

The Project for Expansion of Water Supply System in Kampot
Kingdom of Cambodia

**ENVIRONMENTAL
MONITORING RECORD FOR
AUGUST 2018**



SMCC-Swing JV

Sumitomo Mitsui Construction Co., Ltd. – Swing Corporation Joint Venture



Resource Laboratory Water Analytical Results



Client: **Sumitomo Mitsui Construction Co., Ltd.**

Water Source: **River**

Date Received: **10-Aug-18**

Province: **Kampot**

Collection Date: **9-Aug-18**

District: **Teuk Chhou**

of samples: **1**

Commune: **NA**

Preservation: **Regular**

Village: **NA**

Sample ID:	In Take Facility					
Parameter	Results	Units	Method	Date Analyzed	DL	SDWPC
BOD5	1.2	DO mg/L	BOD5	10-Aug-2018	-	80
COD	10	DO mg/L	D, CS	13-Aug-2018	-	100
Total Suspended Solids	0	mg/L	Filtration	14-Aug-2018	-	80
Conductivity	15	µS/cm	Meter	10-Aug-2018	-	-
Dissolved Oxygen	7.7	DO mg/L	Meter	10-Aug-2018	-	>1
pH	8.6	pH units	Meter	10-Aug-2018	-	5.0 - 9.0
Total Dissolved Solids	10	mg/L	Meter	10-Aug-2018	-	2000
Turbidity	2.25	NTU	Meter	10-Aug-2018	-	-
Temperature	24.4	Celsius	Probe	10-Aug-2018	-	45

SDWPC = Sub-Decree on Water Pollution Control, No: 27 ANRKBK Phnom Penh, April 06, 1999, Annex 2

Exceeds Sub-Decree on Water Pollution Control

DL = Detection Limit

Date: **16-Aug-2018**

Certified by
Project Manager

Prak Savoeun

Prak Savoeun

Address: #50A, Royal Brick Road, Preak Thum Village, Sangkat Kbal Koh, Khan Chbar Ampov, Phnom Penh, Cambodia
 Lab Phone: 017 794 393, Office Phone: 017 778 533, Lab Email: lab@rdic.org, Website: www.rdic.org

1) Monitoring Results of Noise / Vibration

Table M-1-1 Results (Noise)

Item: Noise Unit: dB(A)

No.	Date	Measured Value						
		Intake Site	WTP Site	Pipeline site				
				St. 1	St. 2	St. 3	St. 4	St.5
Construction Phase -3rd Year: Period of time: 06:00 - 18:00								
1	August 09, 2018	42.1	45.2	-	-	-	-	-
2	August 10, 2018	-	-	49.1	-	-	-	-
3	August 13, 2018	-	-	-	47.2	-	-	-
Construction Phase -3rd Year: Period of time: 18:00 - 22:00								
1	August 09, 2018	-	39.3	-	-	-	-	-
2	August 10, 2018	39.9	-	-	-	-	-	-
3	August 13, 2018	-	-	42.9	-	-	-	-
4	August 14, 2018	-	-	-	42.5	-	-	-

Table M-1-2 Results (Vibration)

Item: Vibration Unit: dB(A)

No.	Date	Measured Value						
		Intake Site	WTP Site	Pipeline site				
				St. 1	St. 2	St. 3	St. 4	St.5
Construction Phase -3rd Year: Period of time: 06:00 - 18:00								
1	August 09, 2018	32.0	33.3	-	-	-	-	-
2	August 10, 2018	-	-	45.2	-	-	-	-
3	August 13, 2018	-	-	-	42.8	-	-	-
Construction Phase -3rd Year: Period of time: 18:00 - 22:00								
1	August 09, 2018	-	31.4	-	-	-	-	-
2	August 10, 2018	31.2	-	-	-	-	-	-
3	August 13, 2018	-	-	35.1	-	-	-	-
4	August 14, 2018	-	-	-	36.0	-	-	-

