



KARACHI WATER & SEWERAGE BOARD
OFFICE OF THE CHIEF ENGINEER (E&M)-W

Block "B", 9th Mile, Sharea Faisal, Karachi
Ph: (021) 99245122 Fax: (021) 99245027

No.KW&SB/CE/E&M-W/2017/ 174

Dated: 28/11/ 2017

To,
The Director (A&F),
Sindh Public Procurement Regulatory Authority,
Block-8, Sindh Secretariat No.4-A,
Court Road,
Karachi.

SUBJECT:- BID EVALUATION REPORT OF BELOW MENTIONED WORK FOR HOISTING ON AUTHORITY WEBSITE OF SPPRA.

Reference:- N.I.T Serial No.34865.

NAME OF WORK:- Providing / Fixing of Chlorinator and allied works with accessories at Six different Filter Plants under 3-Stage work plan for Rehabilitation of Existing Water Filter Plants of KW&SB i.e COD, NEK K-II, NEK (Old), Pipri, Gharo & Hub.

Enclosed please find herewith, the **Bid Evaluation Report** for the above mentioned name of work is being submitted for Hoisting on Authority's Website of SPPRA as soon as possible with following documents.

Enclosed:

1. Bid Evaluation Report.
2. Comparative Statement.
3. Minutes of Bid Opening Meeting.
4. Bidders Qualification Report.
5. Attendance Sheet of Contractors.


(ASADULLAH KAHN)
Chief Engineer(E&M)-W
KW&SB

Copy to:-

1. The M.D KW&SB
2. The D.M.D (T/S) KW&SB.

SPPRA INWARD DIARY
NO: 3073
DATED: 28-11-17

KARACHI WATER & SEWERAGE BOARD
OFFICE OF THE SUPERINTENDING ENGINEER COD / CONVENER

BID EVALUATION REPORT

1	Nam of Procuring Agency	KARACHI WATER & SEWERAGE BOARD
2	Tender Reference No:	KW&SB/DPR/2017/119 published in daily "JANG" "DAWN" "THE NEWS" "Express" and "HILAL-E-PAKISTAN" on 11-10-2017, and Corrigendum published in daily newspaper "JUNG" "EXPRESS" "THE NEWS" and HILAL-E-PAKISTAN" on 17-10-2017, of SPPRA Serial No. 34865
3	Tender Description /Name of Wok/ Item:	PROVIDING / FIXING OF CHLORINATOR AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB I.E COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB.
4	Method of Procurement:	Single Stage (one Envelop)
5	Tender published:	Through Press / SPPRA Web Site
6	Total Bid Document Sold:	12 Nos.
7	Total Bid Received:	06 Nos.
8	Technical Bid Opening Date	N/A
9	No. of Bid Technically Qualified	N/A
10	Bid (s) Rejected	NIL.
11	Financial Bid Opening Date:	03-11-2017

12 **BID EVALUATION REPORT**

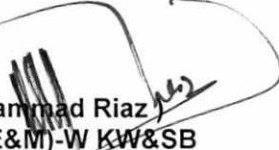
S #	Name of Firm / Bidder	CORRECTED PRICE	RANKING IN TERMS OF COST	COMPARISON WITH ESTIMATED COST	REASON FOR ACCEPTANCE / REJECTION	REMARKS
1	M/s. S.A.F International Group & Co.	321,313,001.50	1 ST Lowest	@ 14.86% Below	Failed to provide the evidence of experience as well as existing work Load. The authorization / Commitment letter from manufacturer for the execution of the project has also not enclosed. This firm is new and registered with FBR and SRB in 2016 and having no experience of work in Government Organization.	Dis-qualified / Non Responsive
2	M/s. Hawan Construction Co. J/V M/s. Malik & CO.	370,971,101.10	2 nd Lowest	@ 1.70% Below	Fulfill the criteria.	Responsive
3	M/s. CEMCON Associate	373,868,578.00	3 rd Lowest	@ 0.93% Below	Non-availability of Documents	Non Responsive
4	M/s. Muhammad Iqbal Shaikh & Co.	396,778,690.00	4 th Lowest	@ 5.14% Above	Non-availability of Documents	Non Responsive
5	M/s. Abdullah Khan & Company	436,226,050.56	5 th Lowest	@ 15.59% Above	Non-availability of Documents	Non Responsive
6	M/s. Al Tariq Constructors (Pvt) Ltd	607,260,685.00	6 th Lowest	@ 60.91% Above	Fulfill the criteria	Responsive


The all concerned bidders are being informed accordingly.
M/s. CEMCON Associate and M/s Al Tariq Constructors (Pvt) Ltd were not written the rates of each item in word.

M/s SAF International Group of Co. failed to provide the evidence of experience as well as existing work Load. The authorization / Commitment letter from manufacturer for the execution of the project has also not enclosed. This firm is new and registered with FBR and SRB in 2016 and having no experience of work in Government Organization. Therefore, M/s. SAF International Group of Co. has become disqualified / Non Responsive.


M/s. Hawan Construction Co. J/V M/s. Malik & Co and M/s. Al Tariq Constructors (Pvt) Ltd declared the Responsive Bidders and all other Four participants declared as Non-Responsive / Rejected / Disqualified by the Committee and recommended for sanction from Competent Authority.


In compliance of Rule-45 of SPPR-2010 **M/s. Hawan Construction Co. J/V M/s. Malik & Co** declared as Lowest Responsive Bidder.


(Muhammad Riaz)
D.A.O, (E&M)-W KW&SB
Member /Secretary


(Shams Bhatti)
Executive Engineer, (KDA)
Member


(Abudl Razzak Magsi)
Resident Engineer, Pipri (P&F)
KW&SB Member


(Maqsodd Ahmed Shaikh) (Civil)
Superintending Engineer (E&M)
Engineering Deptt. (KMC)
Member


(Zahid Jamil Qureshi)
SE (COD) KW&SB
Convener

Method & Procedure of Procurement: - **Open Competitive Bidding (National / International) Competitive Bidding (Single Stage – One Envelope)**

NAME OF WORK :-

PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB I.E COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB.

Date of Opening :

03.11.2017

Eligibility / Qualification Criteria :

BIDDERS' ELIGIBILITY / QUALIFICATION REPORT

S. No.	Eligibility / Requirement	M/s. S.A.F. International Group of Co.	M/s. Hawan Const. Co. J/V M/s. Malik & Co.	M/s. CEMCON Associates.	M/s. Abdullah Khan & Co.	M/s. Al-Tariq Constructors (Pvt.) Ltd.	M/s. Muhammad Iqbal Shaikh & Co.
1.	Valid PEC Registration – Category C-3 (Code: CE-09, CE-10, EE-04 & ME-06).	Yes	Yes	Yes	Yes	Yes	Yes
2.	Registration with Sindh Revenue Board (SRB)	Yes	Yes	Yes	No	Yes	No
3.	E&M Experience Certificate and work orders with details.	Yes without evidence	Yes	Yes	No	Yes	Yes
4.	Existing work load / work orders with details.	No	Yes	No	No	Yes without evidence	Yes
5.	Financial Soundness Certificate.	Yes	Yes	No	Yes	Yes	No
6.	Bank Statement for last 3 years.	Yes	Yes	Yes	Yes	Yes	Yes
7.	Three Years Turn over.	Yes	Yes	Yes	Yes	Yes	Yes
8.	Affidavit on Stamp Paper of Rs.100/= to the extent "Not Black Listed".	Yes	Yes	Yes	Yes	Yes	Yes
9.	Affidavit on Stamp Paper of Rs.100/= for litigation.	Yes	Yes	Yes	No	Yes	No
10.	Origin of goods.	Germany, Denora-USA	Germany	USA	No	Germany	USA - Denora
11.	Authorization for Manufacturers.	No	Yes	No	No	Yes	No
12.	Certificate for Manufacturer should have produced same item for at least 10 years.	Yes	Yes	Yes	No	Yes	Yes
13.	Any mis-statement / mis-presentation.	Doubtful	No	No	No	No	No
14.	Bid is signed, named and stamped by the authorized person of the firm along with Authorization letter.	Yes	Yes	Yes	Yes	Yes	Yes
15.	Any other factor deemed to be relevant by the procuring agency subject to provision of Ri:e-44	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
16.	Qualified / Disqualified	Disqualified / Non-Responsive	Responsive	Non-Responsive	Non-Responsive	Responsive	Non-Responsive

M/s SAF International Group of Co. failed to provide the evidence of experience as well as existing work Load. The authorization / Commitment letter from manufacturer for the execution of the project has also not enclosed. This firm is new and registered with FBR and SRB in 2016 and having no experience of work in Government Organization. Therefore, M/s. SAF International Group of Co. has become disqualified / Non Responsive.

(Muhammad Rizaz)
D.A.O.(E&M)-W, KW&SB
Member / Secretary

(Abdul Razzak Magsi)
Resident Engineer
Pipri (P&F) Div, KW&SB
Member

(Shams Bhatti)
Executive Engineer, KDA
Member

(Maqsood Ahmed Shaikh)
Superintending Engineer
(East) E&M, KMC
Member

(Zahid Jamil Qureshi)
Superintending Engineer
(COD), KW&SB
Convener

SPPRA No:

34865

Method and procedure of procurement: Single Stage-One Envelope.

Name of Work:

PROVIDING / FIXING OF CHLORINATOR AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB I.E. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

MINUTES OF BID OPENING MEETING


A meeting of the procurement committee of this department was held on 03-11-2017 for opening the bids received in respect of subject NIT till deadlines of submission. The meeting was attended by all / following members of the procurement committee and the representative of bidders. **(Attendance sheet is enclosed).**

2. Six bidders submitted their bids till the deadline of submission.
 - i. M/s. S.A.F International Group of Co.
 - ii. M/s. Hawan Construction Co. J/V M/s Malik & Co.
 - iii. M/s. CEMCON Associate
 - iv. M/s. Muhammad Iqbal Shaikh & Co.
 - v. M/s. Abdullah Khan & Company.
 - vi. M/s. Al Tariq Constructors (Pvt) Ltd
3. The bids were opened at 4.00 P.M in the presence of the above mentioned participants and the rates quoted by bidders were read aloud and encircled by Chairman of the Procurement Committee.


S. No	Name of Firm	Quoted Price	Amount of Bid Security	Pay order No. Date
1	M/s. S.A.F International Group & Co.	321,679,802.00	7,400,000	Bank Guarantee No.170351BID00004 dated:03-11-2017, issued by Bank Alfalah Limited, B.A Building I.I Chundrigar Road, Karachi Branch Office at Beamount Plaza Karachi.
2	M/s. Hawan Construction Co. J/V M/s. Malik & CO.	370,970,903.10	7,600,000	P.O # 18032848 dt:02-11-2017 Habib Bank Limited, Sindh Secret (0916) Shahrah-e-Kamal Ata Turk, Karachi.
3	M/s. CEMCON Associate	407,909,890.00	8,000,000	Bank Guarantee No.MD1729600004 dated 23.10.2107 issued by Allied Bank Limited, Head Office 3-4, Tipu Block New Garden Town, Lahore.
4	M/s. Muhammad Iqbal Shaikh & Co.	396,778,690.00	8,000,000	Call Deposit Receipt CDR No.00007768 Dated:03-11-2017, Summit Bank Hyderabad Branch (1-12-1)
5	M/s. Abdullah Khan & Company	394,096,235.56	8,000,000	P.O # 04122827 dt:03-11-2017 Askari Bahadurabad Branch Karachi Code (0041)
6	M/s. Al Tariq Constructors (Pvt) Ltd.	613,299,577.00	11,000,000	Bank Guarantee No.1015/LG 302/2017 dated:03-11-2017, issued by Bank Al Habib Ltd. New Challi Branch Haji Adam Chamber, Altaf Hussain Road Karachi.

[Handwritten signatures and initials at the bottom of the page]


4. The bids do not contain any overwriting & cutting.
5. The committee shall examine all the bids as per the qualification / eligibility criteria provided in the bidding documents and verify the documents and bid security submitted by the bidders.
6. The meeting ended with the vote of thanks to and from the chair.




