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UNCLASSIFIED

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

52p

PROJECT PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

JORDAN - Feasibility Study - Potash Production

AID-DLC/P-2144

UNCLASSIFIED

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

UNCLASSIFIED
AID-DLC/P-2144
January 13, 1976

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Jordan Feasibility Study - Potash Production

Attached for your review are the recommendations for authorization of a loan to the Government of Jordan of not to exceed Six Million United States Dollars ($6,000,000) to assist in financing the foreign exchange and local currency costs of an economic, technical, and financial study of the feasibility of construction of a potash production facility in Jordan based on the Dead Sea brine.

The loan is scheduled for consideration by the Development Loan Staff Committee on Thursday, January 22, 1976 at 2:30 in Rm. 3886 NS; please note your concurrence is requested by close of business on January 27, 1976. If you are a voting member a poll sheet has been enclosed for your response.

Development Loan Committee
Office of Development Program Review

Attachments:
Summary & Recommendations
Project Analysis
Annexes, 1 through 8

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE ("X" appro. ate box): [X] Original [ ] Change [ ] Add [ ] Delete — PP

DOCUMENT CODE: 3

2. COUNTRY/ENTITY: Jordan

3. DOCUMENT REVISION NUMBER:

4. PROJECT NUMBER: 278-K-015

5. BUREAU: a. Symbol: NE; b. Code: 4

6. ESTIMATED FY OF PROJECT COMPLETION: FY 79

7. PROJECT TITLE - SHORT (stay within brackets): [Feasibility Study-Potash Production]

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION: a. INITIAL mo. 1 yr. 76; b. FINAL FY 76

9. ESTIMATED TOTAL COST ($000 or equivalent, $1 = 324 fils)

a. FUNDING SOURCE	FIRST YEAR FY 76 b. FX	c. L/C	d. Total	ALL YEARS e. FX	f. L/C	g. Total
AID APPROPRIATED TOTAL						
(Grant)	( )	( )	( )	( )	( )	( )
(Loan)	(300)	(--)	(300)	(5,000)	(1,000)	(6,000)
Other 1.						
U.S. 2.						
HOST GOVERNMENT		100	100	--	2,900	3,000
OTHER DONOR(S)	200	--	200	1,000	--	1,000
TOTALS	500	100	600	6,000	3,900	10,000

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS ($000)

a. Appropriation (Alpha Code)	b. Primary Purpose Code	c. Primary Tech. Code	FY 76 d. Grant	FY 76 e. Loan	FY ___ f. Grant	FY ___ g. Loan	FY ___ h. Grant	FY ___ i. Loan	ALL YEARS j. Grant	ALL YEARS k. Loan
SA	991	833		6,000						6,000
TOTALS				6,000						
11. ESTIMATED EXPENDITURES										6,000

12. PROJECT PURPOSE(S) (stay within brackets) [ ] Check if different from PID/PRP (No PID/PRP prepared)

[To determine whether it is technically, economically and financially feasible to recover potash from the Dead Sea.]

13. WERE CHANGES MADE IN BLOCKS 12, 13, 14, or 15 OF THE PID FACESHEET? IF YES, ATTACH CHANGED PID FACESHEET.

[ ] Yes [X] No (No PID prepared)

14. ORIGINATING OFFICE CLEARANCE

Signature: [signature]

Title: Deputy Director, Bureau for Near East

Date Signed: mo. 04 day 01 yr. 76

15. Date Received in AID/W, or For AID/W Documents, Date of Distribution: mo. ___ day ___ yr. ___

AID 1330-4 (7-75)

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HASHEMITE KINGDOM OF JORDAN

FEASIBILITY STUDY

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PROJECT COMMITTEE

NE/CD, Mr. Theodore H. Lustig, Chairman
NE/CD, Mr. Thomas A. Pearson
GC/NE, Mr. Charles E. Costello
ENGR/OPNS/TR, Mr. James Cooperman
NE/ME, Mr. William H. Faulkner

J O R D A N

FEASIBILITY STUDY

POTASH PRODUCTION

I. SUMMARY AND RECOMMENDATIONS

1. Borrower: The Hashemite Kingdom of Jordan (GOJ), which will make the proceeds of the loan available to the Arab Potash Company (APC) on terms to be approved by A.I.D.

2. The Loan:

(a) Amount: Not to exceed six million dollars ($6 million).

(b) Terms: Repayable in forty (40) years, including a grace period of ten (10) years, with interest on the unrepaid balance at an annual rate of two percent (2%) during the grace period and of three percent (3%) thereafter.

3. Project Cost: The total cost of the project is estimated at ten million dollars ($10 million), of which six million dollars are estimated to be in foreign exchange and four million dollars in local costs. The proposed A.I.D. loan will be disbursed for both foreign exchange costs and local currency costs. An International Development Association (IDA) credit of $1 million has been made available to GOJ to assist in financing the project subject to availability of A.I.D.'s Loan; the equivalent of $3 million is to be provided by the GOJ to APC.

4. Project Description: The purpose of the project is to establish the feasibility of constructing a potash production facility with a capacity of 1 million tons of K_2O_5 (muriate of potash) at the southern end of the Dead Sea. To achieve that purpose, it is necessary (a) to design and construct a test dike approximately 1 km. long to establish the design characteristics and construction methods suitable for the construction of the dikes needed for a commercial facility using solar evaporation of brine and the processing of the precipitated salts as principal elements of the production process; and (b) to determine from the test dike the optimum dike characteristics and to use that data in preparing a feasibility study covering the technical, financial, economic, and environmental aspects of a commercial scale production facility. The feasibility study is the major output of the project; its ultimate goal is an increase in Jordan's capacity to earn foreign exchange by creating new export industry.

5. Mission Views: The Mission recommends authorization of the proposed loan.

6. Statutory Checklist: All statutory criteria have been met as detailed in Annex 3.

7. Source of Funds: Supporting Assistance.

8. Loan Administration: The proposed loan would be administered jointly by the Mission and AID/W to ensure the necessary coordination with the Borrower, its consultants, and IDA.

9. Issues: None.

10. Recommendation: That a loan in the amount of $6 million be authorized, on the terms listed in paragraph 2(b), above.

II. BACKGROUND OF PROJECT

1. The first efforts to extract potash from the Dead Sea date back to 1930 when the Palestine Potash Ltd. began operations at the northern end of the Dead Sea. In 1937, a second plant was built in the south, at Sodom. By 1945, the combined production of both plants had reached 100,000 tons per year (tpy) of potassium chloride (KCL) 1/. Damage was suffered by both plants in 1948; most of the remaining facilities in the south were left in Israel when the truce line was established but the northern works were abandoned. In 1952, the Israeli Government formed the Dead Sea Works Ltd. which restored the facilities at Sodom and reached a production of 100,000 tpy in 1960. The facilities were expanded in the 1960's and now produce between one and two million tons a year, and a further expansion is in progress.

2. On the Jordanian side, the Arab Potash Company (APC) was formed in 1956 to develop potash extraction from the Dead Sea. In 1960, after some experimental work at both ends of the Dead Sea, APC awarded a contract for a feasibility study to Western Knapp Engineering Co., of San Francisco, which submitted its report in 1962. That report recommended facilities for production of potash, based on the evaporation of brine by solar energy, at a rate of 250,000 tpy. It became evident, however, that a plant of that size would not be economical and in 1964 AID financed a contract with Jacobs Engineering Company (JEC), of Pasadena, California, to review the earlier report by Western Knapp and carry out further technical and financial analyses. JEC carried out that work using Sir Alexander Gibb & Partners, of London, as consultants on the civil works aspects of the project, such as dike design and evaporation pans.

1/ KCL, marketed as muriate of potash contains 60 to 62 percent of K_2O_5, its active nutrient.

3. As a result of the 1964 JEC study, it became clear that the minimum economic size of the facilities would be 500,000 tpy and discussions were initiated between APC, A.I.D., the IBRD and, eventually, the Kuwait Development Fund resulting in a decision that confirmation of ultimate productive capacity and feasibility was required prior to investing in plant construction. As a result, JEC was retained to undertake a detailed feasibility study which was completed in 1966, and concluded that, at relatively little additional cost, the facilities could be constructed to produce 1 million rather than 500,000 tpy.

4. One of the conditions for financial participation established by the potential lenders at that time was the participation in the project of a technically and commercially experienced foreign company. A number of companies showed interest and, in early 1967, W. R. Grace Co. made a formal proposal and a series of discussions were held between APC, Grace, the IBRD, A.I.D., and JEC. It was agreed facilities with a capacity of 1.2 million tpy could be constructed at a cost then estimated at $90 million. The expected export price for potash f.o.b. Aqaba was considered well within the market price, then ranging from $22 to $24 per metric ton. In June, 1967, because of conflict in the area, further development of the project came to a standstill.