Table M-1-3 Station

Measured Station	Adopted Standard	Detailed Location
St.1	National Standard (Residential Area)	RWSP 15-2, St. 0+010
St. 2	National Standard (Residential Area)	RWSP 8, St. 0+310

Table M-1-4 National Standard Value for Noise (Cambodia)

Type of Area	Standard Value (LAeq) in dB(A)		
	6:00 – 18:00	18:00 – 22:00	22:00 – 6:00
Quiet Areas (Hospital, Library, School, Kindergarten)	45	40	35
Residential Areas (Hotel, Administrative Office, Flat)	60	50	45
Commercial and Service Areas and Area of businesses	70	65	50
Small industrial factories mingling in residential area	75	70	50

Table M-1-5 National Standard Value for Vibration (Cambodia)

Standard Value (Leq) in dB(A)		
6:00 – 18:00	18:00 – 22:00	22:00 – 6:00
65	60	60

2) Monitoring Results of Dust Pollution**Table M-2-1 Results**

Item: Dust Mark: “✓” if Watering is done

No.	Date	Watering Result						
		Intake Site	WTP Site	Pipeline site				
				St. 1	St. 2	St. 3	St. 4	St. 5
Construction Phase -3 rd Year								
1	August 1, 2018	✓	✓	✓	-	-	-	-
2	August 7, 2018	✓	✓	-	✓	✓	-	-
3	August 15, 2018	✓	✓	-	-	-	✓	✓

Table M-2-2 Station

Observed Station	Detailed Location	Remark
St.1	RWSP 3, St. 0+145	Filling cement bentonite for existing pipe (PVC 110)
St. 2	RWSP 16, St. 0+800	Filling cement bentonite for existing pipe (AC 180)
St. 3	RWSP 13, St. 0+745	Filling cement bentonite for existing pipe (AC 250)
St. 4	RWSP 8, St. 0+310	Filling cement bentonite for existing pipe (AC 120)
St. 5	RWSP 10, St. 0+270	Filling cement bentonite for existing pipe (AC 120)

3) Monitoring Results of Waste Management

Table M-3-1 Result as of (Date: August 21, 2018)

Item: Waste Management

Mark: “✓” if management is good

Station	Location	Kind of waste	Whole amount (m ³)	Receiving Dumping Site	Situation of General Waste Management / Remark
Construction Phase - 3 rd Year					
Intake	Operation Room	Plastic bottle/ Drink cans	0.30 m ³	Yes	✓
WTP	Administration Building	Plastic bottle/ Drink cans	1.20 m ³	Yes	✓
St. 01	Stock Yard	AC Pipe	1.50 m ³	Yes	✓ (Safely waste disposal site)
St. 02	RWSP 22	PVC Pipe	1.25 m ³	Yes	✓ (Filling cement bentonite)
St. 03	RWSP 20	GI Pipe	0.99 m ³	Yes	✓ (Filling cement bentonite)
St. 04	RWSP 2	AC Pipe	2.30 m ³	Yes	✓ (Filling cement bentonite)
St. 05	RWSP 9	AC Pipe	0.70 m ³	Yes	✓ (Filling cement bentonite)

Table M-3-2 Result as of (Date: August 21, 2018)

Item: Placement of Dust Bins

Mark: “✓” if management is good

Station	Placement of Dust Bins	Situation of General Waste Management	Remark
Construction Phase - 3 rd Year			
In and around the Worker Camps			
Camp-01	Yes	✓	
Camp-02	Yes	✓	

4) Monitoring Results of Safety Management

Table M-4 Result as of (Date: August 21, 2018)