(Muhammad Riaz)
D.A.O, (E&M)-W KW&SB
Member / Secretary



(Shams Bhatti)
Executive Engineer, (KDA)
Member



(Abudl Razzak Magsi)
Resident Engineer, Pipri (P&F)
KW&SB Member



(Maqsood Ahmed Shaikh) (Civil)
Superintending Engineer (E&M)
Engineering Deptt. (KMC)
Member



(Zahid Jamil Qureshi)
SE (COD) KW&SB
Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

SUMMARY

Sr. No	DESCRIPTION	ENGINEER ESTIMATE	M/S. SAF INTERNATIONAL GROUP OF CO.		M/S. HAWAN CONST. CO. J/V M/S. MALIK & CO.		M/S. CEMCON ASSOCIATES		M/S. ABDULLAH KAHN & COMPANY		M/S. AL TARIQ CONSTRUCTORS (PVT) LTD.		M/S. MUHAMMAD IQBAL SHAIKH & CO.	
			QUOTED AMOUNT	CORRECTED AMOUNT	QUOTED AMOUNT	CORRECTED AMOUNT	QUOTED AMOUNT	CORRECTED AMOUNT	QUOTED AMOUNT	CORRECTED AMOUNT	QUOTED AMOUNT	CORRECTED AMOUNT	QUOTED AMOUNT	CORRECTED AMOUNT
1	BILL NO.1 (A)	45,612,916.00	35,860,700.00	35,860,700.00	40,566,956.00	40,566,956.00	36,124,335.00	35,952,735.00	49,050,550.00	49,180,150.00	54,038,660.00	54,038,660.00	50,582,925.00	50,370,925.00
2	BILL NO.1 (B)	1,694,292.38	1,707,650.00	1,707,650.00	1,529,421.00	1,529,421.00	2,044,979.00	1,894,219.00	1,213,118.00	1,213,118.00	17,410,215.00	16,510,215.00	2,356,330.00	2,356,330.00
	Total:-	47,307,208.38	37,568,350.00	37,568,350.00	42,096,377.00	42,096,377.00	38,169,314.00	37,846,954.00	50,263,668.00	50,393,268.00	71,448,875.00	70,548,875.00	52,939,255.00	52,727,255.00
3	BILL NO.2 (A)	31,830,814.00	25,896,950.00	25,896,150.00	27,413,696.00	27,413,696.00	27,721,820.00	27,721,884.00	33,687,200.00	33,752,000.00	36,415,350.00	36,415,350.00	42,093,275.00	42,093,275.00
4	BILL NO.2 (B)	1,694,292.38	1,707,650.00	1,707,650.00	1,529,421.00	1,529,421.00	1,893,979.00	1,894,219.00	1,213,118.00	1,213,118.00	16,510,215.00	16,510,215.00	2,356,330.00	2,356,330.00
	Total:-	33,525,106.38	27,604,600.00	27,603,800.00	28,943,117.00	28,943,117.00	29,615,799.00	29,616,103.00	34,900,318.00	34,965,118.00	52,925,565.00	52,925,565.00	44,449,605.00	44,449,605.00
5	BILL NO.3 (A)	52,583,511.00	46,412,450.00	46,412,450.00	52,656,800.00	52,656,800.00	95,218,575.00	70,693,750.00	59,980,000.00	65,380,000.00	110,892,600.00	110,892,600.00	67,513,100.00	67,513,100.00
6	BILL NO.3 (B)	9,397,592.75	17,187,139.00	17,187,139.00	10,388,546.10	10,388,546.10	12,133,032.00	12,133,032.00	9,979,849.56	9,937,239.56	27,762,542.00	27,762,542.00	19,934,655.00	19,934,655.00
	Total:-	61,981,103.75	63,599,589.00	63,599,589.00	63,045,346.10	63,045,346.10	107,351,607.00	82,826,782.00	69,959,849.56	75,317,239.56	138,655,142.00	138,655,142.00	87,447,755.00	87,447,755.00
7	BILL NO.4	45,815,100.00	47,314,000.00	47,314,000.00	49,883,000.00	49,883,000.00	44,751,000.00	44,751,000.00	45,373,000.00	45,373,000.00	60,921,000.00	60,921,000.00	45,957,000.00	45,957,000.00
	Total:-	45,815,100.00	47,314,000.00	47,314,000.00	49,883,000.00	49,883,000.00	44,751,000.00	44,751,000.00	45,373,000.00	45,373,000.00	60,921,000.00	60,921,000.00	45,957,000.00	45,957,000.00
8	BILL NO.5 (A)	33,095,000.00	27,283,000.00	27,283,000.00	32,390,500.00	32,390,500.00	25,938,500.00	25,938,500.00	35,630,000.00	41,030,000.00	43,417,500.00	43,417,500.00	25,764,000.00	25,764,000.00
9	BILL NO.5 (B)	3,150,000.00	315,000.00	315,000.00	2,520,000.00	2,520,000.00	1,260,000.00	1,260,000.00	252,000.00	252,000.00	1,050,000.00	1,050,000.00	1,050,000.00	1,050,000.00
	Total:-	36,245,000.00	27,598,000.00	27,598,000.00	34,910,500.00	34,910,500.00	27,198,500.00	27,198,500.00	35,882,000.00	41,282,000.00	44,467,500.00	44,467,500.00	26,814,000.00	26,814,000.00
10	BILL NO.6	28,678,000.00	24,869,000.00	24,869,000.00	36,405,000.00	36,405,000.00	26,805,000.00	26,805,000.00	34,580,000.00	49,700,000.00	57,668,000.00	57,668,000.00	32,950,000.00	32,950,000.00
	Total:-	28,678,000.00	24,869,000.00	24,869,000.00	36,405,000.00	36,405,000.00	26,805,000.00	26,805,000.00	34,580,000.00	49,700,000.00	57,668,000.00	57,668,000.00	32,950,000.00	32,950,000.00
11	BILL NO.7 (A)	53,221,668.00	44,999,100.00	44,999,100.00	52,077,636.00	52,077,636.00	42,254,170.00	42,075,970.00	52,932,000.00	52,932,000.00	66,632,800.00	66,632,800.00	44,025,300.00	44,025,300.00
12	BILL NO.7 (B)	9,161,625.00	916,163.00	916,162.50	6,718,327.00	6,718,525.00	3,664,650.00	3,664,650.00	1,692,000.00	1,692,225.00	9,161,625.00	9,161,625.00	3,053,875.00	3,053,875.00
	Total:-	62,383,293.00	45,915,263.00	45,915,262.50	58,795,963.00	58,796,161.00	45,918,820.00	45,740,620.00	54,624,000.00	54,624,225.00	75,794,425.00	75,794,425.00	47,079,175.00	47,079,175.00
13	BILL NO.8	55,461,426.00	41,211,000.00	40,845,000.00	50,891,600.00	50,891,600.00	82,099,850.00	75,608,618.00	62,513,400.00	61,791,800.00	105,419,070.00	100,280,178.00	53,141,900.00	53,741,900.00
	Total:-	55,461,426.00	41,211,000.00	40,845,000.00	50,891,600.00	50,891,600.00	82,099,850.00	75,608,618.00	62,513,400.00	61,791,800.00	105,419,070.00	100,280,178.00	53,141,900.00	53,741,900.00
	Provisional Sum	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00	6,000,000.00
	Grand Total:-	377,396,237.51	321,679,802.00	321,313,001.50	370,970,903.10	370,971,101.10	407,909,890.00	376,393,577.00	394,096,235.56	419,446,650.56	613,299,577.00	607,260,685.00	396,778,690.00	397,166,690.00

(Muhammad Riaz)
D.A.O.(E&M)-W KW&SB
Member

(Abdul Razzak Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO, HUB

BILL NO.1 (A)

E & M WORKS 70 MGD COD FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing, Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity Chlorinator floor mounted cabinet for capacity of 3000 PPD/60Kg/hr Wallace & Tiernan or equivalent (European/USA Brand) with all components, fittings and accessories in accordance with the Specification & approved make including dozing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chorine solution with suitable pipes with required valves fittings & accessories of suitable capacity including dismantling the existing damaged defective equipments & components if any, existing in all respects for a fully and efficiently operating chlorinator.	5	2,970,000	14,850,000	3,350,000	16,750,000	3,340,000	16,700,000	2,600,000	13,000,000	3,800,000	19,000,000	4,175,000	20,875,000	2,500,000	12,500,000
2	Providing injector assembly complete. (High capacity) (European / USA Brand)	5	528,000	2,640,000	600,000	3,000,000	546,000	2,730,000	428,000	2,140,000	700,000	3,500,000	825,000	4,125,000	500,000	2,500,000
3	Providing & fixing booster pumps with motor (European Brand) horizontal with complete fitting section 4" dia delivery 3" dia (30 HP).	5	2,500,000	12,500,000	175,000	875,000	1,200,000	6,000,000	1,600,000	8,000,000	425,000	2,125,000	1,582,000	7,910,000	1,000,000	5,000,000

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4	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge	3	4,000	12,000	4,500	13,500	200,000	600,000	45,000	135,000	20,000	60,000	360,000	1,080,000	463,800	1,391,400
5	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	2	265,000	530,000	300,000	600,000	1,000,000	2,000,000	275,000	550,000	1,200,000	2,400,000	1,031,000	2,062,000	495,000	990,000
6	Providing & Testing of Chlorine detector (European Brand)	2	175,000	350,000	200,000	400,000	500,000	1,000,000	750,000	1,500,000	950,000	1,900,000	650,000	1,300,000	450,000	900,000
7	Arrangement of Safety Mask / Equipment (gas mask / gloves / shoes)	4	15,500	62,000	15,000	60,000	8,750	35,000	25,000	100,000	8,000	32,000	376,000	1,504,000	200,000	800,000
8	Providing Rota Meter Assembly complete for Wallace & Tieman Chlorinator or equivalent (European / USA Brand)	4	365,000	1,460,000	200,000	800,000	419,000	1,676,000	200,000	800,000	425,000	1,700,000	495,000	1,980,000	480,000	1,920,000
9	Providing Chlorine Gas Cylinder Valve (heavy duty high pressure) special alloy of Phosphorus bronze as per specified sample (European Brand)	12	45,000	540,000	25,000	300,000	52,000	624,000	75,000	900,000	12,000	144,000	90,000	1,080,000	350,000	4,200,000
10	Providing, fixing, testing & commissioning of electricity operated hoist of 5 tons lifting capacity (European Brand) with all components, accessories and fittings for all electrical and mechanical components suitable for the site requirements, traveling on overhead gantry girder of 6"x4" size of required length to be provided and fixed on ceiling in place of existing equipment including dismantling the damaged or defective equipment and accessories if any complete in all respect as per specifications and site requirements.	1	7,750,000	7,750,000	7,000,000	7,000,000	3,700,000	3,700,000	1,600,000	1,600,000	4,500,000	4,500,000	1,100,000	1,100,000	3,000,000	3,000,000
11	Providing, fixing M.S cylinder track with complete jobs etc as per site requirement.	2925	260	760,500	300	877,500	300	877,500	850	2,486,250	900	2,632,500	400	1,170,000	300	877,500
12	Providing, fixing M.S I beam 300x125x12 MTR 16.5 KG/feet complete jobs etc as per site requirement (European Brand).	763	775	591,325	300	228,900	890	679,070	330	251,790	1,100	839,300	400	305,200	300	228,900

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13	Providing, fixing M.S I beam 300x128x12 MTR 15.5 KG/ feet complete jobs etc as per site requirement (European Brand).	325	775	251,875	300	97,500	890	289,250	350	113,750	1,300	422,500	400	130,000	300	97,500
14	Providing and fixing Star / Delta Starter 40 HP 440 volts 3 Phase Complete job (European / USA Brand)	8	75,000	600,000	300,000	2,400,000	85,000	680,000	100,000	800,000	250,000	2,000,000	157,500	1,260,000	1,600,000	12,800,000
15	Providing & Laying 04 core cable 95mm armored Pakistan cable or equivalent.	212	7,520	1,594,240	6,000	1,272,000	4,000	848,000	5,500	1,166,600	16,000	3,392,000	10,680	2,264,160	6,500	1,378,000
16	Providing & fixing circuit breaker 500 amp Terasaki Japan or equivalent	2	90,956	181,912	50,000	100,000	10,000	20,000	9,500	190,000	150,000	300,000	195,000	390,000	60,000	120,000
17	Providing & fixing circuit breaker 300 amp Terasaki Japan or equivalent	4	27,411	109,644	40,000	160,000	9,500	38,000	50,000	200,000	140,000	560,000	150,000	600,000	36,000	144,000
18	P/Laying UPVC pressure pipe of class "D" fixing entrenches i/c cutting, fitting and jointing with "Z" joint with 01 rubber ring i/c testing with water to a head 122 meter or 400 ft 3" dia.	2265	137	310,305	100	226,500	300	679,500	360	815,400	800	1,812,000	550	1,245,750	225	509,625
19	Providing & laying UPVC pressure pipe of class "D" fixing entrenches i/c cutting, fitting and jointing with "Z" joint with 01 rubber ring i/c testing with water to a head 122 meter or 400 ft 4" dia.	1265	226	285,890	300	379,500	900	1,138,500	575	727,375	850	1,075,250	850	1,075,250	400	506,000
20	Providing & fixing S.S Pipe ¾" dia (L-316) (European Brand)	115	625	71,875	500	57,500	718	82,570	380	43,700	2,000	230,000	1,190	136,850	2,000	24,000
21	Providing & fixing S.S Tee ¾" dia (L-316) (European Brand)	12	450	5,400	1,000	12,000	517	6,204	420	5,040	1,200	14,400	14,000	168,000	2,000	18,000
22	Providing & fixing S.S Elbow ¾" dia (L-316) (European Brand)	12	350	4,200	1,000	12,000	402	4,824	290	3,480	1,200	14,400	10,000	120,000	3,000	36,000
23	Providing & fixing S.S Cross Tee ¾" dia (L-316) (European Brand)	9	550	4,950	2,000	18,000	632	5,688	650	5,850	1,600	14,400	15,500	139,500	2,000	18,000
24	Providing & fixing S.S Union ¾" dia (L-316) (European Brand)	24	575	13,800	1,000	24,000	660	15,840	550	13,200	2,000	48,000	10,800	259,200	3,000	72,000
25	Providing & fixing S.S Valve ¾" dia (L-316) (European Brand)	18	1,250	22,500	1,500	27,000	1,450	26,100	1,500	27,000	6,000	108,000	16,000	288,000	5,000	90,000
26	Providing & fixing S.S Socket ¾" dia (L-316) (European Brand)	18	325	5,850	1,000	18,000	375	6,750	380	6,840	800	14,400	9,750	175,500	2,000	36,000
27	Providing & fixing S.S Barrel Nipple ¾" dia (L-316) (European Brand)	12	250	3,000	1,000	12,000	290	3,480	380	4,560	600	7,200	2,500	30,000	2,000	24,000

