

Project for Consulting Engineering Services
to the Government of East Pakistan
in Public Health Engineering

PROGRESS REPORT NO. 4
FOR QUARTER ENDING JUNE 30, 1971
(U.S.A.I.D. LOAN NO. 391-H-142)

JULY, 1971

Camp Dresser & McKee International Inc.
D.I.T. Building, Dacca

CAMP DRESSER & McKEE INTERNATIONAL INC.

CONSULTING ENGINEERS

Principal Office: ONE CENTER PLAZA

BOSTON, MASS. 02108, USA

CABLE: CAMDRES-BOSTON

DIT BUILDING
P. O. BOX 502
ACCA, EAST PAKISTAN
CABLE: CAMDRES - DACCA

c/o WATER WING LIT
4-A, GULBERG V
LAHORE, WEST PAKISTAN
CABLE: CAMDRES - LAHORE

THAI AIRWAYS BUILDING
& LARN LUANG ROAD
P. O. BOX 2-55
BANGKOK-2, THAILAND
CABLE: CAMDRES - BANGKOK

22 July, 1971

Please reply to :

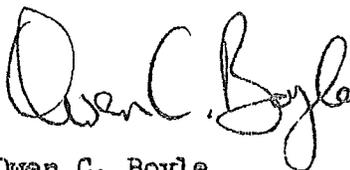
Mr. M.B. Rahman, Chief Engineer
Directorate of Public Health Engineering
Government of East Pakistan
4th Floor
Food Directorate Building
16, Abdul Ghani Road
Dacca

Dear Mr. Rahman:

In accordance with Article II, Paragraph 2, of the Contract between the Government of East Pakistan and Camp Dresser & McKee International Inc. for Consulting Engineering Services in Public Health Engineering, we have prepared Progress Report No. 4. This report covers the quarter ending 30 June, 1971. The work has been done under U.S. AID Loan No. 391-H-142. Presented herewith are fifteen copies for your use and distribution.

Very truly yours,

CAMP DRESSER & McKEE INTERNATIONAL INC.

By 

Owen C. Boyle
Project Manager

OCD/hdr
Enclosures:



CAMP DRESSER & McKEE INTERNATIONAL INC.

CONSULTING ENGINEERS

Principal Office: ONE CENTER PLAZA

BOSTON, MASS. 02108, USA

CABLE: CAMDRES-BOSTON

DIT BUILDING
O. BOX 502
ACCA, EAST PAKISTAN
CABLE: CAMDRES - DACCA

c/o WATER WING LIT
4-A, GULBERG V
LAHORE, WEST PAKISTAN
CABLE: CAMDRES - LAHORE

THAI AIRWAYS BUILDING
6 LARN LUANG ROAD
P. O. BOX 2-55
BANGKOK-2, THAILAND
CABLE: CAMDRES - BANGKOK

22 July, 1971

Please reply to :

Mr. M.B. Rahman, Chief Engineer
Directorate of Public Health Engineering
Government of East Pakistan
4th Floor
Food Directorate Building
16, Abdul Ghani Road
Dacca

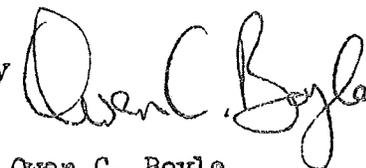
Dear Mr. Rahmans:

In accordance with Article II, Paragraph 2, of the Contract between the Government of East Pakistan and Camp Dresser & McKee International Inc. for Consulting Engineering Services in Public Health Engineering, we have prepared Progress Report No. 4. This report covers the quarter ending 30 June, 1971. The work has been done under U.S. AID Loan No. 391-H-142. Presented herewith are fifteen copies for your use and distribution.

Very truly yours,

CAMP DRESSER & McKEE INTERNATIONAL INC.

By



Owen C. Boyle
Project Manager

OCE/hdr
Enclosures:



TABLE OF CONTENTS

	<u>Page</u>
Description of Scope of Work to be Conducted by the Consulting Engineers.	2
Work Performed in Boston During the Quarter	4
Work Performed in East Pakistan During the Quarter	5
Work to be Performed During the Next Quarter	6

APPENDIX

- I. DPHE-CDM Laboratories
- II. Statement of Rupee Expenditure for April, May and
June, 1971.