Item: Safety Management

Mark: “✓” if management is good

Station	Location	Description of Incident (Injury, Accident and so on)	Situation of Fencing and Other Safety Management / Remark
Construction Phase - 3 rd Year			
Intake	Intake Facility Site	No Incident/Accident	✓
WTP	WTP Site	No Incident/Accident	✓
St. 01	RWSP 18, St. 0+480	No Incident/Accident	✓
St. 02	RWSP 19, St. 0+220	No Incident/Accident	✓
St. 03	RWSP 4, St. 0+450	No Incident/Accident	✓
St. 04	RWSP 15-2, St. 0+010	No Incident/Accident	✓
St. 05	RWSP 10, St. 0+270	No Incident/Accident	✓

5) Monitoring Results of Sanitary Management

Table M-5-1 Result as of (Date: August 21, 2018)

Item: Sanitary Management

Mark: “✓” if the item is well conducted

Interviewee	Items indicated by Sanitary Program				Remark (Detailed Location)
	i) Hand & Foot washing	ii) Eyes washing	iii) Hazardous materials	iv) Housekeeping	
Construction Phase - 3 rd Year					
In and around the Worker Camps					
Camp-01	✓	✓	N/A	✓	
Camp-02	✓	✓	N/A	✓	
In and around construction sites					
Intake	✓	✓	✓	✓	
WTP	✓	✓	✓	✓	
St.1	✓	✓	✓	✓	RWSP2, St. 0+162
St.2	✓	✓	✓	✓	RWSP3, St. 0+145
St.3	✓	✓	✓	✓	RWSP4, St. 0+450
St.4	✓	✓	✓	✓	RWSP8, St. 0+310
St.5	✓	✓	✓	✓	RWSP9, St. 0+089

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004

Rev. 1 Page 1/11



Inspection Item:

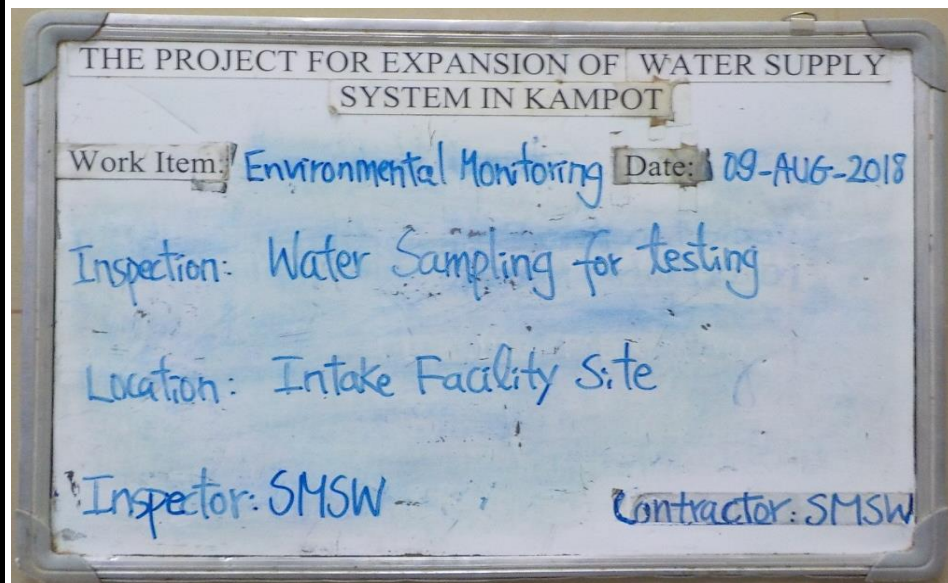
Taking Water Sample

Date: 9-Aug-2018

Location:

Intake Facility

Description:



Inspection Item:

Taking Water Sample

Date: 9-Aug-2018

Location:

Intake Facility

Description:

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 2/11



Inspection Item:

Sound and Vibration Monitoring

Date: 9-Aug-2018

Location:

Water Treatment Plant

Description:

Residential Area (06:00-18:00)



Inspection Item:

Sound and Vibration Monitoring

Date: 9-Aug-2018

Location:

Water Treatment Plant

Description:

Residential Area (18:00-22:00)

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 3/11



Inspection Item:

Sound and Vibration Monitoring

Date: 9-Aug-2018

Location:

Intake Facility

Description:

Residential Area (06:00-18:00)



Inspection Item:

Sound and Vibration Monitoring

Date: 10-Aug-2018

Location:

Intake Facility

Description:

Residential Area (18:00-22:00)

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 4/11



Inspection Item:

**Sound and Vibration
Monitoring**

Date: 10-Aug-2018

Location:

**Pipeline Site
(RWSP 15-2, St. 0+010)**

Description:

Residential Area (06:00-18:00)



Inspection Item:

**Sound and Vibration
Monitoring**

Date: 13-Aug-2018

Location:

**Pipeline Site
(RWSP 15-2, St. 0+010)**

Description:

Residential Area (18:00-22:00)

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004

Rev. 1 Page 5/11



Inspection Item:

Sound and Vibration Monitoring

Date: 13-Aug-2018

Location:

**Pipeline Site
(RWSP 8, St. 0+310)**

Description:

Residential Area (06:00-18:00)



Inspection Item:

Sound and Vibration Monitoring

Date: 14-Aug-2018

Location:

**Pipeline Site
(RWSP 8, St. 0+310)**

Description:

Residential Area (18:00-22:00)

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004

Rev. 1 Page 6/11



Inspection Item:

Dust Pollution Monitoring

Date: 7-Aug-2018

Location:

**Pipeline Site
(RWSP 16, St. 0+800)**

Description:

Public road cleaning after finished daily work



Inspection Item:

Dust Pollution Monitoring

Date: 15-Aug-2018

Location:

**Pipeline Site
(RWSP 8, St. 0+310)**

Description:

Public road cleaning after finished daily work

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 7/11



Inspection Item:

**Waste Management
Monitoring**

Date: 21-Aug-2018

Location:

Pipeline Site (Stock Yard)

Description:

Cover plastic sheet to protect
waste Asbestos Cement Pipe



Inspection Item:

**Waste Management
Monitoring**

Date: 9-Aug-2018

Location:

**Pipeline Site
(RWSP 9 St. 0+089)**

Description:

Filling cement bentonite in the
existing Asbestos Cement Pipe

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 8/11



Inspection Item:

Waste Management Monitoring

Date: 10-Aug-2018

Location:

**Pipeline Site
(RWSP 2 St. 0+162)**

Description:

Filling cement bentonite in the existing Asbestos Cement Pipe



Inspection Item:

Safety Management Monitoring

Date: 2-Aug-2018

Location:

Project Site Office

Description:

Trash for garbage classification at site

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 9/11



Inspection Item:

**Waste Management
Monitoring**

Date: 18-Aug-2018

Location:

Water Treatment Plant

Description:

Daily housekeeping around
working area at site



Inspection Item:

**Safety Management
Monitoring**

Date: 1-Aug-2018

Location:

Project Site Office

Description:

Monthly Safety Assembly

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N^o: KHPE-KP/QF-004
Rev. 1 Page 10/11



Inspection Item:

**Safety Management
Monitoring**

Date: 2-Aug-2018

Location:

Project Site Office

Description:

Safety induction to new staffs



Inspection Item:

**Safety Management
Monitoring**

Date: 11-Aug-2018

Location:

**Pipeline Site
(RWSP 4, St. 0+450)**

Description:

Assign traffic controllers during working on the public road

Remark:

THE PROJECT FOR EXPANSION OF WATER SUPPLY SYSTEM IN KAMPOT

INSPECTION PICTURES

Form N°: KHPE-KP/QF-004

Rev. 1 Page 11/11



Inspection Item:

**Safety Management
Monitoring**

Date: 7-Aug-2018

Location:

Water Treatment Plant

Description:

Training workers about hazardous chemical impaction



Inspection Item:

**Sanitary Program
Monitoring**

Date: 18-Aug-2018

Location:

Water Treatment Plant

Description:

Hands & shoes washing area for staffs and workers

Remark: