

APPENDIX- 4
LABORATORY RESULTS
FOR WATER AND
SEDIMENT QUALITY

Report No. : GEM-LAB-201912065
 Revision No. : 1
 Report Date : 18 December, 2019
 Application No. : 0049-C001

Analysis Report

Client Name : Myanmar Koei International LTD (MKI)
 Address : No, 36/A, 1st Floor, Grand Pho Sein Condominium, Pho Sein Road, Tamwe Township, Yangon, Myanmar.
 Project Name : M 20003
 Sample Description
 Sample Name : MKI-SW-1-1202 Sampling Date : 2 December, 2019
 Sample No. : W-1912002 Sampling By : Customer
 Waste Profile No. : - Sample Received Date : 2 December, 2019

No.	Parameter	Method	Unit	Result	LOQ
1	SS	APHA 2540D (Dry at 103-105°C Method)	mg/l	264.00	—
2	BOD (5)	APHA 5210 B (5 Days BOD Test)	mg/l	3.26	0.00
3	COD (Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	9.5	0.7
4	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	350	1.8
5	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	2.4	0
6	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	< 0.050	0.050
7	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1

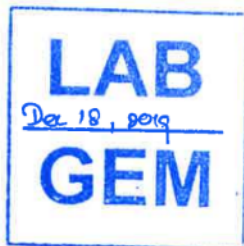
Remark : LOQ - Limit of Quantitation

APHA - American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF), Standard Methods for the Examination of Water and Wastewater, 22nd edition

Analysed By :



Ni Ni Aye Lwin
 Assistant Manager



Approved By :



Yoshiyuki Narabe Dec 18, 2019
 Manager

Report No. : GEM-LAB-201912066
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Report Date : 18 December, 2019
Application No. : 0049-C001

Analysis Report

Client Name : Myanmar Koei International LTD (MKI)
Address : No, 36/A, 1st Floor, Grand Pho Sein Condominium, Pho Sein Road, Tamwe Township, Yangon, Myanmar.
Project Name : M 20003
Sample Description
Sample Name : MKI-SW-2-1202 Sampling Date : 2 December, 2019
Sample No. : W-1912003 Sampling By : Customer
Waste Profile No. : - Sample Received Date : 2 December, 2019

No.	Parameter	Method	Unit	Result	LOQ
1	SS	APHA 2540D (Dry at 103-105°C Method)	mg/l	2240.00	—
2	BOD (5)	APHA 5210 B (5 Days BOD Test)	mg/l	3.62	0.00
3	COD (Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	15	0.7
4	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	1600	1.8
5	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	11.1	0
6	Total Phosphorous	APHA 4500-P E (Ascorbic Acid Method)	mg/l	< 0.050	0.050
7	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1

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Analysed By :

Ni Ni Aye Lwin
Assistant Manager

Approved By :

Yoshiyuki Narabe
Manager

Report No. : GEM-LAB-201912067
 Revision No. : 1
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 Application No. : 0049-C001

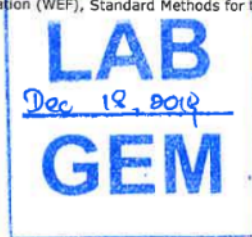
Analysis Report

Client Name : Myanmar Koei International LTD (MKT)
 Address : No, 36/A, 1st Floor, Grand Pho Sein Condominium, Pho Sein Road, Tamwe Township, Yangon, Myanmar.
 Project Name : M 20003
 Sample Description :
 Sample Name : MKI-DW-1-1202 Sampling Date : 2 December, 2019
 Sample No. : W-1912004 Sampling By : Customer
 Waste Profile No. : - Sample Received Date : 2 December, 2019

No.	Parameter	Method	Unit	Result	LOQ
1	SS	APHA 2540D (Dry at 103-105°C Method)	mg/l	98.00	—
2	BOD (5)	APHA 5210 B (5 Days BOD Test)	mg/l	6.60	0.00
3	COD (Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	24	0.7
4	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	> 160000	1.8
5	Oil and Grease	APHA 5520B (Partition-Gravimetric Method)	mg/l	< 3.1	3.1
6	Total Nitrogen	HACH Method 10072 (TNT Persulfate Digestion Method)	mg/l	13.9	0.5
7	Total Phosphorus	APHA 4500-P E (Ascorbic Acid Method)	mg/l	1.480	0.050
8	Mercury	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.002	0.002
9	Zinc	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	0.012	0.002
10	Arsenic	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.01	0.01
11	Chromium	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.002	0.002
12	Cadmium	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.002	0.002
13	Selenium	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.01	0.01
14	Lead	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.002	0.002
15	Copper	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.002	0.002
16	Nickel	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	0.007	0.002
17	Silver	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	≤ 0.002	0.002
18	Iron	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/l	4.770	0.002
19	Cyanide	HACH 8027 (Pyridine -Pyrazalone Method)	mg/l	< 0.002	0.002
20	Total Cyanide	Distillation Process: APHA 4500-CN- C. Total Cyanide after Distillation, Determine Cyanide Concentration Process: HACH 8027 (Pyridine -Pyrazalone Method)	mg/l	0.032	0.002
21	Ammonia	HACH Method 10205 (Silicilyate TNT Plus Method)	mg/l	15.800	0.020
22	Total Chlorine	APHA 4500-CL G (DPD Colorimetric Method)	mg/l	0.1	0.1
23	Fluoride	APHA 4110 B (Ion Chromatography with Chemical Suppression of Eluent Conductivity)	mg/l	0.216	0.014
24	Sulphide	HACH 8131 (USEPA Methylene Blue Method)	mg/l	0.005	0.005
25	Phenols	USEPA Method 420.1 (Phenolics (Spectrophotometric, Manual 4AAP With Distillation))	mg/l	0.007	0.002