5. In 1974, the Jordanian Government asked JEC to update its 1966 study so that the viability of the project under current and foreseeable market conditions could be assessed. It was found that the increase in potash prices that had occurred since 1966 would permit profitable operations even though current capital costs would be much higher than originally estimated. The construction of a trial dike, already envisaged in 1966, and a more detailed review of the commercial and technical aspects of the project are still considered necessary. The IBRD has renewed its interest in the project, consulted with both the GOJ and APC on numerous occasions and assisted them in preparing documentation for and assessing qualifications of firms which were invited to submit proposals for the Engineering and Feasibility Study which is the substance of the Project described below.

6. Early in 1975, the GOJ indicated an interest in A.I.D.'s participation in the revised project and has since submitted a formal request for a loan of $6 million to assist in financing this project.

III. PROJECT DESCRIPTION

1. The Engineering and Feasibility Study to be carried out will cover the economic, technical and financial aspects of the project with the objective of demonstrating overall project viability. The study will include the following major elements:

(a) Design, construction and testing of a trial dike approximately 1 km long to determine the optimum design characteristics for use in construction of a commercial facility if that is determined to be feasible; and

(b) a new feasibility study; for its technical part, the results of the test dike construction are to be used and processing plans reexamined in the light of any new technological developments and operational experiences that may now be available; in addition, capital costs of a commercial facility, operating costs and the resulting price f.o.b. Aqaba are to be recalculated and the commercial viability of the facility re-assessed on the basis of current and projected world market demand and prices.

A more detailed Scope of Work for the consulting services required for the project is given in Annex 1.

2. The major objectives of the trial dike construction are to determine the best method of making the dike and salt layers impermeable and to ascertain the optimum design characteristics of dikes to be constructed with foundation conditions peculiar to the site. To achieve these objectives, the Consultant will design various dike configurations which will be constructed and tested for structural adequacy and impermeability. Such designs will be modified based on test results.

IV. PROJECT ANALYSES

1. Since this "Project" consists of engineering and feasibility studies, the usual methods of analysis cannot be applied. Some analysis is, however, needed to justify the expenditure of the substantial amounts needed to carry out these studies. In the following paragraphs will be found a presentation of the evidence that, prima facie, the potash project to be studied will be found feasible.

2. Technical Feasibility: The feasibility of recovering minerals by evaporating brine and processing the salts has been proven in different parts of the world, including notably the Great Salt Lake in Utah. More specifically, recovery of potash from the Dead Sea has been proven feasible by the successful operations carried out by the Dead Sea Works Ltd. on the Israeli side of the south shore of the Dead Sea. The construction of a test dike is considered necessary not because the construction of evaporation pans is unproven technology, but to ascertain optimum design criteria and approximate siting of dikes totaling between 40 and 70 km in length which will have to be constructed for a commercial-size plant. The study of other technical questions, such as the collection of evaporation data, is also thought desirable to establish more precise design parameters, and thus realistic cost estimates. There is thus no reason to suspect that the program of detailed investigations and testing to be carried out by the Consultants will bring to light any insurmountable technical problems.

3. Financial Feasibility: The preliminary updating of the 1966 Study undertaken by JEC in 1974 indicated that construction of a commercial-scale plant should be financially feasible. The major findings on which that conclusion, and the decision by the GOJ, APC and the IBRD to proceed with further investigations, are based include the following:

(a) The world potash demand is expected to reach about 30 million tons per year by 1980 when Jordan may enter the market as a supplier; that projection is based on an assumed annual growth of demand of 6 percent;

(b) worldwide production capacity in 1974 was about 26 million tons;

(c) production of the proposed Jordanian plant, at a capacity of 1 million tpy, would represent only 3.3 percent of the projected world demand in 1980;

(d) assuming an f.o.b. price at Aqaba equal to the f.o.b. price at Vancouver, the standard for the world market price, Jordanian potash would have a substantial freight advantage over Canadian potash in about 12 percent of the world markets;

(e) production costs, plus inland freight to Aqaba, should be low enough to give APC a sufficiently large profit margin to absorb such fluctuations in world market prices as can be reasonably anticipated. (JEC's preliminary calculations indicate that Jordanian potash, f.o.b. Aqaba, will cost a little more than half the cost of Canadian potash, f.o.b. Vancouver.)

4. Preliminary calculations by JEC of the financial returns to be expected, using a total investment of $160 million and current estimates of operating and inland transportation costs as basis, showed rates of return ranging from 12.4 percent on equity (if world prices dropped to the current Canadian floor price of $20 per ton f.o.b. mine and the entire investment were in equity) to 38.9 percent assuming expected rather than floor prices and a 3:1 debt/equity ratio with a composite borrowing rate of 4.2 percent.

5. No firm commitments have been requested or made for the financing of a commercial potash plant. Should the present Project establish its feasibility, it is assumed that several of the Arab holders of APC stock (the Governments of Jordan, Egypt, Iraq, Kuwait, Saudi Arabia, Lebanon, Syria and Qatar and over 400 private shareholders) would make equity investments and that the IBRD, Arab governments and institutions and possibly A.I.D., would consider debt financing. The participation of a non-Jordanian firm in management, technical operations and marketing would again be sought and would probably be a condition for the financial participation of several of the potential equity investors and lenders. It has been agreed, however, that the appropriate time for the elaboration of firm financial and managerial arrangements will be after the completion and analysis of the feasibility report which will result from the present Project.

6. Cost Estimate: The project cost estimate as shown below was prepared by IDA and used in Agreements executed on July 7, 1975, between IDA and the GOJ and IDA and APC:

	COSTS ($000's)		
	Local	Foreign	Total
Civil Works	2,500	1,500	4,000
Equipment	200	1,500	1,700
Consulting Services	300	2,000	2,300
Unallocated (Contingency)	1,000	1,000	2,000
Total	4,000	6,000	10,000

Due to the nature and uncertain quantities of the investigative work required, the extent of civil works and equipment required cannot be accurately estimated. A cost-plus-fixed fee contract for consulting services has been executed between APC and Jacobs International Incorporated (Jacobs) with an estimated cost of $1.542 million and JD 114,540, for a total equivalent of $1.886 million. The project committee believes that the cost estimate shown above is reasonable.

7. Financing Plan: The financing plan for the present project foresees coverage of the estimated costs of $10 million, as follows:

GOJ	$ 3 million
IDA	1 million
AID	6 million
Total	$ 10 million

(a) GOJ Funds - $3.0 Million: The funds to be provided by the GOJ to APC will be available for any project purpose and at least part could be made available in foreign exchange, if needed.

(b) IDA Funds - $1.0 Million: The IDA credit will be available to the GOJ for passing to APC upon GOJ compliance with conditions precedent in the Credit Agreement, one of which is that A.I.D.'s loan conditions precedent have been met. The IDA credit is intended to finance up to 50% of the foreign exchange costs of the consultant's services. IDA has, however, in the Credit Agreement included a provision by which the stated percentage figure can be adjusted to permit total disbursement of the credit.

(c) A.I.D. Funds - $6.0 Million: The proposed A.I.D. loan would be made to the GOJ which would make the proceeds available to APC for financing foreign costs incurred in the United States, other A.I.D. Geographic Code 941 countries, and local costs in Jordan.

GOJ, APC, IDA, and A.I.D. will consult further on the precise terms under which the three sources of funds will be passed on to APC by the GOJ, and the A.I.D. loan agreement will provide that such terms must be acceptable to A.I.D.

In the event that the full-scale production facility goes forward, it is expected that both the IDA credit and the A.I.D. loan would be included in the financial plan for the facility and that the terms under which these funds will now be made available to APC by GOJ will be subject to either confirmation or renegotiation at that time.

Should the production facility not prove feasible and not go forward, APC would presumably be liquidated and the question of terms to APC would be mooted. In any case, the $6.0 million A.I.D. loan would be repayable by GOJ.

8. Economic Analysis: The present Project cannot be subjected to the normal economic analysis since its objective is to establish the feasibility of a productive enterprise rather than to construct it. Should a potash plant prove feasible, its economic impact on Jordan would be considerable since it could result in adding gross foreign exchange receipts on the order of $50 million annually to the trade balance and would generate additional employment.

