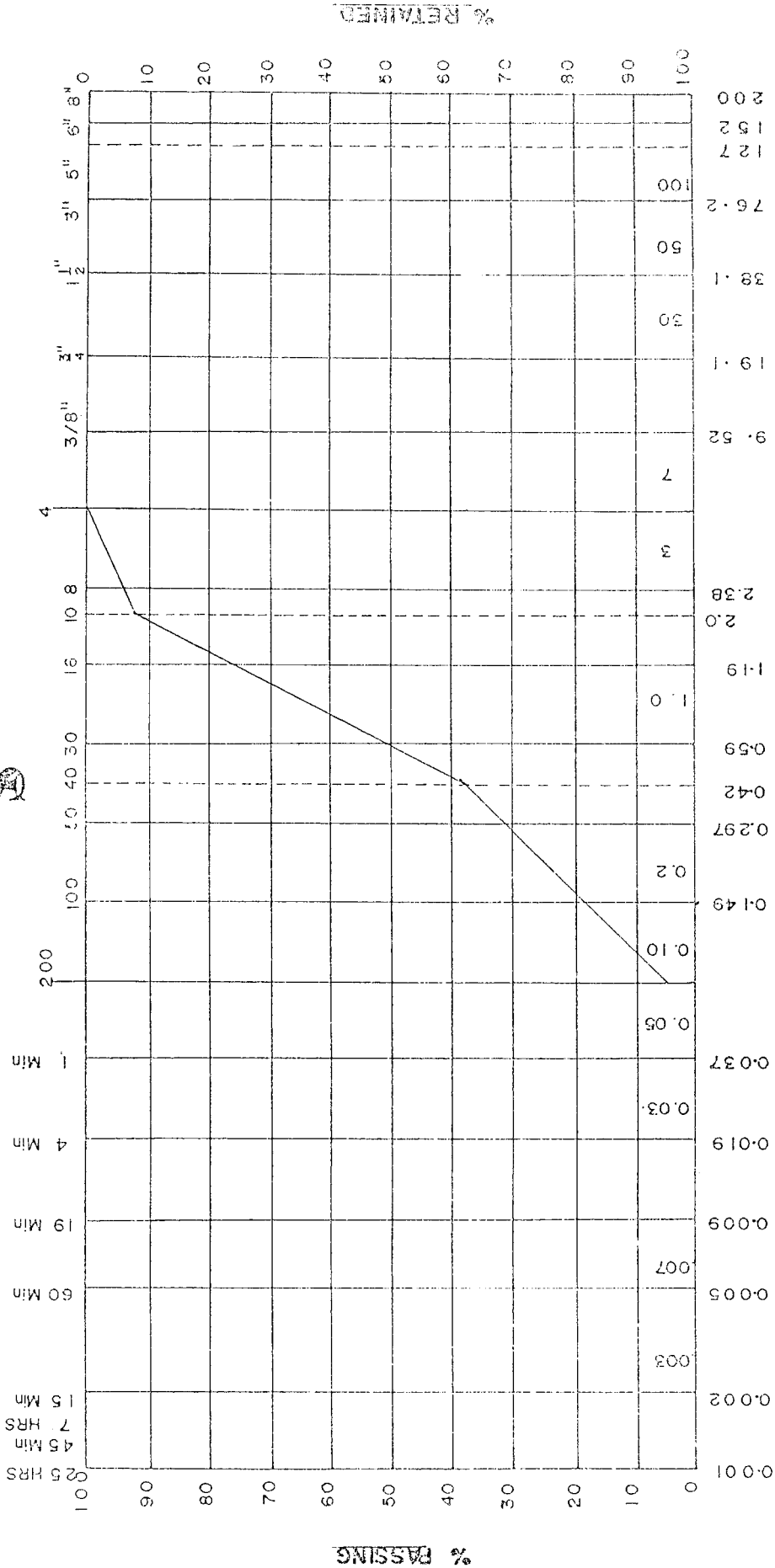
Geo. Research

DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## HYDROMETER ANALYSIS

## SIEVE ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES	
	GRAVEL %	SAND %	SILT %	FINE	MEDIUM	COARSE	FINE	COARSE		
SAMPLE No BH.2 (15.0)m	---	95.3	4.7	0.074	1.19	4.76	19.1	38.1	76.2	127
REMARKS	---									

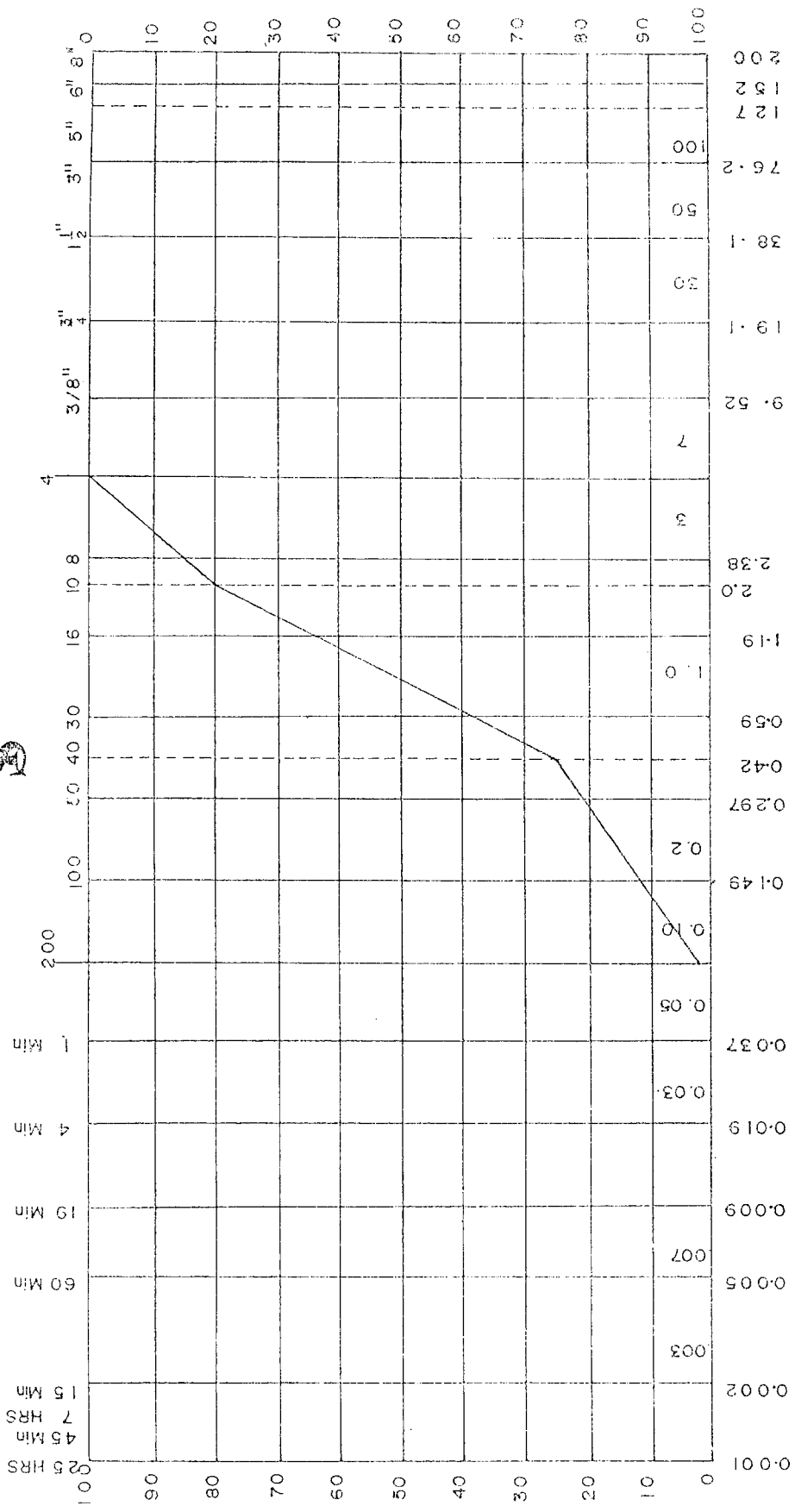
# TOKKAN & SAKET

Geo. Research

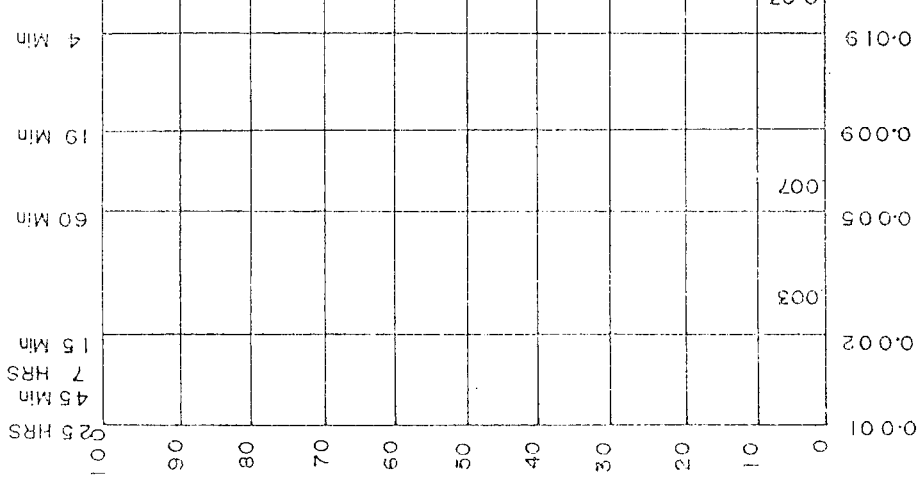


DATE -----  
 SAMPLE No -----

## SIEVE ANALYSIS



## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	FINE	COARSE		
SAMPLE No BH.2 (20.0)m	GRAVEL % --	SAND % 98.0	SILT % 2.0	CLAY % --	REMARKS				

% PASSING

% RETAINED

# TOUKAN & SAKET

Geo. Research

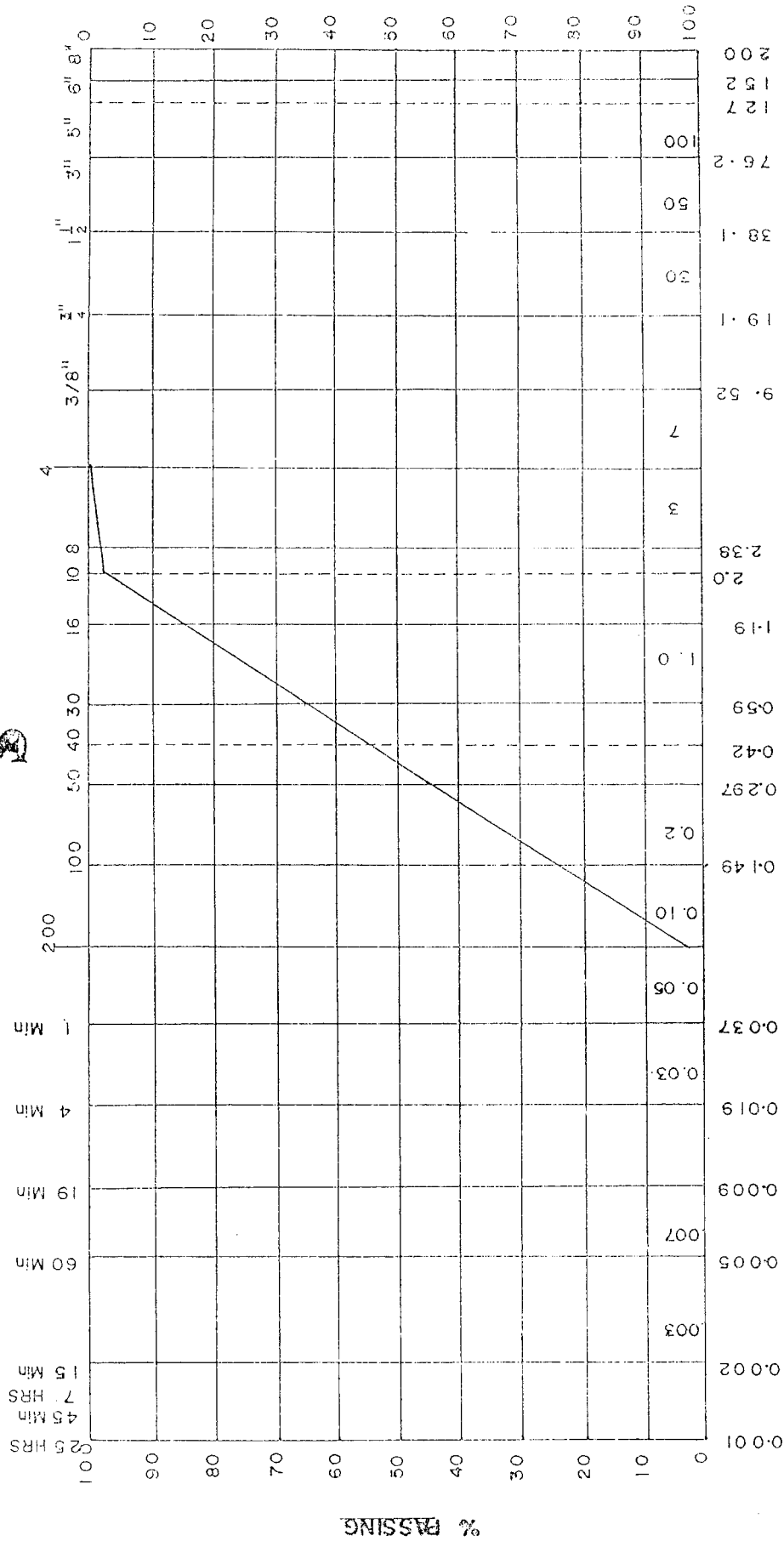


DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

### HYDROMETER ANALYSIS

### SIEVE ANALYSIS



CLAY		SILT			SAND			GRAVEL		COBBLES	
SAMPLE No	GRAVEL %	SAND %	SILT %	CLAY %	FINE	MEDIUM	COARSE	FINE	COARSE		
BH-2 (23.0)m	---	97.6	2.4	---	---	---	---	---	---		
REMARKS _____											

# TOUKAN & SAKET

Geo. Research

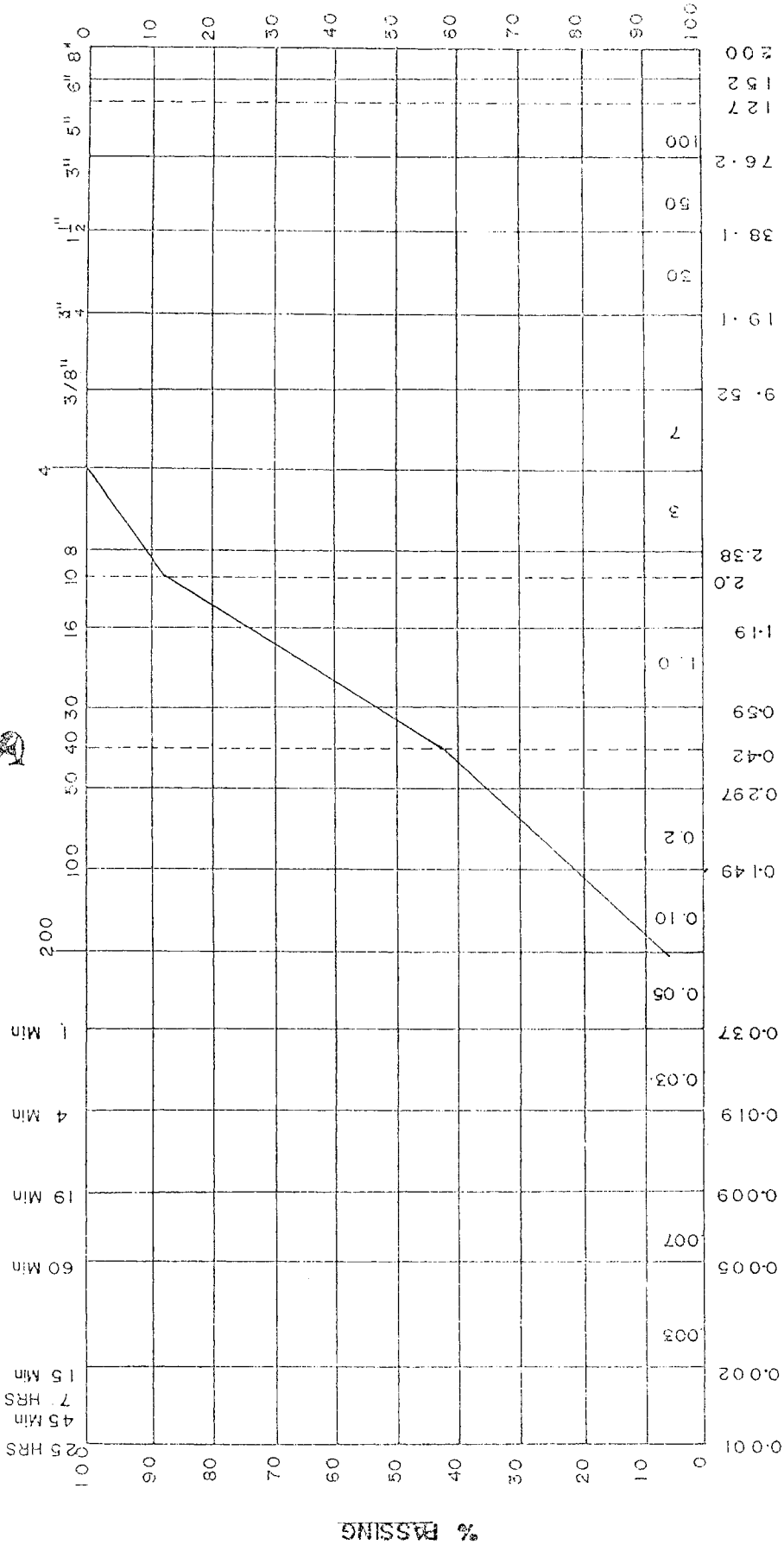


DATE \_\_\_\_\_  
SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	SILT %	FINE	COARSE	MEDIUM	FINE	COARSE	
SAMPLE No									
PH. 3		24.0	6.0						
(3.0)m									
REMARKS	0.074 0.075 0.15 0.3 0.6 1.18 2.0 4.75 7.5 15.0 30.0 60.0 100.0 200.0 4.76								