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29	Providing & fixing S.S Dead Plug ¾" dia (L-316) (European Brand)	18	125	2,250	1,100	19,800	150	2,700	250	4,500	400	7,200	1,625	29,250	2,000	36,000
29	Providing & fixing Gun Metal gate valve 2 ½" dia Heavy duty (European Brand)	4	3,650	14,600	5,000	20,000	4,195	16,780	18,000	72,000	8,000	32,000	72,500	290,000	10,000	40,000
30	Providing & fixing Gun Metal gate valve 3" dia Heavy duty (European Brand).	4	4,200	16,800	5,000	20,000	4,800	19,200	28,000	112,000	11,000	44,000	95,000	380,000	10,000	40,000
31	Providing & fixing Gun Metal gate valve 4" dia Heavy duty (European Brand)	4	6,500	26,000	10,000	40,000	7,500	30,000	35,000	140,000	15,000	60,000	129,000	516,000	12,000	48,000
32	Providing & fixing foot valve 3" dia heavy pattern with cone type (European Brand) material should be S.S.	2	8,500	17,000	10,000	20,000	9,000	18,000	45,000	90,000	15,000	30,000	10,000	20,000	5,000	10,000
33	Providing & fixing foot valve 4" dia heavy pattern with cone type (European Brand) material should be S.S.	2	12,500	25,000	10,000	20,000	7,000	14,000	60,000	120,000	16,000	32,000	15,000	30,000	8,000	16,000
Total:				45,612,916		35,860,700		40,566,956		36,124,335		49,050,550		54,038,660		50,582,925
Corrected Amount:						-		-		35,952,735		49,180,150		-		50,370,925

(Munaimad Riaz)
D.A.O.(E&M)-W KW&SB
Member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.1 (B)

CIVIL WORKS 70 MGD COD FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Excavation for foundation of building bridges & others structure i/c dag belling, dressing, refilling around structure with excavated earth water 7 ramming lead upto 5'-0" ft.	384	3,554.00	1,364.74	25	9,600	4.50	1,728	10	3,840	12	4,608	35	13,440	25	9,600
2	Cement concrete bricks or stone ballast 1/2" to 2" gauge 1:4:8	48	9,416.28	4,519.81	200	9,600	110	5,280	108	4,944	200	9,600	350	16,800	200	9,600
3	Cement concrete plain i/c placing compacting finishing & curing compacting i/c screening & washing at stone aggregate with out shuttering.	189	14,429.25	27,271.28	300	56,700	165	31,185	150	28,350	240	45,360	1,000	189,000	300	56,700
	Fabrication of mild steel reinforcement C.C. i/c curing bending laying in position making joints & testing i/c cost of binding wire.	9.19	5,001.70	45,965.62	15,000	137,850	5,700	52,383	4,500	41,355	5,000	45,950	7,500	68,925	7,000	64,330
5	Erection & removal of centering for RCC or plain cement concrete work of deodar wood.	180	3,127.41	5,629.34	80	14,400	40	7,200	40	7,200	25	4,500	200	36,000	120	21,600
6	Reinforcement cement concrete works i/c all labour & material except the cost of steel reinforcement & its labour for bending & binding which will be paid separately this rate also i/c all kinds of formers mould lifting shuttering curing finishing the exposed surface i/c screened washing of single.	90	337.00	30,330.00	500	45,000	390	35,100	186	167,740	300	27,000	1,000	90,000	500	45,000
7	Cement plaster 1:6 upto 12'-0" height	90	2,206.60	1,985.94	50	4,500	25.50	2,295	45	4,050	40	3,600	95	8,550	50	4,500
8	Providing & laying 1" thick topping cement concrete (1:2:4) i/c surface finishing & dividing into panels.	35750	4,411.82	1,577,225.65	40	1,430,000	39	1,394,250	50	1,787,500	30	1,072,500	450	16,987,500	60	2,145,000
	TOTAL			1,694,292.38		1,707,650.00		1,529,421.00		2,044,979.00		1,213,118.00		17,410,215.00		2,356,330.00
	Corrected Amount:									1,894,219.00				16,510,215.00		

(Muhammad Riaz)
D.A.O.(E&M)-W KW&SB
Member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.2 (A)

E & M WORKS 45 MGD COD FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing, Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity Chlorinator floor mounted cabinet for capacity of 3000 PPD/60Kg/hr Wallace & Tiernan or equivalent (European / USA Brand) with all components, fittings and accessories in accordance with the Specification and approved make including dozing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chorine solution with suitable pipes with required valves fittings and accessories of suitable capacity including dismantling the existing damaged defective equipments and components if any, existing in all respects for a fully and efficiently operating chlorinator.	3	2,970,000	8,910,000	3,350,000	10,050,000	3,340,000	10,020,000	3,000,000	9,000,000	3,800,000	11,400,000	4,175,000	12,525,000	2,500,000	7,500,000
2	Providing injector assembly complete. (High capacity) (European / USA Brand)	3	528,000	1,584,000	600,000	1,800,000	546,000	1,638,000	528,000	1,584,000	700,000	2,100,000	825,000	2,475,000	500,000	1,500,000
3	Providing & fixing booster pumps with motor (European Brand) horizontal with complete fitting section 4" dia delivery 3" dia (30 HP).	3	2,500,000	7,500,000	175,000	525,000	1,200,000	3,600,000	1,800,000	5,400,000	460,000	1,380,000	1,582,000	4,746,000	1,500,000	4,500,000
4	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge	2	4,000	8,000	4,500	9,000	200,000	400,000	45,000	90,000	30,000	60,000	360,000	720,000	460,000	920,000

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5	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	1	265,000	265,000	300,000	300,000	1,000,000	1,000,000	275,000	275,000	1,200,000	1,200,000	1,031,000	1,031,000	500,000	500,000
6	Providing & Testing of Chlorine detector (European Brand)	1	175,000	175,000	200,000	200,000	500,000	500,000	750,000	750,000	950,000	950,000	650,000	650,000	470,000	470,000
7	Arrangement of Safety Mask / Equipment (gas mask / gloves / shoes)	4	15,500	62,000	15,000	60,000	8,750	35,000	25,000	100,000	12,000	48,000	376,000	1,504,000	240,000	960,000
8	Providing Rota Meter Assembly complete for Wallace & Tieman Chlorinator or equivalent (European / USA Brand)	2	365,000	730,000	200,000	400,000	419,000	838,000	200,000	400,000	400,000	800,000	495,000	990,000	500,000	1,000,000
9	Providing Chlorine Gas Cylinder Valve (heavy duty high pressure) special alloy of Phosphorus bronze as per specified sample (European Brand)	26	45,000	1,170,000	25,000	650,000	52,000	1,352,000	75,000	1,950,000	12,000	312,000	90,000	2,340,000	350,000	9,100,000
10	Providing, fixing, testing & commissioning of electricity operated hoist of 5 tons lifting capacity (European Brand) with all components, accessories and fittings for all electrical and mechanical components suitable for the site requirements, traveling on overhead gantry girder of 6"x4" size of required length to be provided and fixed on ceiling in place of existing equipment including dismantling the damaged or defective equipment and accessories if any complete in all respect as per specifications and site requirements.	1	7,750,000	7,750,000	7,000,000	7,000,000	3,700,000	3,700,000	1,600,000	1,600,000	4,600,000	4,600,000	1,100,000	1,100,000	3,000,000	3,000,000
11	Providing, fixing MS cylinder track with complete jobs etc as per site requirement.	2950.5	260	767,130	300	885,150	300	885,150	850	2,507,925	900	2,655,450	400	1,180,200	300	885,150
12	Providing, fixing MS I beam 300x125x12 MTR 16.5 KG per feet complete jobs etc as per site requirement (European Brand).	425	775	329,375	300	127,500	890	378,250	330	140,250	1,100	467,500	400	170,000	300	127,500
13	Providing, fixing M.S I beam 300x128x12 MTR 15.5 KG/feet complete jobs etc as per site requirement (European Brand).	215	775	166,625	300	64,500	890	191,350	350	75,250	1,300	279,500	400	86,000	300	64,500

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14	Providing and fixing Star / Delta Starter 40 HP 440 volts 3 Phase Complete job (Siemens / equivalent)	6	75,000	450,000	300,000	1,800,000	85,000	510,000	100,000	600,000	250,000	1,500,000	157,500	945,000	1,600,000	9,600,000
15	Providing & Laying 04 core cable 70 mm armored Pakistan cable or equivalent.	195	5,438	1,060,410	6,000	1,170,000	4,000	780,000	5,500	1,072,500	14,000	2,730,000	9,500	1,852,500	3,000	585,000
16	Providing & fixing circuit breaker 500 amp Terasaki Japan or equivalent	2	90,956	181,912	50,000	100,000	10,000	20,000	95,000	190,000	150,000	300,000	19,500	39,000	60,000	120,000
17	Providing & fixing circuit breaker 300 amp Terasaki Japan or equivalent	2	27,411	54,822	40,000	80,000	9,500	19,000	50,000	100,000	140,000	280,000	150,000	300,000	36,000	72,000
18	Providing & laying UPVC pressure pipe of class "D" fixing entrenches i/c cutting, fitting and jointing with "Z" joint with 01 rubber ring i/c testing with water to a head 122 meter or 400 ft 3" dia.	1685	137	230,845	100	168,500	300	505,500	360	606,600	800	1,348,000	550	926,750	225	379,125
19	Providing & laying UPVC pressure pipe of class "D" fixing entrenches i/c cutting, fitting and jointing with "Z" joint with 01 rubber ring i/c testing with water to a head 122 meter or 400 ft 4" dia.	895	226	202,270	200	179,000	900	805,500	575	514,625	850	760,750	850	760,750	400	358,000
20	Providing & fixing S.S Pipe ¾" dia (L-316) (European Brand).	95	625	59,375	500	47,500	718	68,210	380	36,100	2,000	190,000	1,190	113,050	800	76,000
21	Providing & fixing S.S Tee ¾" dia (L-316) (European Brand)	12	450	5,400	1,000	12,000	517	6,204	420	5,040	1,200	14,400	14,000	168,000	2,000	24,000
22	Providing & fixing S.S Elbow ¾" dia (L-316) (European Brand)	12	350	4,200	1,000	12,000	402	4,824	290	3,480	1,200	14,400	10,000	120,000	2,000	24,000
23	Providing & fixing S.S Cross Tee ¾" dia (L-316) (European Brand)	9	550	4,950	2,000	18,000	632	5,688	650	5,850	1,600	14,400	15,500	139,500	2,000	18,000
24	Providing & fixing S.S Union ¾" dia (L-316) (European Brand)	12	575	6,900	1,000	12,000	660	7,920	550	6,600	2,000	24,000	10,800	129,600	3,000	36,000
25	Providing & fixing S.S Valve ¾" dia (L-316) (European Brand)	12	1,250	15,000	1,500	18,000	1,450	17,400	1,500	18,000	6,000	72,000	16,000	192,000	5,000	60,000
26	Providing & fixing S.S Socket ¾" dia (L-316) (European Brand)	12	325	3,900	1,000	12,000	375	4,500	380	4,560	800	9,600	9,750	117,000	2,000	24,000
27	Providing & fixing S.S Barrel Nipple ¾" dia (L-316) (European Brand)	8	250	2,000	1,000	8,000	290	2,320	380	3,040	600	4,800	2,500	20,000	2,000	16,000
28	Providing & fixing S.S Dead Plug ¾" dia (L-316) (European Brand)	8	125	1,000	1,000	8,000	150	1,200	258	2,000	400	3,200	1,625	13,000	2,000	16,000

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29	Providing & fixing Gun Metal gate valve 2 1/2" dia Heavy duty (European Brand)	4	3,650	14,600	10,000	40,000	4,195	16,780	18,000	72,000	8,000	32,000	72,500	290,000	10,000	40,000
30	Providing & fixing Gun Metal gate valve 3" dia Heavy duty (European Brand)	3	4,200	12,600	10,000	30,000	4,800	14,400	28,000	84,000	11,000	33,000	95,000	285,000	10,000	30,000
31	Providing & fixing Gun Metal gate valve 4" dia Heavy duty (European Brand)	3	6,500	19,500	10,000	30,000	7,500	22,500	35,000	105,000	15,000	45,000	129,000	387,000	12,000	36,000
32	Providing & fixing foot valve 3" dia heavy pattern with cone type (European Brand) material should be S.S	4	8,500	34,000	10,000	40,000	9,000	36,000	45,000	180,000	15,000	60,000	10,000	40,000	5,000	20,000
33	Providing & fixing foot valve 4" dia heavy pattern with cone type (European Brand) material should be S.S	4	12,500	50,000	10,000	40,000	7,000	28,000	60,000	240,000	16,000	64,000	15,000	60,000	8,000	32,000
TOTAL				31,830,814		25,896,950		27,413,696		27,721,820		33,687,200		36,415,350		42,093,275
Corrected Amount :				-		25,896,150		-		27,721,884		33,752,000		-		-

