Draft Environment and Social Impact Assessment

Project Number: 55205-001
29 April 2022

Lao PDR: Monsoon Wind Power Project
Part 13: Appendices B to C

Prepared by Impact Energy Asia Development Limited (IEAD) for the Asian Development Bank.

Monsoon Wind Power Project, Sekong and Attapeu Provinces, Lao PDR

Environmental and Social Impact Assessment

29 April 2022

Project No.: 0598121

The business of sustainability

ERM

Document details	
Document title	Monsoon Wind Power Project, Sekong and Attapeu Provinces, Lao PDR
Document subtitle	Environmental and Social Impact Assessment
Project No.	0598121
Date	29 April 2022
Version	2.0
Author	Aurora Finiguerra, Cheryl Ng, Elaine Wong, Hoa Tran, Jacopo Ventura, Mingkwan Naewjampa, Shubhankar Khare, Tirapon Premchitt, Winee Tammaruk
Client Name	Impact Energy Asia Development Limited (IEAD)

Document history

				ERM approval to issue		
Version	Revision	Author	Reviewed by	Name	Date	Comments
1	1.1	As above	Kamonthip Ma-Oon, Sabrina Genter, Les Hatton, George Chatzigiannidis, Simone Poli, Aniket Jalgaonkar	Kamonthip Ma-Oon	18-02-22	Draft to IEAD
1	1.2	As above	As above	Kamonthip Ma-Oon	25-02-22	Draft to IEAD
1	1.3	As above	As above	Kamonthip Ma-Oon	23-03-22	Draft to IEAD and ADB
1	1.4	As above	As above	Kamonthip Ma-Oon	30-03-22	Draft to IEAD and ADB
1	1.4	As above	As above	Kamonthip Ma-Oon	21-04-22	Draft to IEAD and ADB
2	2.1	As above	As above	Kamonthip Ma-Oon	29-04-22	Final ESIA Report

APPENDIX B NOISE FIELD LOGS, CALIBRATION SHEETS, AND SAMPLING RAW DATA

Noise Measurements Datasheet at Noise Sampling Point 1

Receptor

Measurement Description
References time
Date 13-16/08/2021
Day time 72 hours

Coordinates: UTM
N 725350
E 1695974

Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter
Wind Speed Instrument: Davis Vantage PRO2

Noise Pressure Levels (dBA) - Laeq, day/night

Date	Time	LeqA	L05	L10	L50	L90	L95
8/13/2021 12:00-18:00	Day time	37.1	40.8	39.3	33.4	28.8	28.3
8/13-14/2021 18:00-06:00	Night time	47	50	45.6	42.6	39.9	39.6
8/14/2021 06:00-18:00	Day time	46.8	53	51.6	39.2	34.9	33.5
8/14-15/2021 18:00-06:00	Night time	40.9	42.8	42.2	40.8	38.2	36.6
8/15/2021 06:00-18:00	Day time	37	41	39.6	34.1	30	29.5
8/15-16/2021 18:00-06:00	Night time	42.1	44.8	44.3	42.1	38.3	37.1
8/16/2021 06:00-12:00	Day time	37.9	40.5	38.9	34.5	30.6	29.8

Noise Pressure Levels (dBA) - Laeq, 1h

Date	**Time**	**LeqA**	**L05**	**L10**	**L50**	**L90**	**L95**
8/13/2021	12:00-13:00	38.9	45.1	41.4	33.5	30.5	29.9
8/13/2021	13:00-14:00	37.5	41.2	39.6	35.4	31.5	30.6
8/13/2021	14:00-15:00	35.2	38.8	38.4	34.7	29.9	29.1
8/13/2021	15:00-16:00	31.8	36.7	34.8	29	27.8	27.5
8/13/2021	16:00-17:00	32.7	36.9	34.6	31.4	28.8	28.5
8/13/2021	17:00-18:00	40.2	42.9	40	36.4	32.1	31.9
8/13/2021	18:00-19:00	50.6	57	55	46.3	42.7	37
8/13/2021	19:00-20:00	54.9	61.8	60.9	46.2	43.4	42.9
8/13/2021	20:00-21:00	42.6	44.7	44.4	42.4	39.9	39.4
8/13/2021	21:00-22:00	41.8	44	43.7	41.5	38.8	38.6
8/13/2021	22:00-23:00	43	44.9	44.5	42.6	40.1	39.4
8/13/2021	23:00-24:00	43.3	44.7	44.3	43.3	42	41.7
8/14/2021	00:00-01:00	43.4	45.1	44.8	43.1	42.2	41.7
8/14/2021	01:00-02:00	42.8	44.7	43.8	43	41.3	40.5
8/14/2021	02:00-03:00	42.4	43.5	43.1	42.4	41.2	40.9
8/14/2021	03:00-04:00	41.7	43.4	42.9	41.2	39.8	39.6
8/14/2021	04:00-05:00	40.7	42	41.8	40.5	39.8	39.7
8/14/2021	05:00-06:00	40.6	42.3	41.6	40.2	39.4	38.9
8/14/2021	06:00-07:00	45.3	51.2	45.2	37.9	34.7	33.6
8/14/2021	07:00-08:00	48.7	53	52.4	42.2	36.2	35.5
8/14/2021	08:00-09:00	50.9	55.3	54.1	49.3	41.5	36.9
8/14/2021	09:00-10:00	54.5	55.4	54.3	52.6	48.8	47.5
8/14/2021	10:00-11:00	44.6	49.1	48.2	41	35.8	35.4
8/14/2021	11:00-12:00	38.4	43.7	42.7	36.2	33.8	33.4
8/14/2021	12:00-13:00	35.9	39.5	38.9	34.3	31.7	31.5
8/14/2021	13:00-14:00	41.2	43.3	42.9	40.2	37.1	36
8/14/2021	14:00-15:00	37.2	39.8	39.1	36.9	34.2	33.3
8/14/2021	15:00-16:00	38.3	40.8	40.4	37.3	36.1	36
8/14/2021	16:00-17:00	39.8	42	41.6	39.4	38.2	37.7

8/14/2021	17:00-18:00	42.2	45.1	44.5	41.5	38	37.4
8/14/2021	18:00-19:00	41.7	44.3	43.8	40.9	38.8	38.3
8/14/2021	19:00-20:00	41.6	42.7	42.5	41.7	40.4	40.3
8/14/2021	20:00-21:00	41.4	42.8	42.6	41.3	39.8	39.7
8/14/2021	21:00-22:00	41.2	42.4	42.1	41.2	40	40
8/14/2021	22:00-23:00	41.2	42	41.8	41.1	40.4	40.2
8/14/2021	23:00-00:00	39.3	42.2	41.8	38	35.2	34.9
8/15/2021	00:00-01:00	40.1	41.6	41.3	41.6	36.8	36
8/15/2021	01:00-02:00	41	41.9	41.8	41.1	40.1	39.6
8/15/2021	02:00-03:00	41.5	43.1	42.9	41.5	38.9	38.8
8/15/2021	03:00-04:00	40.5	41.6	41.5	40.6	39.2	39
8/15/2021	04:00-05:00	40.8	42.5	41.9	40.5	39.4	39
8/15/2021	05:00-06:00	39	41.1	40.7	38.7	36.5	36
8/15/2021	06:00-07:00	37.8	41.7	41	36.4	35	34.9
8/15/2021	07:00-08:00	38.4	41.1	40.8	37.6	34.6	33.6
8/15/2021	08:00-09:00	36.4	40.1	39.4	34.5	32.2	31.7
8/15/2021	09:00-10:00	37.1	42.1	37.7	32.9	30.8	30.4
8/15/2021	10:00-11:00	34.2	38.1	37.2	32.6	29.9	29.7
8/15/2021	11:00-12:00	33.2	37.9	36.4	30.7	29.3	29.2
8/15/2021	12:00-13:00	33.4	36.9	36.4	31.8	29.8	29.4
8/15/2021	13:00-14:00	33.9	38.9	37.5	31.7	29.1	29
8/15/2021	14:00-15:00	33.8	38.9	37.6	31.4	29.5	29.2
8/15/2021	15:00-16:00	33.3	36.5	35.8	32.5	30.5	30.2
8/15/2021	16:00-17:00	42.3	49	44.1	38.2	31.3	30.5
8/15/2021	17:00-18:00	38.4	41	40.6	37.8	33.3	33
8/15/2021	18:00-19:00	43.5	45.4	45.1	43.5	40.3	39.7
8/15/2021	19:00-20:00	43.9	45.2	45.1	43.7	42.3	41.9
8/15/2021	20:00-21:00	43.5	44.3	44.1	43.4	42.7	42.4
8/15/2021	21:00-22:00	43.7	44.9	44.6	43.7	42.3	41.5
8/15/2021	22:00-23:00	42.9	43.6	43.5	42.9	42.3	42.1
8/15/2021	23:00-00:00	42.1	43.3	43	42.1	41.2	41.2
8/16/2021	00:00-01:00	42.7	44.9	43.8	42.4	41.3	41.2
8/16/2021	01:00-02:00	41.9	43.4	43	41.9	40.1	39.8
8/16/2021	02:00-03:00	40	41.5	41	39.8	38.7	38.3
8/16/2021	03:00-04:00	39	40.6	40.3	39	37.4	37.2
8/16/2021	04:00-05:00	40	41.4	41.2	39.9	38.5	38.5
8/16/2021	05:00-06:00	36.9	39	38.6	36.7	34.1	34.1
8/16/2021	06:00-07:00	36.9	40.4	38.4	35.7	33.9	33.7
8/16/2021	07:00-08:00	37.8	41.4	40.4	37.1	34.1	33.8
8/16/2021	08:00-09:00	36.9	40.5	39.2	36	31.3	30.8
8/16/2021	09:00-10:00	42.5	42.7	38.8	31.2	29.3	29.2
8/16/2021	10:00-11:00	34.1	38.1	36.5	32.5	30.4	29.9
8/16/2021	11:00-12:00	34.3	38.5	36.4	32.7	30.9	30.2

