

**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

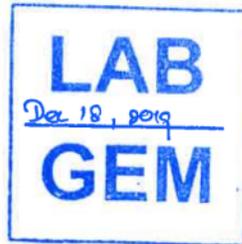
No.	Parameter	Method	Unit	Result	LOQ
1	SS	APHA 2540D (Dry at 103-105°C Method)	mg/l	264.00	-
2	BOD (5)	APHA 5210 B (5 Days BOD Test)	mg/l	3.26	0.00
3	COD (Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	9.5	0.7
4	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	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  
 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-2-1202 Sampling Date : 2 December, 2019  
 Sample No. : W-1912003 Sampling By : Customer  
 Waste Profile No. : - Sample Received Date : 2 December, 2019

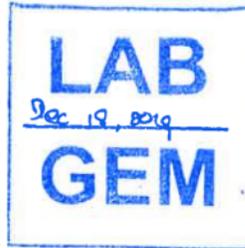
No.	Parameter	Method	Unit	Result	LOQ
1	SS	APHA 2540D (Dry at 103-105°C Method)	mg/l	2240.00	-
2	BOD (5)	APHA 5210 B (5 Days BOD Test)	mg/l	3.62	0.00
3	COD (Cr)	APHA 5220D (Close Reflux Colorimetric Method)	mg/l	15	0.7
4	Total Coliform	APHA 9221B (Standard Total Coliform Fermentation Technique)	MPN/100ml	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

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-201912067  
 Revision No. : 1  
 Report Date : 18 December, 2019  
 Application No. : 0049-C001

## Analysis Report

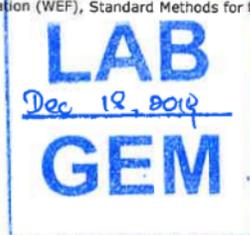
Client Name : Myanmar Koei International LTD (MKT)  
 Address : No, 36/A, 1st Floor, Grand Pho Sein Condominium, Pho Sein Road, Tamwe Township, Yangon, Myanmar.  
 Project Name : M 20003  
 Sample Description  
 Sample Name : MKI-DW-1-1202 Sampling Date : 2 December, 2019  
 Sample No. : W-1912004 Sampling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

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  
 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	-

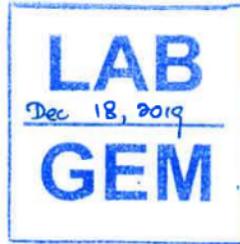
Remark : LOQ - Limit of Quantitation

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



## Goshu-A1 Eco Business Company Limited

Plot No.19, 2<sup>nd</sup> 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

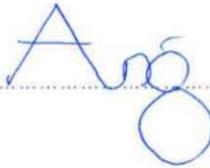
Report No: AROT 191202

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  
Laboratory Engineer  
Goshu-A1 Laboratory

Approved by:  

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

REPORT RESULT IS ONLY OF THE SAMPLE SUBMITTED FOR ANALYSIS.  
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

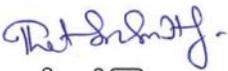
Sheet No. 1

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): IRR (2013)

  
လက်ထောက်ညွှန်ကြားရေးမှူး (ကိုယ်စား)  
(သက်စုစုလှိုင်၊ ဦးစီးအရာရှိ)  
မြေအသုံးချရေးဌာနခွဲ 