(Muhammad Riaz)
J.A.O.(E&M)-W.KW&SB
Member

(Abdul Razak Magasi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.2 (B)

CIVIL WORKS 45 MGD COD FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Excavation for foundation of building bridges & others structure i/c dag belling, dressing, refilling around structure with excavated earth water 7 ramming lead upto 5'-0" ft.	384	3,554.00	1,364.74	25	9,600	4.50	1,728	10	3,840	12	4,608	35	13,440	25	9,600
2	Cement concrete bricks or stone ballast ½" to 2" gauge 1:4:8	48	9,416.28	4,519.81	200	9,600	110	5,280	108	4,944	200	9,600	350	16,800	200	9,600
3	Cement concrete plain i/c placing compacting finishing & curing compacting i/c screening & washing at stone aggregate with out shuttering.	189	14,429.25	27,271.28	300	56,700	165	31,185	150	28,350	240	45,360	1,000	189,000	300	56,700
4	Fabrication of mild steel reinforcement C.C. i/c curing bending laying in position making joints & testing i/c cost of binding wire.	9.19	5,001.70	45,965.62	15,000	137,850	5,700	52,383	4,500	41,355	5,000	45,950	7,500	68,925	7,000	64,330
5	Erection & removal of centering for RCC or plain cement concrete work of deodar wood.	180	3,127.41	5,629.34	80	14,400	40	7,200	40	7,200	25	4,500	200	36,000	120	21,600
6	Reinforcement cement concrete works i/c all labour & material except the cost of steel reinforcement & its labour for bending & binding which will be paid separately this rate also i/c all kinds of formers mould lifting shuttering curing finishing the exposed surface i/c screened washing of single.	90	337.00	30,330.00	500	45,000	390	35,100	186	16,740	300	27,000	1,000	90,000	500	45,000
7	Cement plaster 1:6 upto 12'-0" height	90	2,206.60	1,985.94	50	4,500	25.50	2,295	45	4,050	40	3,600	95	8,550	50	4,500
8	Providing & laying 1" thick topping cement concrete (1:2:4) i/c surface finishing & dividing into panels.	35750	4,411.82	1,577,225.65	40	1,430,000	39	1,394,250	50	1,787,500	30	1,072,500	450	16,087,500	60	2,145,000
	TOTAL			1,694,292.38		1,707,650.00		1,529,421.00		1,893,979.00		1,213,118.00		16,510,215.00		2,356,330.00
	Corrected Amount									1,894,219.00						

(Muhammad Riaz)
D.A.O.(E&M)-W KW&SB
Member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT: PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.3 (A)

E & M WORKS NORTH EAST KARACHI-II

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	P/F testing and commissioning of vacuum gas control manual adjustable capacity, Chlorinator floor mounted cabinet for capacity of 3000 PPD/60Kg/hr Wallace & Tiernan or equivalent (European / USA Brand) with all components, fittings and accessories in accordance with the Specification and approved make including dosing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chlorine solution with suitable pipes with required valves fittings and accessories of suitable capacity i/c dismantling the existing damaged defective equipments and components if any, existing in all respects for a fully and efficiently operating chlorinator.	4	2,970,000	11,880,000	3,350,000	13,400,000	3,340,000	13,360,000	3,000,000	12,000,000	3,800,000	15,200,000	4,175,000	16,700,000	2,500,000	10,000,000
2	Providing & fixing Demountable Injector Comprising a Pvcu with nozzle and tailway and throat combination, Housing with 3" PN 16 flanged connections, 1" vacuum connection, reflux valve assembly, capacity 60kg /hr.	8	528,000	4,224,000	600,000	4,800,000	546,000	4,368,000	400,000	3,200,000	700,000	5,600,000	825,000	6,600,000	500,000	4,000,000
3	Providing Rota Meter Assembly complete for Wallace & Tiernan Chlorinator or equivalent (European / USA Brand)	4	365,000	1,460,000	200,000	800,000	419,000	1,676,000	200,000	800,000	400,000	1,600,000	495,000	1,980,000	500,000	2,000,000

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4	Providing and fixing Diaphragm kit 2" operative vacume pressure injected chlorine 60kg/hr as per sample for Wallace & Tiernan Chlorinator or equivalent (European/USA Brand)	10	195,000	1,950,000	50,000	500,000	82,000	820,000	100,000	1,000,000	70,000	700,000	150,000	1,500,000	400,000	4,000,000
5	P/F of Evaporator 60 Kg/ hr. Heater Circuit. Power : 415 Vic, 50 Hz, 3 Phase, Control Circuit Power: 240 Vic, 50 Hz, 1 Phase, bath Electrically Jested Water, Water Level Control Automatic, Low Water level Cutoff Switch included, Protection: NEMA 4X, ASME approved Chamber: "L" Certified Vaporizing Chamber, Front Panel Mounted instrument panel Consisting at Gas pressure gauge: 0--300 psi (0--2000kPa), Gas Temperature gauge: 32--312 <f(0--100<C), Water Level Sight Gauge, NEMA: 4X, digital Electronic Water as per site Requirement.	1	10,400,000	10,400,000	6,500,000	6,500,000	3,500,000	3,500,000	9,500,000	9,500,000	12,500,000	12,500,000	25,946,500	25,946,500	10,000,000	10,000,000
6	Providing and Fixing Chlorine booster pump with motor 10HP (European Brand) with all allied accessories Suction Delivery 2*1/2 X 2 and all relevant operating electrical accessories Q = 52 m3/hr, H=52m ; Speed 2955 rpm; Motor 15kw, Full Load Current: 27A	5	150,000	750,000	175,000	875,000	1,200,000	6,000,000	1,600,000	8,000,000	300,000	1,500,000	1,582,000	7,910,000	1,500,000	7,500,000
7	C.I Sluice valve heavy pattern test pressure 21.0kg/sq cm or 300 LB/Sq inch (European Brand) For booster room.															
(i)	4" dia	16	5,460	87,360	20,000	320,000	6,000	96,000	60,000	960,000	15,000	240,000	65,000	1,040,000	15,000	240,000
(ii)	6" dia	4	9,360	37,440	35,000	140,000	11,000	44,000	80,000	320,000	25,000	100,000	117,500	470,000	35,000	140,000
8	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge (European Brand)	18	4,000	72,000	4,500	81,000	200,000	3,600,000	45,000	810,000	20,000	360,000	360,000	6,480,000	450,000	8,100,000
9	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	5	265,000	1,325,000	300,000	1,500,000	1,000,000	5,000,000	275,000	1,375,000	1,200,000	6,000,000	1,031,000	5,155,000	500,000	2,500,000

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10	Providing & Testing of Chlorine detector (European Brand)	4	175,000	700,000	200,000	800,000	500,000	2,000,000	750,000	3,000,000	950,000	3,800,000	650,000	2,600,000	350,000	1,400,000
11	Arrangement of Safety Mask / Equipment (Gas Mask / Gloves / Shoes)	8	15,500	124,000	15,000	120,000	8,750	70,000	25,000	200,000	8,000	64,000	376,000	3,008,000	200,000	1,600,000
12	Providing Copper Tube 10 mm dia (European Brand), weight at means 31/2 Kg each tube 6ft long including cutting folding polishing machining with brass cap nut 1 inch dia.	200	3,000	600,000	2,000	400,000	2,500	500,000	24,000	4,800,000	8,000	1,600,000	7,000	1,400,000	2,000	400,000
13	Providing and fixing NGO Valve Gun Metal with washer as per sample 1" dia (European Brand)	50	8,000	400,000	5,000	250,000	6,000	300,000	6,500	3,250,000	8,000	400,000	35,000	1,750,000	5,000	250,000
14	Providing and laying uper pipe of class "E" fixing in inches i/c cutting fitting and jointing with solvent cement i/c testing with water to a head of 122 meter ot 400ft CIVIC uPVC SCH 80 from evaporator room to chlorinator															
(i)	3" dia (For Injector)	100	551	55,100	300	30,000	650	65,000	650	65,000	900	90,000	550	55,000	300	30,000
(ii)	4" dia (From Chlorinator room to Distribution chamber) for pree/ post line	1641	850	1,394,850	300	492,300	900	1,476,900	950	1,558,950	1,200	1,969,200	850	1,394,850	450	738,450
(iii)	6" dia (Chlorine Booster pump to chlorinator room).	1500	1,700	2,550,000	500	750,000	1,700	2,550,000	1,850	2,775,000	1,400	2,100,000	1,950	2,925,000	1,000	1,500,000
15	Cast Iron special for uPVC SCH-80 pressure pipes standard weight for Acil "E" Class.															
(i)	TEE unequal 6" * 4" dia (basic rate 14/6) (For fresh water at chlorinator)	50	1,375	68,750	10,000	500,000	1,580	79,000	2,700	135,000	4,000	200,000	55,000	2,750,000	5,000	250,000
(ii)	Reducer 6" * 4" dia (Basic rate 14/11) (Forbooster pump side)	30	1,320	39,600	8,000	240,000	1,550	46,500	450	13,500	3,000	90,000	45,000	1,350,000	5,000	150,000
(iii)	Reduce 4" * 3 " dia (Basic rate) (For Injector side)	35	1,130	39,550	2,000	70,000	1,500	52,500	305	10,500	2,500	87,500	4,000	140,000	5,000	175,000
16	Pvc z Joint fitting															
(i)	2 Pvc Tee 4" dia	12	1,181	14,172	2,000	24,000	1,350	16,200	1,950	23,400	4,000	48,000	5,000	60,000	2,000	24,000
(ii)	2 Socket 4" dia	48	1,913	91,824	2,500	120,000	2,200	105,600	500	24,000	2,000	96,000	4,000	192,000	2,000	96,000
(iii)	4 Socket 6" dia	18	1,913	34,434	5,000	90,000	200	3,600	2,000	36,000	3,000	54,000	8,000	144,000	2,000	36,000
(iv)	2 Bend 4"	54	956	51,624	500	27,000	1,100	59,400	1,000	54,000	4,000	216,000	5,000	270,000	2,000	108,000
(v)	Basic Rate 18/ 4 6" dia	20	1,800	36,000	5,000	100,000	2,100	42,000	4,000	80,000	4,000	80,000	6,000	120,000	2,000	40,000

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17	Providing and Fixing sampling pumps of Type RG-250, V=400, Ph=3, Hz=50, R.P.M=2800, Motor To BS5000, Duty Heade=18m @ 2L/min, Duty Head 2m @ 291/min, Head Max 19.5 meters or equivalent pump for water sampling to laboratory for water analysis	6	600,000	3,600,000	500,000	3,000,000	115,000	690,000	1,500,000	9,000,000	200,000	1,200,000	582,000	3,492,000	300,000	1,800,000
18	Lifting arrangements for handling chlorine cylinder i.e fork lifter & O/H Gantry Crane	1	7,750,000	7,750,000	7,000,000	7,000,000	2,670,000	2,670,000	2,400,000	24,000,000	3,600,000	3,600,000	150,000	150,000	100,000	100,000
19	Providing & Fixing of Street Lights 100 watts (LED) Having IP66 Classification with Internal wiring complete in all respect at the Height with the help of Hydraulic Crane as per site requirement (for Chlorine section & surrounding area).	27	26,330	710,910	15,000	405,000	29,000	783,000	45,000	1,215,000	25,000	675,000	225,000	6,075,000	120,000	3,240,000
20	Providing and Laying (Main or Sub Man) Pvc Insulated and PVC Sheated with 4 Core Copper Conductor 600/1000 volts size 16mm ² . Pakistan Cable/equivalent (For Chlorine Section surrounding area).	218	1,300	283,400	1,000	218,000	1,500	327,000	7,950	1,733,100	12,000	2,616,000	5,000	1,090,000	1,200	261,600
21	Dewatering pump/ submersible (stainless Steel) 6.5Hp/5kw Delivery 3" dia (For chlorine section)	6	54,500	327,000	150,000	900,000	100,000	600,000	375,000	2,250,000	200,000	1,200,000	300,000	1,800,000	200,000	1,200,000
22	Canvise pipe 3" dia (For Chlorine Section)	300.5	61.22	18,397	300	90,150	200	60,100	250	75,125	200	90,300.25	2,500	751,250	100	30,050
23	Clamp for joint clamp 3" dia.	20	360	7,200	1,000	20,000	300	6,000	2,500	50,000	400	8,000	850	17,000	200	4,000
24	Contactore Lc1- D 32-10 (For chlorine Pannel)	20	6,700	134,000	1,000	20,000	7,200	144,000	9,500	190,000	9,000	180,000	2,500	50,000	20,000	400,000
25	Contactore Lc1- D 18-10 (For chlorine Panel)	20	7,400	148,000	1,000	20,000	7,500	150,000	4,800	96,000	9,000	180,000	2,000	40,000	20,000	400,000
26	P/F exhaust fan (duct type) 1.37 KW 3phase 18" dia	20	15,600	312,000	15,000	300,000	17,000	340,000	35,000	700,000	12,000	240,000	150,000	3,000,000	5,000	100,000
27	Providing Chlorine Gas Cylinder Valve (Heavy Duty High Pressure) special alloy of Phosphorus bronze as per specified sample (European Brand).	12	45,000	540,000	25,000	300,000	52,000	624,000	75,000	900,000	9,000	108,000	90,000	1,080,000	350,000	4,200,000

