

Annex 5. Laboratory Testing Result

Groundwater Quality Testing Result.....	2
Surface Water Quality Testing Result.....	5
Results of Soil Laboratory Testing	13

Groundwater Quality Testing Result



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WATER INNOVATION LAB

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Date: 19 August 2024

Reference No: 240005

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	GW1	Water Source:	Well Pump
Client:	PPIC	Province:	Pursat
Date received:	11-Aug-24	District:	Bakan
Collection date:	10-Aug-24	Commune:	Ou Ta Paong
Preservation:	HNO3/Ice box	Village:	Oknha Moan

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.003	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.0004	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.01		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	345.8	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	13		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	6.4	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.3	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	14,065	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	691.4	0.0	
11	Temperature	Electrode	°C	10-Aug-24	30.4	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	1.92	0.01	

CDWQS = Cambodian Drinking Water Quality Standard, 2004

DL = Detection Limit

Kampong Cham, 19 August 2024

Verified by

Lab Director



Samrach Phan



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លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	GW2	Water Source:	Well
Client:	PPIC	Province:	Kampong Chhnang
Date received:	11-Aug-24	District:	Rolea Bier
Collection date:	10-Aug-24	Commune:	Prasneb
Preservation:	HNO3/Ice box	Village:	Prey Sampov

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.5		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	58.12	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	5		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	3.5	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.29	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	1,600	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	116.1	0.0	
11	Temperature	Electrode	°C	10-Aug-24	30.3	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	1.45	0.01	

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Date: 19 August 2024
Reference No: 240007

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	GW3	Water Source:	Well
Client:	PPIC	Province:	Kampong Speu
Date received:	11-Aug-24	District:	Odongk
Collection date:	10-Aug-24	Commune:	Veal Pung
Preservation:	HNO3/Ice box	Village:	Khnaor Ampil

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.48		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	325.5	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	3		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	21.5	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	2.2	0.06	-
9	Total coliform	Membrane Filtration	CFU/ 100mL	11-Aug-24	1,200	0	0
10	Electrical Conductivity	Electrode	μ S/cm	10-Aug-24	651.6	0.0	
11	Temperature	Electrode	$^{\circ}$ C	10-Aug-24	30.5	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	1.25	0.01	

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Kampong Cham, 19 August 2024

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Surface Water Quality Testing Result



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Date: 19 August 2024

Reference No: 240008

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW1	Water Source:	River
Client:	PPIC	Province:	Pursat
Date received:	11-Aug-24	District:	Bakan
Collection date:	10-Aug-24	Commune:	Rumlech
Preservation:	HNO3/Ice box	Village:	Prasat

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.32		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	30.76	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	11		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	4.8	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.8	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	50,200	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	61.4	0.0	
11	Temperature	Electrode	°C	10-Aug-24	31.3	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.34	0.01	

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Date: 19 August 2024

Reference No: 240009

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW2	Water Source:	Canal
Client:	PPIC	Province:	Pursat
Date received:	11-Aug-24	District:	Bakan
Collection date:	10-Aug-24	Commune:	Ou Ta Paong
Preservation:	HNO3/Ice box	Village:	Bat KoKir Thmei

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.2		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	38.07	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	29		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	3.8	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.6	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	38,750	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	76.12	0.0	
11	Temperature	Electrode	°C	10-Aug-24	30.8	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.6	0.01	

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Date: 19 August 2024

Reference No: 240010

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW3	Water Source:	River
Client:	PPIC	Province:	Pursat
Date received:	11-Aug-24	District:	Bakan
Collection date:	10-Aug-24	Commune:	Ou Ta Paong
Preservation:	HNO3/Ice box	Village:	Ta Nai

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.44		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	40.71	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	39		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	3.5	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.4	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	31,650	0	0
10	Electrical Conductivity	Electrode	μ S/cm	10-Aug-24	81.43	0.0	
11	Temperature	Electrode	$^{\circ}$ C	10-Aug-24	30.9	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.7	0.01	