9. Repayment Prospects - In 1972 and 1973, the average ratio of debt service to the export of goods and services was 7.3 percent. This ratio fell to about 5.8 percent in 1974 due to a rise in exports and the fact that Jordan's debt consists mainly of highly concessional financing from foreign aid donors. It is not expected that the debt service ratio will change substantially over the next five years. This relative stabilization in the debt service ratio is predicated on the anticipated increased export of phosphates, other minerals and agricultural developments combined with a continuation of the availability of concessional loans. The proposed loan, considering the concessionary terms recommended and the amount of the loan, will have minimal impact on the debt service ratio. See Annex 3 for further discussions on Jordan's balance of payments.

10. Environmental Analysis: The test facilities (dikes and evaporation pans) will be constructed in an area which is not cultivated nor even inhabited. No detrimental effects on the environment are expected from the test programs included in this Project. A complete assessment of the environmental effects of a full-scale operation will be part of the feasibility study to be undertaken. (See Item 2.5.9, page 8, Annex 1.)

V. IMPLEMENTATION

1. The Arab Potash Company (APC): The project will be implemented by APC through contracts with consultants and, for the construction of the test dike and ponds, one or more civil works contractors. Information about APC is given in Annex 2. Under the IDA Credit Agreement, APC obligated itself to form a Project Implementation Unit for the sole purpose of administering the contracts necessary for the execution of the Project and of supporting the contractors' efforts. The head of that unit is to be "an experienced and competent project manager acceptable to

the Association". 1/ The staff of the unit is to include a chemical engineer, a civil engineer, an accountant and clerical staff. Should it prove impossible to obtain professional staff with the required experience in Jordan, then APC will retain a foreign advisor who would act as owner's representative and train the Jordanian staff until APC and IDA agree that such outside assistance is no longer required. 2/ The Project Implementation Unit will also be responsible for monitoring progress of the work, maintaining time and cost schedules and for providing monthly reports to APC, the GOJ, IDA and A.I.D. The Project Manager will report to the Chairman of the Board or a Board member designated by the Chairman. We believe that these arrangements are adequate to ensure appropriate representation of APC in the execution of the Project and good liaison between the APC and the contractors.

2. Implementation Schedule

(a) Loan

Authorization	December, 1975
Loan negotiated & executed	January, 1976
Implementation Letter No. 1 Issued	January, 1976
Conditions Precedent met	March, 1976
TD for requesting disbursing authorizations	December, 1977
TD for disbursement (reimbursement)	March, 1978

(b) Project

Consultant contracts executed	November, 1975
Civil works contract executed	March, 1976
Mid project review	January, 1977
Final feasibility report	January, 1978

3. Selection of Consulting Engineer: The National Planning Council (NPC) of the Government of Jordan issued a Request for Proposals in November, 1974, to six firms or consortia of firms which had been selected from a total of 45 firms which had expressed an interest in the project. NPC had the benefit of advice and assistance from the UNDP/ World Bank Planning Group resident in Amman in the initial screening preceding issue of the Request for Proposals. The six firms invited to submit proposals by March 8, 1975, were the following:

1/ Paragraph 30, page 12, IDA "Report and Recommendations of the President, etc.," dated June 6, 1975; Report No. P-1654-JO.

2/ Ibid.

--Jacobs-Gibb, a collaboration between Jacobs International Incorporated, of Pasadena, California, and Sir Alexander Gibb & Partners, of Reading, England.

--Garrett-Dames & Moore Group, a collaboration between Garrett Research & Development Corporation, a subsidiary of Occidental Petroleum, of LaVerne, California; Dames & Moore, of Los Angeles and San Francisco, California; and Arthur G. McKee & Co., of San Mateo, California.

--Evaporite Minerals Consortium, a collaboration between Evaporite and Minerals Development Corporation, of Washington, D.C.; Agricultural and Industrial Minerals, Inc., of San Carlos, California; Parsons Brinkerhoff, of New York, N.Y.; and Swan Wooster, Inc., of Vancouver, B.C., Canada.

--Ove Arup Consotrium, a collaboration between Ove Arup and Partners, of London, England; Chemsystems, with offices in the U.S. and U.K.; Technosel, an Italian firm; and Hazen Research, of Golden, Colorado.

--TAMS Consortium, a collaboration between Tibbett, Abbott, McCarthy and Stratten (TAMS), of New York, N.Y.; Singmaster & Breyer, U.S.A.; Behre Dolbear, U.S.A.; and Dar Al-Handasah, a Lebanese group.

--Deutsche Projekt Union (DPU), in collaboration with Agrarund Hydro-Technik and Kalisalz, a German group.

The Jordanian Government appointed a special high-level committee charged with the evaluation of the proposals. A point rating scale developed by the UNDP office in Amman was used to arrive at a ranking of the technical proposals. That evaluation was followed by visits to the offices of the four leading contenders and to projects for which they had previously been responsible by a team of Jordanian officials, accompanied by a representative of the World Bank and a consultant retained by the Jordanian Government for this purpose. As a result of these exceptionally thorough investigations into the qualification of the prequalified consortia, the NPC/APC selected the Jacobs-Gibb group. APC subsequently negotiated a cost plus fixed fee contract with Jacobs International Incorporated (Jacobs), for providing the services described in Annex 1.

While Jacobs is responsible for providing the services, the contract requires Jacobs to sub-contract portions of the work to Gibb and Technical Services Organization (TSO), a Jordanian firm. The total cost of the Jacobs contract (including costs of the sub-contractors) is $1.886 million equivalent of which $1.542 million is foreign exchange costs. The contract between APC and Jacobs executed November 13, 1975, has been reviewed and approved by A.I.D. and IDA and found acceptable for A.I.D. financing.

Jacobs and Gibb executed on November 13, 1975, a contract under which Gibb is to provide services primarily related to the design of civil works including the test dike. The total amount of this cost plus fixed fee contract is $640,000 of which $550,000 is foreign exchange costs. This contract has also been reviewed and approved by A.I.D. and IDA and found acceptable for financing by IDA.

Jacobs and TSO executed a contract in October, 1975, for TSO to provide services primarily related to compiling meterological and hydrological data and providing some technical services in Jordan. Jacobs is revising this contract which when re-executed will be reviewed by A.I.D. and IDA. The total cost of this contract is estimated to be JD 70,000 ($210,000 equiv.).

4. Contracting for Civil Works: Because of the investigative nature of the work, APC has not decided on a procedure for contracting for the civil works. If the work items can be defined sufficiently, competitive bidding may be possible. If the work items cannot be sufficiently defined, then a prequalification, request for proposals, and a selection of a contractor for a cost plus contract may be necessary. In either of the two contracting procedures described above, it may be in the best interest of the project for APC to purchase certain items of construction equipment for use by a construction contractor.

Where competitive selection of a construction contractor or procurement of equipment by APC is contemplated, the procedures and rules described in A.I.D. Handbook 11, Country Contracting, will apply. When selection of a contractor on a pre-qualification/proposal basis is contemplated A.I.D. Handbook 11 will be used as a guide for establishing the proper procedure to be followed.

The civil works contract will include both foreign exchange and local currency costs. A.I.D. expects to finance such foreign exchange costs for a U.S. or Code 941 country contractor and to share financing of the local currency costs with the GOJ. During discussions with APC and Jacobs, Jacobs has indicated that a case may exist for proprietary selection of the contracting firm of George Wimpey and Company of London ("Wimpey"). Wimpey was the contractor who carried out the boring and soil testing done as part of the feasibility study in 1966 and therefore has some knowledge of the Project site. According to Jacobs, Wimpey also has an especially good soils laboratory capability, and they may be able to mobilize quickly.

However, A.I.D. has thus far seen no hard evidence to indicate Wimpey is uniquely qualified for this Project or that qualified U.S. contractors are unavilable. NPC, APC and Jacobs have been advised that A.I.D. would review a proprietary selection request but that it would have to be well documented and convincingly made before A.I.D. would approve such a request.

Since the United Kingdom would not be an eligible source country, financing of foreign exchange costs of any contract with Wimpey would require an amendment to the loan authorization so as to include Code 157 (United Kingdom), or such foreign exchange costs would have to be financed by the GOJ. If, however, only local costs of the civil works contract are to be financed by A.I.D., since Wimpey is an ineligible source firm, such local cost financing would require a waiver of A.I.D. source origin requirements, but not an amendment to the authorization.

All contracts for major construction services or equipment will be approved by A.I.D.

5. Disbursement: Costs incurred after November 15, 1975, will be eligible for financing. Eligible costs include equipment, material, construction services and consultant services when incurred under approved contracts and from eligible source countries. The costs of land, customs duties and taxes will not be eligible for A.I.D. financing.