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28	P/Laying stainless steel pipe 1" dia fixing in trenches w/c cutting fitting and jointing with their allied accessories, Complete etc 1" dia from drum room to evaporator room	260	665	172,900	2,500	650,000	800	208,000	1,650	429,000	1,500	390,000	1,450	377,000	1,500	390,000
29	Providing non return valve 4" dia for chlorine	12	12,000	144,000	30,000	360,000	14,000	168,000	20,000	240,000	9,000	108,000	65,000	780,000	5,000	60,000
30	P/F Brass Bracket Fan 18" dia (Copper Winding) Good Quality for Chlorine Section	10	5,000	50,000	20,000	200,000	5,600	56,000	35,000	350,000	9,000	90,000	25,000	250,000	5,000	50,000
TOTAL				52,583,511		46,412,450		52,656,800		95,218,575		59,980,000		110,892,600		67,513,100
Corrected Amount :						-		-		70,693,750		65,380,000		-		-

(Muhammad Riaz)
D.A.O.(E&M)-W.KW&SB
Member

(Abdul Razzak Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.3 (B)

CIVIL WORKS NORTH EAST KARACHI-II

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Scraping ordinary distemper io/bound distemper or paint on wall.	200035	226.88	453,839.41	6	1,200,210	2.60	520,091	3	600,105	2	400,070	15	3,000,525	10	2,000,350
2	Distemping (Three Coats).	200035	1,079.65	2,159,677.88	15	3,000,525	12	2,400,420	25	5,000,875	12	2,400,420	50	10,001,750	30	6,001,050
3	Providing and fixing in position Door & Window and ventilators of First class deodar wood from and 3/4" thick commercial play veneer shutters of First class deodar Skelton (Hollow) and commercial ply wood (3 ply) on both side.	1116.5	1,227.36	1,370,347.44	400	446,600	1,400	1,563,100	600	669,900	400	446,600	3,500	3,907,750	2,000	2,233,000
4	Glazing with panes (16 oz to 18 oz) using deodar wooden Fillets and putty.	1227.5	163.90	201,187.25	500	613,750	200	245,500	500	613,750	350	429,625	125	153,438	300	368,250
5	Scraping, brushing & removing old paint from metal surface.	45,003.81	605.00	272,273.05	5	225,019	7	315,026.67	5	225,019	20	900,076.20	15	675,057	10	450,038
6	Painting doors and windows two coats with primer coat	56320.31	1,160.06	653,349.39	30	1,689,609	13	732,164.03	30	1,689,609	26	1,464,328.06	50	2,816,016	25	1,408,008
7	Providing and fixing bitumen felt paper of 60 lbs over roof i/c cleaning of roof with wire brush and removing dust applying bitumen coat at the rate of 34 lbs per %sft as premix inter coats and then laying felt paper with 10% over laps then applying and spreading hill sand @ of 1cft for 100 sft. The cost also i/c necessary fire material, kerosene oil, wood etc.	21726.46	54.70	1,188,437.36	120	2,607,175	60	1,303,587.60	40	869,058	60	1,303,587.60	100	2,172,646	100	2,172,646
8	Providing and laying 1:3:6 cement concrete solid black masonry wall 6"and below in thickness set in 1:6 cement motor in ground floor super structure including raking out joints & curing etc.	36.41	15,771.01	5,742.22	350	12,744	150	5,461.50	300	10,923	90	3,276.90	425	15,474	300	10,923

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9	Cement Plaster 1:4 upto 12' height ½" thick.	135.62	2,283.93	3,097.47	350	47,467	25	3,390.50	45	6,103	90	12,205.80	75	10,172	50	6,781
10	1:2:4 Precast reinforced cement concrete in columns beams, intels cases, shelves etc	17.2	309.78	5,328.22	600	10,320	4	68.80	200	3,440	300	5,160	1,200	20,640	500	8,600
11	Providing and laying glazed Tiles 6"x6" x ¼" on floor or wall facing in required colour and pattern of STILE specification jointed in white cement and pigment over a base of 1:2 grey cement mortar ¾" thick including washing and filling or joints with slurry of white cement and pigment in desired shape with finishing, clearing and cost of wax polish etc. complete including cutting titles to proper profile.	1053.5	309.78	326,353.23	800	842,800	4	4,214	200	210,700	200	210,700	250	263,375	400	421,400
12	Providing & fixing 22"x 16" lavatory basin in white glazed earthen ware complete with & 1/c the cost of W.1 or C.I captilever brackets 6 inches built into walls, painted white in 2 coats after a primary coat of red lead paint, a pair of 1/2" rubber plug & chrome brass waste of approved pattern 1-1/4" dia malleable ironor c.p. bajrass taps, malleable iron or brass unions and making requisite number of holes in walls plinth and floor for pipe connection & making food in cement concrete 1:2:4 (Foreign or Equivalent).	5	6,237.00	31,185.00	200,000	1,000,000	7,500	37,500	6,000	30,000	8,000	40,000	25,000	125,000	8,000	40,000
13	Making and fixing deodar wood shelves including brackets 1"thick	576	443.71	255,576.96	500	288,000	550	316,800	300	172,800	400	230,400	1,200	691,200	700	403,200
14	Supplying Mixing Wash Basin Mixture of Each superior quality with C.P. head 1/2" dia.	5	3,179.00	15,895.00	40,000	200,000	3,600	18,000	5,000	25,000	1,800	9,000	15,000	75,000	4,500	22,500
15	Supplying & Fixing in position aluminum channel framing for hinged doors of Alcop made with 5 mm thick tinted glass glazing (Belgium) and Alpha (Japan) locks i/c handles, support, etc. Delux Model white	168	1,450.70	243,717.60	1,000	168,000	1,600	268,800	700	117,600	600	100,800	1,450	243,600	2,300	386,400

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16	Supplying & Fixing in position aluminum channel framing for sliding windows and ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) and Aluminum fly screen i/c handles, stoppers, & locking arrangement etc. complete Delux Model (white)	672	1,592.69	1,070,287.68	800	537,600	1,800	1,209,600	700	470,400	400	268,800	1,000	672,000	2,500	1,680,000
17	1st class teak wrought joinery in wire gauze doors, windows with frames & 22 standard galvanized wire gauze 144 mesh pre square inch including brass fittings complete. Galvanized wire gauze fixed with 1/2 inch strips on a separate 2"x2" teak wood frame for windows.	690	942.44	650,283.60	300	207,000	1,100	759,000	800	552,000	1,200	828,000	150	103,500	2,000	1,380,000
18	Rubbing and polishing old mosaic floor	7220	1,228.92	88,728.02	250	1,805,000	14	101,080	30	216,600	12	86,640	50	361,000	30	216,600
19	Painting old surface Painting Guard bars, gated, iron bars, gratings, railings including standard braces (etc). and similar open work. First Coat + Each Subsequent Coats.	8522	977.40	83,294.03	60	511,320	11	93,742	25	213,050	25	255,660	200	1,704,400	30	255,660
20	Supplying & Fixing windows printed blinds (Horizontal / Vertical) with plain design and of approved color including fixing in windows with necessary accessories.	330	91.11	30,066.30	300	99,000	100	33,000	120	39,600	150	49,500	250	82,500	300	99,000
21	Supplying & Fixing False ceiling of plaster of Paris in panels including making frame, work of Deodar wood including painting with Soligian paint.	750	25,293.42	189,700.65	1,700	1,275,000	150	112,500	250	187,500	80	60,000	200	150,000	225	168,750
22	Providing & Laying uPVC pipes of class 'D' fixing in trnch including cutting fitting and jointing with solvent cement i/c testing with water to a head of 122 meter or 400 ft.															
(i)	4" Dia	200	226.00	45,200.00	500	100,000	300	60,000	430	86,000	500	100,000	850	170,000	400	80,000
(ii)	3" Dia	100	136.00	13,600.00	450	45,000	200	20,000	300	30,000	450	45,000	550	55,000	225	22,500
(iii)	2" Dia	300	65.00	19,500.00	400	120,000	75	22,500	160	48,000	200	60,000	450	135,000	150	45,000

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23	Excavation for pipe line in trenches and pits in all kind of soil of morum i/c trimming and dressing sides to true alignment & shape levelling of beds of trenches to correct level and grade, cutting joint holes and disposal of surplus earth with in a one chain as directed by Engineer Incharge. Providing fence quards, lights, flags and temporary crossing for non -vehicular traffic where ever required lift upto 5 ft. (1.52m) and lead upto one chain (30.5m).	4500	4,650.00	20,925.00	30	135,000	54	243,000	10	45,000	60	270,000	35	157,500	12	54,000
TOTAL				9,397,592.75		17,187,139.05		10,388,546.10		12,133,032.65		9,979,849.56		27,762,541.90		19,934,655.85
Corrected Amount :						-		-		-		9,937,239.56		-		-

(Muhammad Riaz)
U.A.O.(E&M)-VY KW&SB
Member

(Abdul Razzak Nagasi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO, HUB

BILL NO.4

E&M WORKS NORTH EAST KARACHI- OLD

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing, Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity, Chlorinator floor mounted cabinet for capacity of 3000 PPD/60Kg/hr Wallace & Tiernan or equivalent (European / USA Brand) with all components, fittings and accessories in accordance with the Specification and approved make including dosing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chorine solution with suitable pipes with required valves fittings and accessories of suitable capacity including dismantling the existing damaged defective equipments and components if any, existing in all respects for a fully and efficiently operating chlorinator.	6	2,970,000	17,820,000	3,350,000	20,100,000	3,340,000	20,040,000	3,000,000	18,000,000	3,800,000	22,800,000	4,175,000	25,050,000	2,500,000	15,000,000
2	Providing injector assembly complete. (High capacity) (European / USA Brand)	4	528,000	2,112,000	600,000	2,400,000	546,000	2,184,000	528,000	2,112,000	700,000	2,800,000	825,000	3,300,000	500,000	2,000,000
3	Providing and Fixing high pressure horizontal boosting pump with Motor European made i/c base foundation with all accessories as per instruction of Engineer incharge.	6	150,000	900,000	175,000	1,050,000	1,200,000	7,200,000	1,800,000	10,800,000	300,000	1,800,000	1,582,000	9,492,000	1,200,000	7,200,000
4	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge (European Brand)	6	4,000	24,000	4,500	27,000	200,000	1,200,000	45,000	270,000	20,000	120,000	360,000	2,160,000	450,000	2,700,000

[Handwritten signatures and initials are present below the table]

5	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	3	265,000	795,000	300,000	900,000	1,000,000	3,000,000	275,000	825,000	1,200,000	3,600,000	1,031,000	3,093,000	500,000	1,500,000
6	Providing & Testing of Chlorine detector (European Brand)	4	175,000	700,000	200,000	800,000	500,000	2,000,000	750,000	3,000,000	950,000	3,800,000	650,000	2,600,000	500,000	2,000,000
7	Arrangement of Safety Mask / Equipment (gas mask / gloves / shoes)	4	15,500	62,000	15,000	60,000	8,750	35,000	25,000	100,000	8,000	32,000	376,000	1,504,000	300,000	1,200,000
8	Providing, fixing, testing & commissioning of electricity operated hoist (European Brand) of 5 tons lifting capacity with all components, accessories and fittings for all electrical and mechanical components suitable for the site requirements, traveling on overhead gantry girder of 6"x4" size of required length to be provided and fixed on ceiling in place of existing equipment including dismantling the damaged or defective equipment and accessories if any complete in all respect as per specifications and site requirements.	2	7,750,000	15,500,000	7,000,000	14,000,000	3,700,000	7,400,000	1,600,000	3,200,000	3,000,000	6,000,000	1,100,000	2,200,000	3,000,000	6,000,000
9	Providing / fixing of Sampling pumps with complete pipe fittings	3	600,000	1,800,000	500,000	1,500,000	95,000	285,000	1,200,000	3,600,000	200,000	600,000	585,000	1,755,000	300,000	900,000
10	Providing Rota Meter Assembly complete for Wallace & Tiernan Chlorinator or equivalent (European / USA Brand)	2	365,000	730,000	200,000	400,000	419,000	838,000	200,000	400,000	400,000	800,000	495,000	990,000	500,000	1,000,000
11	Providing Diaphragm kit for Wallace & Tiernan Chlorinator or equivalent (European / USA Brand)	3	195,000	585,000	50,000	150,000	82,000	246,000	100,000	300,000	70,000	210,000	750,000	2,250,000	400,000	1,200,000
12	Providing and fixing Star / Delta Starter 30 HP 440 volts. (European / USA Brand)	2	52,000	104,000	300,000	600,000	65,000	130,000	100,000	200,000	60,000	120,000	150,000	300,000	1,600,000	3,200,000
13	Providing Chlorine Gas Cylinder Valve (heavy duty high pressure) special alloy of Phosphorus bronze as per specified sample (European Brand).	2	45,000	90,000	25,000	50,000	52,000	104,000	75,000	150,000	9,000	18,000	950,000	1,900,000	350,000	700,000