# TOUKAN & SAKET

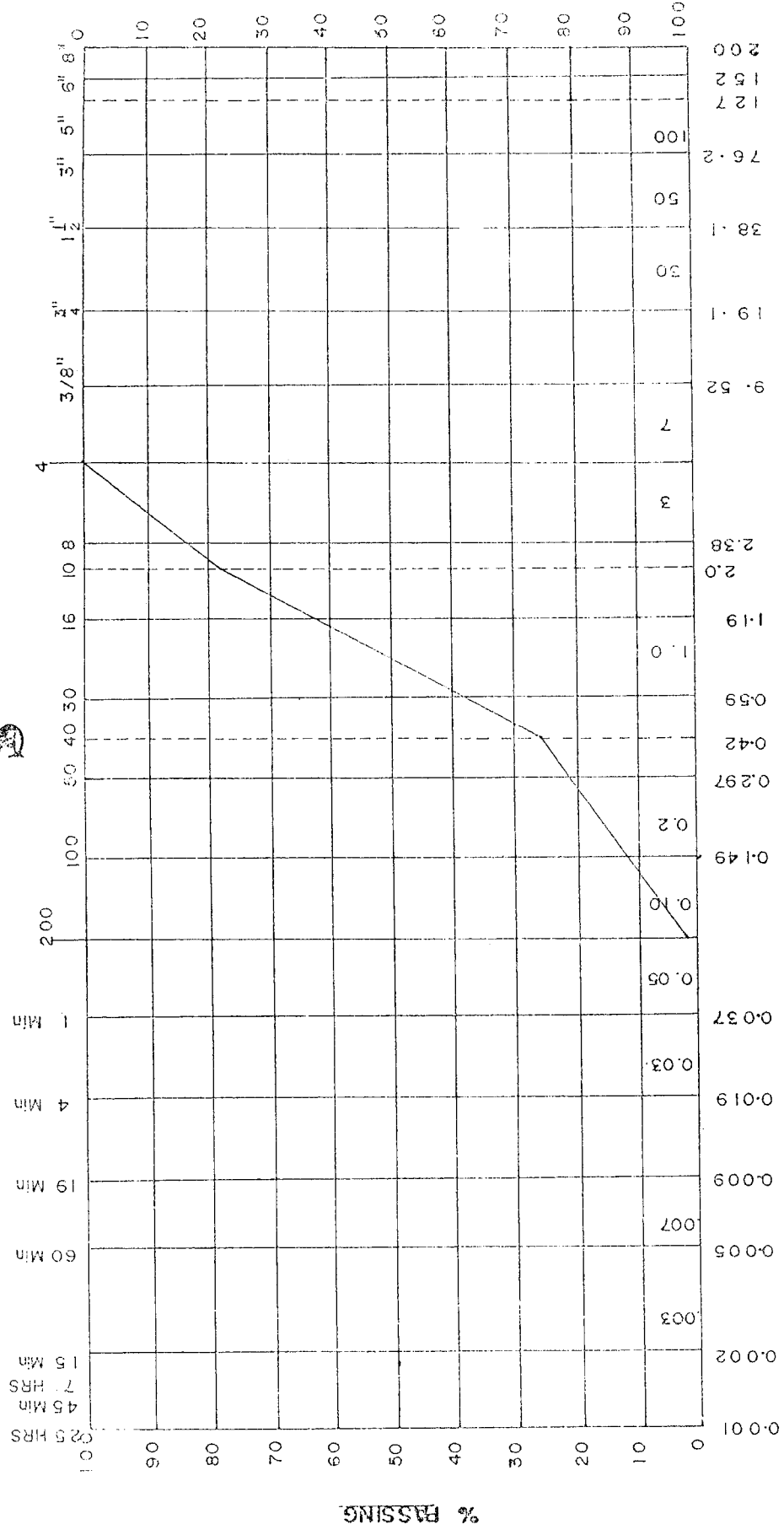
Geo. Research

DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	FINE	MEDIUM	COARSE	FINE	COARSE	FINE	COARSE		
SAMPLE No	GRAVEL %	SAND %	SILT %	CLAY %	REMARKS				
BH-3		98.5	1.5						
(6.0) m									

# TOUKAN & SAKET

Geo. Research

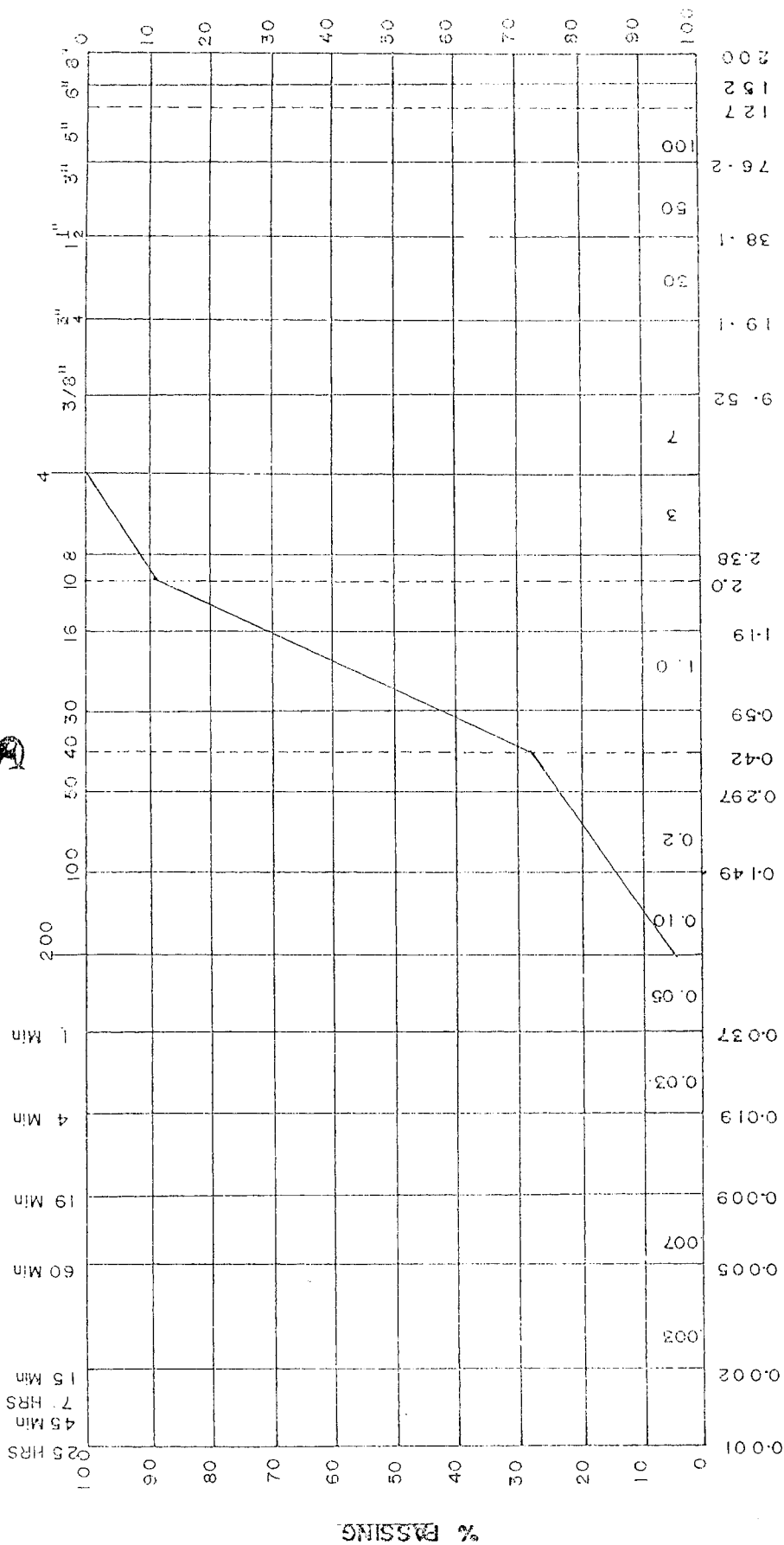


DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	SILT %	FINE	COARSE	MEDIUM	FINE	COARSE	
SAMPLE No BH-3 (9.0)m	---	95.5	4.5	0.074	4.76				
REMARKS	---								













# TOUKAN & SAKET

Geo. Research

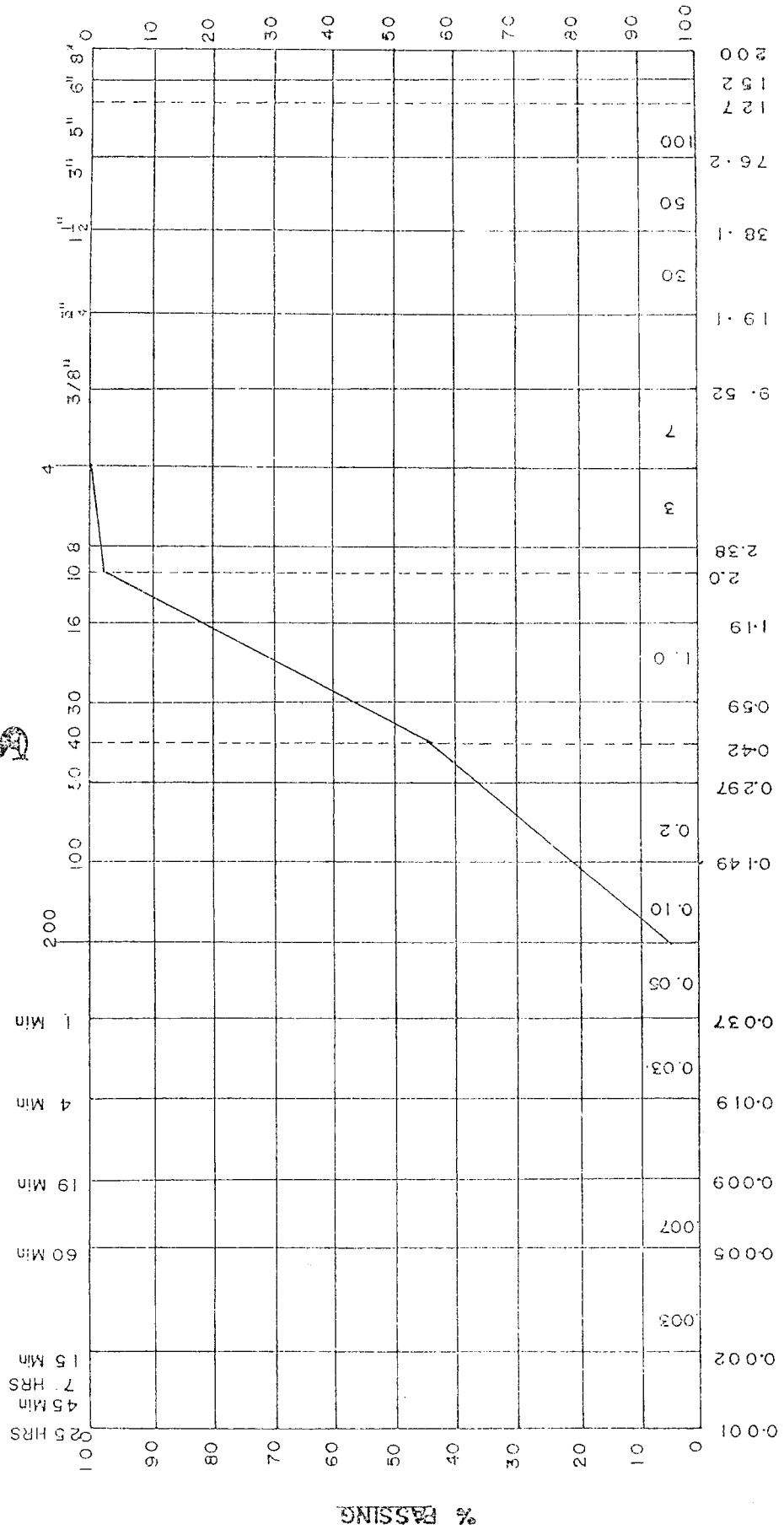


DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## SIEVE ANALYSIS

## HYDROMETER ANALYSIS



CLAY	SILT		SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	FINE	COARSE	MEDIUM	FINE	COARSE	
SAMPLE No BH-5 (35.0)m		95.2	0.074	4.76				
		SILT %						
		4.8						
		CLAY %						
REMARKS								

% PASSING

% RETAINED



# YOUKAN & SAKET

Geo. Research

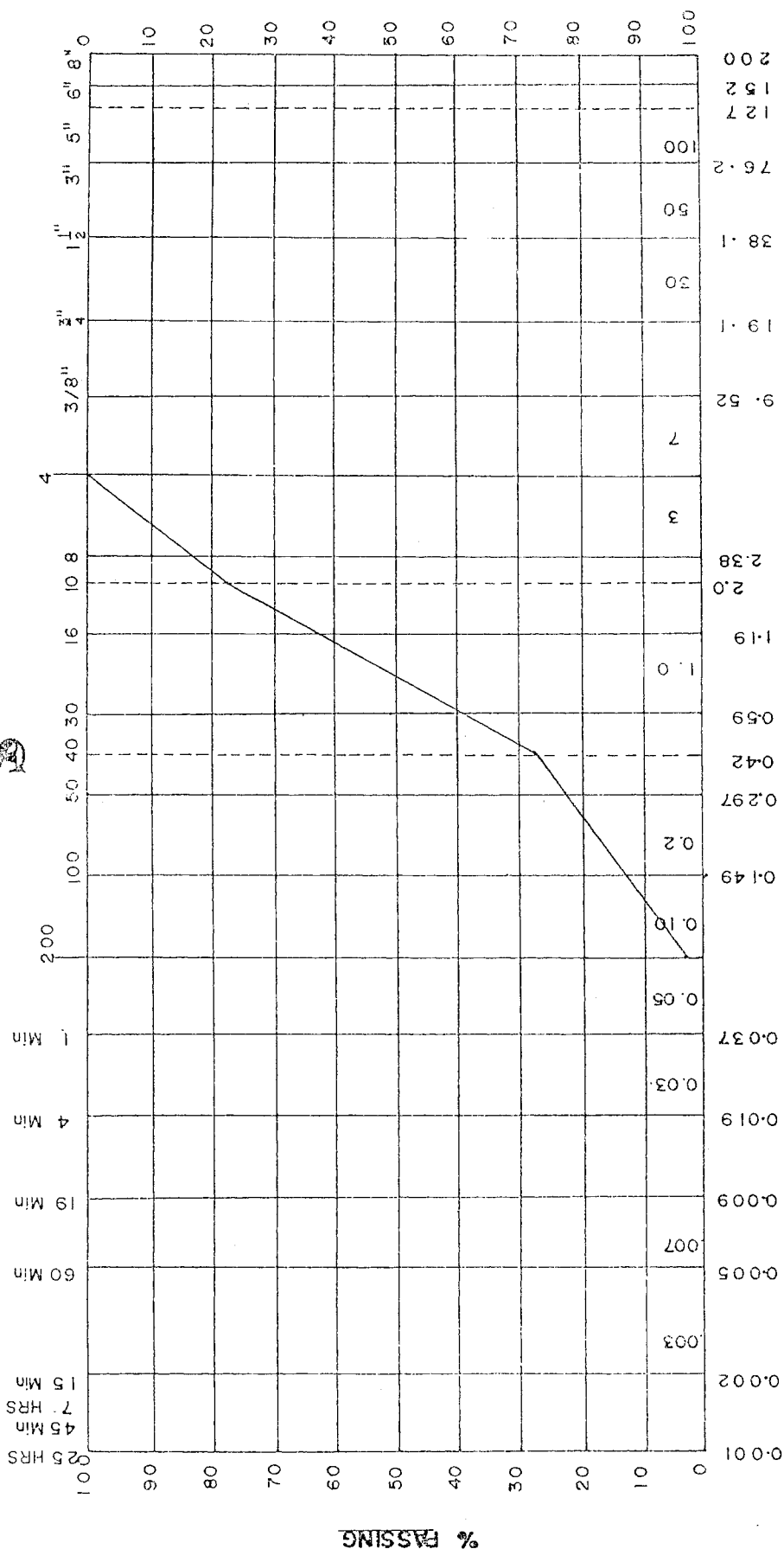


DATE \_\_\_\_\_  
SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

## HYDROMETER ANALYSIS

## SIEVE ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	FINE	FINE	COARSE	COARSE	COARSE		
SAMPLE No	0.001 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075
BH. 5	0.001 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075
(25.0)m	0.001 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075	0.075 - 0.075
REMARKS									