Three sources of funds are being used to finance the estimated $10 million costs of this project. It is anticipated that all of IDA's $1 million Credit will be expanded for foreign exchange costs of the consulting services. It is anticipated, unless A.I.D. otherwise agrees, that the $6 million proceeds of the A.I.D. loan will be used to finance the remaining eligible foreign exchange costs of the consulting and construction services, and equipment procurement, as well as up to 25% of eligible local currency costs. The $3 million equivalent of Jordanian Dinars is expected to finance the remaining 75% of the local currency costs.

In the event that total project costs run over the $10 million presently estimated, the loan agreement will require that GOJ provide the additional needed financing.

Actual disbursing arrangements will be determined by discussions among all parties as soon as APC and its consultants have developed procedures and more refined cost estimates for carrying out the investigative construction work.

Disbursements from the proposed loan for dollar costs will be disbursed utilizing the letter of commitment procedure. Local currency costs will be on a reimbursement basis upon request from GOJ. The exchange rate for determining the dollar equivalent of the approved amount for reimbursement in Jordan dinars shall be the highest rate of exchange at which Jordanian dinars are sold for U.S. dollars on the date reimbursement is approved. The rate of exchange used will be that established by the Central Bank of Jordan.

6. Reporting Requirements: The objective of this project is the final report on the technical and economic feasibility of the production of potash utilizing brine from the Dead Sea. Regular progress reports from APC will be required so that A.I.D. will be aware of any problems being encountered which might delay the final report. Shipping reports will also be required.

After the consultants contract has been effective 12 months or when project costs have reached $5 million, a preliminary assessment of

the feasibility of constructing a commercial production facility will be made (See Annex I, Section 2.4.).

A.I.D.'s reporting requirements shall be coordinated with those of the IDA in order to avoid, as much as possible, duplication of efforts.

VI. CONDITIONS PRECEDENT AND COVENANTS

1. Conditions Precedent: In addition to the standard conditions precedent, such as legal opinion, borrower's representative, review and approval of consultants, construction and procurement contracts, additional conditions precedent will be included in the loan agreement as follows:

(a) The Borrower shall provide evidence satisfactory to A.I.D. that all necessary rights-of-way, land, and rights to utilize brine from the Dead Sea, have been acquired by the APC or will be made available to APC by the GOJ.

(b) Evidence satisfactory to A.I.D. that the APC has been duly chartered and is in good standing under the laws of Jordan for the purposes of implementing this Project as well as constructing and operating a commercial potash production facility.

A.I.D. shall also be furnished a certification of the customs duties and tax exemptions granted by GOJ to APC for the purposes of implementing this project.

(c) Evidence satisfactory to A.I.D. that GOJ has satisfied all conditions of effectiveness the IDA credit except the condition of full effectiveness of A.I.D.'s loan.

(d) Evidence satisfactory to A.I.D. that GOJ has made an irrevocable commitment to provide APC with the equivalent of up to $3.0 million for this project on terms and conditions acceptable to A.I.D.

(e) Approval by A.I.D. of the terms and conditions under which GOJ shall make the proceeds of the A.I.D. loan and IDA credit available to APC.

2. Covenants:

(a) The Borrower shall provide all authorizations or permits required by APC, its agents, consultants and contractors for implementing the Project.

(b) The Borrower agrees that all rights, concessions, and privileges granted by the Borrower to APC will be provided and maintained as required to complete this Project.

ANNEX I
SCOPE OF WORK

1.0 General

The scope of the works comprises a study of the technical, financial, economic and commercial feasibility of building a potash manufacturing plant in the Southern end of the Jordanian Dead Sea area with a capacity of at least one million metric tons of potash per year. The detailed scope is set out in the following paragraphs.

2.0 Phase 1

2.1 Investigations Trial Dike and Testing Program

2.1.1. Review and analyze all existing data associated with the civil engineering aspects of the project. Define areas where information is lacking or insufficient in quantity or quality so that its collection can be incorporated into Phase 1 of the project.

2.1.2. Update all existing information on the Dead Sea, its levels, and its hydrology. Review recent information on well drilling programs and irrigation projects affecting the fresh water supplies in the area. Review the advances in testing, design and construction techniques for the dikes that have occurred since 1966, particularly in the field of construction on soft ground and waterproofing of permeable strata (Salt layers under the dikes). The review of design techniques will include centrifuge model testing. Investigate alternative methods of providing division walls between pans other than gravel dikes.

2.1.3. Prepare designs, specifications, drawings and tender documents for a Preliminary Works Contract whose principal objectives are:-

(i) The determination of the most economical cross-section and materials for and method of construction of various types of dike for the main works where these are founded on soft ground.

and (ii) The determination of the optimum method of providing adequate impermeability of the main sea dike and its foundation where it is founded on the thicker salt layers.

The Preliminary Works Contract would therefore cover the following work:-

(a) The construction of a trial dike, approximately 1 km in length on soft ground to ascertain the most economical materials for and method of construction of this type of dike for the main works. This trial will require an access road from the shore.

The trial dike would have a varying cross-section to determine the optimum cross-section from behaviour, as observed by instrumentation. The design of the cross-section would take into account the results of the lab tests on the anisotropy of the undrained strength of the foundation soil. The undrained strength of the dike site would be determined before construction of the dike so that the dike cross-section can be varied for different conditions elsewhere. These investigations would include tests with cores of different shapes to determine strengths in vertical and horizontal planes and a continuation of the laboratory studies of anisotropy. Centrifuge model tests would also be carried out if studies show that they would be worthwhile.

The trial dike will be located, if possible, on the line of one of the main dikes.

(b) A trial or series of trials to render impermeable a layer of thicker salt under the line of the main dikes. These may be grouting trials using the types of grouts which appeared promising in the earlier tests and any other grouting materials. Other methods of sealing the dikes which further investigations may show to be appropriate will also be investigated. To test the efficacy of the trial it may be necessary to construct an embankment over the permeable areas which could be done in rectangular sections so that a differential head of brine can be applied across the treated section and the losses measured. Sections of the embankment would also be surcharged with dike construction material to test that the structural properties of the salt layer beneath had not been adversely affected by the method adopted.

(c) Additional core drilling, soil sampling and testing that may be found to be necessary from 2.1.1., particularly testing to establish foundation criteria for the control structures, the pans, the main dike lines, the factory site and for suitability and location of construction materials.

(d) Well drilling and testing that may be found necessary to establish aquifer characteristics of the Chor Sali area.

(e) Testing on the Lisan Peninsula and immediately offshore to confirm the optimum intake position, to ensure that there is no recycling of effluents into the intake. Investigate recent reports of variation of specific gravity of brine with depth of water at various intake locations and do such additional investigations as are necessary.

Tests should also be carried out to establish the feasibility of the brine canal along the western shore of the Lisan Peninsula and possible siltation effects.

(f) Tests to establish the design criteria for the support of the pumphouse structures and weirs located along the dikes. Also tests on the effect of the Dead Sea water on concrete of different mix designs.

(g) Any other testing that may be economically carried out to verify existing assumptions, for instance, trials for compacting salt bottoms for the carnallite pans.

(h) The construction of air-conditioned offices and a camp site for the personnel employed on the work which could be later used for the main civil engineering and plant contracts. The construction of any necessary roads and services including water supply for this camp.

2.1.4 Issue documents for the Preliminary Works necessary for contracting and analyze and report on the tenders received. Assist and advise on the conclusion of a contract -(s).

2.1.5 Act as Engineer for the Preliminary Works Contract, provide a resident site staff, issue all necessary instructions to the contractor, measure, and agree monthly and final certificates, closely coordinate the work on site with the design team requirements to ensure that the correct results are being achieved and monitor the progress of the work to report to the owner.

2.1.6 Prepare, design and supervise design and operation of a small pilot plant to produce approximately 100 (one hundred) kg of KCL.

(a) Prepare, design and supervise construction of test pans near Lisan.

(b) Harvest carnallite and ship abroad.

(c) Operate test pans to produce required carnallite.

(d) Prepare design of new equipment to supplement existing facilities, install and operate small pilot plant to produce 100 kg of KCL from Dead Sea carnallite.

(e) Package samples of product for demonstration purposes.

II

2.2 Detailed Process Design for the Solar Evaporation System

2.2.1 Complete process design for the Solar Evaporation System which will include detailed analysis of the effect of seasonal evaporation rates. Ultimate area requirements will be set. All requirements for each section of the pan system will be determined. Initial operating levels will be fixed and a detailed analysis will be made of flow requirements as a function of both time and seasonal conditions. A detailed analysis of the rate of level increase will be made. Analysis of the economic operating methods and potash recoveries

2.2.2 As part of the process design of the solar system a computer program for pan operation may be developed. This program would be set up to handle the effect of long-range weather forecast and desired production rate for periods up to a year in advance. The program will set the parameters for the detailed evaporation pond system design and would predict pan levels and feed brine requirements for operating purposes.

2.2.3 Set up a test program to finalize evaporation rates for the pan system. As a part of this program, permanent meteorological stations shall be established within the pan area.

2.2.4 Process design of refining facilities in sufficient detail to determine with reasonable accuracy the volume and composition of streams to be returned from the plant to the evaporation pond system.

2.2.5 Prepare piping and instrumentation flow diagrams for the complete pan system in sufficient detail to proceed with civil engineering design. Carry out sufficient engineering to determine the size and capacity of all pan process equipment and pipelines. Carry out all instrument engineering for process systems.

2.2.6 Prepare overall project layout drawings in sufficient detail to set plant location and dike access requirements. These will show final pan configurations and locate all pumping and transfer systems.

2.2.7 Develop pan system utility requirements and do sufficient detail design and distribution layouts on the pan system utilities, to proceed with civil engineering design, this will include preliminary design of power transmission and water systems required to operate the harvesting system.

2.3. PRELIMINARY Design of the Harvest System

2.3.1 Prepare preliminary designs for proposed Carnallite Harvester. These will be in sufficient detail to assess feasibility.

2.3.2. Evaluate proposed Carnallite harvester versus other methods currently used. Prepare a preliminary specification and operating procedure for the harvester selected.

2.3.3 Evaluate Carnallite pan configuration and determine optimum pan size. This optimum pan size will be affected by the slope of the land, civil design and harvesting system selected.

2.3.4 Prepare preliminary design of harvest slurry transport system. This will include method of transport from the harvester to the shore and subsequent pumping system. This will be done in sufficient detail to allow civil engineering design to proceed.

2.4 Preliminary Feasibility Evaluation:

At the end of 12months or after expenditure of 50% of the funds a report will be prepared. The purpose of this report will be to:-

2.4.1 Analyse and report on the results obtained to date in the Preliminary Works Contract.

2.4.2 Report on progress of detailed process design for the solar evaporation system and preliminary design of the processing plant.

2.4.3 Report on progress of preliminary design of the Harvesting system.

2.4.4 Report on order of magnitude capital cost estimates. These will be prepared using recent data developed to update the 1967 estimates.

2.4.5 Report on analysis and estimates of operating costs, preoperating and start up expense and transportation and shipping costs.

2.4.6 Report on a preliminary market evaluation to determine marketing areas and projected market prices.

2.4.7 Report on a preliminary economic analysis of the project.

2.5 Final Feasibility Evaluation

2.5.1 Development of Project Capital Cost Estimate

The feasibility evaluation requires that the project be defined to the extent needed to develop realistic preliminary estimates of capital costs. A description will be prepared of the major features of the project, the capacities chosen (of civil works, processing and associated facilities, and end products) and the underlying assumption of dike sections, construction methods, and major design characteristics, to convey an adequate picture of the major features of the project and the extent to which major project parameters have been determined or are to be determined. This will include; the following preliminary design work for the refinery facilities:

1) Prepare process flow diagrams for the process units. Alternate processes for the processing plant will have been evaluated.

2) Prepare heat and material balances for the process units.

3) Prepare piping and instrumentation diagrams for process units and utility systems.

4) Prepare selected mechanical drawings, layout drawings and electrical single-line drawings.

5) Prepare overall plot plan of the refining facilities.

A preliminary capital cost estimate for the plant facilities will be prepared. This will be combined with information developed on the solar evaporation facilities and other civil works to develop the total capital cost.

A preliminary time schedule will be prepared showing the proposed dates of the start and completion of the critical elements of the project.

2.5.2 Development of Operating Costs

To estimate normal operating costs, the following will be performed :-

6) Develop a plant staffing roster.

7) Summarize usages of chemicals and raw materials.

8) Tabulate usages of purchased fuel, water, and power.

9) Estimate raw material prices, utility costs,

10) Estimate maintenance costs.

11) Estimate costs for taxes and insurance.

12) Estimate non-personnel overhead costs such as office supplies, laboratory supplies, automobile [illegible] communications, travel etc.

13) Prepare operating cost estimate.

2.5.3 Preoperating and Startup Expense

The preoperating and startup expense will be estimated through the following activities:

14) Develop preoperating hiring schedule.

15) Estimate other preoperating expenditures.

16) Estimate non-productive consumption of materials and utilities during startup period.

17) Estimate production schedule during startup period.

2.5.4 Transportation and shipping Costs

The following will be carried out to determine and estimate the costs of transporting and shipping the product:

18) Recommend vehicles required for transportation to Aqaba.

19) Develop cost estimates for transportation to Aqaba.

20) Recommend Port facilities and estimate port charges.

2.5.5 Market Evaluation

The following will be investigated in carrying out a careful market evaluation.

21) Global and regional supply and demand

22) Forecast market prices.

23) The competitive status with regard to:

a) Production Costs

b) Product Quality

c) Transportation Costs

2.5.6 Marketing Plan and Company Structure

24) Develop marketing plan and costs.

25) Develop proposed organization, staffing, and structure of Arab Potash Company.

2.5.7 Financial Evaluation

26) Estimate working capital

27) Develop 15-year Operating Plan -

a) Capital Disbursements

b) Production Quantity

c) Inventory Buildup

d) Sales Quantity and Price

e) Sales Collections

28) Develop 15-year Income and Cash Flow statements.

a) Prepare statements on 100% equity basis.

b) Develop Schedule of interest and debt repayment.

c) Prepare statements on financed basis.

29) Develop 15-year balance sheets (financed basis).

30) Determine internal rate of return -

a) 100% equity basis - return on total investment.

b) Financed basis - return on equity.

31) Analyze differences between financial and economic charges -

a) Identify applicable situations

b) Estimate actual costs

c) Determine internal profitability

32) Analysis of net foreign exchange earnings.

2.5.8 Potential Additional Products

A brief assessment will be made of the potential production of Magnesium, Sodium, and Bromine. The following work will be included in this assessment:-

a) Determine concentration of Magnesium, Bromine and Sodium present in the plant effluent.

b) Review current technology to determine its applicability to the plant effluent.

c) Select process most likely to be suitable for processing the plant effluent.

d) Prepare order of magnitude estimates for processes deemed suitable for the production of Magnesium, Sodium and Bromine.

e) Make recommendations concerning future work to extract these minerals from the effluent brine.

2.5.9 Ecological Impact Study

32) Study and evaluate by-product disposal methods.

33) Study and evaluate air and water pollution.

34) Study and evaluate other ecological impacts.

2.5.10 Bound Final Report

A detailed final report will be prepared covering all aspects of the project. The consultants shall make arrangements to discuss the draft of this report for one week in Jordan with the owner and NPC and one week in Washington, D.C. with the financing agencies.

The Arab Potash Company

In 1956, the Government of Jordan, together with other Arab governments and some private shareholders, founded APC to sponsor the potash project. In 1958, the Government granted a 100-year concession to APC, giving it exclusive rights for the extraction of potash and other minerals from Dead Sea brine. APC's initially authorized capital was JD 4.5 million (US$14.2 million) of which the founder governments subscribed and fully paid for JD 1.175 million. In 1962, the remainder of the shares was offered to the public and about JD 2 million were subscribed. When project preparation was halted after the June war in 1967, APC dismissed its staff except for a small accounting unit. Private shareholders with 1,000 shares or less were given the opportunity to return their shares at the original subscription price. Present governmental shareholdings in APC are as follows: Jordan - JD 500,000; Egypt, Iraq, Kuwait, and Saudi Arabia - JD 125,000 each; Lebanon and Syria - 62,500 each; and Qatar - JD 50,000. In addition, about 460 private shareholders hold about JD 257,000. Total share capital amounts to JD 1.432 million. APC invested its funds in Governmental Development Bonds (JD 1.0 million) and bank deposits (JD 0.6 million). No dividends were paid. Its Board of Directors has five members, three, including the chairman, represent the non-Jordanian shareholders, two are appointed by the Government. The chairman is President and Manager of the Arab Bank, Jordan's largest commercial bank.

Jordan Balance of Payments 1970-74

The balance of payments improved by JD 15 million (U.S. 48.0 million) between 1970 and 1974, an increase of JD 12 million (U.S. $38.4 million) was experienced in 1974 in spite of a fifty percent increase expenditure for imports of foodstuffs (sugar, rice and fruits and vegetables) and defense related commodity imports. Commodity exports almost tripled over the past three years (1972-1974) but were still only a third of imports in 1974. Favorable developments in the transfers account led to a JD 47 million (US $150 million) improvement in the current account over the last five years. The capital account did not vary significantly during the same period. (See Table 1.)