7. Description of the Scope of Work to be Conducted
by the Consulting Engineers and the DPHE:

TASK A -- DEVELOP URBAN WATER & SEWERAGE FACILITIES

Develop a plan for providing water and sewerage facilities to the urban population of East Pakistan; continuously revise this plan and advise and assist the DPHE and municipal government officers in the execution of this plan. This task implies that the ENGINEERS will advise and assist the DPHE as required with planning, development of design criteria, specification of materials, specification of construction practices and supervision of construction development of local sources of materials and equipment, and establishment and operation of efficient municipal and town water and sewerage utilities.

TASK B -- DEVELOP THE DPHE

Assist the DPHE in acquiring additional capabilities for the proper execution of its functions. Make recommendations for improvements in overall management and organizational structures which will increase the capacity of the DPHE to implement the recommended long-range plan more efficiently. In recommending changes, take into account the responsibilities to and relationships with other organizations; particularly the municipal authorities.

TASK C -- TRAIN LOCAL CONSULTANTS

Train one or more local firms of consulting engineers in sanitary engineering with the goal of providing capacity in local consulting firms for planning, designing and constructing urban water supply, sewerage and drainage facilities. Perform this training while supervising the local firms in the provision of engineering services for the DPHE and for the government's development program for urban water supply, sewerage and drainage facilities.

TASK D -- REVIEW STUDIES AND REPORTS BY OTHERS

Assist the DPHE to review studies and reports concerning water and sewage works in East Pakistan prepared and submitted to the Government by other consulting engineers.

TASK E -- TRAINING

Assist the DPHE in training staff for the planning design, construction, management, operation, and maintenance of public health engineering works. Where considered desirable, and as requested by DPHE, make available the facilities of the Engineers' home office for training DPHE engineers.

TASK F -- OTHER SERVICES

Provide general advisory services to the DPHE in fields related to water supply, sewerage and other sanitary engineering works not specifically mentioned in the previous items. Assist the DPHE in the establishment and supervision of laboratory facilities as required for the proper execution of the foregoing tasks. Provide special consultants for particular sanitary engineering or water supply problems upon request. Prepare reports on all important aspects of the work carried out by the Engineers in accordance with this project. Perform research and development studies upon water or sewerage or related problems as required.

8. Work Accomplished During the Quarter:

A. Work Performed in Boston, Massachusetts, U.S.A., from 1 April, 1971.
Through June 30, 1971:

- (1) M.A. Qureshi, A.R. Mridha, M.Q. Islam, K.A.W. Ashgar and A.M. Shamsul Hoque completed their studies at New Mexico University. All five were granted the Masters Degree in Civil Engineering by the University. The five then began supervised training in the Boston office of Camp Dresser & McKee. This training is directed at supplementing graduate school theoretical studies and applying them to practical problems which may be encountered in East Pakistan.

Several universities were contacted in order to obtain places for four engineers selected for fellowships beginning in September 1971. Arrangements were made for the admission of the senior of these four engineers to the International Program in Sanitary Engineering Design at the University of North Carolina.

- (2) Technical assistance and general administration to the project continued. Technical advice was given on the influence of silica on the alkalinity determination in well water. This is pertinent in iron removal problems.

The review and editing of the Final Report on the contract ending 30 June, 1970, was completed, and the report sent to the printers.

- (3) Mr. Donald C. Bassett and Mr. Arthur E. Geisler, with their families, returned to the United States. Mr. Bassett continues to be employed by Camp Dresser & McKee while Mr. Geisler resigned from the firm.

B. Work Performed in East Pakistan April 1, 1971 through June 30, 1971:

General:

Six days before the end of the previous quarter the army took action to assert the authority of the President of Pakistan throughout East Pakistan. About six weeks were required for this operation. After the first few days, quiet prevailed in Dacca, but work outside Dacca by DPHE staff and their consultants was not possible. Toward the end of May field trips were made by CDM staff to Narayanganj and Tangail.