SILT: GRAVEL % = 0.03, SAND % = 97.1, SILT % = 2.9, CLAY % = 0.03

GRAVEL: FINE = 0.03, COARSE = 0.00

COBBLES: 0.00

CLAY: 0.03







# TOUKAN & SAKET

Geo. Research

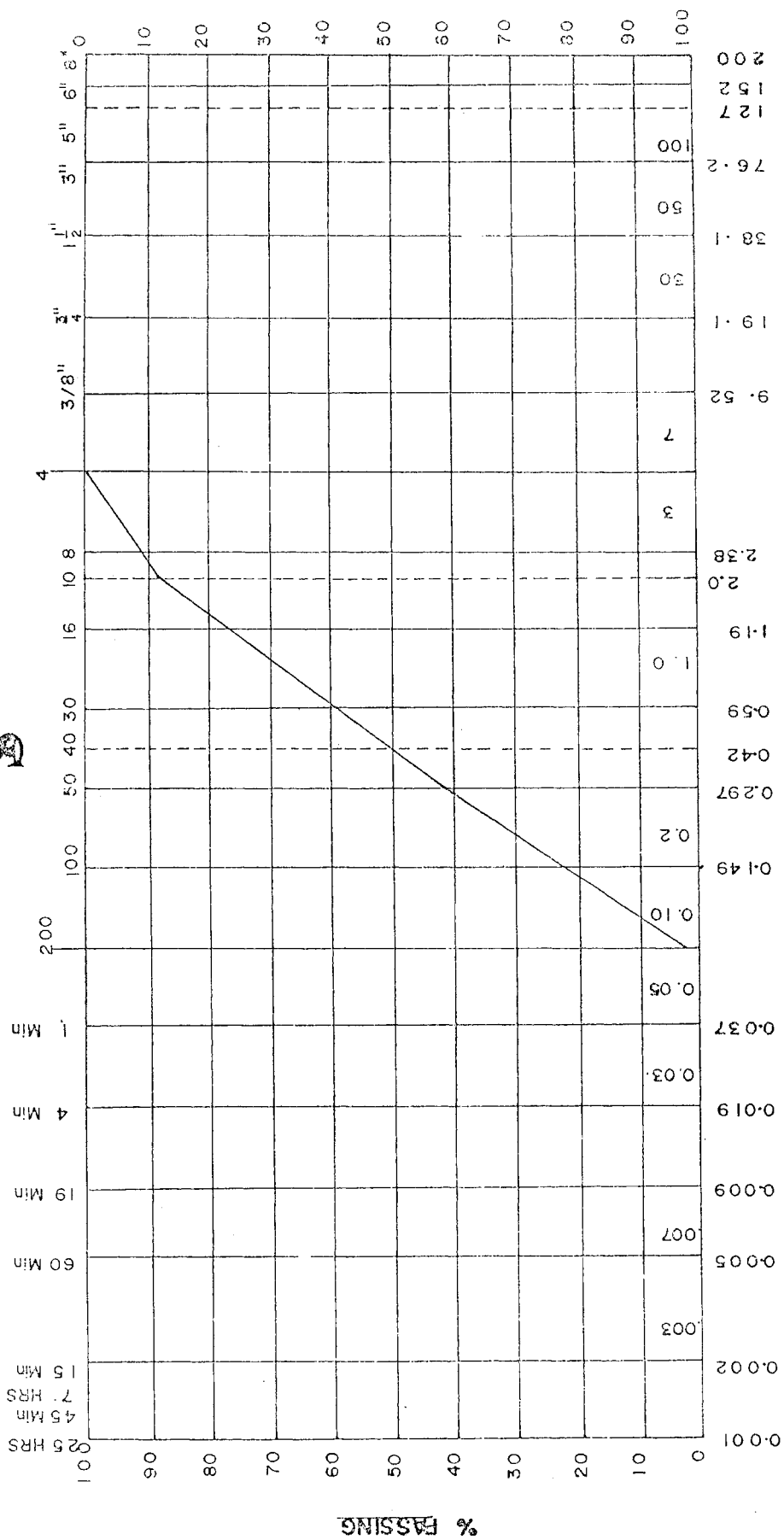


DATE -----  
 SAMPLE No -----

PROJECT -----

HYDROMETER ANALYSIS

SIEVE ANALYSIS



CLAY	SILT			SAND			GRAVEL		COBBLES
	GRAVEL %	SAND %	SILT %	CLAY %	FINE	COARSE	FINE	COARSE	
SAMPLE No BH.6 (6.0) m	---	97.8	2.2	---	---	---	---	---	---
REMARKS									

# YUKAN & SAKET

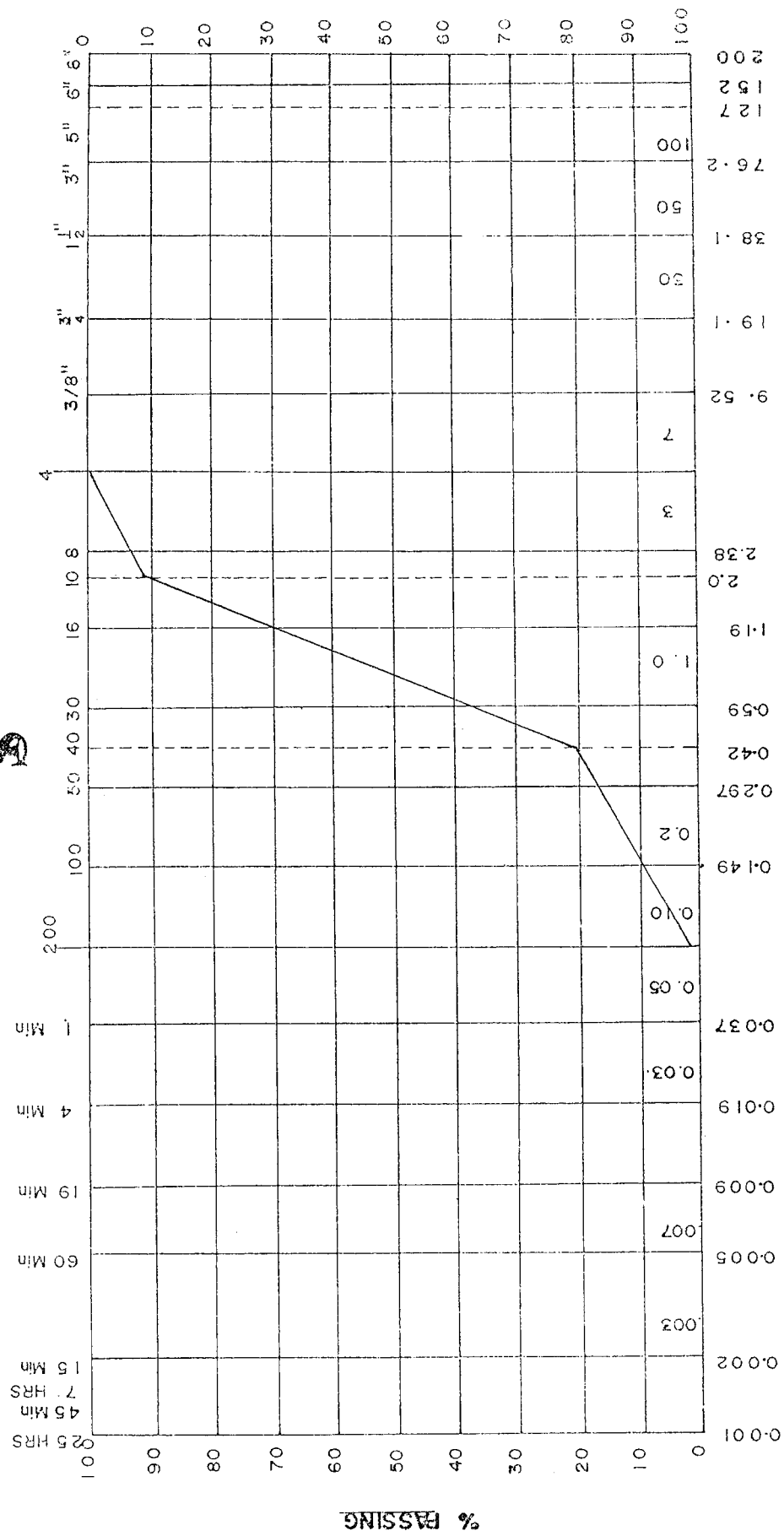
Geo. Research



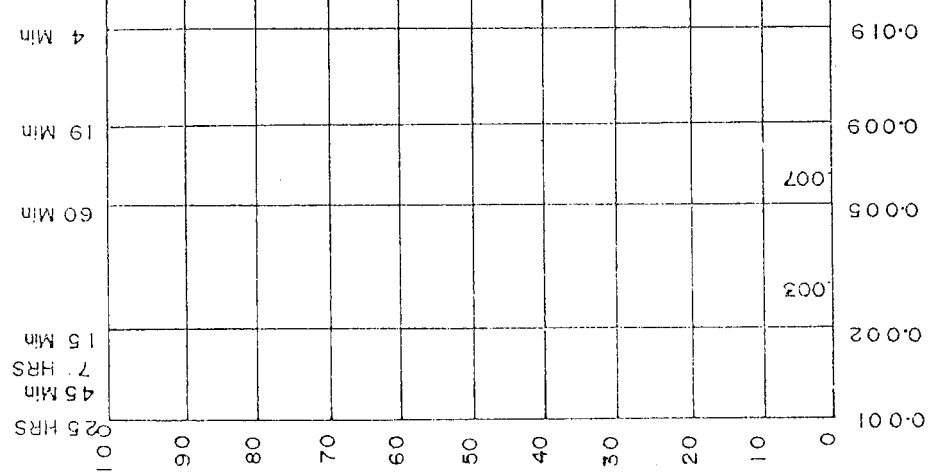
DATE \_\_\_\_\_  
 SAMPLE No \_\_\_\_\_

PROJECT \_\_\_\_\_

### SIEVE ANALYSIS



### HYDROMETER ANALYSIS



CLAY	SILT			SAND			GRAVEL			COBBLES
	GRAVEL %	SAND %	SILT %	FINE	COARSE	MEDIUM	COARSE	FINE	COARSE	
SAMPLE No BH-6	---	98.5	1.5							
(75.0) um	---									
REMARKS	0.074 4.76									

# TOUKAN & SAKET

Geo. Research

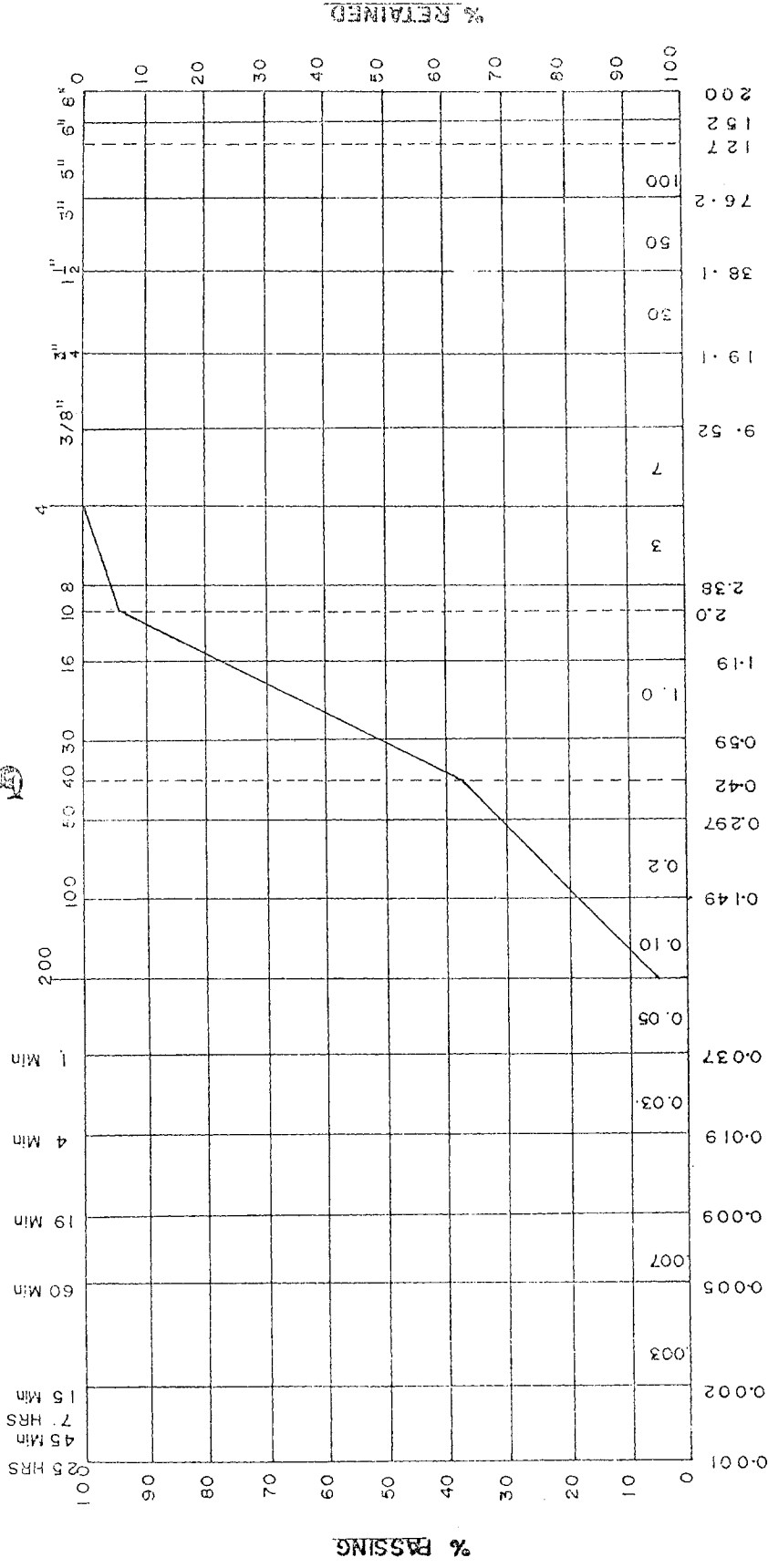


DATE -----  
SAMPLE No -----

PROJECT -----

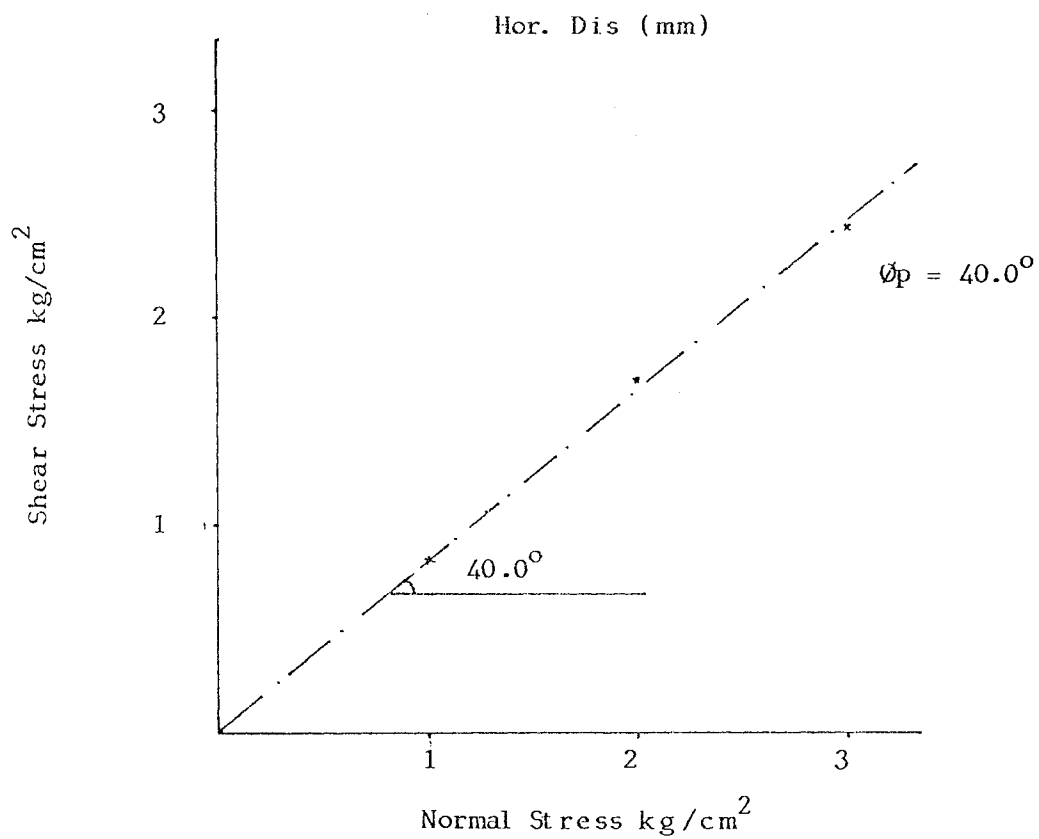
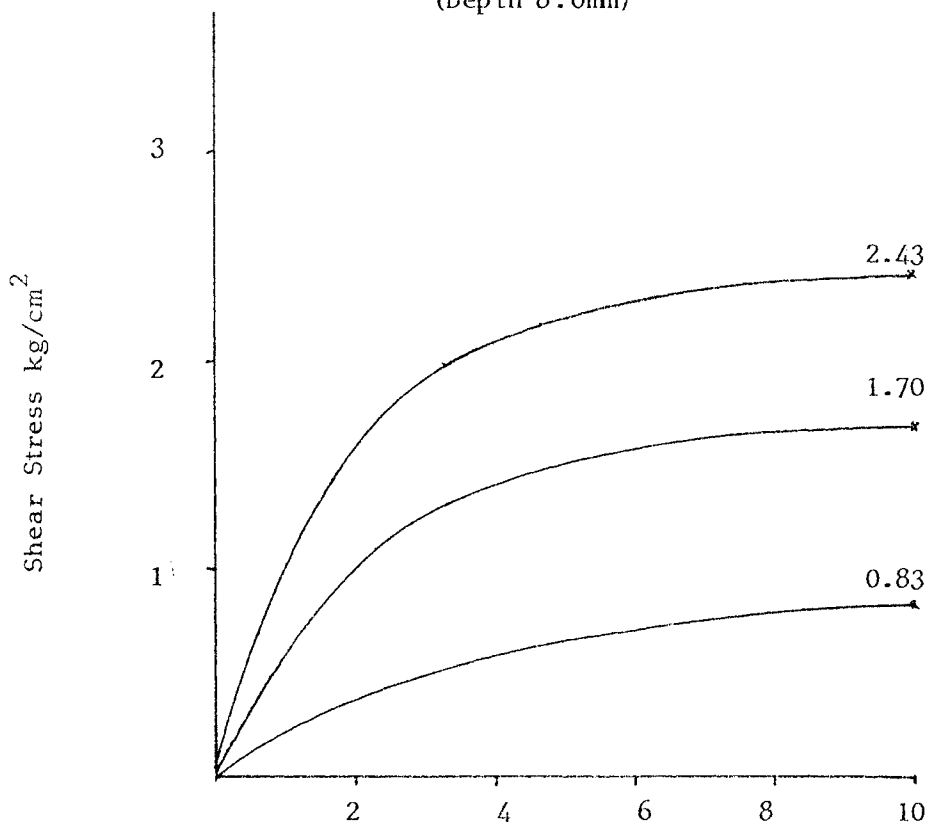
## HYDROMETER ANALYSIS