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14	Providing Copper Tube 10 mm dia (European Brand), weight at means 3½ kg each tube 6 ft long including cutting folding polishing , machining with brass cap nut 1" Ø.	36	1,000	36,000	2,000	72,000	1,000	36,000	6,500	234,000	8,000	288,000	7,000	252,000	2,000	72,000
15	Providing Sluice valve heavy pattern 4" dia (Test Pressure 21.0 kg/Sq.cm or 300 lb/sq inch (European Brand)	6	4,500	27,000	10,000	60,000	5,000	30,000	40,000	240,000	15,000	90,000	65,000	390,000	20,000	120,000
16	Providing Fixing 4"Ø G.I Pipes special and clamps etc i/c fixing, cutting & fitting complete with and i/c the cost of breaking through walls and roof, making good etc. Painting two coats after cleaning the pipe etc with white zinc paint with pigment to match the colors of the building and testing with water to a pressure head of 200 feet and handling.	250	860	215,000	500	125,000	1,100	275,000	950	237,500	1,500	375,000	1,000	250,000	900	225,000
17	Providing & fixing 4"Ø UPVC conduit pipe of class 'D' fixing in trench i/c cutting , fitting and jointing with solvent cement i/c testing with water to a head 122 meter or 400 ft for Pre Post Chlorine Line.	1100	741	815,100	200	220,000	800	880,000	575	632,500	1,200	1,320,000	850	935,000	400	440,000
18	Renovation of Chlorination room and allied civil works as per requirement of site.	1	3,500,000	3,500,000	4,800,000	4,800,000	4,000,000	4,000,000	450,000	450,000	600,000	600,000	2,500,000	2,500,000	500,000	500,000
TOTAL				45,815,100		47,314,000		49,883,000		44,751,000		45,373,000		60,921,000		45,957,000
Corrected Amount																

(Muhammad Riaz)
U.A.O.(E&P) KW&SB
Member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.5 (A)

E&M WORKS OLD FILTER PLANT PIPRI

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing, Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity, Chlorinator floor mounted cabinet, for capacity of 2000 PPD/40Kg/hr Wallace & Tieman or equivalent (European / USA Brand) with all components, fittings and accessories in accordance with the Specification and approved make including dozing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chorine solution with suitable pipes with required valves fittings and accessories of suitable capacity including dismantling the existing damaged defective equipments and components if any, existing in all respects for a fully and efficiently operating chlorinator.	3	2,970,000	8,910,000	3,350,000	10,050,000	3,340,000	10,020,000	2,600,000	7,800,000	3,800,000	11,400,000	4,175,000	12,525,000	1,800,000	5,400,000
2	Providing injector assembly complete. (High capacity) (European / USA Brand)	6	528,000	3,168,000	600,000	3,600,000	546,000	3,276,000	328,000	1,968,000	700,000	4,200,000	825,000	4,950,000	300,000	1,800,000
3	Providing and Fixing high pressure vertical in line pump type movitech VF 015/05/1D13ESO5525 DW+5.5 W / 2 Pole Motor European made pump i/c base foundation with all accessories as per instruction of Engineer Incharge.	2	2,500,000	5,000,000	250,000	500,000	2,875,000	5,750,000	1,800,000	3,600,000	400,000	800,000	675,000	1,350,000	1,500,000	3,000,000

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4	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge (European Brand)	2	4,000	8,000	4,500	9,000	200,000	400,000	45,000	90,000	30,000	60,000	360,000	720,000	300,000	600,000
5	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	3	265,000	795,000	300,000	900,000	1,000,000	3,000,000	275,000	825,000	1,300,000	3,900,000	1,031,000	3,093,000	400,000	1,200,000
6	Providing & Testing of Chlorine detector (European Brand)	4	175,000	700,000	200,000	800,000	500,000	2,000,000	750,000	3,000,000	1,200,000	4,800,000	650,000	2,600,000	350,000	1,400,000
7	Arrangement of Safety Mask / Equipment (gas mask / gloves / shoes)	4	15,500	62,000	15,000	60,000	8,750	35,000	25,000	100,000	10,000	40,000	376,000	1,504,000	300,000	1,200,000
8	Providing, fixing, testing & commissioning of electricity operated hoist (European Brand) of 5 tons lifting capacity with all components, accessories and fittings for all electrical and mechanical components suitable for the site requirements, traveling on overhead gantry girder of 6"x4" size of required length to be provided and fixed on ceiling in place of existing equipment including dismantling the damaged or defective equipment and accessories if any complete in all respect as per specifications and site requirements.	1	7,750,000	7,750,000	7,000,000	7,000,000	3,700,000	3,700,000	1,600,000	1,600,000	4,500,000	4,500,000	1,100,000	1,100,000	3,000,000	3,000,000
9	Providing / fixing of Sampling pumps with complete pipe fittings	2	600,000	1,200,000	500,000	1,000,000	95,000	190,000	1,200,000	2,400,000	250,000	500,000	585,000	1,170,000	200,000	400,000
10	Providing Rota Meter Assembly complete for Wallace & Tiernan Chlorinator or equivalent (European / USA Brand)	2	365,000	730,000	200,000	400,000	419,000	838,000	200,000	400,000	425,000	850,000	495,000	990,000	400,000	800,000
11	Providing Diaphragm kit for Wallace & Tiernan Chlorinator or equivalent. (European / USA Brand)	4	195,000	780,000	50,000	200,000	82,000	328,000	100,000	400,000	70,000	280,000	750,000	3,000,000	300,000	1,200,000
12	Providing and fixing Star / Delta Starter 30 HP 440 volts (European / USA Brand)	2	52,000	104,000	300,000	600,000	65,000	130,000	100,000	200,000	150,000	300,000	150,000	300,000	1,400,000	2,800,000
13	Providing Chlorine Gas Cylinder Valve (heavy duty high pressure) special alloy of Phosphorus bronze as per specified sample (European Brand).	6	45,000	270,000	25,000	150,000	52,000	312,000	75,000	450,000	12,000	72,000	950,000	5,700,000	150,000	900,000

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14	Providing Copper Tube 10 mm dia, (European Brand) weight at means 3½ kg each tube 6' long including cutting folding polishing , machining with brass cap nut 1" Ø.	72	1,000	72,000	2,000	144,000	1,000	72,000	5,500	396,000	9,000	648,000	7,000	504,000	2,000	144,000
15	Providing Sluice valve heavy pattern 4" dia (Test Pressure 21.0 kg/Sq.cm or 300 lb/sq inch) (European Brand)	6	4,500	27,000	10,000	60,000	5,000	30,000	60,000	360,000	25,000	150,000	65,000	390,000	20,000	120,000
16	Providing Fixing 4"Ø G.I Pipes special and clamps etc i/c fixing, cutting & fitting complete with and i/c the cost of breaking through walls and roof, making good etc. Painting two coats after cleaning the pipe etc with white zinc paint with pigment to match the colors of the building and testing with water to a pressure head of 200 feet and handling.	250	860	215,000	500	125,000	1,100	275,000	950	237,500	1,600	400,000	1,000	250,000	900	225,000
17	Providing & fixing 4"Ø UPVC conduit pipe of class 'D' fixing in trench i/c cutting , fitting and jointing with solvent cement i/c testing with water to a head 122 meter or 400 ft for Pre Post Chlorine Line.	2000	741	1,482,000	390	780,000	800	1,600,000	575	1,150,000	3,000	600,000	850	1,700,000	400	800,000
18	Electrification of Chlorination room	1	45,000	45,000	600,000	600,000	52,000	52,000	750,000	750,000	900,000	900,000	650,000	650,000	100,000	100,000
19	Providing Fixing of Electrical Panel to operate Chlorine feed water pumps individually for 5.5 KW Pumps sets complete	1	1,560,000	1,560,000	200,000	200,000	225,000	225,000	100,000	100,000	600,000	600,000	750,000	750,000	500,000	500,000
20	Providing laying of 50mm, 4 Core PVC Cable including jointing and termination (Pakistan cable or equivalent)	35	6,200	217,000	3,000	105,000	4,500	157,500	3,200	112,000	18,000	630,000	4,900	171,500	5,000	175,000
TOTAL				33,095,000		27,283,000		32,390,500		25,938,500		35,630,000		43,417,500		25,764,000
Corrected Amount :												41,030,000				

(Muhammad Riaz)
U.A.U.(COD) KW&SB
member

(Abdul Razzak Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.5 (B)

CIVIL WORKS OLD FILTER PLANT PIPRI

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	R/M of Post and Pre Chlorination rooms size 35'x30'=1050 Sft at Old Filter Pipri. 1050+1050= 2100 Sft as per site requirement	2100	1,500	3,150,000	150	315,000	1,200	2,520,000	600	1,260,000	120	252,000	500	1,050,000	500	1,050,000
	TOTAL			3,150,000		315,000		2,520,000		1,260,000		252,000		1,050,000		1,050,000

(Muhammad Riaz)
U.A.O.(E&M)-W & SB
Member

(Abdul Razzak Maqsood)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.6

E&M WORKS JBIC FILTER PLANT PIPRI

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing, Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity Chlorinator floor mounted cabinet, Wallace & Tiernan or equivalent (European / USA Brand) for capacity of 2000 PPD/40Kg/hr with all components, fittings and accessories in accordance with the Specification and approved make including dozing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chorine solution with suitable pipes with required valves fittings and accessories of suitable capacity including dismantling the existing damaged defective equipments and components if any, existing in all respects for a fully and efficiently operating chlorinator.	5	2,970,000	14,850,000	3,350,000	16,750,000	3,340,000	16,700,000	2,400,000	12,000,000	3,800,000	19,000,000	4,175,000	20,875,000	1,800,000	9,000,000
2	Providing injector assembly complete. (High capacity) (European / USA Brand)	5	528,000	2,640,000	600,000	3,000,000	546,000	2,730,000	328,000	1,640,000	700,000	3,500,000	825,000	4,125,000	300,000	1,500,000
3	Providing and Fixing booster Pump vertical with motor (European Brand) i/c base foundation with all accessories as per instruction of Engineer In charge.	3	2,500,000	7,500,000	250,000	750,000	2,875,000	8,625,000	1,800,000	5,400,000	400,000	1,200,000	1,582,000	4,746,000	2,500,000	7,500,000

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4	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge (European Brand)	2	4,000	8,000	4,500	9,000	200,000	400,000	45,000	90,000	30,000	60,000	360,000	720,000	300,000	600,000
5	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	3	265,000	795,000	300,000	900,000	1,000,000	3,000,000	275,000	825,000	1,300,000	3,900,000	1,031,000	3,093,000	400,000	1,200,000
6	Providing & Testing of Chlorine detector (European Brand)	3	175,000	525,000	200,000	600,000	500,000	1,500,000	450,000	1,350,000	1,200,000	3,600,000	650,000	1,950,000	350,000	1,050,000
7	Arrangement of Safety Mask / Equipment (gas mask / gloves / shoes)	4	15,500	62,000	15,000	60,000	8,750	35,000	25,000	100,000	10,000	40,000	376,000	1,504,000	250,000	1,000,000
(i)	Providing / fixing of Sampling pumps with complete pipe fittings	2	600,000	1,200,000	500,000	1,000,000	95,000	190,000	1,200,000	2,400,000	200,000	400,000	585,000	1,170,000	150,000	300,000
(ii)	Providing Rota Meter Assembly complete for Wallace & Tiernan Chlorinator or equivalent (European / USA Brand)	3	254,000	762,000	200,000	600,000	419,000	1,257,000	200,000	600,000	400,000	1,200,000	495,000	1,485,000	400,000	1,200,000
8	Providing Diaphragm kit for Chlorinator, Wallace & Tiernan or equivalent (European / USA Brand)	24	14,000	336,000	50,000	1,200,000	82,000	1,968,000	100,000	2,400,000	700,000	1,680,000	750,000	18,000,000	400,000	9,600,000
TOTAL				28,678,000		24,869,000		36,405,000		26,805,000		34,580,000		57,668,000		32,950,000
Corrected Amount :												49,700,000				

(Muhammad Riaz)
D.A.O.(E&M)-W, KW&SB
member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.7 (A)