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Date: 19 August 2024

Reference No: 240011

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW4	Water Source:	River
Client:	PPIC	Province:	Kampong Chhnang
Date received:	11-Aug-24	District:	Rolea Bier
Collection date:	10-Aug-24	Commune:	Prasneb
Preservation:	HNO3/Ice box	Village:	Chonleav

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.42		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	14.95	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	5		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	6.8	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.6	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	19,100	0	0
10	Electrical Conductivity	Electrode	μ S/cm	10-Aug-24	29.91	0.0	
11	Temperature	Electrode	$^{\circ}$ C	10-Aug-24	31.7	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.21	0.01	

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Kampong Cham, 19 August 2024

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Date: 19 August 2024

Reference No: 240012

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW5	Water Source:	Lake
Client:	PPIC	Province:	Kampong Chhnang
Date received:	11-Aug-24	District:	Kampong Tralach
Collection date:	10-Aug-24	Commune:	Longvek
Preservation:	HNO3/Ice box	Village:	Wat

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.78		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	71.07	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	17		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	18.1	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.3	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	85,000	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	138.7	0.0	
11	Temperature	Electrode	°C	10-Aug-24	32.8	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.62	0.01	

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Date: 19 August 2024

Reference No: 240013

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW6	Water Source:	River
Client:	PPIC	Province:	Kampong Speu
Date received:	11-Aug-24	District:	Odongk
Collection date:	10-Aug-24	Commune:	Preah Sre
Preservation:	HNO3/Ice box	Village:	Ta Cheal

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.91		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	91.58	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	43		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	17.7	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.9	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	157,500	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	183.4	0.0	
11	Temperature	Electrode	°C	10-Aug-24	33.4	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.65	0.01	

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Date: 19 August 2024
Reference No: 240014

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW7	Water Source:	Canal
Client:	PPIC	Province:	Kampong Speu
Date received:	11-Aug-24	District:	Odongk
Collection date:	10-Aug-24	Commune:	Veal Pung
Preservation:	HNO3/Ice box	Village:	Phkor

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.001	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	6.53		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	83.43	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	93		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	4.7	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.7	0.06	-
9	Total coliform	Membrane Filtration	CFU/100mL	11-Aug-24	92,500	0	0
10	Electrical Conductivity	Electrode	μS/cm	10-Aug-24	167.1	0.0	
11	Temperature	Electrode	°C	10-Aug-24	33.7	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	6.84	0.01	

CDWQS = Cambodian Drinking Water Quality Standard, 2004

DL = Detection Limit

Kampong Cham, 19 August 2024

Verified by
Lab Director



Samrach Phan



ក្រុមហ៊ុន វីធី អ៊ិនវ៉េសិន លេប

WATER INNOVATION LAB

ផ្លូវជាតិលេខ៧ ភូមិអំពិលក្រោម ឃុំអំពិល ស្រុកកំពង់សៀម ខេត្តកំពង់ចាម
National Road 7, Ampil Krom Village, Ampil Commune, Kampong Siem
District, Kampong Cham 030501, Cambodia
E-mail: lab@wil-kh.com; Tel: +855-16-668 900

Date: 19 August 2024
Reference No: 240015

លទ្ធផលវិភាគទឹក

LAB WATER ANALYTICAL RESULTS

Sample ID:	SW8	Water Source:	Dam
Client:	PPIC	Province:	Kampong Speu
Date received:	11-Aug-24	District:	Thpong
Collection date:	10-Aug-24	Commune:	Prambei Mom
Preservation:	HNO3/Ice box	Village:	Tang Pou