## SIEVE ANALYSIS

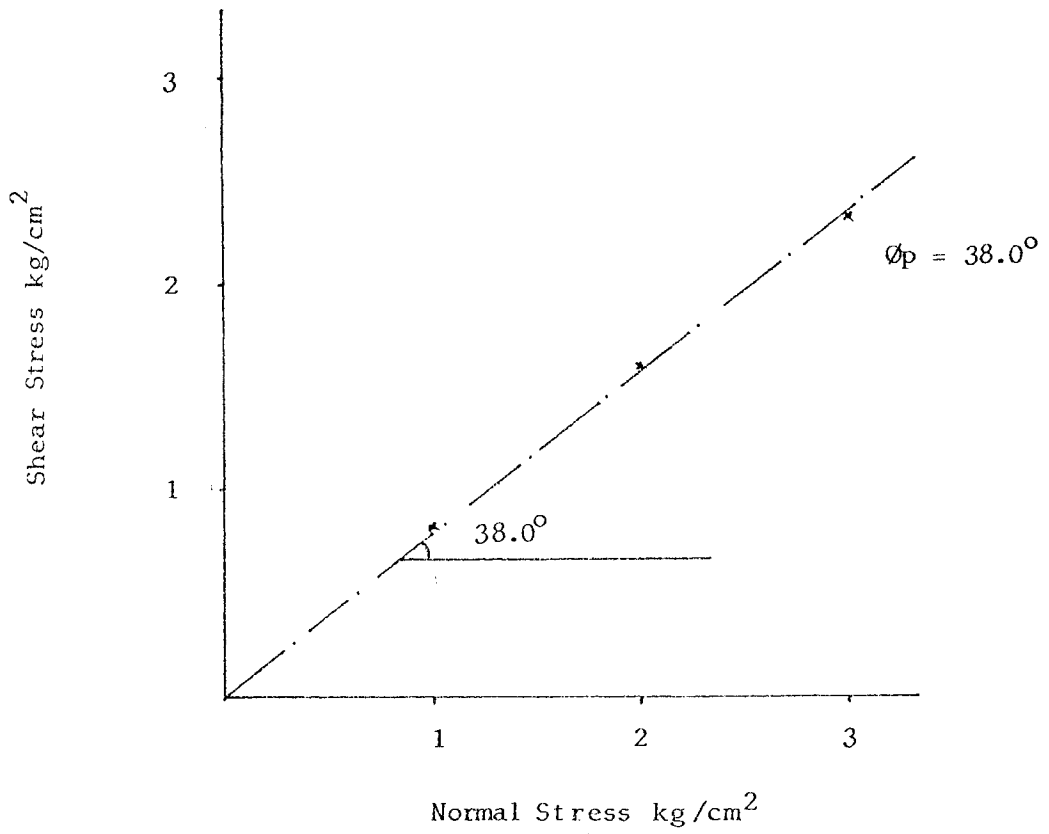
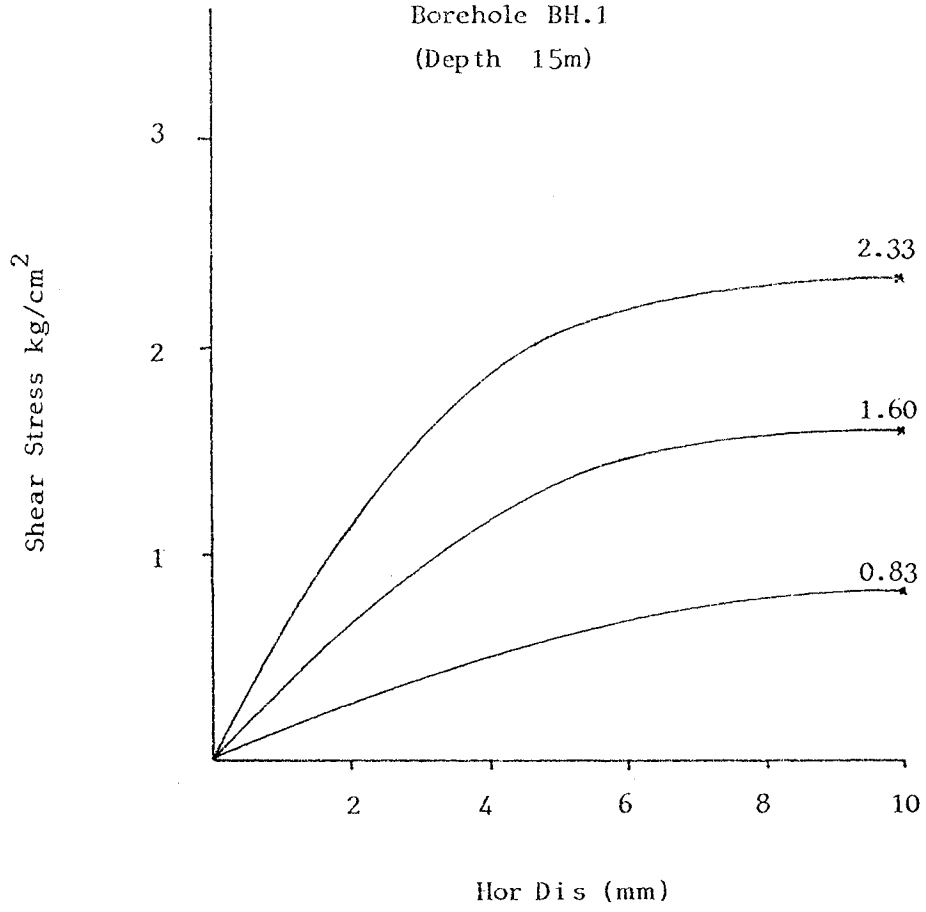


CLAY	SILT				SAND				GRAVEL			COBBLES	
	GRAVEL %	SAND %	SILT %	CLAY %	FINE	MEDIUM	COARSE	FINE	COARSE	FINE	COARSE		
SAMPLE No BH-6 (12.0)m	94.9	94.9	5.1	0.0	0.074	0.074	4.76	4.76	0.0	0.0	0.0	0.0	0.0
REMARKS													

Borehole BH.1  
(Depth 8.0mm)

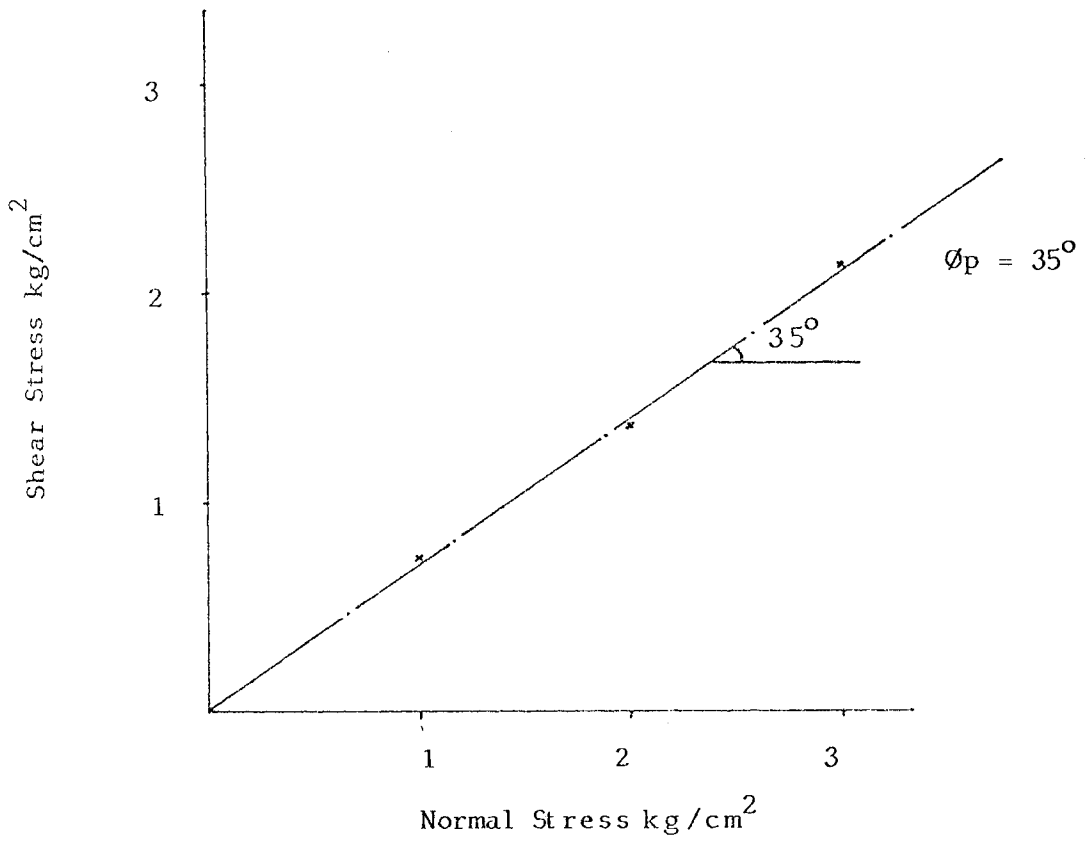
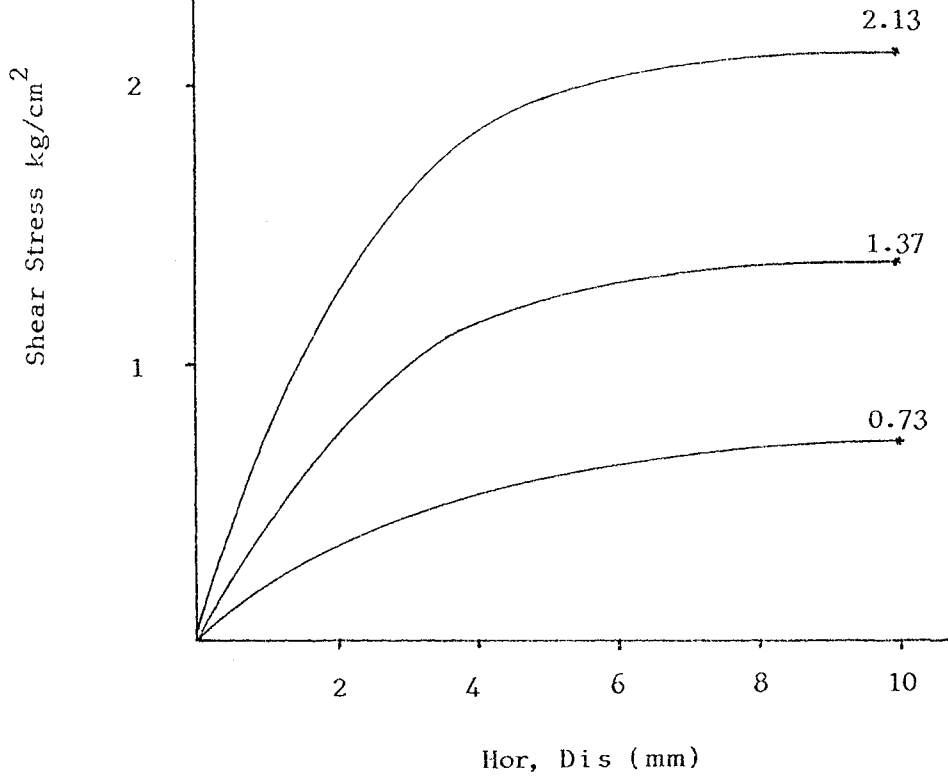


Borehole BH.1  
(Depth 15m)

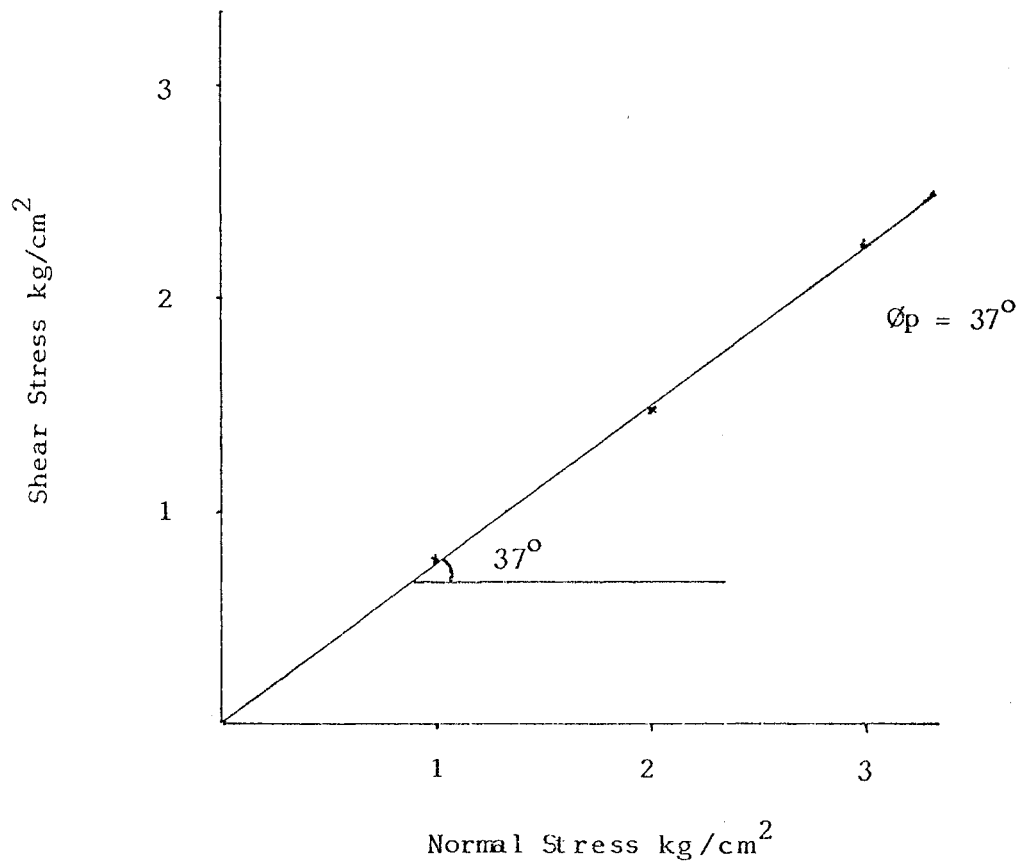
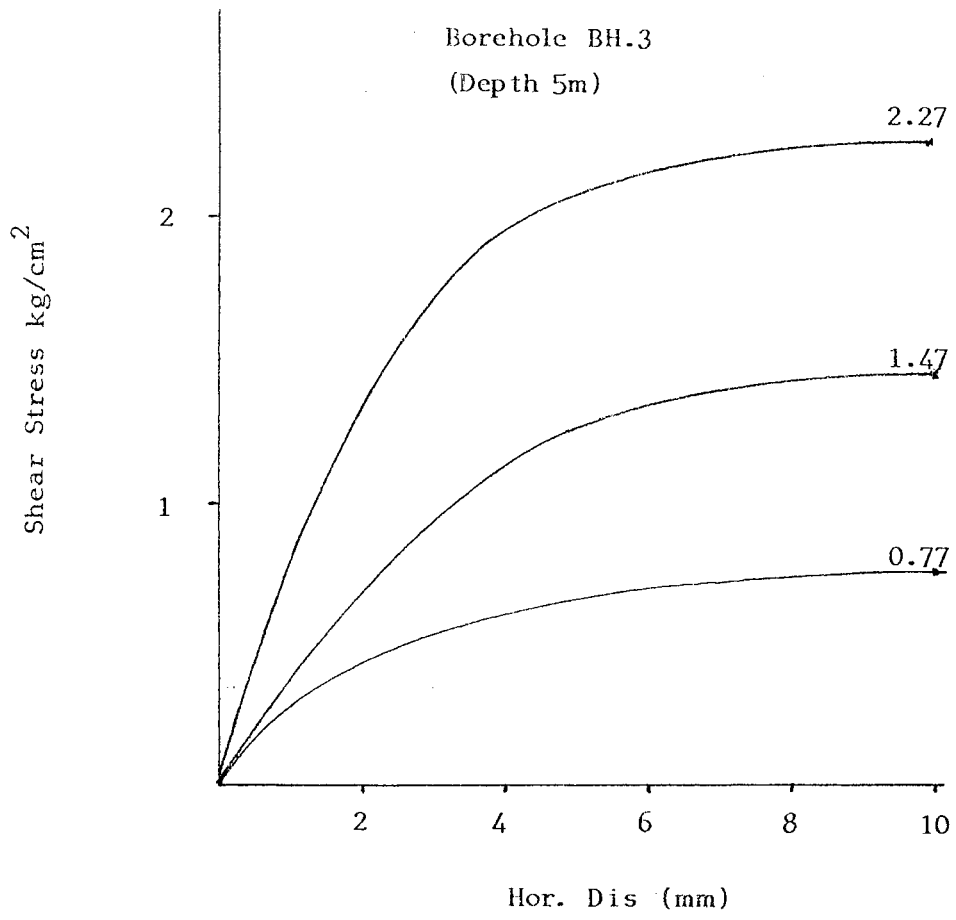