As pointed out in last quarter's report, CDM's contract calls for the provision of 180 man-months of service over a 3-year period ending 30 June, 1973. On 2 April CDM proposed to the government's designated representative, the Chief Engineer, DPHE, in the presence of the Secretary, B.D. & L.G., that the remaining man-months be provided by a team of four engineers who would work in East Pakistan through the remaining months of the contract period. This proposal was accepted. CDM therefore terminated two of its seven engineers then in Dacca, and sent them home. At the same time the project's Deputy Project Manager left Dacca on home and medical leave. It was considered expedient to permit two other engineers to go temporarily to Bangkok at this time. CDM therefore had in Dacca, after 6 April, two engineers only, until the return of the Deputy Project Manager from home leave on 23 June.

The two engineers in Bangkok could have returned at any time after commercial flights resumed operation, and after the Martial Law Authorities relaxed restrictions on foreigners return, on 1 June. However, it was generally agreed that four CDM engineers would not accomplish much more work than two during this period, - considering the activities of miscreants, the army's movements, the absence of contractors, the shortage of labour, and the difficulty of getting materials delivered. The project therefore continued work after 1 June with two CDM engineers only, as had been done in April and May.

During this quarter, the two CDM staff members in East Pakistan concentrated on TASK A, "Develop Urban Water and Sewerage Facilities".

As a shortage of fuel oil was feared, efforts were made to place in service the new large electrical pumps at Godnail treatment works, Narayanganj. Although the installation was incomplete these efforts were successful, and the pumps were put in use. Advice and supervision was also provided for the new 16-inch pipeline from Godnail to town, and the new sedimentation tank at Godnail. About a dozen trips were made to Narayanganj for this work.

Three trips were also made to Tangail. These resulted in the completion of the concrete work for the slow sand filter.

Several conferences were held to discuss details of the improvements to the Rangamati water treatment works. Construction work was begun at Rangamati in June.

Advice was provided on the design of an incinerator in the cantonment, and on other questions.

Considerable revision of the PC-I to finance water pollution control was requested by the Planning Department. This revision was started in the first quarter of 1971 and was completed in June.

The laboratories in Dacca and Chittagong continued to carry out water analyses for several agencies. A total of 1,381 determinations were carried out on 275 water samples during the first six months of 1971. The quarterly progress reports for the two laboratories for the 1st and 2nd quarters of 1971 are attached in Appendix I.

9. Works to be Performed 1 July 1971 Through 30 September, 1971:

At the end of the third quarter of 1971, CDM expects to have two staff members in Dacca, by agreement with the Government of East Pakistan. It will be the function of these staff members to assist DPHE in setting up a sanitary engineering design office in the CDM/DPHE office at DIT Building. It is hoped that government will cooperate in this. A work program for the design office will be discussed with government in July.

10. Personnel Working on Program in East Pakistan
During Current Quarter:

A. U.S. Personnel in
Dacca

	<u>Position</u>	<u>Date of Arrival</u>	
(1)	James Arbuthnot	Project Manager	7 July, 1966
(2)	Owen C. Boyle	Deputy Project Manager	16 July, 1967
(3)	George K. Armes	Sanitary Engineer	5 August, 1968
(4)	Donald C. Bassett	Sanitary Engineer	14 July, 1970 *
(5)	Charles W. Drake	Sanitary Engineer	21 June, 1970
(6)	Arthur E. Geisler	Sanitary Engineer	1 July, 1970 *
(7)	Cordell E. Johnson	Sanitary Engineer	30 August, 1970

B. Pakistani Employees of CDM:

<u>Position</u>	<u>Number</u>
Accountant	1
Office Manager	1
Secretary	1
Chemist and Assistant Chemist	2
Laboratory Technicians and Assistants	6
Diesel Mechanic	1
Sub-Assistant Engineer	1
Surveyors	3
Draftsmen	2
Typists	3
Clerks	6
Receptionist	1
Drivers	6
Watchmen and Miscellaneous	18
Total:	<u>52</u>

* Departed April 4, 1971.