E&M WORKS GHARO FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing & Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity, Chlorinator floor mounted cabinet for capacity of 2000 PPD/40Kg/hr Wallace & Tiernan or equivalent (European / USA Brand) with all components, fittings and accessories in accordance with the Specification and approved make including dozing pump of suitable capacity compatible with site requirements with all pipe valves and safety devices accessories and fitting and making connection to existing water supply system for injecting chorine solution with suitable pipes with required valves fittings and accessories of suitable capacity including dismantling the existing damaged defective equipments and components if any, existing in all respects for a fully and efficiently operating chlorinator.	6	2,970,000	17,820,000	3,350,000	20,100,000	3,340,000	20,040,000	2,400,000	14,400,000	3,800,000	22,800,000	4,175,000	25,050,000	1,800,000	10,800,000
2	Providing injector assembly complete. (High capacity) (European / USA Brand)	6	528,000	3,168,000	600,000	3,600,000	546,000	3,276,000	528,000	3,168,000	700,000	4,200,000	825,000	4,950,000	300,000	1,800,000
3	Providing and Fixing boosting pump with 20 HP Suction/delivery 4"x3" dia European made pump i/c base foundation with all accessories as per instruction of Engineer In charge.	4	2,500,000	10,000,000	250,000	1,000,000	2,875,000	11,500,000	1,800,000	7,200,000	4,500,000	1,800,000	1,582,000	6,328,000	2,500,000	10,000,000

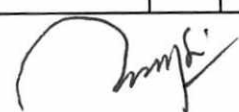
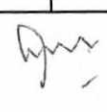

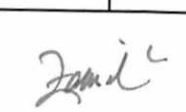
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4	Providing, Fixing, Testing & Commissioning of Pressure monitoring gauge (European Brand)	4	4,000	16,000	4,500	18,000	200,000	800,000	45,000	180,000	25,000	100,000	360,000	1,440,000	300,000	1,200,000
5	Providing, Fixing, Testing & Commissioning of Chlorine Analyzer (European Brand)	4	265,000	1,060,000	300,000	1,200,000	1,000,000	4,000,000	275,000	1,100,000	1,300,000	5,200,000	1,031,000	4,124,000	400,000	1,600,000
6	Providing & Testing of Chlorine detector (European Brand)	4	175,000	700,000	200,000	800,000	500,000	2,000,000	750,000	3,000,000	1,200,000	4,800,000	650,000	2,600,000	350,000	1,400,000
7	Arrangement of Safety Mask / Equipment (gas mask / gloves / shoes)	8	15,500	124,000	15,000	120,000	8,750	70,000	25,000	200,000	10,000	80,000	376,000	3,008,000	300,000	2,400,000
8	Providing, fixing, testing & commissioning of electricity operated hoist of 5 tons lifting capacity (European Brand) with all components, accessories and fittings for all electrical and mechanical components suitable for the site requirements, traveling on overhead gantry girder of 6"x4" size of required length to be provided and fixed on ceiling in place of existing equipment including dismantling the damaged or defective equipment and accessories if any complete in all respect as per specifications and site requirements.	2	7,750,000	15,500,000	7,000,000	14,000,000	3,700,000	7,400,000	1,600,000	3,200,000	4,500,000	9,000,000	1,100,000	2,200,000	3,000,000	6,000,000
9	Providing / fixing of Sampling pumps with complete pipe fittings	4	600,000	2,400,000	500,000	2,000,000	95,000	380,000	1,200,000	4,800,000	250,000	1,000,000	585,000	2,340,000	200,000	800,000
10	Providing Rota Meter Assembly complete for Wallace & Tieman Chlorinator or equivalent (European / USA Brand)	2	365,000	730,000	200,000	400,000	419,000	838,000	200,000	400,000	400,000	800,000	495,000	990,000	400,000	800,000
11	Providing Diaphragm kit for Wallace & Tieman Chlorinator or equivalent (European / USA Brand)	2	195,000	390,000	50,000	100,000	82,000	164,000	100,000	200,000	70,000	140,000	750,000	1,500,000	350,000	700,000
12	Providing and fixing Star / Delta Starter 30 HP 440 volts. (European / USA Brand)	2	52,000	104,000	300,000	600,000	65,000	130,000	100,000	200,000	150,000	300,000	150,000	300,000	1,400,000	2,800,000
13	Providing Chlorine Gas Cylinder Valve (heavy duty high pressure) special alloy of Phosphorus bronze as per specified sample (European Brand)	6	45,000	270,000	25,000	150,000	52,000	312,000	75,000	450,000	9,000	54,000	950,000	5,700,000	200,000	1,200,000

14	Providing Copper Tube 10 mm dia, (European Brand), weight at means 3½ kg each tube 6' long including cutting folding polishing, machining with brass cap nut 1" Ø.	36	1,000	36,000	2,000	72,000	1,000	36,000	550	198,000	9,000	324,000	7,000	252,000	2,000	72,000
15	Providing 4"Ø G.I Pipes special and clamps etc i/c fixing, cutting & fitting complete with and i/c the cost of breaking through walls and roof, making good etc. Painting two coats after cleaning the pipe etc with white zinc paint with pigment to match the colors of the building and testing with water to a pressure head of 200 feet and handling.	150	896	134,400	500	75,000	1,100	165,000	950	142,500	1,600	240,000	1,000	150,000	900	135,000
16	Providing laying 3"Ø UPVC pipe of class 'D' fixing in trench i/c cutting, fitting and jointing with solvent cement i/c testing with water to a head 122 meter or 400 ft.	100	446.22	44,622	300	30,000	800	80,000	360	36,000	3,000	300,000	550	55,000	1,225	122,500
17	Providing & fixing S.S Pipe ¾" dia (L-316) (European Brand).	115	625	71,875	500	57,500	718	82,570	380	43,700	2,000	230,000	1,190	136,850	800	92,000
18	Providing & fixing S.S Tee ¾" dia (L-316) Made in Italy or equivalent.	12	450	5,400	1,000	12,000	517	6,204	420	5,040	1,200	14,400	14,000	168,000	2,000	24,000
19	Providing & fixing S.S Elbow ¾" dia (L-316) (European Brand)	12	350	4,200	1,000	12,000	402	4,824	290	3,480	1,200	14,400	10,000	120,000	2,000	24,000
20	Providing & fixing S.S Cross Tee ¾" dia (L-316) (European Brand)	9	550	4,950	2,000	18,000	632	5,688	650	5,850	1,600	14,400	15,500	139,500	2,000	18,000
21	Providing & fixing S.S Union ¾" dia (L-316) (European Brand)	24	575	13,800	1,000	24,000	660	15,840	550	13,200	2,000	48,000	10,800	259,200	3,000	72,000
22	Providing & fixing S.S Valve ¾" dia (L-316) (European Brand)	18	1,250	22,500	1,500	27,000	1,450	26,100	1,500	27,000	6,000	108,000	16,000	288,000	5,000	90,000
23	Providing & fixing S.S Socket ¾" dia (L-316) (European Brand)	18	325	5,850	1,000	18,000	375	6,750	380	6,840	800	14,400	9,750	175,500	2,000	36,000
24	Providing & fixing S.S Barrel Nipple ¾" dia (L-316) (European Brand)	12	250	3,000	1,000	12,000	290	3,480	380	4,560	600	7,200	2,500	30,000	1,000	12,000
25	Providing & fixing S.S Dead Plug ¾" dia (L-316) (European Brand)	18	125	2,250	1,200	21,600	150	2,700	250	4,500	400	7,200	1,625	29,250	2,000	36,000
26	Providing & fixing Gun Metal gate valve 2 ½" dia (Heavy duty) (European Brand)	4	3,650	14,600	5,000	20,000	4,195	16,780	18,000	72,000	8,000	32,000	72,500	290,000	10,000	40,000

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27	Providing & fixing Gun Metal gate valve 3" dia (Heavy duty) (European Brand)	4	4,200	16,800	5,000	20,000	4,800	19,200	28,000	112,000	11,000	44,000	95,000	380,000	12,000	48,000
28	Providing & fixing Gun Metal gate valve 4" dia (Heavy duty) (European Brand)	4	6,500	26,000	10,000	40,000	7,500	30,000	35,000	140,000	15,000	60,000	129,000	516,000	15,000	60,000
29	Providing & fixing foot valve 3" dia heavy pattern with cone type (European Brand) material should be S.S.	2	8,500	17,000	10,000	20,000	9,000	18,000	45,000	90,000	15,000	30,000	10,000	20,000	5,000	10,000
30	Providing & fixing foot valve 4" dia heavy pattern with cone type (European Brand) material should be S.S	2	12,500	25,000	10,000	20,000	7,000	14,000	60,000	120,000	16,000	32,000	15,000	30,000	8,000	16,000
31	Providing & laying (Main & Sub main) PVC insulated size 3-7/ .029 copper conductor in 3/4" Ø PVC conduit recessed in the wall or column as required (Pakistan Cable or equivalent)	90	294	26,460	200	18,000	350	31,500	3,500	315,000	600	54,000	150	13,500	120	10,800
32	Providing & Laying (Main & Sub Main) PVC insulated with size 3.7/0.044 (6mm ²) copper conductor in 1" dia PVC conduit recessed in the wall * Column as required (Pakistan Cable or equivalent)	180	468	84,240	300	54,000	550	99,000	9,200	1,656,000	1,200	216,000	500	90,000	150	27,000
33	Wiring for light or fan point with 3/0.029 PVC insulated wire in 20 mm ² 3/4" PVC Conduit recessed in the wall or column as required (Pakistan Cable or equivalent)	30	1,130	33,900	2,000	60,000	1,300	39,000	2,500	75,000	600	18,000	4,500	135,000	1,000	30,000
34	Wiring for Plug Point with 3/0.029 PVC insulated wires in 20mm (3/4") channel patti on surface as required (Pakistan Cable or equivalent)	10	742	7,420	2,000	20,000	9,000	90,000	2,500	25,000	1,700	17,000	2,500	25,000	1,000	10,000
35	Providing & Fixing of flood LED Light 100 Watts having IP65 & internal wiring complete in all respect at the height up to 40ft with the help hydraulic crane and instruction of Engineer in charge.	10	15,440	154,400	15,000	150,000	16,000	160,000	45,000	450,000	800	8,000	250,000	2,500,000	120,000	1,200,000

mp

Am

W

Zaid

36	Providing & laying (Main & Sub Main) PVC insulated & PVC Sheeted with 3.5 core copper conductor 600/1000 volts size 25mm ² (Pakistan Cable or equivalent)	90	1,751	157,590	1,000	90,000	2,000	180,000	1,850	166,500	9,000	810,000	2,500	225,000	3,500	315,000
37	Providing & Fixing circuit breaker 250 TP Setting 160-250 amp (XS-250 NJ) on prepared board as required.	1	27,411	27,411	20,000	20,000	35,000	35,000	44,000	44,000	15,000	15,000	75,000	75,000	25,000	25,000
TOTAL				53,221,668		44,999,100		52,077,636		42,254,170		52,932,000		66,632,800		44,025,300
Corrected Amount :										42,075,970		-				

(Muhammad Riaz)
U.A.U.(E&M)-KW&SB
Member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.7 (B)

CIVIL WORKS GHARO FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	R/M of Pre-chlorination ramp size 118'x12'=1416 Sft & Chlorinator room size 35'x30'=1050 Sft and replacement of cement sheet of chlorine dosing point side 28'x12'=336 Sft at Pre- Chlorination Plant Pump house Gharo. 1416+1050+336= 2802 Sft	2802	1,500	4,203,000	150	420,300	1,100	3,082,200	600	1,681,200	250	700,500	1,500	4,203,000	500	1,401,000
2	R/M of Post Chlorination plant ramp for the purpose of Cylinder's manually loading / unloading size 81'x15'-6"=1255.50 Sft & Pump Room Size 12'x12'=144Sft and Chlorinator room size 16'-6" x 12'-6" and replacement of Asbestos cement sheet size 85' x 20' = 1700 Sft at filter plant Gharo. 1255.50+144+206.25+1700= 3305.75 Sft	3305.75	1,500	4,958,625	150	495,863	1,100	3,636,127	600	1,983,450	300	991,500	1,500	4,958,625	500	1,652,875
			TOTAL	9,161,625		916,163		6,718,327		3,664,650		1,692,000		9,161,625		3,053,875
	Corrected Amount :					-		6,718,525				1,692,225		-		-

(Muhammad Riaz)
D.A.O.(E&M)-W.KW&SB
Member

(Abdul Razzaq Magsi)
Resident Engineer
Pipri (P&F) Div. / Member

(Shams Bhatti)
Executive Engineer
KDA / Member

(Maqsood Ahmed Shaikh)
S.E.(East), KMC / Member

(Zahid Jamil Qureshi)
S.E.(COD) KW&SB / Convener

SUBJECT:- PROVIDING / FIXING OF CHLORINATORS AND ALLIED WORKS WITH ACCESSORIES AT SIX DIFFERENT FILTER PLANTS UNDER 3-STAGE WORK PLAN FOR REHABILITATION OF EXISTING WATER FILTER PLANTS OF KW&SB i.e. COD, NEK K-II, NEK OLD, PIPRI, GHARO & HUB