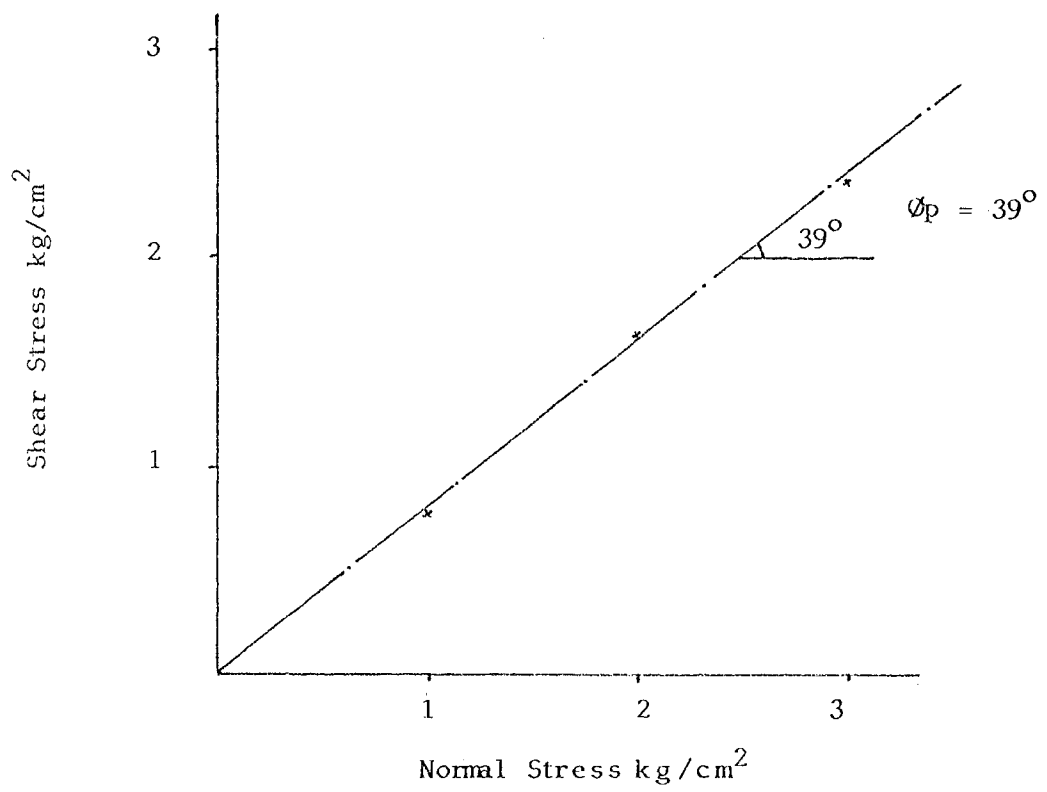
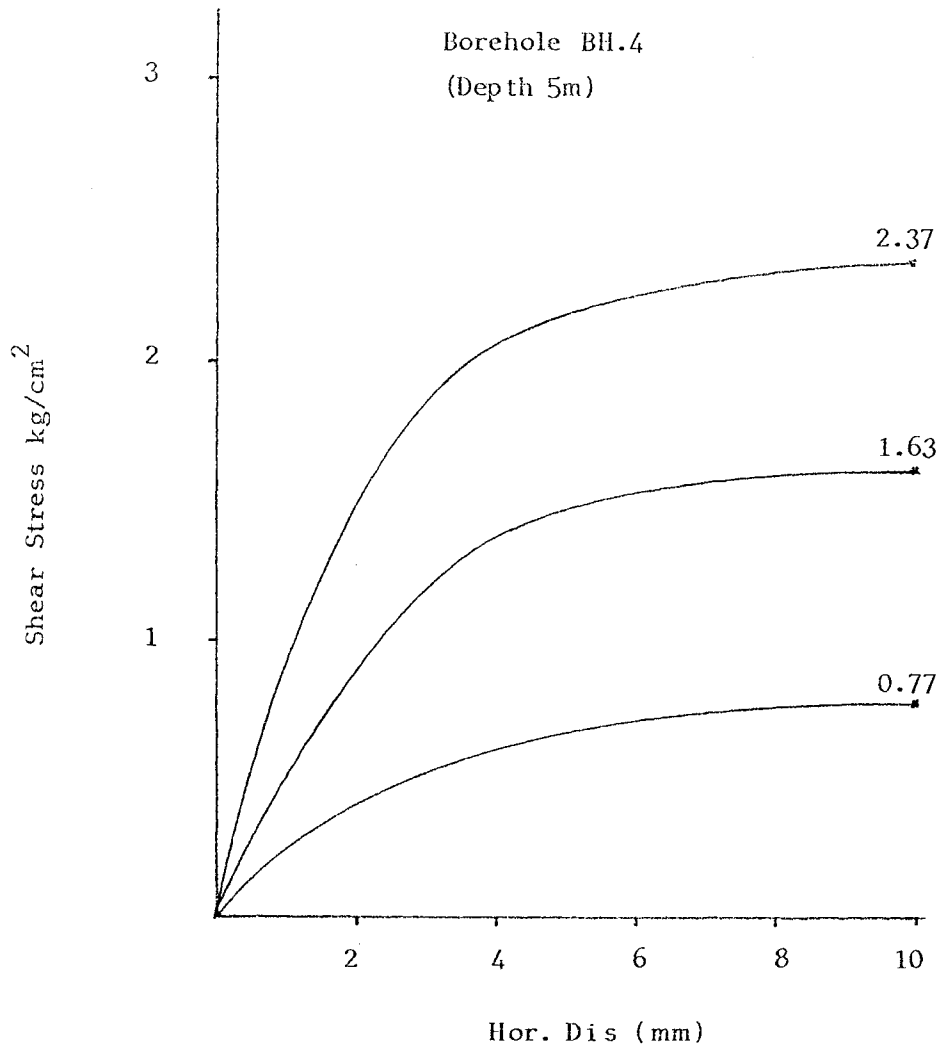
Borehole BH.2

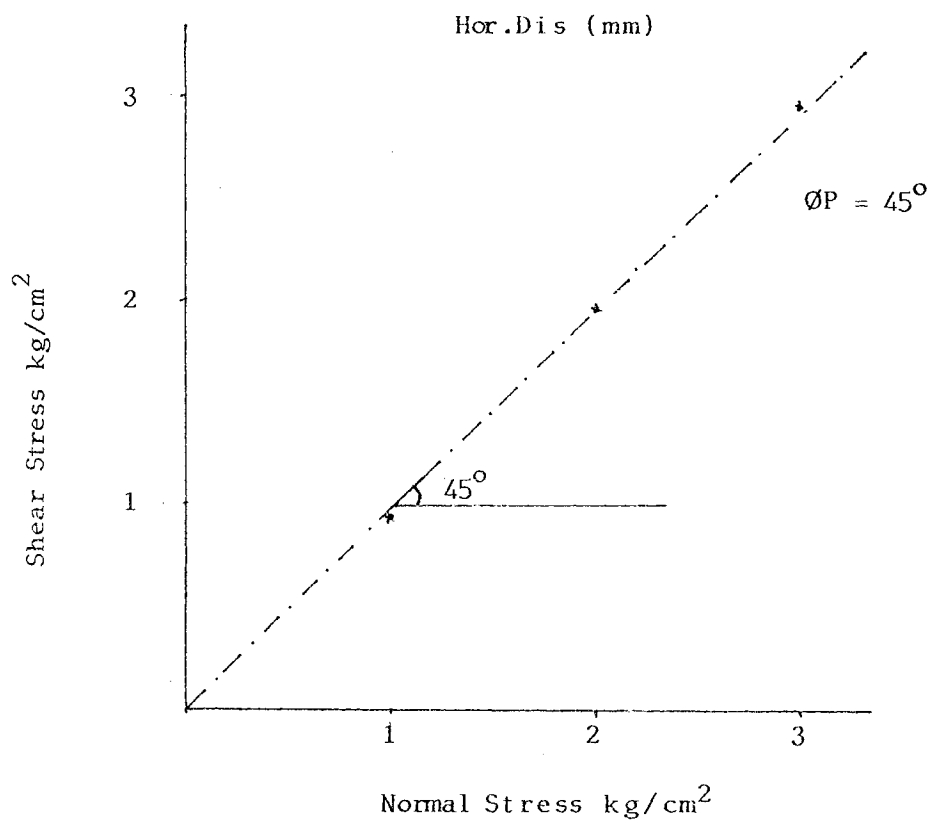
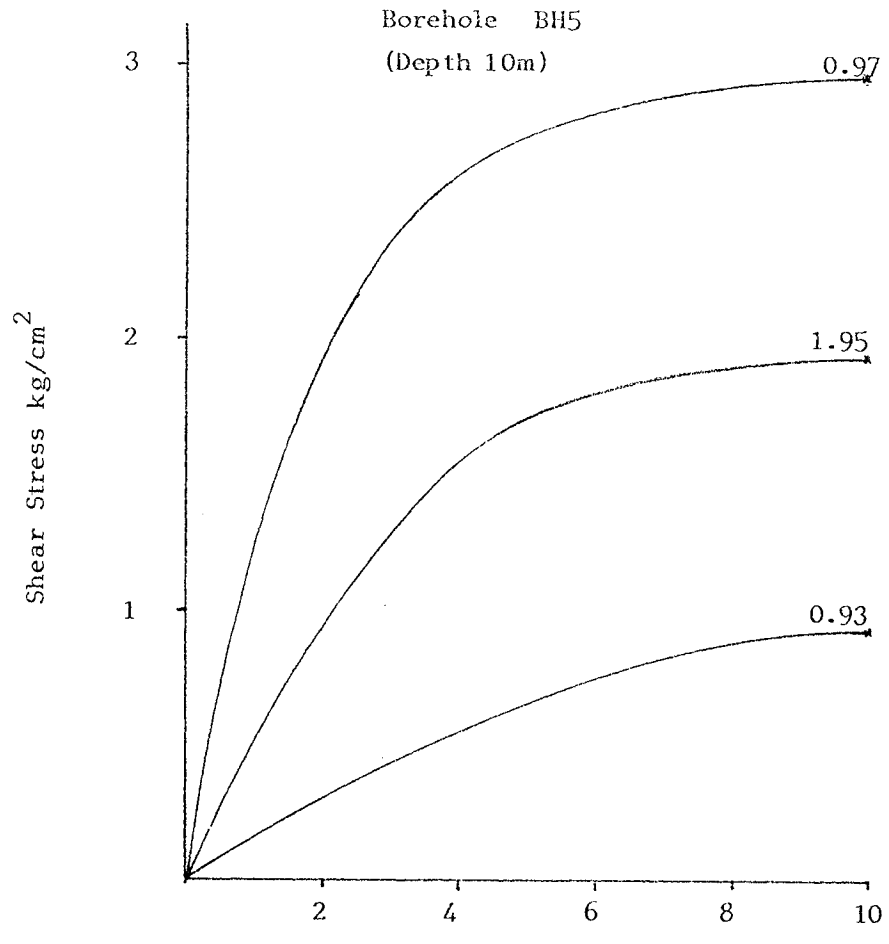
(Depth 15m)





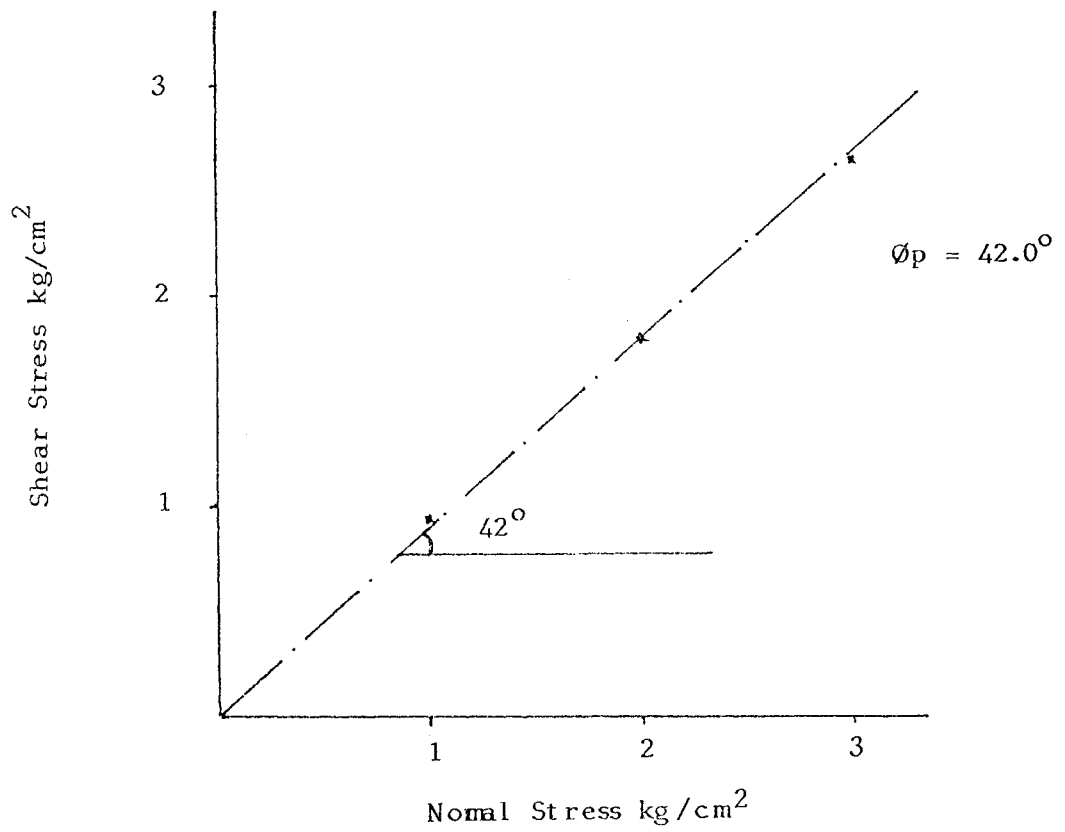
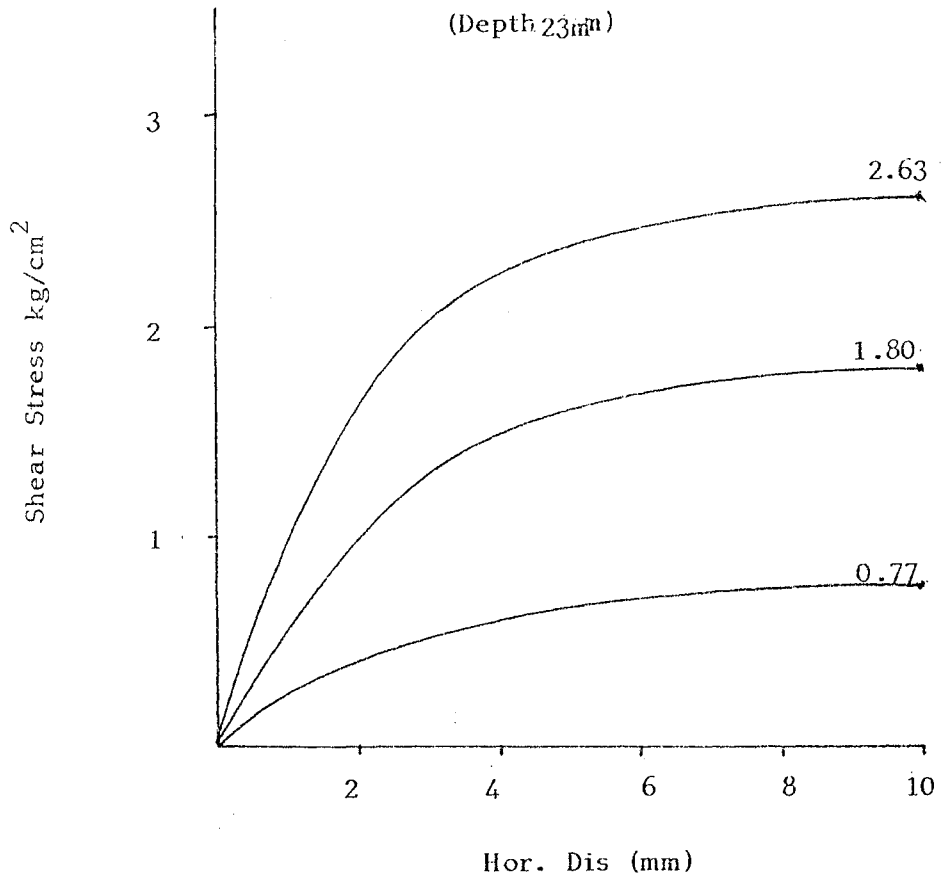




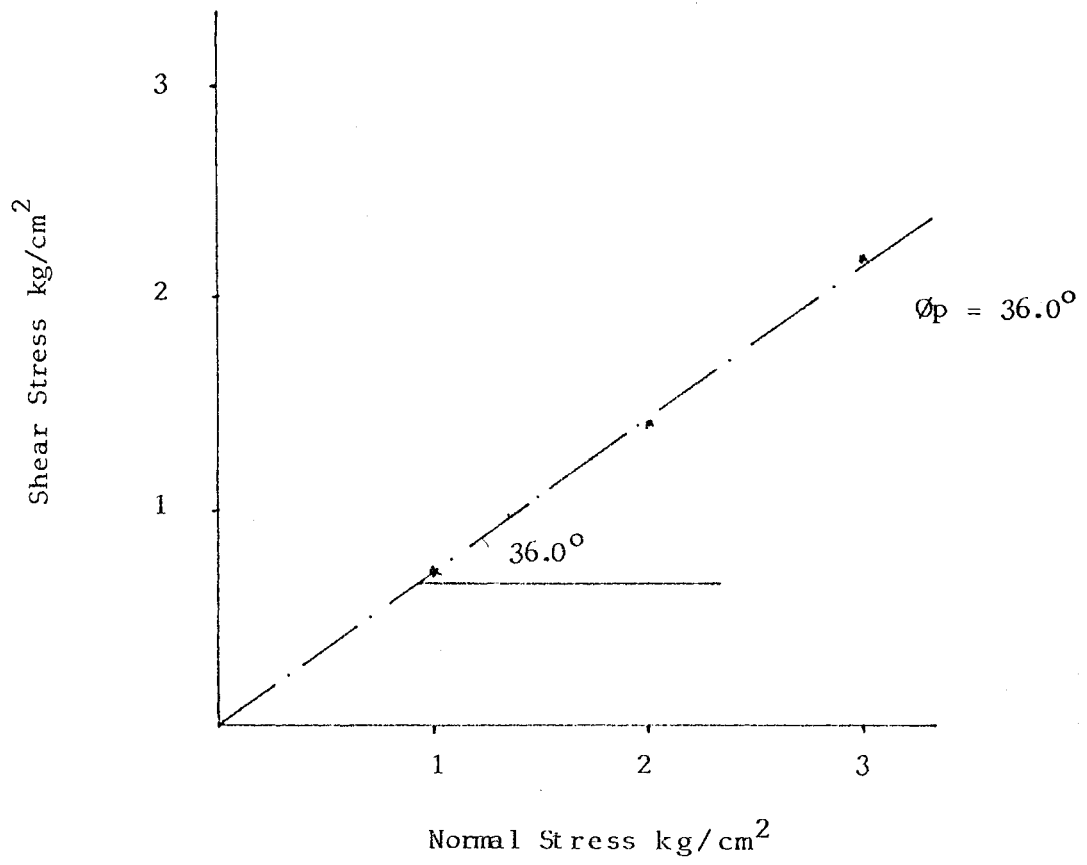
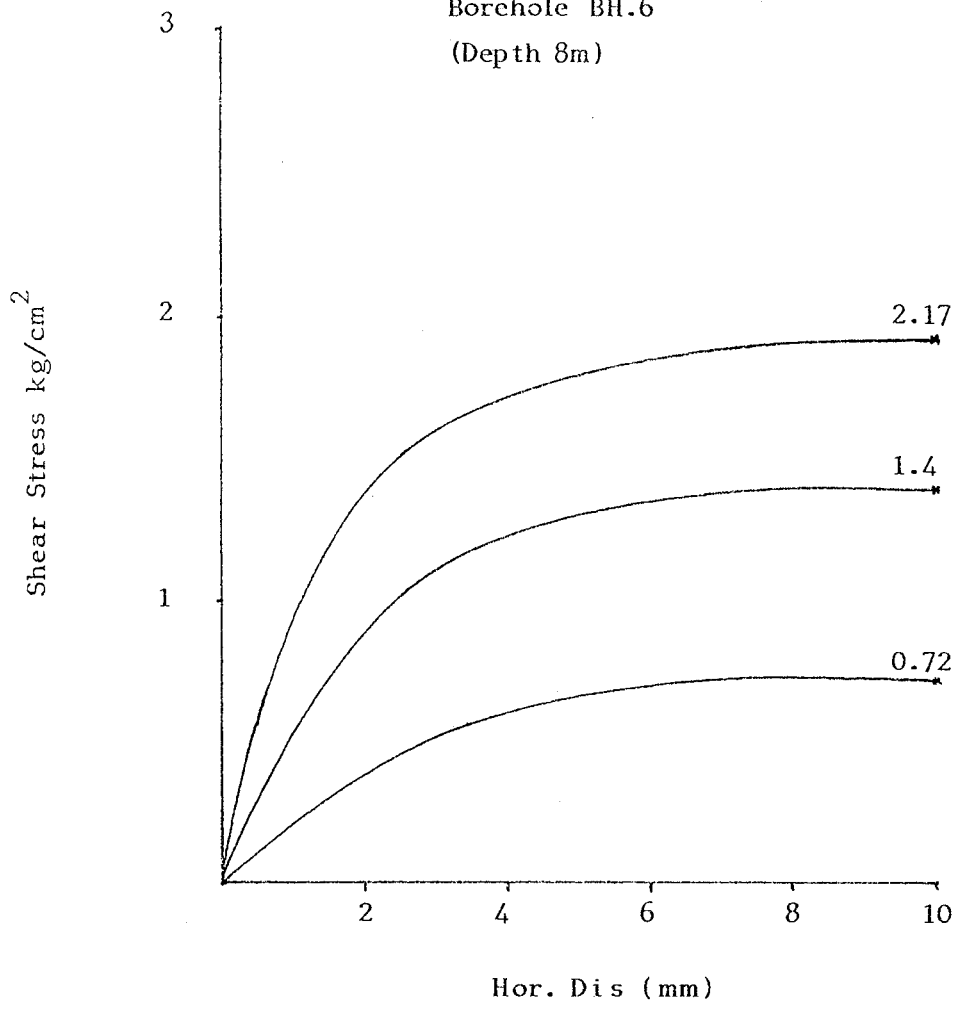