Closure of the Suez Canal in 1967 and the Syrian frontiers from 1970 to 1972 blocked nearly all exports to the West, and concentrated Jordan's foreign trade on the Arab markets (72 percent of total commodity exports). Temporary closure of the Lebanese-Syrian frontier in 1973 and the October 1973 fighting in the Golan Heights also had adverse effects on export expansion. Subsequent to cessation of warfare in 1973, domestic commodity exports in 1974 increased almost threefold, from JD 19 million ($61 million) to JD 50 ($160 million). In 1974, food exports accounted for about 25 percent of total domestic commodity exports. Phosphate exports were growing steadily up to 1969 when closure of the Syrian frontier combined with over supply in world markets, reduced sales by one-third. By 1974 phosphate sales had recovered and contributed 49 precent to domestic commodity exports. Other industrial exports, primarily cement, comprise the balance of the domestic commodity exports.

Over a five year period (1969-1973) food imports represented 29 percent of the total trade deficit. In 1974 imports of food stuffs rose significantly accounting for 40 percent of the trade deficit.

The strong improvement in the services account (Non-Factor Sources-net) between 1970 and 1973 was initially the result of lower government spending abroad. However this was reversed drastically in 1974 and is the single category most responsible for the deficit incurred in services. Revenues from foreign travel also grew in the 1970's and at present is almost equal to the expenditures of Jordanians traveling abroad. The most important improvement in the non-trade current account was in worker's remittances which increased from JD 14.7 million ($47 million) in 1973 to JD 24.1 million ($77.1 million) in 1974, equivalent to almost fifty percent of commodity exports.

Foreign AID

Unrequited official transfers amounted to JD 62 million ($198 million) in 1974, or about a fourth of East Bank GDP. A large part of the inflow

filters down into the economy through Jordan government salary payments, sustaining employment and standards of living. These foreign currency receipts finance the high level of imports. Before the 1967 war budget support came largely from the United States and England. The program was gradually being phased out with the growing strength of the Jordanian economy and stood at only JD 8 million in 1966. The outcome of the 1967 war deprived the economy of the West Bank production and the GOJ of West Bank tax revenues increasing at the same time the need for defense and refugee relief expenditures. Under the Khartoum agreement of August 1967 Saudi Arabia, Kuwait and Libya made available JD 37 million in annual budget support. The United States and England meanwhile discontinued their financial support. In 1970, Kuwait and Libya suspended their support, but the loss was almost completely offset by renewed support from the United States and some help from other Arab states. In 1972 Saudi Arabia and the United States both increased their support. Kuwait support was resumed in 1973. (See Table 2.)

The renewed Government attention to economic development combined with intensive project identification by the Government and foreign donors has led during the last three years to an increase in foreign development loans. Disbursements of development loans increased from an average level of JD 3 million in the 1967-71 period to about JD 11 million in 1973. New commitments rose from JD 16 million in 1972 to JD 30 million in 1973. Such commitments over the past three years were made by the United Kingdom ($33.4 million), Kuwait ($24.2 million), Federal Republic of Germany ($34 million), World Bank ($24.3 million) and the United States ($25 million). Commitments from the foreign lenders have been highly concessionary. At the end of 1972 average interest on the outstanding and disbursed public foreign aid debt was 2 percent with a grace period of 9 years and maturity of 31 years. Foreign loans contracted in 1973-1974 were also highly concessionary so that the average terms on conditions will probably remain at 1972 levels. Servicing costs on the public foreign debt (excluding military loans) increased from $7.9 to $13.7 million. The ratio of debt service to export of goods and services (adjusted for transit goods, non-monetary gold exports and capital revenues) was 7.3 percent in 1972 and 1973. Although data for 1974 are not available, it is assumed due to the significant increase in exports, that the debt service ratio fell to between five and six percent.

Considering the long grace period on new debt and expected increases in the export of goods and services, particularly phosphate, cement and increased remittance revenue from expatriate Jordanians, the debt service ratio is expected to remain stable over the next several years. Beyond that time earnings from phosphate and other exports will probably grow at a slower rate and the debt service rate may start to rise. However, if the export potential from mining, processing of minerals, and agriculture is also successfully developed then the debt service ratio to export earnings is not expected to rise substantially over the longer term.

TABLE 1: BALANCE OF PAYMENTS
1970-1974
(millions of JD's)

	1970	1971	1972	1973	1974
Export of goods f.o.b.	12	11	17	24	50
Import of goods c.i.f.	65	76	95	108	156
Trade Balance	-53	-65	-78	-84	-106
Non-factor Services (net)	-5	-3	-	3	-9
Investment income (net)	6	5	3	5	7
Workers Remittances	6	5	8	15	24
Balance of Goods and Services	-46	-58	-67	-61	-84
Transfers	40	37	68	65	87
Current Account	-6	-21	1	4	+ 3
Private Capital (net)	-1	-1	-	-1	-1
Public Capital (net)	2	8	7	8	9
Others	3	2	1	2	1
Addition to Reserves	-2	-12	9	13	+12

Source:

Central Bank of Jordan, Monthly Statistical Bulletin, Vol. 11, No. 3, March, 1975 Table 15.

TABLE 2: PUBLIC FOREIGN AID RECEIPTS
1970-1974
(in millions of JD's)

	1970	1971	1972	1973	1974
Budget Support	33.1	34.9	44.0	44.7	52.9
Saudi Arabia	14.8	15.0	22.7	14.4	
Kuwait	11.6	-	-	8.5	38.7
Libya	6.6	-	-	-	
Other Arab States	-	2.9	0.2	0.8	
U.S.A.	-	17.0	21.1	20.9	14.2
Budgeted Economic and Technical Assistance	2.4	0.5	0.4	0.3	0.3
Arab League	2.1	0.3	-	0.2	N.A.
U.S.A.	0.3	0.2	0.4	0.1	0.3
Other Current Transfers	3.6	0.1	21.6	16.1	8.8
U.S.A	-	-	14.4	9.8	N.A.
U.N. Agencies	4.5	3.6	6.8	6.6	8.8
Others	-0.9	-3.5	0.4	-0.3	N.A.
Development Loans (gross)	3.0	9.4	10.8	12.7	8.9
Saudi Arabia	0.5	0.4	-	-	-
Kuwait	0.3	0.3	0.7	1.0	1.0
U.S.A.	0.8	0.4	2.3	4.9	
Germany (Fed. Rep. of)	0.1	0.6	5.2	2.4	4.6
U.K.	0.3	1.8	1.3	1.6	0.2
IDA	0.1	0.2	0.8	1.3	1.5
Others	0.9	5.7	0.5	-1.5	1.6
Total	42.1	44.9	76.8	71.7	70.9

Source:

Central Bank of Jordan, Monthly Statistical Bulletin, March, 1975, Vol. 11, No. 3, Table 30.

ANNEX 4

THE HASHEMITE KINGDOM
OF JORDAN
NATIONAL PLANNING
COUNCIL
AMMAN
TEL. 44466 — 44470
P.O.B. 555
Teleg. NPC — Amman

المملكة الأردنية الهاشمية
المجلس القومي للتخطيط
عمـــان
الهاتف: ٤٤٤٦٦ - ٤٤٤٧٠
ص.ب ٥٥٥

No. 108/23/4964
Date 4/10/1975

الرقم .....
التاريخ .....

Mr. F. Simmons
AID
United States Embassy
Amman - Jordan

Dear Mr. Simmons,

Jordan Potash Project

I am writing to you on behalf of the Government of Jordan to request a loan from the Government of the United States of America in the amount of US $ 6 million to assist in the financing of the technical, economic and financial feasibility study and associated field and laboratory trials for the Jordan Potash Project.

I shall be most obliged if special attention is given to this matter and the necessary steps are taken to process this loan as soon as possible.

Yours faithfully,

Hamad Adel
President

cc: H.E. Minister of Industry and Trade
cc: H.E. Chairman of Board of Directors,
Arab Potash Company

CHECKLIST OF STATUTORY CRITERIA

The following abbreviations are used:

FAA - Foreign Assistance Act of 1961, as amended.

FAA, 1973 - Foreign Assistance Act of 1973.

App. - Foreign Assistance and Related Programs Appropriation Act, 1974.

MMA - Merchant Marine Act of 1936, as amended.

BASIC AUTHORITY

1. FAA § 103; § 104; § 105; § 106; § 107. Is loan being made

   a. for agriculture, rural development or nutrition; **Inapplicable.**

   b. for population planning or health;

   c. for education, public administration, or human resources development;

   d. to solve economic and social development problems in fields such as transportation, power, industry, urban development, and export development;

   e. in support of the general economy of the recipient country or for development programs conducted by private or international organizations.

COUNTRY PERFORMANCE

Progress Towards Country Goals

2. FAA §201 (b) (5), (7) & (8); § 208

   A. Describe extent to which country is:

      (1) Making appropriate efforts to **Inapplicable.**

increase food production and improve means for food s orage and distribution.	
(2) Creating a favorable climate for foreign and domestic private enterprise and investment.	Inapplicable.
(3) Increasing the public's role in the developmental process.	Inapplicable.
(4) (a) Allocating available budgetary resources to development.	Inapplicable.
(5) Making economic, social, and political reforms such as tax collection improvements and changes in land tenure arrangements and making progress toward respect for the rule of law, freedom of expression and of the press, and rec gnizing the importance of individual freedom, initiative, and private enterprise.	Inapplicable.
(6) Willing to contribute funds to the project or program.	Inapplicable.

(7) Otherwise responding to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures.	**Inapplicable.**
B. Are above factors taken into account in the furnishing of the subject assistance?	**Inapplicable.**

Treatment of U.S. Citizens and firms.

3. FAA § 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarentor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) asuch citizen has exhausted available legal remedies and (b) debt is not denied or contested by such government?	**No such situation exists at this time.**
4. FAA § 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect or nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities benefically owned by them without taking steps to discharge its obligations toward such citizens or entities?	**No such action has been taken by the GOJ.**
5. FAA § 620(o); Fisherman's Protective Act § 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters,	
a. has any deduction required by Fishermen's Protective Act been made?	**No such action has been taken by the GOJ.**
b. has complete denial of assistance been considered by A.I.D. Administrator?	

Relations with U.S. Government and Other Nations.

6.	FAA § 620(a). Does recipient country furnish assistance to Cuba or fail to take appropriate steps to prevent ships or aircraft under its flag from carrying cargoes to or from Cuba..	**No.**
7.	FAA § 620(b). If assistance is to a government, has the Secretary of State determined that it is not controlled by the international Communist movement?	**The Secretary has so determined.**
8.	FAA § 620(d). If assistance is for any productive enterprise which will compete in the United States with United States enterprise, is there an agreement by the recipient country to prevent export to the United States of more than 20% of the enterprise's annual production during the life of the loan?	**The proposed assistance is not for a productive enterprise.**
9.	FAA § 620(f). Is recipient country a Communist country?	**No.**
10.	FAA § 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression?	**No.**
11.	FAA § 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property?	**No.**
12.	FAA § 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, in convertibility or confiscation, has the the A.I.D. administration within the past year considered denying assistance to such government for this reason?	**The GOJ has instituted such a program.**

13. FAA § 620(n). Does recipient country furnish goods to North Viet-Nam or permit ships or aircraft under its flag to carry cargoes to or from North Viet-Nam?	**No.**
14. FAA § 620(q). Is the government of the recipient country in default on interest or principal of any A.I.D. loan to the country?	**The GOJ has not been in default in payment to the U.S. on any FAA loan.**
15. FAA § 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?	**The GOJ has not severed diplomatic relations with the U.S.**
16. FAA § 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operational Year Budget?	**The small arrears in certain assessments were taken into account by the Administrator in the OYB.**
17. FAA § 481. Has the government of recipient country failed to take adequate steps to prevent narcotic drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?	**No.**
18. FAA § 659. If (a) military base is located in recipient country, and was constructed or is being maintained or operated with funds furnished by U.S., and (b) U.S. personnel carry out military operations from such base, has the President determined that the government of recipient country has authorized regular access to U.S. correspondents to such base?	**No such base is located in Jordan.**

Military Expenditures

19. FAA § 620(s). What percentgge of country budget is for military expenditures? How much of foreign exchange resources spent on military equipment? How much spent for the purchase of sophisticated weapons systems? (Consideration of these points is to be coordinated with the Bureau for Program and Policy Coordination, Regional Coordinators and Military Assistance Staff(PPC/RC).	(a) The GOJ allocated 33% of its 1975 budget to military purposes, both to prevent internal threats and for defense purposes. (b) The degree to which Jordan's foreign exchange resources are used to acquire military equipment is unknown. (c) The GOJ has recently acquired an air defense system comprised of Hawk and Vulcan missiles for which financing was provided by friendly Arab countries. (d) The GOJ is not diverting development assistance to military expenditures. (e) Considering Jordan's military requirements for both internal and external security, it is our judgment that the GOJ is not diverting its own resources to unnecessary military expenditures.

CONDITIONS OF THE LOAN

General Soundness

20. FAA § 201(d). Information and conclusion on reasonableness and legality (under laws of country and the United States) of lending and relending terms of the loan.	Not Applicable.
21. FAA § 201(b)(2); § 201(e). Information and conclusion on activity's economic and technical soundness. If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds $100,000, has country submitted to A.I.D. an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?	Not Applicable.

22.	FAA § 201(b)(2). Information and conclusion on capacity of the country to repay the loan, including reasonableness of repayment prospects.	Not Applicable.
23.	FAA § 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.	Not Applicable.
24.	FAA § 611(a)(1). Prior to signing of loan will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the United States of the assistance?	The assistance is intended to be furnished for the sole purpose of preparation of engineering, financial, and other plans.
25.	FAA § 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of the purpose of the loan	No further legislative action is required.
26.	FAA s 611(e). If loan is for Capital Assistance, and all U.S. assistance to project now exceeds $1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?	The principal A.I.D. officer's certification is attached as Annex 6

Loan's Relationship to Achievement of Country and Regional Goals

27.	FAA § 207; § 113. Extent to which assistance reflects appropriate emphasis on: (a) encouraging development of democratic, economic, political and social institutions; (b) self-help in meeting the country's food needs; (c) improving availability of trained manpower in the country; (d) programs designed to meet the country's health needs; (e) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (f) integrating women into the recipient country's national economy.	Not Applicable.

28.	FAA § 209. Is project susceptible of execution as part of regional project? If so, why is project not so executed?	**Not Applicable.**
29.	FAA § 201(b)(4). Information and conclusion on activity's relationship to, and consistency with, other development activities, and its contribution to reliable long-range objectives.	**Not Applicable.**
30.	FAA § 201(b)(9). Information and conclusion on whether or not the activity to be financed will contribute to the achievement of self-sustaining growth.	**Not Applicable.**
31.	FAA § 209. Information and conclusion whether assistance will encourage regional development programs.	**Not Applicable.**
32.	FAA § Section 111. Discuss the extent to which the loan will strengthen the participation of the urban and rural poor in their country's development, and will assist in the development of cooperatives which will enable and encourage greater numbers of poor people to help themselves toward a better life.	**Not Applicable.**
33.	FAA § 201(f). If this is a project loan, describe how such project will promote the country's economic development taking into account the country's human and material resource requirements and the relationship between ultimate objectives of the project and overall economic development	**Not Applicable.**

34.	FAA § 281(a). Describe extent to which the loan will contribute to the objective of assuring maximum participation in the task of economic development on the part of the people of the country, through the encouragement of democratic, private, and local governmental institutions.	**Not Applicable.**
35.	FAA § 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.	**Not Applicable.**
36.	FAA s 201(b)(3). In what ways does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities?	**Not Applicable.**
37.	FAA § 601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.	**Loan is for a feasibility study and does not directly encourage the efforts listed in this section of the FAA.**

38.	FAA § 619. If assistance is for newly independent country; is it furnished through multilateral organizations or plans to the maximum extent appropriate?	Jordan is not a newly independent country.

Loan's Effect on U.S. and A.I.D. Program

39.	FAA § 201(b)(6). Information and conclusion on possible effects of loan on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving the U.S. balance of payments position.	Not Applicable.
40.	FAA § 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.	Not Applicable.
41.	FAA § 601(b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).	Not a major goal. Some possibility for future agro-industrial development and investment.
42.	FAA § 601(d). If a capital project, are engineering and professional services of U.S. firms and their affiliates used to the maximum extent consistent with the national interest?	Yes.

43. FAA § 602. Information and conclusion whether U.S. small business will participate equitably in the furnishing of goods and services financed by the loan.	**Small business will have an opportunity to provide goods and services.**
44. FAA § 620(h). Will the loan promote or assist the foreign aid projects or activities of the Communist-Bloc countries?	**No.**
45. FAA § 621. If Technical Assistance is financed by the loan, information and conclusion whether such assistance will be furnished to the fullest extent practicable as goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.	**No technical assistance is expected to be financed under this loan.**

Loan's Compliance with Specific Requirements

46. FAA § 110(a) ; § 203(e). In what manner has or will the recipient country provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the loan is to be made?	**Not Applicable.**

47.	FAA §660. Will loan be used to finance police training or related program in recipient country?	No.
48.	FAA § 114. Will loan be used to pay for performance of abortions or to motivate or coerce persons to practice abortions?	No.
49.	FAA § 201(b). Is the country among the 20 countries in which development loan funds may be used to make loans in this fiscal year?	Not Applicable.
50.	FAA § 201(d). Is interest rate of loan at least 2% per annum during grace period and at least 3% per annum thereafter?	Not Applicable.
51.	FAA § 201(f). If this is a project loan, what provisions have been made for appropriate participation by the recipient country's private enterprise?	Not Applicable.
52.	FAA § 604(a). Will all commodity procurement financed under the loan be from the Untied States except as otherwise determined by the President?	Yes.
53.	FAA § 604(b). What provision is made to prevent financing commodity procurement in bulk at prices higher than adjusted U.S. market price?	No such procurement will occur under this Loan.

54. FAA § 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will the loan agreement require that marine insurance be placed in the United States on commodities financed by the loan?	Jordan does not discriminate against U.S. marine insurance companies.
55. FAA § 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity?	Not Applicable.
56. FAA § 604(f). If loan finances a commodity import program, will arrangements be made for supplier certification to A.I.D. and A.I.D. approval of commodity as eligible and suitable?	The loan does not finance a commodity import program.
57. FAA § 608(a). Information on measures to be taken to utilize U.S. Government excess personal property in lieu of the procurement of new items.	The loan agreement will contain appropriate provisions.
58. FAA § 611(b), App. § 101. If loan finances water or water-related land resource construction project or program, is there a benefit-cost computation made, insofar as practicable, in accordance with the procedures set forth in the Memorandum of the President dated May 15, 1962.	Not Applicable.
59. FAA § 611(c). If contracts for construction are to be financed, what provision will be made that they be let on a competitive basis to maximum extent practicable?	The Loan Agreement shall so provide.
60. FAA § 612(b); § 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies	Jordan is not an excess currency country. Jordan is financing part of the local currency portion of contractual and other services.

owned by the United States are utilized to meet the cost of contractual and other services.

61. Section 30 and 31 of PL 93-189 (FAA of 1973). Will any part of the loan be used to finance directly or indirectly military or paramilitary operations by the U.S. or by foreign forces in or over Laos, Cambodia, North Vietnam, South Vietnam, or Thailand? — No.

62. Section 37 of PL 93-189 (FAA of 1973); App. § 111. Will any part of this loan be used to aid or assist generally or in the reconstruction of North Vietnam? — No.

63. FAA § 612(d). Does the United States own excess foreign currency and, if so, what arrangements have been made for its release? — Jordan is not an excess currency country.

64. FAA § 620(g). What provision is there against use of subject assistance to compensate owners for expropriated or nationalized property? — The loan agreement will contain a provision limiting use of the funds for use on the project.

65. FAA § 620(k). If construction of productive enterprise, will aggregate value of assistance to be furnished by the United States exceed $100 million? — No.

66. FAA § 636(i). Will any loan funds be used to finance purchase, long-term lease, or exchange of motor vehicle manufactured outside the United States, or any guaranty of such a transaction? — No.

67. App. § 103. Will any loan funds be used to pay pensions, etc., for military personnel? — No.

68. App. § 105. If loan is for capital project, is there provision for A.I.D. approval of all contractors and contract terms? — The loan agreement shall so provide.

69.	App. § 107. Will any loan funds be used to pay UN assessments?	No.
70.	App. § 108. Compliance with regulations on employment of U.S. and local personnel. (A.I.D. Regulation 7).	The loan agreement shall contain a provision to ensure compliance.
71.	App. § 110. Will any of loan funds be used to carry out provisions of FAA § 209(d)?	No.
72.	App. § 112. Will any of the funds appropriated or local currencies generated as a result of AID assistance be used for support of police or prison construction and administration in South Vietnam or for support of police training of South Vietnamese?	No.
73.	App. § 113. Describe how the Committee on Appropriations of the Senate and House have been or will be notified concerning the activity, program, project, country, or other operation to be financed by the Loan.	
74.	App. § 501. Will any loan funds be used for publicity or propaganda purposes within the United States not authorized by Congress?	No.
75.	App. § 504. Will any of the funds appropriated for this project be used to furnish petroleum fuels produced in the continental United States to Southeast Asia for use by non-U.S. nationals?	No.
76.	MMA § 901.b; FAA § 640C. (a) Compliance with requirement that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk	The loan agreement shall contain a provision to ensure compliance.

carriers, dry cargo liners, and tankers) financed with funds made available under this loan shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

AMMAN — JORDAN

وكالة الولايات المتحدة للانماء الدولي

عمان - الاردن

CERTIFICATION PURSUANT TO SECTION 611 (e)
OF THE FOREIGN ASSISTANCE ACT OF 1961,
AS AMENDED

I, Frederick F. Simmons, the principal officer of the Agency for International Development in Jordan, having taken into account, among other things, the maintenance and utilization of projects in Jordan previously financed or assisted by the United States, do hereby certify that in my judgement Jordan has both the financial capability and the human resources capability to effectively maintain and utilize the capital assistance project, Jordan Potash.

Frederick F. Simmons
AID Representative

Date: October 4, 1975

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

DRAFT

A.I.D. Loan No. _____

Project No. _____

LOAN AUTHORIZATION

Jordan: Potash Production Feasibility Study Loan

Provided from: Foreign Assistance Act, Part II, Chapter 4, ("Security Supporting Assistance"), Section 532

Pursuant to the authority vested in the Assistant Administrator, Bureau for Near East, Agency for International Development ("A.I.D."), by the Foreign Assistance Act of 1961, as amended, (the "Act"),and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan (the "Loan"), pursuant to Part II, Chapter 4 (Security Supporting Assistance), Section 532 of the Act, to the Government of Jordan, (the "Government"), of not to exceed Six Million United States Dollars ($6,000,000) to assist in financing the foreign exchange and local currency costs of an economic, technical, and financial study of the feasibility of construction of a potash production facility in Jordan based on Dead Sea brine. The Loan shall be subject to the following terms and conditions:

1. Interest Rate and Terms of Repayment

The Loan shall be repaid in United States Dollars by the Government within forty (40) years after the date of the first disbursement thereunder including a grace period of not to exceed ten (10) years from the date of the first disbursement. The interest on the unrepaid balance of the Loan shall accrue from the date of the first disbursement at the rate of two percent (2%) per annum during the grace period and at the rate of three percent (3%) per annum throughout the remaining life of the Loan.

2. Other Terms and Conditions

In addition to the standard requirements of a legal opinion from the Government, appointment of representatives and review and approval of contracts, the following terms and conditions shall apply:

a. Unless A.I.D. otherwise agrees in writing, services, equipment and materials financed under the Loan shall have their source and origin in countries included in A.I.D. Geographic Code 941 and in Jordan.

b. Evidence satisfactory to A.I.D. that all necessary land, rights-of-way, and rights to utilize brine from the Dead Sea have been acquired by the Arab Potash Company ("APC") or made available to APC by the Government.

c. Evidence satisfactory to A.I.D. that APC has been duly chartered and is in good standing under the laws of Jordan and has full authority to carry out the Project and to operate a commercial potash production facility.

d. Satisfaction by the Government of all conditions of effectiveness of the $1.0 million credit from the International Development Association ("IDA") (except for the condition of full effectiveness of the A.I.D. Loan).

e. Formal commitment by the Government in form and substance satisfactory to A.I.D. that the Government will make up to $3.0 million dollars (equivalent) available to APC for the Project.

f. Approval by A.I.D. of the terms and conditions on which the Government will make the proceeds of the A.I.D. Loan and IDA credit available to APC.

g. Such other terms and conditions as A.I.D. may deem advisable.

Assistant Administrator
Bureau for Near East

Date

ANNEX 8

NARRATIVE LOGICAL FRAMEWORK

The Goal of the project, assuming the feasibility study results justify investment and implementation of a full scale potash project, is to contribute to increased employment, output and foreign exchange earnings by the Jordanian mining sector. The Purpose of the project is to develop the economic, technical and financial information necessary for determiration of the appropriate investment decision in respect to construction and operation of an approximately one million ton per year muriate of potash production facility. The principal project Output will be the results of the feasibility study to be prepared by the consultant based on his evaluation of the test dike and pilot solar evaporation system to be constructed at the project site. The principal Inputs in addition to the above-mentioned test and pilot facilities are the services of an A/E firm to design and supervise construction of the facilities, and the acquisition of land by the owner. The underlying Assumption to the completion of the feasibility study and the construction of a commercial facility, if proven feasible, is the continued presence of security in the Middle East.