No	Parameters	Method	Units	Date Analyzed	Results	D.L	CDWQS
1	Arsenic	Spectrophotometry	mg/L	12-Aug-24	0.005	0.01	0.05
2	Cadmium	Spectrophotometry	mg/L	15-Aug-24	0.009	0.003	0.003
3	Lead	Spectrophotometry	mg/L	13-Aug-24	0.005	0.01	0.01
4	pH	Electrometric		10-Aug-24	7.49		6.5-8.5
5	Total dissolved solids	Electrode	mg/L	10-Aug-24	99.21	0.0	800
6	Total suspended solid	USEPA METHOD #: 160.2	mg/L	12-Aug-24	21		-
7	Total Nitrogen	Spectrophotometry	mg/L	12-Aug-24	5.1	0.5	-
8	Total Phosphorus	Spectrophotometry	mg/L	13-Aug-24	0.3	0.06	-
9	Total coliform	Membrane Filtration	CFU/ 100mL	11-Aug-24	82,850	0	0
10	Electrical Conductivity	Electrode	µS/cm	10-Aug-24	197.1	0.0	
11	Temperature	Electrode	°C	10-Aug-24	38.7	0.0	
12	Dissolved Oxygen	Electrode	mg/L	10-Aug-24	5.4	0.01	

CDWQS = Cambodian Drinking Water Quality Standard, 2004
DL = Detection Limit

Kampong Cham, 19 August 2024

Verified by
Lab Director



Samrach Phan

Results of Soil Laboratory Testing



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងកសិកម្ម រុក្ខាប្រមាញ់ និងនេសាទ
អគ្គនាយកដ្ឋានកសិកម្ម

លេខ ១៩២២ អ.ន.ក

ថ្ងៃទី ១៤ ខែ កក្កដា ឆ្នាំ ២០២៤
រាជធានីភ្នំពេញ ថ្ងៃទី ២០ ខែ កក្កដា ឆ្នាំ ២០២៤
លទ្ធផលវិភាគដី

Soil Analysis Results

ឈ្មោះក្រុមហ៊ុន(Company Name): PPIC Co.,Ltd

អាសយដ្ឋានAddress:

ថ្ងៃទីទទួលសំណាក: 14/8/24, NAL: 574-256

Lab. ID: 61 /24		LabNo. :	1
Description Parameter		Field ID:	SS 01
			X= 355662, Y= 1399063
Particle Size (Pipette Method)	(< 0.002mm) ឥដ្ឋ, Clay %		9.90
	(0.002-0.02 mm) ល្បាប់ ប្រាំង, Fine Silt , %		37.65
	(0.02- 0.05 mm) ល្បាប់ គ្រើម, Coase Silt , %		21.71
	(0.05- 0.2 mm) ឱ្យចម្រើន, Fine Sand,%		30.59
	(0.2 - 2 mm) ឱ្យចម្រើន, Coase Sand,%		3.22
សំណើម Moisture % , (Oven dry at 105 °C and 24 hours)			1.67
កាបូន Total Carbon (Black & Walkey Method) , C %			2.22
អាស្ទិត Total Nitrogen (Kjeldal Sulfuric Method) ,N %			0.19
អនុបាត C/N Ratio (Unit)			12
សារធាតុសរីរាង្គ Organic Matter (OM) %			3.82
ផូស្វ័រសរុប Total Phosphorus (Nitric Digestion) P %			0.051
ផូស្វ័រអាស្រ័យ Available Phosphorus (Bray II) , P (ppm)			51
សមត្ថភាពដោះដូរកាតុង Cation Exchange Capacity C.E.C meq/100g Soil (Method, 1M Ammonium Acetate at pH = 7 & Leach with 10 % NaCl)			13.00
កាតុងដោះដូរ, Exchangeable Cation (meq/100g Soil), (Method, 1M Ammonium Acetate at pH =7)	កាល់ស្យូម, Calcium Ca		3.06
	ម៉ាញ៉េស្យូម, Magnesium Mg		1.28
	សូដ្យូម, Sodium Na		1.42
	ប៉ូតាស្យូម, Potasium K		0.77
កាតុងដោះដូរសរុប, Total Exchangeable Bases (meq/100g soil)			6.53
អត្រាបំពេញកាតុង, Bass Saturation %			50
អាស៊ីតដោះដូរ Exchange Acidity meq/100g Soil , (1 M KCl Method)			20.00
អាស៊ីតអ៊ាលូមីញ៉ូមដោះដូរ Exchange Al meq/100g Soil , (1 M KCl Method)			0.20
បញ្ជីអ.អ.សីលសីលជាតិប្រែប្រួល Electrode Conductivity μS/cm , (1:5 Soil: water)			96.80
ប៊េម៉ាស៊ីក, pH H ₂ O , (1:5 Soil: water)			5.36
ប៊េម៉ាស៊ីក, pH KCL , (1:5 Soil: 1N KCL)			4.21

Lab. ID: 61 /24		LabNo. :	2
Description Parameter		Field ID:	SS 02
			X= 354509, Y= 1406852
Particle Size (Pipette Method)	(< 0.002mm) ឥដ្ឋ, Clay %		14.01
	(0.002-0.02 mm) ល្បាប់ មីត, Fine Silt , %		35.55
	(0.02- 0.05 mm) ល្បាប់ គ្រើម, Coase Silt , %		22.69
	(0.05- 0.2 mm) ឧត្តមីត, Fine Sand,%		32.75
	(0.2 - 2 mm) ឧត្តមគ្រើម, Coase Sand,%		2.32
សំណើម Moisture % , (Oven dry at 105 °C and 24 hours)			1.73
កាបូន Total Carbon (Black & Walkey Method) , C %			1.84
អាស៊ីត Total Nitrogen (Kjeldal Sulfuric Method) ,N %			0.17
អនុបាត C/N Ratio (Unit)			11
សារធាតុសរីរក្នុង Organic Matter (OM) %			3.16
ផូស្វ័រសរុប Total Phosphorus (Nitric Digestion) P %			0.043
ផូស្វ័រអាស្រ័យ Available Phosphorus (Bray II) , P (ppm)			41
សមត្ថភាពដោះដូរកាតុង Cation Exchange Capacity C.E.C meq/100g Soil			12.40
(Method ,1M Ammonium Acetate at pH = 7 & Leach with 10 % NaCl)			
កាតុងដោះដូរ ,Exchangeable Cation (meq/100g Soil), (Method, 1M Ammonium Acetate at pH =7)	កាល់ស្យូម, Calcium Ca		3.77
	ម៉ាញ៉េស្យូម,Magnesium Mg		1.38
	សូដ្យូម,Sodium Na		0.75
	ប៉ូតាស្យូម,Potassium K		0.27
កាតុងដោះដូរសរុប , Total Exchangeable Bases (meq/100g soil)			6.17
អត្រាចំរើននៃកាតុង, Bass Saturation %			50
អាស៊ីតដោះដូរ Exchange Acidity meq/100g Soil , (1 M KCl Method)			15.00
អាស៊ីតដោះដូរ Exchange Al meq/100g Soil , (1 M KCl Method)			0.12
បញ្ជូន.អ.នីមេសជាតិអ៊ីយ៉ុង Electrode Conductivity $\mu\text{S}/\text{cm}$, (1:5 Soil: water)			36.10
លំហាស់ទឹក, pH H ₂ O , (1:5 Soil: water)			5.29
លំហាស់អំបិល , pH KCL , (1:5 (Soil : 1N KCL)			4.12