Borehole BH. 5

(Depth 23m)



Borehole BH.6  
(Depth 8m)



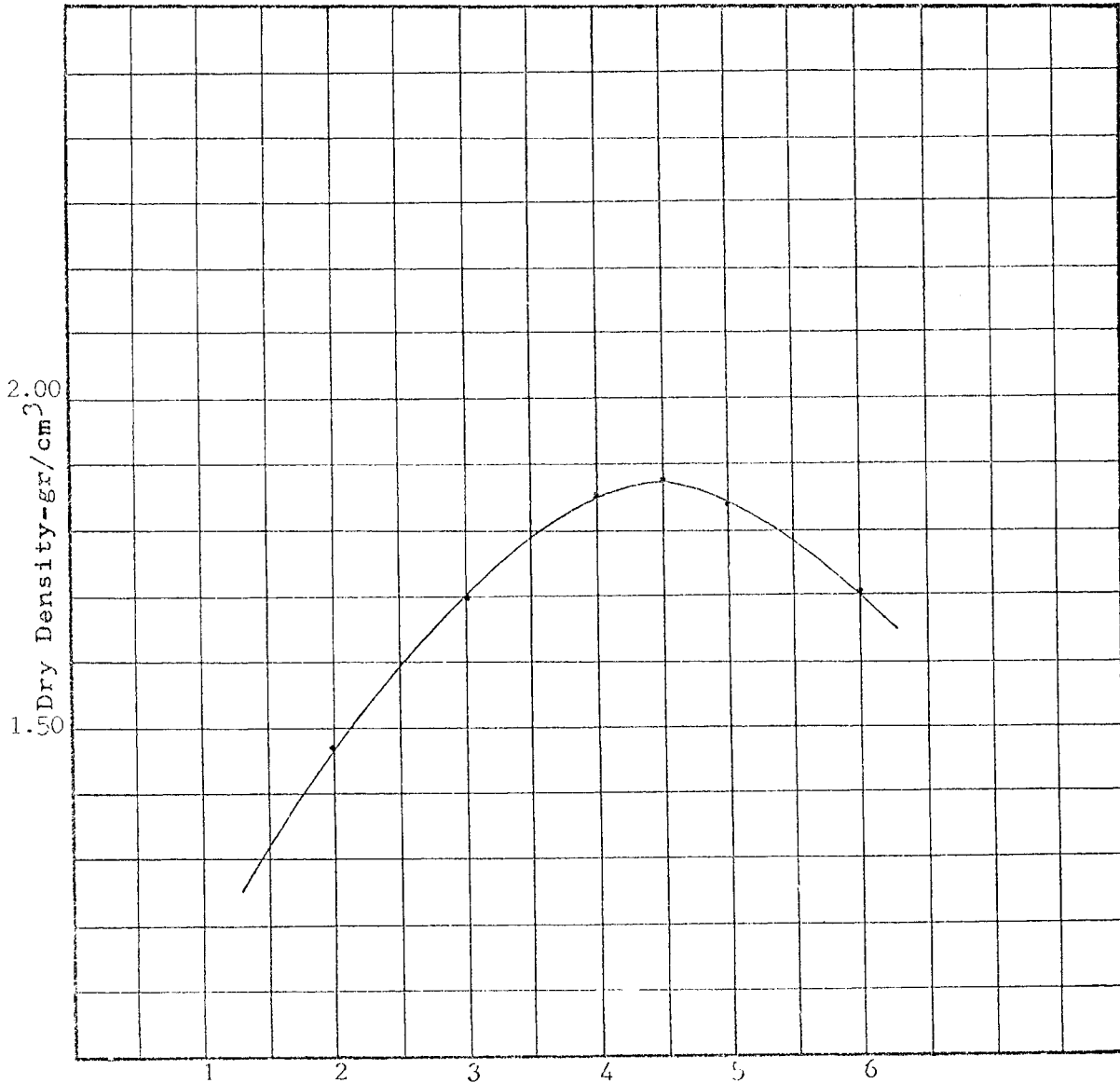


Geo-Research

Proctor Compaction Test

Sample No.:

Project:



Max. Dry Density = 1.88 gr/cm<sup>2</sup>

Moisture Content (%)

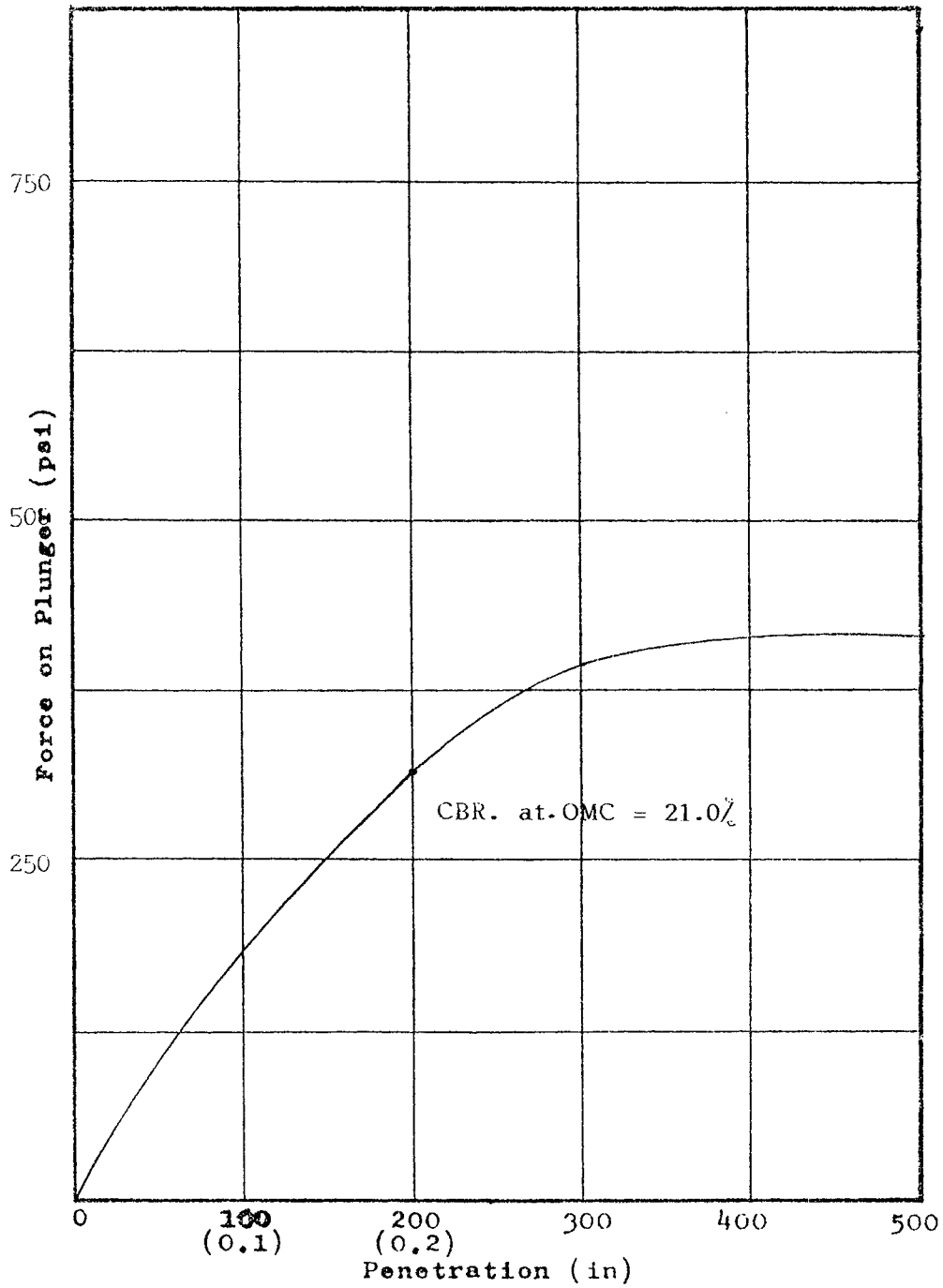
Optimum Moisture Content = 4.50%



Geo-Research  
California Bearing Ratio

Project:

Sample No.:



Remarks:

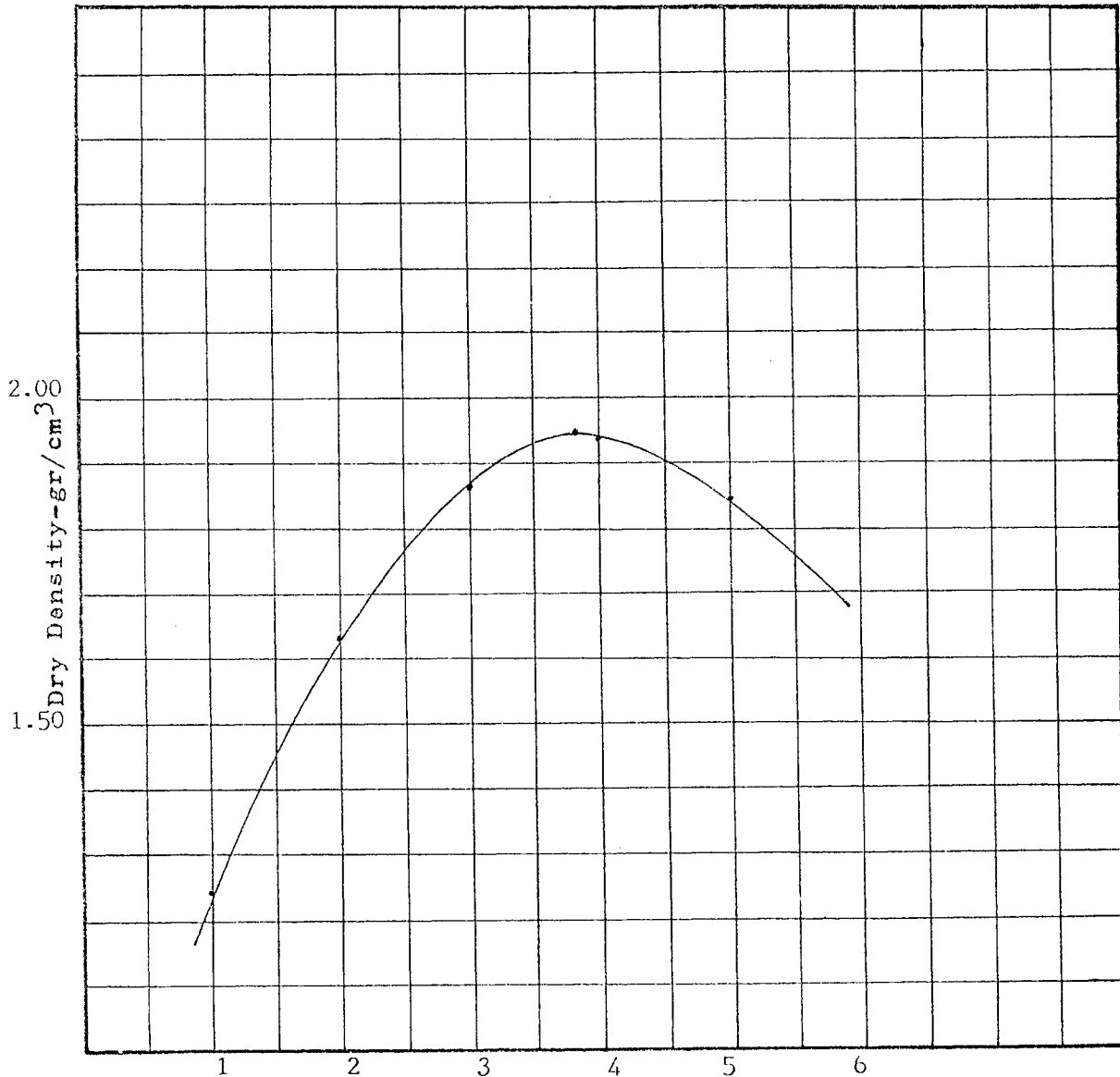


Geo-Research

Proctor Compaction Test

Sample No.:

Project:



Max. Dry Density = 1.940 gr/cm<sup>2</sup>

Moisture Content(%)

Optimum Moisture Content = 3.8%

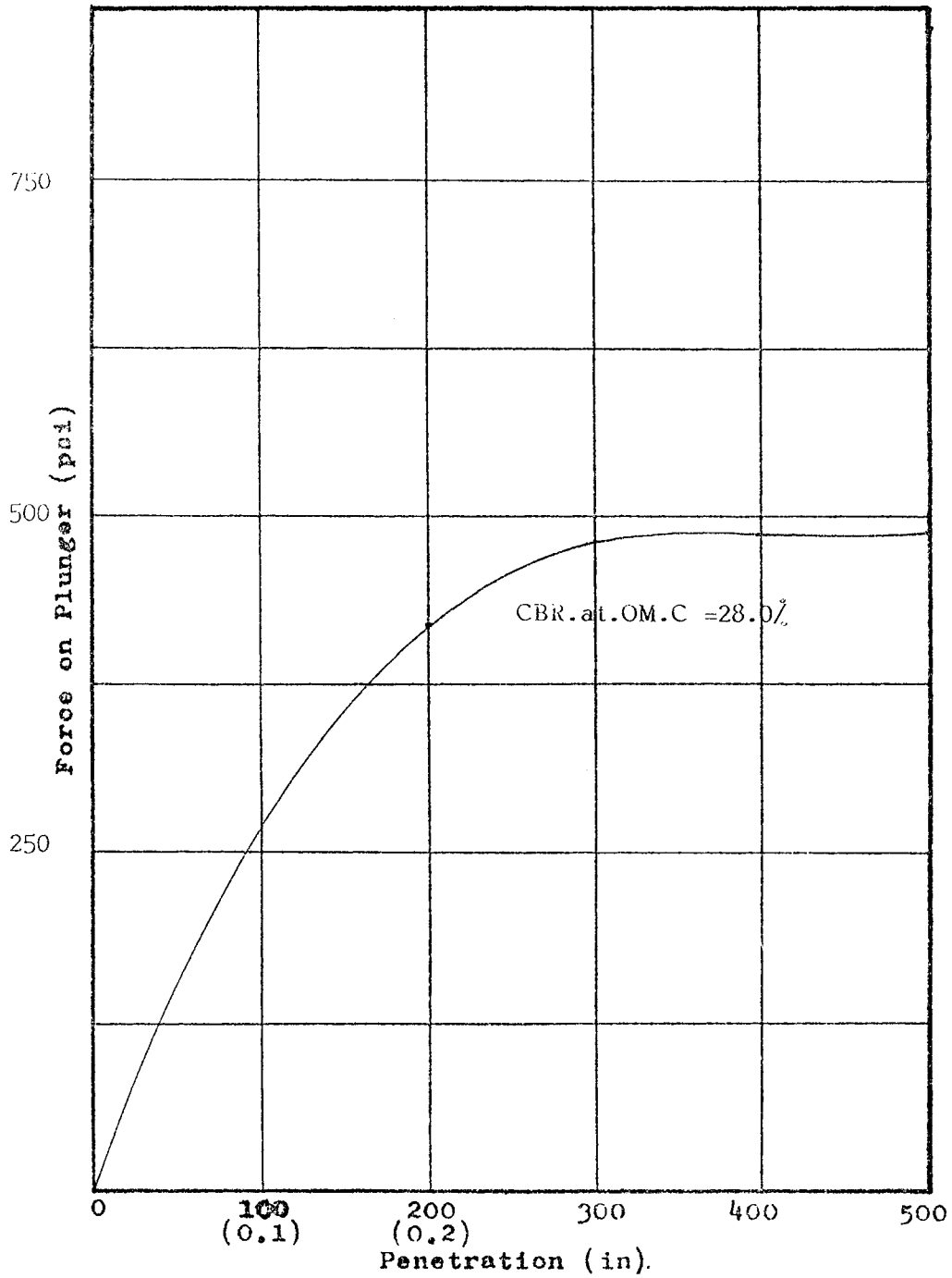




Sogin-Research  
California Bearing Ratio

Project:

Sample No.:



Remarks:

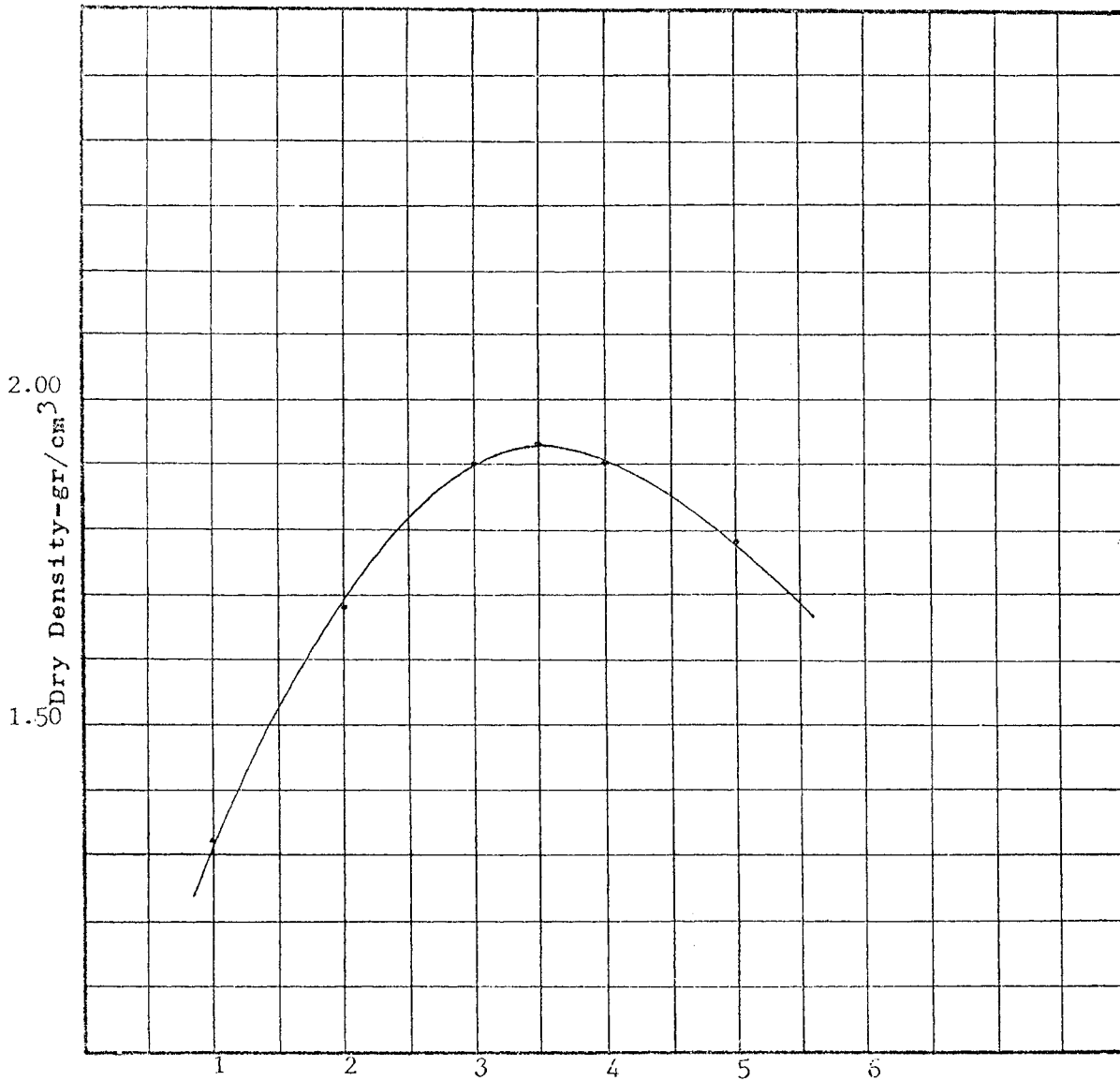


Geo-Research

Proctor Compaction Test

Sample No.:

Project:



Max. Dry Density = 1.930 gr/cm<sup>2</sup>

Moisture Content(%)

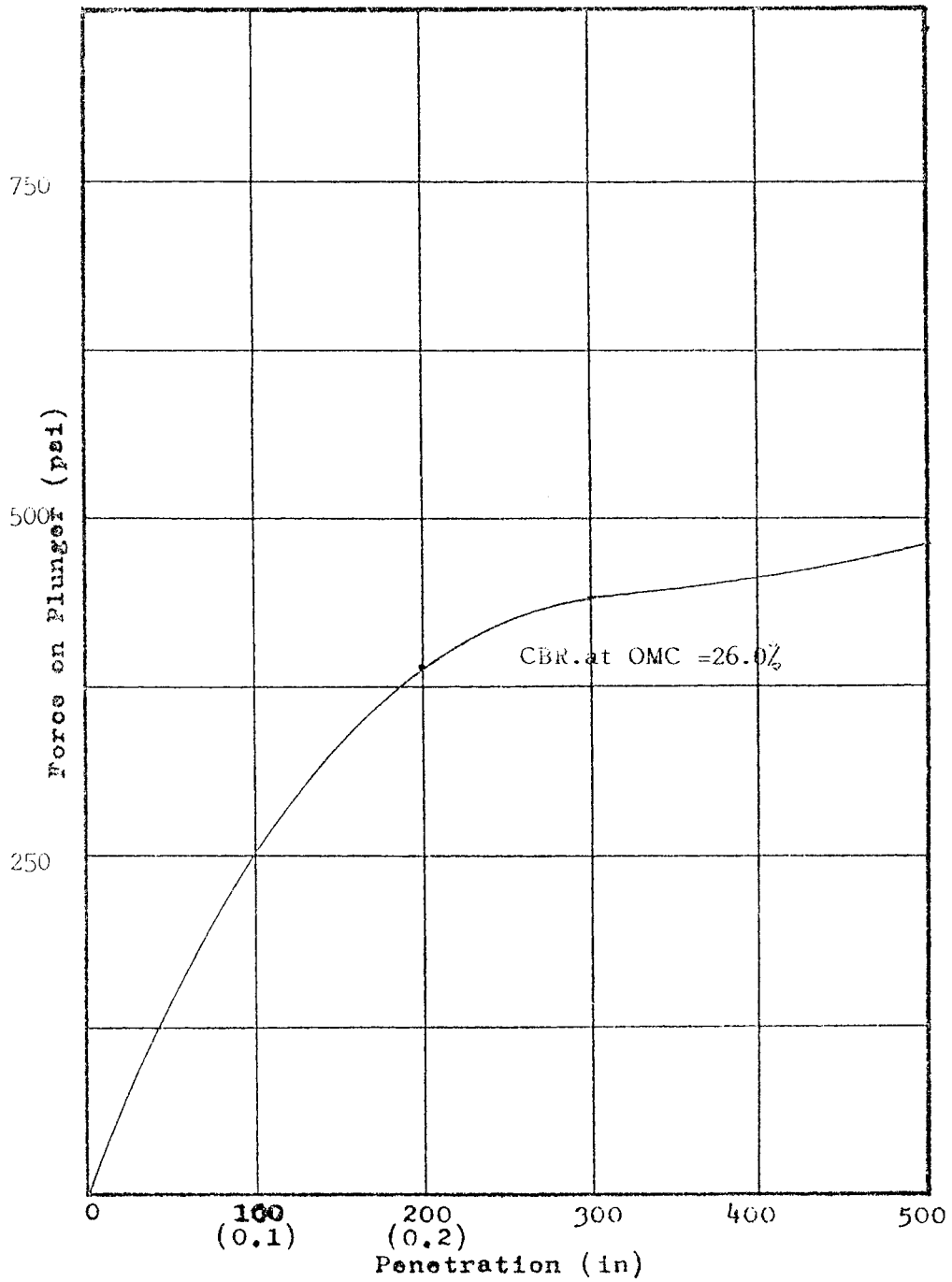
Optimum Moisture Content = 3.50%



Geo-Research  
California Bearing Ratio

Project:

Sample No.:



Remarks:

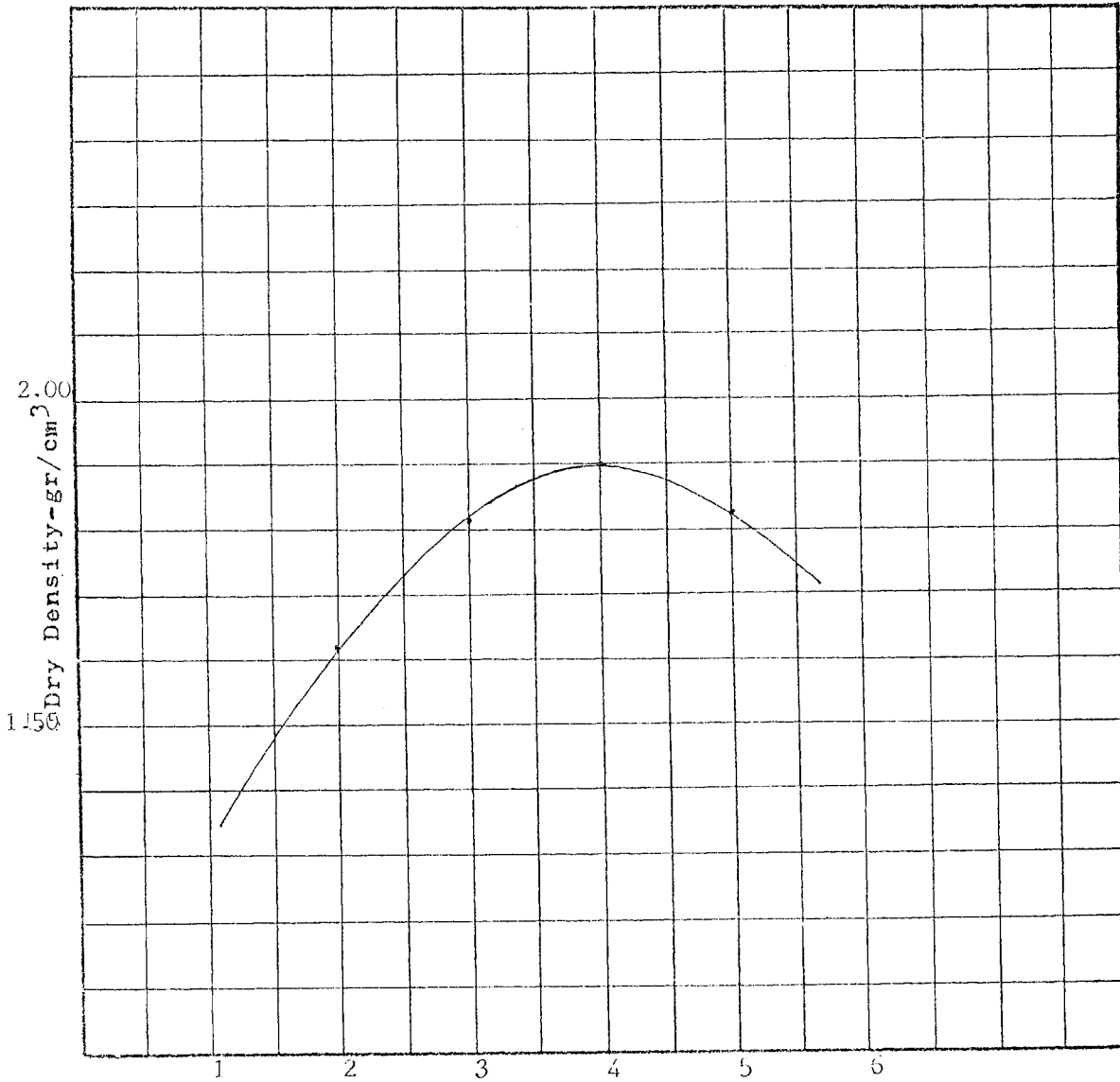


Geo-Research

Proctor Compaction Test

Sample No.:

Project:



Max. Dry Density = 1.90 gr/cm<sup>2</sup>

Moisture Content (%)

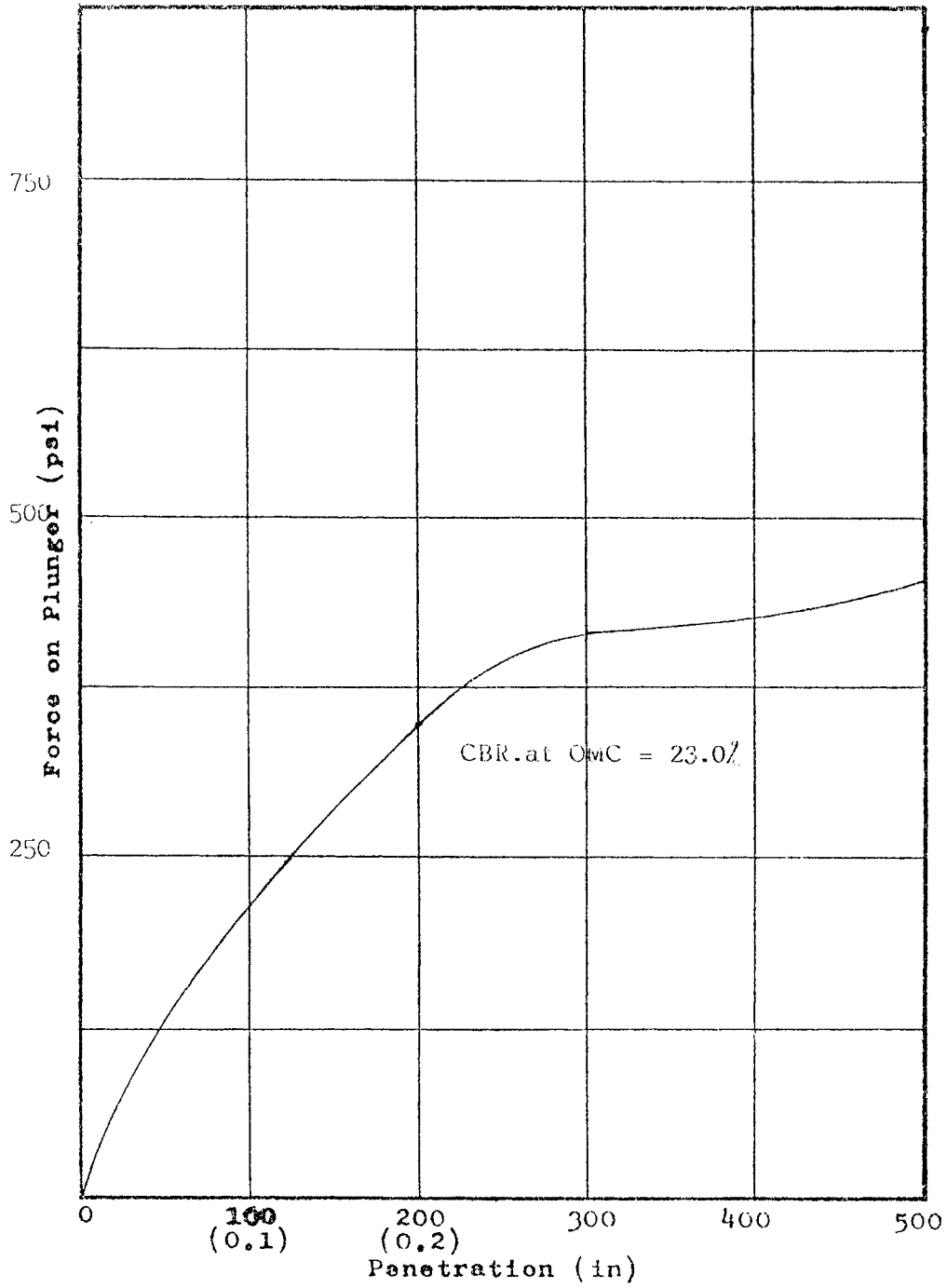
Optimum Moisture Content = 4.0%



G&G-Research  
California Bearing Ratio

Project:

Sample No.:



Remarks:



### Dead Sea Parkway Development

Specification General Tests Requirements	Actual Performed Tests	Remarks
1) Specific gravity	1) Performed	
2) Grain-size analysis	2) Performed	
3) Liquid/Plastic Limit	3) Not Performed	Material is non-plastic
4) Moisture test	4) Performed	
5) Unconfined compression test	5) Performed	
6) Triaxial compression test	6) Not Performed	No undisturbed samples Material is non-plastic
7) Consolidation test	7)	As above ...
8) Chemical test (PH, sulfur and chloride contents )	8)	The rock is free from aggressive or reactive material
9) CBR test for Road Design	9) Performed	
10) Compaction for Road Design	10) Performed	
	11) Direct shear test	Direct shear test was performed on remoulded material due to non-cohesive nature of rock .

## **APPENDIX K**

### **QUERY FORM**

## QUERY FORM

### APPENDIX K

Query No.: \_\_\_\_\_

Date: \_\_\_\_\_

Name of Document	Page No.	Clause or Section No.	Question

\*\* Use additional page if required.

\_\_\_\_\_  
(Signature and name of authorized representative of Tenderer)

\_\_\_\_\_  
(Name of Tenderer)



## **APPENDIX L**

### **TENDER ACKNOWLEDGEMENT**

**TENDER ACKNOWLEDGEMENT**

1. This is to certify that we, \_\_\_\_\_ (name of Tender), have received all Tender Documents for the Dead Sea Parkway Sub-Project, Tourism Sector Development Project on ----- th ----- 2000.
  
2. We further declare that we shall submit our Tender Proposal in strict accordance with requirements of the Instructions to Tenderer.

Signature of Tenderer : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Date prepared : \_\_\_\_\_

## **APPENDIX M**

### **LIST OF ELIGIBILITY COUNTRIES**

## LIST OF ELIGIBILITY COUNTRIES

All Countries

**THE MINISTRY OF TOURISM & ANTIQUITIES**

**THE TOURISM SECTOR DEVELOPMENT PROJECT**

**INSTRUCTIONS TO TENDERERS**

**FOR**

**CONSTRUCTION OF DEAD SEA PARKWAY SUB-PROJECT**

**ENCLOSURES**

ENCLOSURE NO. 1 : POWER OF ATTORNEY

ENCLOSURE NO. 2 : CERTIFICATE OF SUBMISSION OF TENDER SECURITY

ENCLOSURE NO. 3 : JOINT OPERATION AGREEMENT

ENCLOSURE NO. 4 : LETTER OF ASSOCIATION

ENCLOSURE NO. 5 : AFFIDAVIT OF SITE INSPECTION

ENCLOSURE NO. 6 : BASIC PROGRAM OF THE WORKS

ENCLOSURE NO. 7 : CONTRACTOR' S ORGANIZATION CHART

ENCLOSURE NO. 8 : OUTLINE CONSTRUCTION PLAN AND PROPOSED LAYOUT PLAN  
FOR TEMPORARY WORKS

ENCLOSURE NO. 9 : LIST OF CONTRACTOR' S EQUIPMENT TO BE USED ON THE  
WORKS

ENCLOSURE NO. 10 : LIST OF MAJOR MATERIALS AND PLANT FOR THE WORKS

## **INSTRUCTIONS TO TENDERERS**

ENCLOSURE NO. 11 : LIST OF SUB-CONTRACTORS/SUPPLIERS

ENCLOSURE NO. 12 : LIST OF INTENDED IMPORT MATERIALS AND PLANT

ENCLOSURE NO. 13 : BREAKDOWN OF MAJOR RATES

ENCLOSURE NO. 14 : DETAILED MONTHLY CASH FLOW OF ANTICIPATED  
CONTRACT PAYMENTS

Notes :

- 1) Enclosures shall each be read in conjunction with the Tender Documents.
- 2) Enclosures shall be signed and returned with the Tender in strict accordance with the requirements of appropriate Clause of Instructions of Tenderers.