BILL NO.8

E&M WORKS HUB FILTER PLANT

Sr. No	Description of work	Qty	Engineer Estimate		M/s. SAF International Group of Co.		M/s. Hawan Const. Co. J/v M/s. Malik & Co		M/s. CEMCON Associates		M/s. Abdullah Khan & Company		M/s. Al-Tariq Constructors (Pvt.) Ltd.		M/s. Muhammad Iqbal Shaikh & Co.	
			Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	Providing, Fixing, Testing & Commissioning of vacuum gas control manual adjustable capacity Chlorinator wall mounted for capacity of 3000 PPD/60Kg/hr Wallace & Tiernan or equivalent (European / USA Brand) with all components, fittings and accessories in accordance with the Specification including dismantling the existing damaged defective equipments & components if any, existing in all respects for a fully and efficiently operating chlorinator.	3	2,970,000	8,910,000	3,350,000	10,050,000	3,340,000	10,020,000	2,700,000	8,100,000	3,800,000	11,400,000	4,175,000	12,525,000	2,500,000	7,500,000
2	Providing Injector assembly complete upto 60 Kg/hr (High Capacity) (European/USA Brand)	3	528,000	1,584,000	600,000	1,800,000	546,000	1,638,000	528,000	1,584,000	700,000	2,100,000	825,000	2,475,000	500,000	1,500,000
3	Providing Rota Meter Assembly complete Graduated upto 60 Kg/hr. for Wallace & Tiernan Chlorinator or equivalent (European / USA Brand)	7	233,000	1,631,000	200,000	1,400,000	419,000	2,933,000	200,000	1,400,000	400,000	2,800,000	495,000	3,465,000	400,000	2,800,000
4	Diaphragm Kit as per sample.	5	195,000	975,000	50,000	250,000	82,000	410,000	100,000	500,000	70,000	350,000	750,000	3,750,000	400,000	2,000,000

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5	P/F of EVAPORATOR 60 Kg/ hr. Heater Circuit. Power : 415 Vic, 50 Hz, 3 Phase, Control Circuit Power: 240 Vic, 50 Hz, 1 Phase, bath Electrically Jested Water, Water Level Control Automatic, Low Water level Cutoff Switch included, Protection :NEMA 4X, ASME approved Chamber: "L" Certified Vaporizing Chamber, Front Panel Mounted instrument panel Consisting at Gas pressure gauge: 0--300 psi (0--2000kPa), Gas Temperature gauge: 32--312 <f(0--100<C), Water Level Sight Gauge, NEMA: 4X, digital Electronic Water as per site Requirement.	1	10,400,000	10,400,000	6,500,000	6,500,000	3,500,000	3,500,000	9,500,000	9,500,000	12,000,000	12,000,000	25,946,500	25,946,500	8,000,000	8,000,000
6	Providing & Fixing Chlorine Booster Pump Type: MOVICHROM N G 45/5 2 R Q= 52 m3/hr ; H=52m ; speed 2955 rpm, Motor 15kW, full Load Current: 27A	4	2,500,000	10,000,000	250,000	1,000,000	2,875,000	11,500,000	1,600,000	6,400,000	250,000	1,000,000	1,582,000	6,328,000	1,000,000	4,000,000
7	Providing copper tube weight at 3 ½ each tube 6 feet long p/c cutting folding polishing lath machining with brass cap nut 0-1 dia 12mm.	98	3,000	294,000	2,000	196,000	2,500	245,000	39,000	3,822,000	9,000	882,000	7,000	686,000	2,000	196,000
8	Providing and fixing NGO valve Gun Metal with washer.	95	8,000	760,000	2,000	190,000	6,000	570,000	65,000	6,175,000	9,000	855,000	25,000	2,375,000	5,000	475,000
9	Providing , Fixing & Testing Pressure Monitoring Gauge As per Site requirement & Rating	4	4,000	16,000	4,500	18,000	200,000	800,000	45,000	180,000	25,000	100,000	360,000	1,440,000	400,000	1,600,000
10	Providing , Fixing & Testing instant Chlorine Analyzer (European Brand) as per site requirement & rating	5	265,000	1,325,000	300,000	1,500,000	1,000,000	5,000,000	275,000	1,375,000	1,200,000	6,000,000	1,031,000	5,155,000	500,000	2,500,000
11	Providing, Fixing & Testing of Chlorine Detectors (European Brand), as per Site Requirement & Rating.	4	175,000	700,000	200,000	800,000	500,000	2,000,000	750,000	3,000,000	1,300,000	5,200,000	650,000	2,600,000	500,000	2,000,000
12	Providing & Fixing Of Chlorine Safety Equipment's including Masks , Gas Neutralizers etc as per Site Requirement	4	155,000	620,000	15,000	60,000	8,750	35,000	125,000	500,000	12,000	48,000	376,000	1,504,000	200,000	800,000

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13	Providing & Fixing Of Automatic Change Over Unit Series for Chlorine Cylinders	1	1,950,000	1,950,000	1,600,000	1,600,000	2,150,000	2,150,000	4,350,000	4,350,000	2,500,000	2,500,000	3,160,000	3,160,000	500,000	500,000
14	Providing Rubber Seal & Lead & Teflon Washers (European Brand)	50	1,500	75,000	5,000	250,000	1,700	85,000	12,500	625,000	600	30,000	5,000	250,000	2,000	100,000
15	Providing & Laying UPVC 3" Diameter Pipe Schedule 100" Class "D" cutting Laying Fixing & jointing, jointing with solvent cement in trench & testing with water head 61m/200.	5,000	136	680,000	100	500,000	160	800,000	350	1,750,000	800	4,000,000	550	2,750,000	225	1,125,000
16	Providing & Fitting of Material UPVC 3" Diameter Sockets, Schedule 100, Class "D" VIII-UPVC fitting per each equivalent make.	165	600	99,000	300	49,500	700	115,500	350	57,750	900	148,500	925	152,625	1,500	247,500
17	Providing & Fitting of "T" Joint Material UPVC 3" Diameter, 100, Class "D" VIII-fitting per each equivalent make.	50	725	36,250	1,000	50,000	850	42,500	900	45,000	1,200	60,000	1,880	94,000	1,500	75,000
18	Providing & Fitting of material Valve 3" Diameter UPVC Providing & Laying PVC Schedule 100, Class "D" VIII-UPVC fitting per each equivalent make.	24	4,290	102,960	5,000	120,000	5,000	120,000	10,000	240,000	4,400	105,600	2,000	48,000	4,000	96,000
19	Providing & Fitting of Material UPVC 3" Plugs Schedule 100, Class "D" VIII-UPVC fitting per each equivalent make.	50	250	12,500	2,000	100,000	300	15,000	750	37,500	400	20,000	1,100	55,000	1,000	50,000
20	Providing & Fitting of Material UPVC ELBOW 3" Diameter, Schedule 100, Class "D" VIII-fitting per each equivalent make.	24	650	15,600	1,000	24,000	720	17,280	750	18,000	600	14,400	2,200	52,800	1,000	24,000
21	Providing & Fitting of Material UPVC Bend 3" Diameter, Schedule 100, Class "D" VIII-fitting per each equivalent make.	24	550	13,200	1,000	24,000	625	15,000	900	21,600	800	192,000	2,200	52,800	1,000	24,000
22	Providing & Laying UPVC 4" Diameter Pipe Schedule 100" Class "D" cutting Laying Fixing & jointing, jointing with solvent cement in trench & testing with water head 61m/200.	6,000	262	1,572,000	300	1,800,000	300	1,800,000	500	3,000,000	800	4,800,000	850	5,100,000	400	2,400,000
23	Providing & Fitting of Material UPVC 3" Diameter Sockets, Schedule 100, Class "D" VIII-UPVC fitting per each equivalent make.	165	600	99,000	500	82,500	700	115,500	400	66,000	400	66,000	925	152,625	1,000	165,000

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24	Providing & Fitting of "T" Joint Material UPVC 4" Diameter, 100, Class "D" VIII-fitting per each equivalent make.	50	725	36,250	1,000	50,000	830	41,500	1,000	50,000	1,200	60,000	3,180	159,000	3,000	150,000
25	Providing & Fitting of Material UPVC ELBOW 4" Diameter, Schedule 100, Class "D" VIII-fitting per each equivalent make.	24	650	15,600	3,000	72,000	750	18,000	900	21,600	600	14,400	5,000	120,000	2,000	48,000
26	Providing & Fitting of material Valve 4" Diameter UPVC Providing & Laying PVC Schedule 100, Class "D" VIII-UPVC fitting per each equivalent make.	24	5,460	131,040	8,000	192,000	6,300	151,200	12,000	288,000	4,400	88,000	5,000	120,000	2,000	48,000
27	Providing & Fitting of Material UPVC 4" Plugs Schedule 100, Class "D" VIII-UPVC fitting per each equivalent make.	20	300	6,000	2,000	40,000	350	7,000	900	18,000	300	6,000	1,380	27,600	1,200	24,000
28	Providing & Fitting of Material UPVC 4" to 3"Diameter Reducer, Schedule 100, Class "D" VIII-fitting per each equivalent make.	50	250	12,500	1,000	50,000	300	15,000	650	32,500	1,200	60,000	1,600	80,000	1,500	75,000
29	Providing & Fitting of Material UPVC Bend 4" Diameter, Schedule 100, Class "D" VIII-fitting per each equivalent make.	24	550	13,200	3,000	72,000	650	15,600	900	21,600	800	19,200	2,680	64,320	1,500	36,000
30	Making Joints to PVC special fitting (i/c auomg at special and cost of solvent cement of required diameter and testing the joints along with PVC pipe line "D" class to the specified pressure and making good to all leaky joints etc, for 4" & 3"Dia.	293	700	205,100	200	58,600	800	234,400	1,500	439,500	300	87,900	10,000	2,930,000	200	58,600
31	Providing and Fixing Sample pumps of Type RG-250 , V=400, Ph=3, Hz=50, R.P.M=2800, Motor To BS5000, Duty Head=18m @ 2L/min , Duty Head 2m @ 29 l/min, Head Max 19.5 meters or equivalent pump for water sampling to laboratory for water analysis.	6	600,000	3,600,000	500,000	3,000,000	115,000	690,000	1,800,000	10,800,000	200,000	1,200,000	585,000	3,510,000	500,000	3,000,000

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32	Providing & Fixing of 5 Ton Single Girder Monorail Crane (Electrical Hoist Literature attached): Capacity 5 Ton Span (Width) : 17m Bay Length : 61m Hook Height 6m Hoist Speed : 4.2/1.4m/min Cross Travel : 20/5m/min Long Travel : 32/8m/min Service conditions: B.S 466 normal service conditions and outdoor use. Power supply:400 V 3-phase 50 Hz Control Voltage : 110Volts Hook type & Size : 'C' shaped hook 360 degree rotation, Brakes : Inbuilt Control Type 2 Speed Push Pendant Control Mechanical buffers : Included on traversing motion Rail Tack : 2 * 61 m Length of rail track with SG iron cleat	1	7,750,000	7,750,000	7,000,000	7,000,000	3,700,000	3,700,000	2,600,000	2,600,000	3,000,000	3,000,000	1,100,000	1,100,000	3,000,000	3,000,000
33	Electrification Arrangement Providing & Fixing of light 250 watts (SON) having IP-54 classification with 250 watt, lamp, choke, capacitor & internal wiring complete in all respect at the height at the 31 ft as per site requirement and instruction of E/I	50	18,000	900,000	15,000	750,000	21,000	1,050,000	55,000	275,000	20,000	1,000,000	150,000	7,500,000	80,000	4,000,000
34	Providing fixing exhaust fan 3 phase, 30" swipe i/c angle frame and guard i/c nuts & bolts, washer.	20	8,000	160,000	20,000	400,000	9,000	180,000	75,000	1,500,000	12,000	240,000	125,000	2,500,000	40,000	200,000
35	Wiring for light/ fan point with providing and laying (MAIN or SUB-MAIN) PVC insulated with size 3-7/.044(6mm ²) copper conductor in 1" Dia PVC conduit recessed in the wall or column as required.	500	468	234,000	500	250,000	550	275,000	13,500	6,750,000	600	300,000	4,000	2,000,000	1,000	500,000
36	Prepare the Surface & Painting Oil With Oil Finish Paint of Approved make to old Oil Finish Surface on Machinery including all Metal Works in Chlorine Room , Chlorine Yard, & Alum Room & Alum Yard With Total Surface Area 75000 Sq. Ft.	30,000	1,160	348,000	1,000	300,000	1,300	390,000	120	3,600,000	4,000	1,200,000	95	28,500	7,000	2,100,000


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Prepare the Surface & Painting Mat With, Mat Finish paint of Approved make to old Mat Finish Surface.	24,640	727.38	179,226	1,000	246,400	800	197,120	120	2,956,800	3,000	739,200	95	23,408	7,000	1,724,800
TOTAL			55,461,426		41,211,000		50,891,600		82,099,850		62,513,400		105,419,070		53,141,900
Corrected Amount :					40,845,000				75,608,618		61,791,800		100,280,178		53,741,900


 (Muhammad Riaz)
 D.A.O.(E&M)-W KW&SB
 Member


 (Abdul Razzaq Magsi)
 Resident Engineer
 Pipri (P&F) Div. / Member


 (Shams Bhatti)
 Executive Engineer
 KDA / Member


 (Maqsood Ahmed Shaikh)
 S.E.(East), KMC / Member


 (Zahid Jamil Qureshi)
 S.E.(COD) KW&SB / Convener