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Analysed By :

 Ni Ni Aye Lwin
 Assistant Manager


Approved By :

 Yoshiyuki Narabe
 Manager

Report No. : GEM-LAB-201912068
 Revision No. : 1
 Report Date : 18 December, 2019
 Application No. : 0049-C002

Analysis Report

Client Name : Myanmar Koei International LTD (MKI)
 Address : No, 36/A, 1st Floor, Grand Pho Sein Condominium, Pho Sein Road, Tamwe Township, Yangon, Myanmar.
 Project Name : M 20003
 Sample Description
 Sample Name : MKI-SQ-1-1202 Sampling Date : 2 December, 2019
 Sample No. : S-1912001 Sampling By : Customer
 Waste Profile No. : - Sample Received Date : 2 December, 2019

No.	Parameter	Method For Liquid Sample Preparation	Method of Measurement	Unit	Result	LOQ
1	Cadmium	Content test in soil pollution countermeasures Act (No.19 of the Ministry of Environment notification in Japan (2003))	APHA 3120 B (Inductively Coupled Plasma (ICP) Method)	mg/kg	≤ 0.034	0.034
2	Arsenic			mg/kg	≤ 0.34	0.34
3	Lead			mg/kg	10.438	0.068
4	Water Content	Soil Sampling and Method of Analysis (70.2 Gravimetric With Oven Drying)		%	54.35	-

Remark : LOQ - Limit of Quantitation

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Analysed By :



Ni Ni Aye Lwin
 Assistant Manager



Approved By :



Yoshiyuki Narabe Dec 18, 2019
 Manager



Goshu-A1 Eco Business Company Limited
Plot No.19, 2nd Street, Yangon Industrial Zone, Mingalardon Township, Yangon,
Ph: +959-253685274

Soil Analysis Report

Customer Name: Myanmar Koei International Ltd.

Sample No: 120201

Project:

Sampling Date: 02/12/2019

Sample Name: SQ-1

Analytical Date: 02-07/12/2019

Receiving Date: 02/12/2019

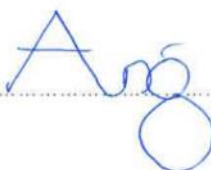
Report No: AROT 191202

Reporting Date: 07/12/2019

Job No: MMA 191201

No.	Item	Result	Method	Detection Limit
1	Copper (mg/kg as Cu)	24.0	*SM 2012:3120B ICP-OES	0.5
2	Chromium (mg/kg as Cr)	32.6	*SM 2012:3120B ICP-OES	1

*Based on Standard Methods for the Examination of Water and Wastewater (SM), APHA,AWWA, WEF

Analyzed by: 

Yu Nandar Aung
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Goshu-A1 Laboratory

Approved by:  

KOJI NAKAHASHI
MANAGING DIRECTOR
GOSHU-A1 ECO BUSINESS CO., LTD.

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THIS ANALYSIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT WRITTEN APPROVAL OF THE LABORATORY
OF GOSHU-A1 ECO BUSINESS CO. LTD.

DEPARTMENT OF AGRICULTURE (LAND USE)

SOIL ANALYTICAL DATA SHEET

Myanmar Koei International (2.12.2019)

Division -ရန်ကုန်


Sheet No. 1

Township - ရန်ကုန်မြစ်

Sr No. S 1/19-20

Sr No.	Sample plot	Zinc (Zn) ppm
1	SQ - 1	1.76

မှတ်ချက်။ ။ မြေနမူနာ ဓာတ်ခွဲအဖြေများအရ Zinc (Zn) ပါဝင်မှုသည်
MPL (Maximum permissible Limit) ထက် မကျော်လွန်ပါ။
Berson (2014): IRRI (2013)


လက်ထောက်ညွှန်ကြားရေးမှူး (ကိုယ်စား)
(သက်စုစုလှိုင်၊ ဦးစီးအရာရှိ)
မြေအသုံးချရေးဌာနခွဲ 