ENCLOSURE NO. 1

**POWER OF ATTORNEY**

Name : \_\_\_\_\_

Position : \_\_\_\_\_

Name of Company: \_\_\_\_\_

Business Address : \_\_\_\_\_

Telephone : \_\_\_\_\_

Facsimile : \_\_\_\_\_

I, the undersigned, hereby declare that we : \_\_\_\_\_ give authorization to the above mentioned person who is empowered by us to communicate with the MPWH/Engineer or other such authorized Party insofar as the “ Instruction to Tenderers” so permit during the Tendering period.

Date prepared : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Signature of Tenderer : \_\_\_\_\_

Official Stamp :

ENCLOSURE NO. 2

**CERTIFICATE OF SUBMISSION OF TENDER SECURITY**

Whereas we have prepared a Tender Security in accordance with the Tender Documents for the Tourism Sector Development Project, Dead Sea Parkway Sub-project, and it is a condition of the aforesaid Tender Documents that the Tenderer shall furnish a Tender Security in the amounts of J.D. -----.

We hereby certify that a Tender Security complying with the above and in the form as prescribed in the Tender Documents has been prepared and completed by the Guarantor

\_\_\_\_\_  
(Name of Bank)

included in the Package – II Documents.

Signature of authorized representative of the Tenderer: \_\_\_\_\_

Name of authorized representative : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Note: This certificate shall be enclosed in the Package – I Documents.



ENCLOSURE NO. 3

**JOINT OPERATION AGREEMENT**

The Tenderer shall submit with his Tender a Joint Operation Agreement in accordance with the Sub-Clause 20-1, c, 3) of the Instructions to Tenderers, clearly labeled as Enclosure No. 3.

ENCLOSURE NO. 4

**LETTER OF ASSOCIATION**

The Tenderer shall submit with his Tender a Joint Operation Agreement in accordance with the Sub-Clause 20-1, c, 4) of the Instructions to Tenderers, clearly labeled as Enclosure No. 4.

ENCLOSURE NO. 5

**AFFIDAVIT OF SITE INSPECTION**

1. This is to certify that I, \_\_\_\_\_(name)  
on behalf of \_\_\_\_\_ (name of Tender),  
declare that we have visited and inspected the Site and its surroundings and have fully satisfied  
ourselves of all the requirements of the Instruction to Tenderers.
  
- 2 We have also:
  - (1) Studied the Tender Documents in detail; and
  - (2) informed ourselves fully and taken account into our Tender of all national and local  
laws, decrees, ordinances, acts, regulations and other circumstances and conditions  
which may affect the satisfactory completion and timely performance of the Contract  
and the cost to us thereof.
  
3. I further certify that we are satisfied with the description of the Works and the written  
explanation given by the MPWH and that we understand perfectly the scope of works to be  
executed.

Signature of Tenderer : \_\_\_\_\_

Name of Tenderer : \_\_\_\_\_

Date prepared : \_\_\_\_\_

Official Stamp :

ENCLOSURE NO. 6

**BASIC PROGRAM OF THE WORKS**

The Tenderer shall submit with his Tender a “ Basic Program of the Works” clearly labeled as Enclosure No.6. The program shall indicate the timing, proposed sequence and order of execution of the Works, and take full account of the stipulated completion period.

The Program shall be submitted in Bar Chart form with plotted time/percentage completion together with a Critical Path Network detailing activities.

The “ Basic Program of the Works” shall indicate:

- (1) Key dates/period;  
(Refer to enclosed General Construction Schedule, as Appendix G” )
- (2) Interdependence of the individual activities;
- (3) Earliest/latest start and earliest/latest end of the each activity;
- (4) Manufacture and shipment of the Materials and Plants to be incorporated to the Works.
- (5) Transport and materials delivery to the Site;
- (6) Mobilization schedule of Contractor’ s and Sub-contractor’ s equipments
- (7) Shop fabrication.
- (8) Working sequence of street and trail pavement.
- (9) Testing and Commissioning etc
- (10) Temporary works including soil erosion and sedimentation control and protection during foundation works.
- (11) Temporary pedestrian and car traffic control and diversion plans.
- (12) Removal of Contractor’ s Equipment;
- (13) Clearing the Site upon completion; and
- (14) Protection of works

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER’ S COMPANY STAMP.

ENCLOSURE NO. 7

**CONTRACTOR' S ORGANIZATION CHART**

The Tenderer shall submit with his Tender a detailed organization chart clearly labeled as Enclosure No.7. The organization chart shall include an illustration of the Contractor' s proposed management structure for the Works:

- (1) The Project management and supervisory organization on Site;
- (2) Relevant head office structure in relation to the Project control.
- (3) Maintenance Organization during and after the Maintenance Period.

Principal personnel including Project management, administrative, technical and supervisory staff, foreign and local, shall each be named or referenced in the Organization Chart and, in addition, the Tenderer shall submit:

- (1) An assignment schedule for each personnel in the form of bar chart, indicating whether full or part time and the proposed period of assignment;
- (2) Comprehensive Curriculum Vitae for personnel, describing names, position, qualifications, age and relevant experience, company name if the Tenderer has been pre-qualified in association with other companies as a Joint venture/Consortium and their authorities
- (3) Monthly manpower requirement chart for the total Contract Period and categorized into management, supervision, engineering, administrative and labor for both foreign and local.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

ENCLOSURE NO. 8

**OUTLINE CONSTRUCTION PLAN AND PROPOSED LAYOUT PLAN FOR  
TEMPORARY WORKS**

The Tenderer shall submit the following with his Tender, clearly labeled as Enclosure No. 8.

- (1) An Outline Construction Plan; and
- (2) A proposed Layout Plan for Temporary Works.

The Outline Construction Plan shall include the following:

- (1) A method statement for each respective part of the Works describing the intended construction methods to be employed in the Works;
- (2) A detailed description of the proposed sequences for the execution and completion of the Works;
- (3) Anticipated labor levels (expressed in man-days) for the Works thereof including any works offsite;
- (4) Proposed detail quality control procedures and including:
  - : Site testing and commissioning method and procedure
  - : Manufacturer' s quality control procedure
  - : Proposed on-site/off-site independent laboratory or testing agency
- (5) Proposed Site safety/security control and protection of existing live utilities during construction period.
- (7) Temporary pedestrian and car traffic control and diversion plans.

The proposed layout plan for Temporary Works shall be accompanied by drawings indicating the layout and Engineers Office, temporary roads, workshop, control of soil erosion and sedimentation, storage areas, hard standings, offices, fences, Site lighting, power and water supplies etc. and all protection works.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

ENCLOSURE NO. 9


**LIST OF CONTRACTOR' S AND SUB-CONTRACTOR' S EQUIPMENT**  
**TO BE USED ON THE WORKS**

The Tenderer shall submit with his Tender a List of Contractor' s and Sub-contractor' s Equipment to be used on the Works in the format of the enclosed page, clearly labeled as Enclosure No.9.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

**LIST OF CONTRACTOR'S AND SUBCONTRACTOR'S EQUIPMENT TO BE USED FOR THE WORKS**

ENCLOSURE NO.9

DESCRIPTION	MANUFACTURER'S NAME	YEAR OF MANUFACTURE	MODEL	QUANTITY	SIZE CAPACITY	OWNED OR LEASED	PRESENT LOCATION
							

\*\* Use additional page if required

\_\_\_\_\_  
 (Signature and name of authorized representative of Tenderer)

\_\_\_\_\_  
 (Name of Tenderer)



ENCLOSURE NO. 10

**LIST OF MAJOR MATERIALS AND PLANT FOR THE WORKS**

The Tenderer shall submit with his Tender a List of Major Materials and Plant for the Works, clearly labeled as Enclosure No.10.

A. The materials to be incorporated in the Works shall comply with the Specifications in the Tender Documents.

B. The list must be complete in all respects including materials and plant and the Tenderer must submit with his Tender. All manufacturers' catalogues and enclosures, and performance specifications including drawings as necessary, pertaining to the materials.

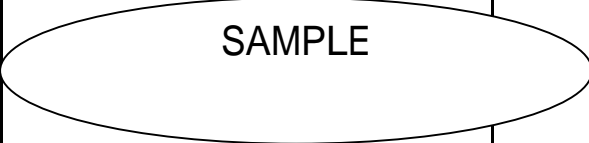
C. Spare Parts for Defect Liability Period

The Tenderer shall submit list of spare parts including modules, units and consumable items which the manufacturer recommends for the Defect Liability Period normal operation of equipment after issuance of Completion Certificate in accordance with the Clause 48 of the Conditions of Contract.


ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

**LIST OF MAJOR MATERIALS FOR THE WORKS**

**ENCLOSURE NO. 10**

DESCRIPTION	SEC. AND CLAUSE NO. OF VOLUME-II, SPECIFICATIONS	MANUFACTURER / SUPPLIER	STANDARD / MODEL	COUNTRY OF ORIGIN
<p><b>A Site, Civil, Architectural Works</b></p> <ol style="list-style-type: none"> <li>1. Ready Mixed Concrete</li> <li>2. Cement</li> <li>3. Fine Aggregates</li> <li>4. Coarse Aggregates</li> <li>5. Reinforcing Bars (diameter 9mm or less)</li> <li>6. Reinforcing Bars (all others)</li> <li>7. RC Pipe 400 - 800 mm Dia.</li> <li>8. Asphaltic Concrete</li> <li>9. Pre-cast Cponcrete Pile</li> <li>10. Waterstop</li> <li>11. Sesmic isolation pad</li> <li>12. Cement Roofing Tiles</li> <li>13. Concrete Block</li> <li>14. Paint</li> <li>15. Steel Doors</li> <li>16. Wooden Doors</li> <li>17. Aluminium Windows</li> <li>18. Rolling Shutters</li> <li>19. Glass</li> <li>20. Sanitary Fixtures</li> </ol> <p><b>B Mechanical Works</b></p> <ol style="list-style-type: none"> <li>1. Valves</li> <li>2. Galvanized Steel Pipes</li> <li>3. Cast Iron Pipes</li> <li>4. PVC Pipes</li> <li>5. Piping Aecessories: joint, bend, tee etc.</li> <li>6. Pumps</li> <li>7. Flow meters</li> <li>8. Air Conditioner</li> <li>9. Ventilation Fans</li> </ol>		 <p><b>SAMPLE</b></p>		

**ENCLOSURE NO. 10**

DESCRIPTION	SEC. AND CLAUSE NO. OF VOLUME-II, SPECIFICATIONS	MANUFACTURER / SUPPLIER	STANDARD / MODEL	COUNTRY OF ORIGIN
<p><b>C Electrical Works</b></p> <p>1 Circuit Breakers                      2 Meters                      3 Switch Boards                      4 Tranformers                      5 Busbars                      6 Cables                      7 Intermediate Metalic Conduits                      8 Cable ladders                      9 Computer                      10 Lighting Fixtures                      11 Switches and Receptacles                      12 Heat and Smoke Detectors</p> <p><b>D Landscape</b></p> <p><b>E Exhibition</b></p>				

\_\_\_\_\_  
 (Name and Signature of authorized represeatative)

\_\_\_\_\_  
 (Name of Tenderer)

ENCLOSURE NO. 11

**LIST OF SUB-CONTRACTORS/SUPPLIERS**

The Tenderer shall submit a list of Sub-contractors/Suppliers he proposes to use with his Tender in the format of the enclosed page, clearly labeled as Enclosure No.11. The Tenderer shall also enter a Statement of Similar works previously executed by the proposed sub-contractor including description, location and address of the Employer/Engineer. Notwithstanding such information, the Tenderer, if awarded the Contract, shall remain entirely and solely responsible for the satisfactory completion of the Works.


Reference and/or copy of legal documents for proposed Sub-contractors/Suppliers shall be enclosed.

Extension to this schedule in the same format should be used to provide complete information.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

**LIST OF SUB-CONTRACTORS/SUPPLIERS**

**ENCLOSURE NO. 11**

TARD OR MATERIALS	NAME OF SUB-CONTRACTOR/ SUPPLIER	ADDRESS OF SUB-CONTRACTOR/ SUPPLIER	NAME OF SIMILAR WORKS PREVIOUSLY EXECUTED	NAME OF EMPLOYER/ EMPLOYER OF WORKS PREVIOUSLY EXECUTED	DESCRIPTION OF WORK
 <p><b>SAMPLE</b></p>					

\*\* Use additional page if required.

\_\_\_\_\_  
(Signature and name of authorized representative of Tenderer)

\_\_\_\_\_  
(Name of Tenderer)

ENCLOSURE NO. 12

**LIST OF INTENDED IMPORT MATERIALS AND PLANT**


The Tenderer shall submit with his Tender a List of Intended Import Materials and Plant, clearly labeled as Enclosure No. 12.

Such list shall include estimated taxies/duties and other all necessary charges and specify the source countries.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

**LIST OF INTENDED IMPORT MATERIALS AND PLANT**

**ENCLOSURE NO. 12**

ITEM	DESCRIPTION	UNIT	QUANTITY	MATERIAL / PLANT RATE (FOB) (JD)	AMOUNT (FOB) (JD)	DUTIES (JD)	OTHER CHARGE (JD)	TOTAL (JD)
								

\*\* Use additional page if required.

\_\_\_\_\_  
(Signature and name of authorized representative of Tenderer)

\_\_\_\_\_  
(Name of Tenderer)

ENCLOSURE NO. 13

**BREAKDOWN OF MAJOR RATES**

The Tenderer shall submit with his Tender a Breakdown of Major Rates, clearly labeled as Enclosure No. 13.

Such breakdowns shall at all times be subject to the approval of the Engineer. The Engineer reserves the right to request such further breakdown as he may consider necessary.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.



**BREAKDOWN OF MAJOR RATES**

**ENCLOSURE NO. 13**

ITEM	DESCRIPTION	UNIT	QUANTITY	LOCAL CURRENCY (JD)		FOREIGN CURRENCY (JD)*1		TOTAL (J.D.)
				RATE	AMOUNT	RATE	AMOUNT	
<b>A</b>	<b>SITE, CIVIL AND BUILDING WORKS</b>							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
<b>B</b>	<b>MECHANICAL WORKS</b>							
<b>B-1</b>	<b>Plumbing Works</b>							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
<b>B-2</b>	<b>Air-conditioning and Ventilation Works</b>							
1								
2								
3								
4								
5								
6								
7								
8								

SAMPLE

\*1: JD Equivalent

**ENCLOSURE NO. 13**

ITEM	DESCRIPTION	UNIT	QUANTITY	LOCAL CURRENCY (JD)		FOREIGN CURRENCY (JD)*1		TOTAL (J.D.)
				RATE	AMOUNT	RATE	AMOUNT	
<b>C</b>	<b>ELECTRICAL WORKS</b>							
<b>C-1</b>								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
<b>C-2</b>								
1								
2								
3								
4								
5								
6								
<b>D</b>	<b>LANDSCAPE</b>							
<b>E</b>	<b>EXHIBITION</b>							



\*1: JD Equivalent

\_\_\_\_\_  
 (Name and signature of authorized representative of Tenderer)

\_\_\_\_\_  
 (Name of Tenderer)

ENCLOSURE NO. 14

**DETAILED MONTHLY CASH FLOW OF ANTICIPATED CONTRACT PAYMENTS**

The Tenderer shall submit with his Tender a Detailed Monthly Cash Flow of Anticipated Contract Payment to indicate all payments anticipated to be received under the Contract in relation to the program thereof (cash flow shall be with tabular and graphical form). Appropriate allowance shall be made for payment and repayment of advance payments under the Contract, clearly labeled as Enclosure No.14.

ALL PAGES OF THIS ENCLOSURE AS SUBMITTED SHALL BE SIGNED BY THE TENDERER AND ENDORSED WITH THE TENDERER' S COMPANY STAMP.

THE GOVERNMENT OF  
THE HASHEMITE KINGDOM OF JORDAN  
THE MINISTRY OF TOURISM & ANTIQUITIES  
THE MINISTRY OF PLANNING

## **FORM OF TENDER**

OF

DEAD SEA PARKWAY SUB-PROJECT  
THE TOURISM SECTOR DEVELOPMENT PROJECT

# FORM OF TENDER

To: The Ministry of Public Works and Housing  
Government Tenders Directorate  
Eighth Circle, Albiader Street, Amman

## TENDER FOR CONSTRUCTION OF DEAD SEA PARKWAY SUB-PROJECT TOURISM SECTOR DEVELOPMENT PROJECT

1. Having examined the Tender Documents comprising the Instructions to Tenderers, Conditions of Contract, the Specifications, the Bill of Quantities, the Drawings and Addendums for the above-named works. We, undersigned, offer to undertake the work complete in conformity with the above mentioned documents for the sum of;

amount in words Jordanian Dinar \_\_\_\_\_

( J.D. \_\_\_\_\_ )

and

amount of words United States Dollar \_\_\_\_\_

(US\$. \_\_\_\_\_ )

2. We undertake, if our Tender is accepted, to commence the Works within thirty (30) days after receipt of the Employer's Notice to Proceed, this period to be utilized for mobilization works, and to complete and deliver the while works comprised in the contract within Twenty-four (24) months calculated from the last date of the aforesaid period in which the Works are to be commenced.
  
3. If our Tender is acceptable, we will submit a Performance Security in the form of Bank Guarantee to jointly and severally bound us in the sum equal to ten percent (10%) of the total Contract Prices in above mentioned currencies for the faithful and satisfactory performance of the contract.
  
4. We agree to abide by this Tender for a period of ninety (90) calendar days from the date set for the opening of Tender and it shall remain binding upon us and may be accepted at any time before the expiration of this period. The Tender Security shall remain valid for one hundred twenty (120) calendar days after the date of opening of Tender.
  
5. Unless and until the Contract Agreement is prepared and executed, this Tender, together with your Letter of Acceptance, shall constitute a binding Contract between us. We agree that our receipt of your Letter of Acceptance will bind us to enter into the Contract Agreement with you, until the submission by us of an acceptable Performance Security within the required period.
  
6. We acknowledge that the Appendix to Tender forms part of our Tender.
  
7. We confirm that we have taken account of Notices to Tenderer:
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000
  - No. \_\_\_\_\_, dated \_\_\_\_\_, \_\_\_\_\_ , 2,000

8. We understand that you are not bound to accept the lowest or any Tender you may receive.

Date this \_\_\_\_\_ day of \_\_\_\_\_, 2000

Signed \_\_\_\_\_  
(Printed Name)

Designation \_\_\_\_\_

Duly authorized to sign  
For and on behalf of \_\_\_\_\_

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Witness)