11. Amounts of funds available as of 30 June, 1971:

A. Dollar funds as of 30 June, 1971:

(1) Funds available:

Letter of Commitment not yet issued

Letters of Credit not yet opened

(2) Funds expended as of 30 June, 1971:

	<u>to 31 March 1971</u>	<u>From 1 April to 30 June, 1971</u>	<u>Total to 30 June, 1971</u>
Reimbursable	14,186.01	460.63	14,646.64
Overseas Personnel	174,027.93*	34,070.84	208,098.77
Boston Personnel	4,581.50	6,470.76	11,052.26
Fixed Fee	<u>27,000.00</u>	<u>9,000.00</u>	<u>36,000.00</u>
	219,795.44	50,002.23	269,797.67

(3) Funds reimbursed as of 30 June 1971:

Received thru April 1971	-----
Received May	172,315.44
Received June	<u>47,480.00</u>
	219,795.44

*Error of \$175 detected by AID Washington and corrected here.

12. Total Time Consumed by CDM Personnel:

A. Boston Personnel

<u>Technical</u>	<u>Days</u>	<u>Hours</u>
Lewis	2	3
Mullivan	7	7
Leffel	-	3
Culver	1	0

Training - No Time Charged

B. U.S. Personnel in Dacca

	<u>Overseas Pay Period - Days</u>		
	<u>April</u>	<u>May</u>	<u>June</u>
Arbuthnot	30	30	30
Armes	30	30	30
Bassett	14	-	-
Boyle	30	30	21
Drake	19	-	-
Geisler	20	-	-
Johnson	15	-	-

(Note: The overseas pay period includes earned leave time)

BEST AVAILABLE

13. Summary of Consulting Engineers Expatriate and Home Office Personnel:

CONSULTANTS WORKING STAFF

Period from 31 March 1971 Through 30 June 1971

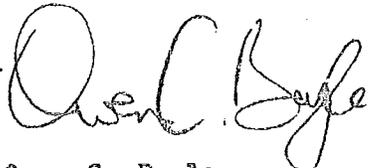
FIELD OFFICE

	<u>Average Number During Reporting Period</u>	<u>Actual Number as of Last Day of Reporting Period</u>
American Personnel	4	3
Local Employees	55	52

HOME OFFICE

<u>Type of Employees</u>	<u>No. of Employees</u>	<u>Total Number of Man-Hours Worked</u>	
		<u>Days</u>	<u>Hours</u>
1. Corporate President	1	2	3
2. Executive Vice President	1	7	7
3. Vice President	2	1	3
		<u>11</u>	<u>5</u>

CAMP DRESSER & McKEE INTERNATIONAL INC.

By 
 Owen C. Boyle
 Project Manager

Distribution:

1. Mr. M.B. Rahman, Chief Engineer, DPHE (15 copies)
2. Home Office, Boston (6 copies)
3. Files

APPENDIX I

DPHE-CDM LABORATORIES

QUARTERLY PROGRESS REPORT NO. 4
Camp Dresser & McKee

QUARTERLY LABORATORY REPORT

TO : The Project Manager, CDM
THRU : The Deputy Project Manager, CDM
FROM : Assistant Chemist, CDM
LABORATORY : DPHE-CDM Central Laboratory
QUARTER : 1ST QUARTER, 1971

Total manhours worked during quarter: 1645

- N.B.:
1. Mr Raisuddin Ahmed worked during the month of February but his time sheet of the month was not available.
 2. 16 days absence during the month of March was officially excused.

SUMMARY OF CHEMICAL ANALYSES PERFORMED DURING 1ST QUARTER

Submitted by	Source	No. of Samples	Determinations Performed			Estimated No. of Manhours Spent
			Group	Determinations	Total Determinations	
CDM	River*	39	B & Others	12	468	667
CDM	River	4	A	5	20	
CDM	Tap	1	D	16	16	
CDM	T.W.	2	E	17	34	
CDM	T.W.	1	B	9	9	
CDM	T.W.	1	A	4	4	
DPHE	T.W.	6	D	16	96	
DPHE	T.W.	5	D	14	70	
** KWS	T.W.	1	D	16	16	
VZP	T.W.	2	D	16	32	
C&B	T.W.	1	D	16	16	
TOTALS:		<u>63</u>			<u>781</u>	<u>667</u>

* River Pollution Control
 ** Khulna Water & Sewerage

SUMMARY OF BACTERIOLOGICAL ANALYSES PERFORMED

Submitted by	Source	No. of Samples	Estimated No. of Manhours Spent
VZP	T.W.	2	18
Martial Law Administrator	Tap	4	
Totals:		<u>6</u>	<u>18</u>

SPECIAL WORK PERFORMED

<u>Description of Work</u>	<u>For Whom</u>	<u>Estimated No. of Manhours Spent</u>
Cement Analysis - 10 Samples	CDM	40
Total Hours:		<u>725</u>

LABORATORY SUPPORT WORK (NON-ANALYTICAL)

<u>Nature of Work</u>	<u>Estimated Manhours Spent</u>
1. Preparation of reagents, stock and standard solutions.	59
2. Instruction of Laboratory Staff.	-
3. Practice determinations and study of standard and special procedures.	23
4. Instruction of government employees assigned to laboratory for special instruction.	-
5. Formal class instruction and demonstrations.	-
6. Preparation for formal class instruction.	-
7. Washing of glassware.	281
8. Stores and purchasing.	169
9. Clerical duties.	184
10. Typing reports and analysis sheets.	-
11. Sweeping and cleaning.	8
12. Supervision	63
13. Despatch and receiving	75
14. BOD sample collection	58
Total Hours:	<u>920</u>

SUMMARY OF EXPENDITURES

1. Electric service (WAPDA)	-
2. Laboratory supplies purchased locally	-
3. Maintenance and cleaning supplies	-

SPECIAL NOTES

The Manhours of Mr. Raisuddin are excluded.

Report Prepared by: Md. Gul Bahar Sarkar

Date: 6.7.71

QUARTERLY LABORATORY REPORT

TO : Project Manager, CDM, Dacca
THRU : R. Ahmed, Lab. Supervisor, CDM, Dacca
FROM : Abul Kasem, Asstt. Chemist-in-charge
LABORATORY : DPHE-WASA Laboratory, Chittagong
QUARTER : 1ST QUARTER, 1971

Total manhours worked during quarter: 1650

NOTES: 16 days absence during the month of March was officially excused.

SUMMARY OF CHEMICAL ANALYSES PERFORMED DURING 1ST QUARTER

Submitted* by	Source	No. of Samples	Group	Determinations Performed		Estimated No. of Manhours Spent
				Determi- nations	Total Deter- minations	
WASA	Tubewell	17	C	14	238	185
DPHE	"	2	C	14	28	14
CDM	"	1	D	20	20	13
	TOTALS	<u>20</u> ==			<u>286</u> ===	<u>212</u>

SUMMARY OF BACTERIOLOGICAL ANALYSES PERFORMED

Submitted by*	Source	No. of Samples	Estimated No. of Manhours Spent.
WASA	Tubewell	5	8
	TOTAL	<u>5</u> =	<u>8</u>

SPECIAL WORK PERFORMED

Description of Work	For Whom	Estimated No. of Manhours Spent
1. Sand sediment test	Chittagong WASA	5
2. Available Cl ₂ in Calcium Hypochlorite	Chittagong WASA	4
	TOTAL HOURS:	<u>229</u> =====

* Indicate DPHE, WASA, WAPDA, ADC, or name of contractor or submitter if not performed under direction of government agency.

LABORATORY SUPPORT WORK (NON-ANALYTICAL)

<u>Nature of Work</u>	<u>Estimated Manhours Spent</u>
1. Preparation of reagents, stock and standard solutions	113
2. Instruction of Laboratory Staff	29
3. Practice determinations and study of standard and special procedures	175
4. Instruction of government employees assigned to Laboratory for special instruction.	2
5. Formal class instruction and demonstrations	-
6. Preparation for formal class instruction	-
7. Washing of glassware	142
8. Stores and purchasing	2
9. Clerical duties	229
10. Typing reports and analysis sheets	100
11. Sweeping and cleaning	172
12. General Work	279
13. Outdoor "	85
14. Inventory "	93
Total Hours:	<u>1421</u> =====

SUMMARY OF EXPENDITURES

1. Electric service (WAPDA)	Rs.138.20
2. Laboratory supplies purchased locally	29.00
3. Maintenance and cleaning supplies	-
Total:	<u>Rs.167.20</u> =====

SPECIAL NOTES

1. Electric service charge account excludes the bill for the month of March, 1971.

Report Prepared by: Abul Kasem

Dated 7.4.1971.

QUARTERLY LABORATORY REPORT

TO : The Project Manager, CDM
THRU : The Deputy Project Manager, CDM
FROM : Md. Gul Bahar Sarkar, Asstt. Chemist, CDM
LABORATORY : DPHE-CDM Central
QUARTER : 2nd Quarter, 1971

Total manhours worked during Quarter: 936

Notes: 1. 3 days absence in the month of April were officially excused.

LABORATORY SUPPORT WORK (NON-ANALYTICAL)

<u>Nature of Work</u>	<u>Estimated Manhours Spent</u>
1. Preparation of reagents, stock and standard solutions	18
2. Instruction of Laboratory Staff	--
3. Practice determinations and study of standard and special procedures	265
4. Instruction of government employees assigned to laboratory for special instruction	--
5. Formal class instruction and demonstrations	--
6. Preparation for formal class instruction	--
7. Washing of glassware	151
8. Stores and purchasing	--
9. Clerical duties	199
10. Typing reports and analysis sheets	--
11. Sweeping and cleaning	32
12. General Work	53
Total Hours:	<u>718</u> ====

SUMMARY OF EXPENDITURES

1. Electric service (WAPDA)	--
2. Laboratory supplies purchased locally	--
3. Maintenance and cleaning supplies	--

SPECIAL NOTES

Report Prepared by: Md. Gul Bahar Sarkar

Date: 7.7.71.

QUARTERLY LABORATORY REPORT

TO : The Project Manager, CDM, Dacca
THRU : The Deputy Project Manager, CDM, Dacca
FROM : Mr. Abul Kasem, Chemist-in-Charge
LABORATORY : DPHE and WASA Laboratory - Chittagong
QUARTER : 2nd Quarter - 1971

Total manhours worked during Quarter: 1741

SUMMARY OF CHEMICAL ANALYSES PERFORMED DURING 2ND QUARTER

Submitted* by	Source	No. of Samples	Determinations Performed			Estimated No. of Manhours Spent
			Group	Determi- nations	Total deter- minations	
DPHE	Tubewell	3	C	14	42	29
DPHE	"	1	B	12	12	6
WASA	"	7	C	14	98	68
		<u>11</u>			<u>152</u>	<u>103</u>
		===			====	

SUMMARY OF BACTERIOLOGICAL ANALYSES PERFORMED

Submitted by*	Source	No. of Samples	Estimated No. of Manhours Spent
WASA	Tubewell	2	6
-do-	Tank	2	5
-do-	Tap	1	3
Ctg. Municipality	Tap	3	6
	TOTALS:	<u>8</u>	<u>20</u>
		===	====

SPECIAL WORK PERFORMED

<u>Description of Work</u>	<u>For Whom</u>	<u>Estimated No. of Manhours Spent</u>
----------------------------	-----------------	--

TOTAL HOURS: 123
=====

* Indicate DPHE, WASA, WAPDA, ADG, or name of contractor or submitter if not performed under direction of government agency.

LABORATORY SUPPORT WORK (NON-ANALYTICAL)

<u>Nature of Work</u>	<u>Estimated Manhours Spent</u>
1. Preparation of reagents, stock and standard solutions	111
2. Instruction of Laboratory Staff	13
3. Practice determinations and study of standard and special procedures	255
4. Instruction of government employees assigned to laboratory for special instruction	5
5. Formal class instruction and demonstrations	-
6. Preparation for formal class instruction	-
7. Washing of glassware	79
8. Stores and purchasing	7
9. Clerical duties	297
10. Typing reports and analysis sheets	66
11. Sweeping and cleaning	251
12. General Work	440
13. Outdoor work and sampling	72
14. Inventory Work	8
15. Official trip	14
Total Hours:	<u>1618</u> =====

SUMMARY OF EXPENDITURES

1. Electric service (WAPDA)	Rs. 196.76
2. Laboratory supplies purchased locally	25.95
3. Maintenance and cleaning supplies	-
Total:	<u>Rs. 232.71</u> =====

SPECIAL NOTES

Report Prepared by: Abul Kasem

Date: 1-7-1971

APPENDIX II

STATEMENT OF RUPEE EXPENDITURES
FOR APRIL, MAY, JUNE, 1971

QUARTERLY PROGRESS REPORT No. 4
Camp Dresser & McKee

CAMP, DRESSER & MCKEE
Consulting Engineers
One Center Plaza, Boston, Mass. 02108

&
D.I.T. Building, P.O. Box 502, Dacca, East Pakistan

RUPEE DISBURSEMENT

April, 1971

		Cumulative Totals
Bank Balance as per Check Register, April 1,	1,57,604.98	
Cash in hand April 1,	5,860.62	
Advance Control April 1,	6,625.25	
Security Deposit April 1,	16,250.00	
Suspense April 1,	<u>23,330.58</u>	
Total Opening Balance		2,09,671.43
Received from DPHE, -	-	1,09,23,858.00
Received from WA, -	-	<u>2,71,500.00</u>
Total Funds:		<u>1,11,95,358.00</u> =====
 Expenditures:		
1. Salaries	30,994.90	12,81,806.34
2. Pakistani Insurance	-	1,22,731.05
3. Living Allowance for U.S. Personnel	1,000.00	3,33,879.54
4. Furnishing and Closing Office	-	1,95,526.15
5. International Travel for CDM Personnel	32,276.00	12,10,371.44
6. Shipping to and from Pakistan	-	3,90,417.62
6A. Duties and Taxes for Shipment	-	14,78,942.90
7. Office Rent, Utilities and Maintenance	7,032.66	6,82,570.60
8. House Rent, Utilities and Maintenance	9,000.00	15,73,095.58
9. Furnishing of Houses and Apartment	-	3,93,685.08
10. Office Supplies	871.09	3,05,428.85
11. Purchase of Automobiles	-	1,50,082.00
12. Vehicle Operation and Maintenance	2,599.99	5,24,191.52
13. Internal Travel and Travel Expenses in Pakistan	672.39	3,93,038.12
14. International Travel of DPHE Trainees	-	24,035.00
15. Hotel Expenses or Per Diem Start and End of Job	-	4,725.00
16. Boring, Survey, Pilot Studies etc.	32.97	17,287.18
17. Miscellaneous and Contingencies	174.00	1,33,016.50
18. Training of Water Works Superintendents	-	2,39,152.48
30. Income Tax of CDM Expatriates and CDM Advances to CDM	(Cr) 267.99	11,93,907.00 * 4,22,182.63
Total Expenditure		<u>84,386.01</u> =====
Total Closing Balance, April 30		1,25,285.42

Bank Balance as per Check Register, April 30,	81,282.68	
Cash in hand April 30,	4,683.61	
Advance Control April 30,	5,050.25	
Security Deposit April 30,	16,250.00	
Suspense April 30,	<u>3,018.88</u>	
		<u>1,25,285.42</u> =====

* Includes Rs.2,80,082.54 repaid to DPHE
via Dollar Credit in CDM monthly billings.

CAMP DRESSER & MCKEE
Consulting Engineers
One Center Plaza, Boston, Mass. 02108

&
D.I.T. Building, P.O. Box 502, Dacca, East Pakistan

RUPEE DISBURSEMENT

May 1971

		<u>Cumulative Totals</u>
Bank Balance as per Check Register, May 1,	81,282.68	
Cash in hand May 1,	4,683.61	
Advance Control May 1,	5,050.25	
Security Deposit May 1,	16,250.00	
Suspense May 1,	<u>18,018.88</u>	
Total Opening Balance	1,25,285.42	
Received from DPHE, May 14	1,00,000.00	1,10,23,858.00
Received from WASA	-	2,71,500.00
Total Funds:	<u>2,25,285.42</u>	<u>1,12,95,358.00</u> =====
 Expenditures:		
1. Salaries	18,537.76	13,00,344.10
2. Pakistani Insurance	815.00	1,23,546.05
3. Living Allowance for U.S. Personnel	226.67	3,34,106.21
4. Furnishing and Closing Office	-	1,95,526.15
5. International Travel for CDM Personnel	-	12,10,371.44
6. Shipping to and from Pakistan	510.85	3,90,928.47
6A. Duties and Taxes for Shipment	-	14,78,942.90
7. Office Rent, Utilities and Maintenance	1,877.25	6,84,447.85
8. House Rent, Utilities and maintenance	8,480.70	15,81,576.28
9. Furnishing of Houses and Apartment	-	3,93,685.08
10. Office Supplies	1,418.37	3,06,847.22
11. Purchase of Automobiles	(Cr.) 2,650.00	1,47,432.00
12. Vehicle Operation and Maintenance	8,594.53	5,32,786.05
13. Internal Travel and Travel Expenses in Pakistan	1,397.47	3,94,435.59
14. International Travel of DPHE Trainees	-	24,035.00
15. Hotel Expenses or Per Diem Start and End of Job	-	4,725.00
16. Boring, Survey, Pilot Studies etc.	48.50	17,335.68
17. Miscellaneous and Contingencies	603.90	1,33,620.40
18. Training of Water Works Superintendents	-	2,39,152.48
30. Income Tax of CDM Expatriates and CDM Advances to CDM	6,923.18	11,93,907.00 * 4,29,105.81
Total Expenditure	<u>46,784.18</u>	<u>1,11,16,856.76</u> =====
Total Closing Balance, May 31,	1,78,501.24	