Lab. ID: 61 /24		LabNo. :	3
Description Parameter		Field ID:	SS 03
			X=441471, Y=1355655
Particle Size (Pipette Method)	(< 0.002mm) ឥដ្ឋ, Clay %		1.23
	(0.002-0.02 mm) ល្បាប់ មីត, Fine Silt , %		3.40
	(0.02- 0.05 mm) ល្បាប់ គ្រើម, Coase Silt , %		5.23
	(0.05- 0.2 mm) ឧត្តមីត, Fine Sand, %		33.52
	(0.2 - 2 mm) ឧត្តមគ្រើម, Coase Sand, %		55.72
សំណើម Moisture % , (Oven dry at 105 °C and 24 hours)			0.20
កាបូន Total Carbon (Black & Walkey Method) , C %			1.80
អាស៊ីត Total Nitrogen (Kjeldal Sulfuric Method) ,N %			0.17
អនុបាត C/N Ratio (Unit)			11
សារធាតុសរីរាង្គ Organic Matter (OM) %			3.10
ផូស្វ័រសរុប Total Phosphorus (Nitric Digestion) P %			0.046
ផូស្វ័រលាប Available Phosphorus (Bray II) , P (ppm)			46
សមត្ថភាពដោះដូរកាតុង Cation Exchange Capacity C.E.C meq/100g Soil			10.00
(Method ,1M Ammonium Acetate at pH = 7 & Leach with 10 % NaCl)			
កាតុងដោះដូរ ,Exchangeable Cation (meq/100g Soil), (Method, 1M Ammonium Acetate pH =7)	កាល់ស្យូម, Calcium Ca		3.56
	ម៉ាញ៉េស្យូម, Magnesium Mg		1.58
	សូដ្យូម, Sodium Na		0.30
	ប៉ូតាស្យូម, Potasium K		0.13
កាតុងដោះដូរសរុប , Total Exchangeable Bases (meq/100g soil)			5.57
អត្រាចំណែកនៃកាតុង, Bass Saturation %			56
អាស៊ីតដោះដូរ Exchange Acidity meq/100g Soil , (1 M KCl Method)			5.00
អាលុយមីញ៉ូមដោះដូរ Exchange Al meq/100g Soil , (1 M KCl Method)			0.04
បញ្ជីអ.នីមេសជាតិប្រេដី Electrode Conductivity $\mu\text{S/cm}$, (1:5 Soil: water)			99.30
ប៉េអាស៊ីត, pH H ₂ O , (1:5 Soil: water)			7.67
ប៉េអាស៊ីតអំបិល , pH KCL , (1:5 (Soil : 1N KCL)			6.51

Lab. ID: 61 /24		LabNo. :	4
Description Parameter		Field ID:	SS 04
			X=465450, Y=1304887
Particle Size (Pipette Method)	(< 0.002mm) ឥដ្ឋ, Clay %		14.95
	(0.002-0.02 mm) ល្បាប់ មីក, Fine Silt , %		30.00
	(0.02- 0.05 mm) ល្បាប់ គ្រើម, Coase Silt , %		19.81
	(0.05- 0.2 mm) ឱ្យចម្អិន, Fine Sand, %		31.12
	(0.2 - 2 mm) ឱ្យចម្រើម, Coase Sand, %		5.92
សំណើម Moisture % , (Oven dry at 105 °C and 24 hours)			2.64
កាបូន Total Carbon (Black & Walkey Method) , C %			1.63
អាស៊ីត Total Nitrogen (Kjeldal Sulfuric Method) ,N %			0.14
អនុបាត C/N Ratio (Unit)			12
សារធាតុសរីរក្នុង Organic Matter (OM) %			2.80
ផូស្វ័រសរុប Total Phosphorus (Nitric Digestion) P %			0.044
ផូស្វ័រអាស្រ័យ Available Phosphorus (Bray II) , P (ppm)			29
សមត្ថភាពដោះដូរកាតុង Cation Exchange Capacity C.E.C meq/100g Soil			16.50
(Method ,1M Ammonium Acetate at pH = 7 & Leach with 10 % NaCl)			
កាតុងដោះដូរ ,Exchangeable Cation (meq/100g Soil), (Method, 1M Ammonium Acetate at pH =7)	កាល់ស្យូម, Calcium Ca		8.30
	ម៉ាញ៉េស្យូម,Magnesium Mg		2.37
	សូដ្យូម,Sodium Na		2.57
	ប៉ូតាស្យូម,Potassium K		0.36
កាតុងដោះដូរសរុប , Total Exchangeable Bases (meq/100g soil)			13.60
អត្រាចំណែកនៃកាតុង, Bass Saturation %			70
អាស៊ីតដោះដូរ Exchange Acidity meq/100g Soil , (1 M KCl Method)			10.00
អាស៊ីតដោះដូរ Exchange Al meq/100g Soil , (1 M KCl Method)			0.12
បញ្ជូន.អ.នីមេលជាតិប្រេង Electrode Conductivity $\mu\text{S/cm}$, (1:5 Soil: water)			108.40
ប៉េអាល់ស៊ីក, pH H ₂ O , (1:5 Soil: water)			7.41
ប៉េអាល់ស៊ីក, pH KCL , (1:5 (Soil : 1N KCL)			6.23

Lab. ID: 61 /24		LabNo. :	5
Description Parameter		Field ID:	SS 05
			X=469604 , Y=1306117
Particle Size (Pipette Method)	(< 0.002mm) ឥដ្ឋ, Clay %		7.30
	(0.002-0.02 mm) ល្បាប់ មីត, Fine Silt , %		21.10
	(0.02- 0.05 mm) ល្បាប់ គ្រើម, Coase Silt , %		11.70
	(0.05- 0.2 mm) ឧត្តមីត, Fine Sand,%		30.29
	(0.2 - 2 mm) ឧត្តគ្រើម, Coase Sand,%		28.78
សំណើម Moisture % , (Oven dry at 105 °C and 24 hours)			2.62
កាបូន Total Carbon (Black & Walkey Method) , C %			1.87
អាស៊ីត Total Nitrogen (Kjeldal Sulfuric Method) ,N %			0.17
អនុបាត C/N Ratio (Unit)			11
សារធាតុសរីរក្នុង Organic Matter (OM) %			3.22
ផូស្វ័រសរុប Total Phosphorus (Nitric Digestion) P %			0.094
ផូស្វ័រលាប Available Phosphorus (Bray II) , P (ppm)			37
សមត្ថភាពដោះដូរកាតុង Cation Exchange Capacity C.E.C meq/100g Soil (Method ,1M Ammonium Acetate at pH = 7 & Leach with 10 % NaCl)			16.30
កាតុងដោះដូរ ,Exchangeable Cation (meq/100g Soil), (Method, 1M Ammonium Acetate at pH =7)	កាល់ស្យូម, Calcium Ca		5.43
	ម៉ាញ៉េស្យូម,Magnesium Mg		1.48
	សូដ្យូម,Sodium Na		1.50
	ប៉ូតាស្យូម,Potassium K		0.35
កាតុងដោះដូរសរុប , Total Exchangable Bases (meq/100g soil)			8.76
អត្រាចំណែកនៃកាតុង, Bass Saturation %			54
អាស៊ីតដោះដូរ Exchange Acidity meq/100g Soil , (1 M KCl Method)			10.00
អាស៊ីតដោះដូរ Exchange Al meq/100g Soil , (1 M KCl Method)			0.12
បញ្ជីអ.អ.អិលេកត្រូឡីត្រីក៍ Electrode Conductivity $\mu S/cm$, (1:5 Soil: water)			63.00
បេហ្សាស័ទីក, pH H ₂ O , (1:5 Soil: water)			5.66
បេហ្សាស័អ៊ីប៊ីល , pH KCL , (1:5 (Soil : 1N KCL)			4.47

ចំណាំ: លទ្ធផលនៃការវិភាគមាននៅក្នុងតារាងលើសំណាកដែលបានបញ្ជូនមកវិភាគតែប៉ុណ្ណោះ (Note: Analysis result refers to the submitted sample only).

ប្រធានមន្ទីរពិសោធន៍ជាតិកសិកម្ម

បានឃើញ និងឯកភាព
ប្រតិភូរាជរដ្ឋាភិបាលកម្ពុជាឧបនាយករដ្ឋមន្ត្រី
នៃអគ្គនាយកដ្ឋានកសិកម្ម



N.
15/ 10/20