Bank Balance as per Check Register, May 31,	1,42,659.88
Cash in hand May 31,	1,385.23
Advance Control May 31,	4,856.25
Security Deposit May 31,	12,750.00
Suspense May 31,	<u>16,849.88</u>

1,78,501.24
=====

* Includes Rs.2,80,082.54 repaid to DPHE
via Dollar Credit in CDM monthly billings.

CAMP DRESSER & McKEE
 Consulting Engineers
 One Center Plaza, Boston, Mass. 02108
 &
 D.I.T. Building, P.O. Box 502, Dacca, East Pakistan

RUPEE DISBURSEMENT

June, 1971

		<u>Cumulative Totals</u>
Bank Balance as per Check Register, June 1,	1,42,659.88	
Cash in hand June 1,	1,385.23	
Advance Control June 1,	4,856.25	
Security Deposit June 1,	12,750.00	
Suspense June 1,	<u>16,849.88</u>	
Total Opening Balance	1,78,501.24	
Received from DPHE, June 16 and 30	5,98,526.33	1,16,22,384.33
Received from WASA	-	2,71,500.00
Total Funds:	<u>7,77,027.57</u>	<u>1,18,93,884.33</u>
 Expenditures:		
1. Salaries	20,213.63	13,20,557.73
2. Pakistani Insurance	1,645.81	1,25,191.86
3. Living Allowance for U.S. Personnel	680.00	3,34,786.21
4. Furnishing and Closing Office	-	1,95,526.15
5. International Travel for CDM Personnel	30,568.50	12,40,939.94
6. Shipping to and from Pakistan	7,333.15	3,98,261.62
6A. Duties and Taxes for Shipment (Cr.)	9,434.59	14,69,508.31
7. Office Rent, Utilities and Maintenance	13,878.96	6,98,326.81
8. House Rent, Utilities and Maintenance	8,650.16	15,90,226.44
9. Furnishing of Houses and Apartment (Cr.)	50.00	3,93,635.08
10. Office Supplies	4,039.95	3,10,887.17
11. Purchase of Automobiles	-	1,47,432.00
12. Vehicle Operation and Maintenance	7,123.80	5,39,909.85
13. Internal Travel and Travel Expenses in Pakistan	1,130.21	3,95,565.80
14. International Travel of DPHE Trainees	-	24,035.00
15. Hotel Expenses or Per Diem Start and End of Job	-	4,725.00
16. Boring, Survey, Pilot Studies etc.	6.00	17,341.68
17. Miscellaneous and Contingencies	542.80	1,34,163.20
18. Training of Water Works Superintendents	-	2,39,152.48
30. Income Tax of CDM Expatriates and CDM Advances to CDM (Cr.)	3,98,524.00 <u>23,012.57</u>	15,92,431.00 * 4,06,093.24
Total Expenditure	4,61,839.81	1,15,78,696.57
Total Closing Balance, June 30	<u>3,15,187.76</u>	<u>=====</u>

Bank Balance as per Check Register, June 30,	2,85,950.34
Cash in hand June 30,	1,676.75
Advance Control June 30,	5,464.14
Security Deposit June 30,	12,750.00
Suspense June 30,	<u>9,346.53</u>

3,15,187.76
=====

* Includes Rs.2,80,082.54 repaid to DPHE
via Dollar Credit in CDM monthly billings.