Receptor

Geographic Coordinations

Geographic Coordination System WGS 1984 – UTM 48

Coordinate [m]	X	Y
	725350	1695974

Measurement Description

Reference Time

Date 13-16/08/2021

Day time 72 hours

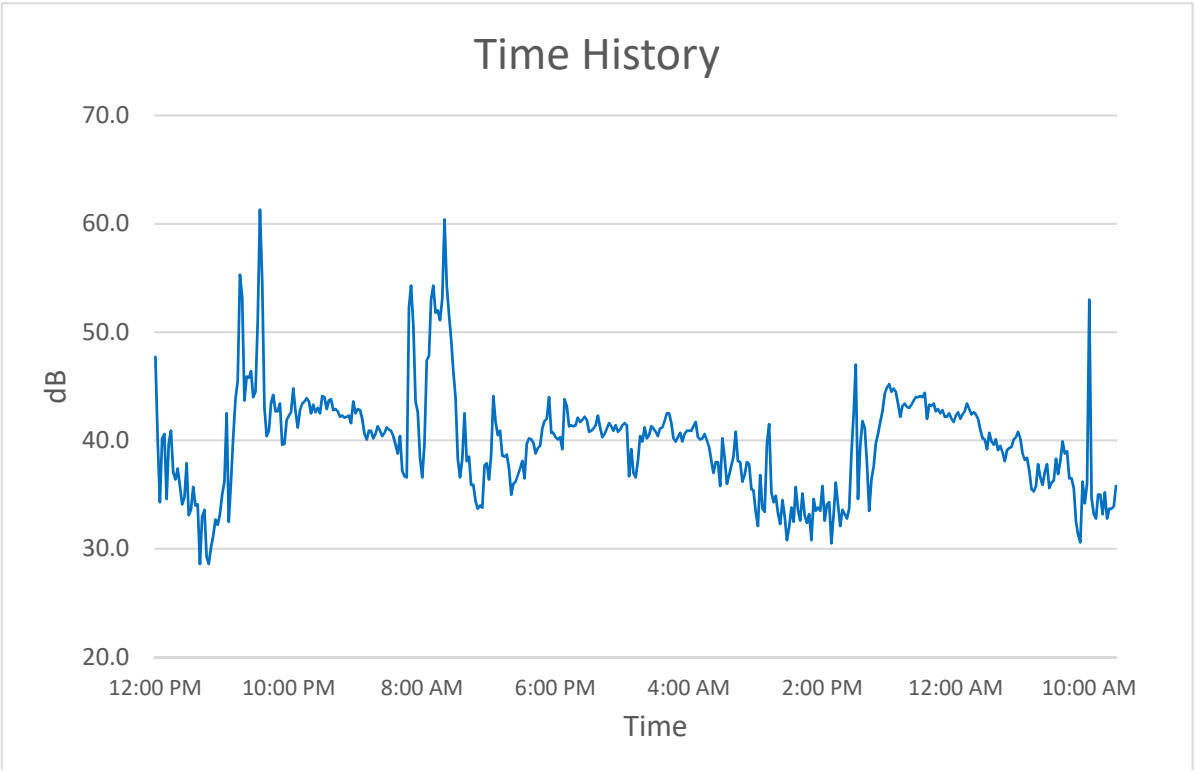
Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter

Wind Speed Instrument: Davis Vantage PRO2

Metheorological Conditions

	u.m.		LeqA	L5	L10	L50	L90	L95
Temperature	[°C]	23.3	**40.3**	44.2	43.2	39.2	31.8	30.5
Wind Speed	[m/s]	2.35						
Pressure	[Hpa]	880.1						
Rainfall	[mm]	0						
(*) Average Values								



Recording activities surrounding at Noise measurement and Wind Speed.
Sampling Point: N1

Recording activities surrounding at Noise measurement and Wind speed point N1. This point was in high school of Xienglouang village. Surrounding there are household, community, near 16B national road and farming area. Particularly observation sound hearing from truck, car, motorbike on road, noise from community, pets (cow) and noise from rain.

Wind Speed Measurement at Noise Sampling Point 1

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/13/2021 12:00	0:10:00	47.7	31.8	3.6
8/13/2021 12:10	0:10:00	40.1	30.3	3.1
8/13/2021 12:20	0:10:00	34.3	30.5	3.6
8/13/2021 12:30	0:10:00	40.2	33.0	4.5
8/13/2021 12:40	0:10:00	40.6	29.6	2.7
8/13/2021 12:50	0:10:00	34.6	30.8	4.5
8/13/2021 13:00	0:10:00	39.7	32.2	4.9
8/13/2021 13:10	0:10:00	40.9	33.2	4.9
8/13/2021 13:20	0:10:00	37.1	30.3	3.1
8/13/2021 13:30	0:10:00	36.4	33.8	3.6
8/13/2021 13:40	0:10:00	37.4	33.8	4.0
8/13/2021 13:50	0:10:00	35.8	32.2	3.6
8/13/2021 14:00	0:10:00	34.1	30.8	4.0
8/13/2021 14:10	0:10:00	34.7	31.4	4.0
8/13/2021 14:20	0:10:00	37.9	35.4	4.9
8/13/2021 14:30	0:10:00	33.1	28.6	3.1
8/13/2021 14:40	0:10:00	33.6	29.9	3.6
8/13/2021 14:50	0:10:00	35.7	30.0	3.1
8/13/2021 15:00	0:10:00	34.0	30.1	3.1
8/13/2021 15:10	0:10:00	34.1	29.8	3.1
8/13/2021 15:20	0:10:00	28.6	27.8	2.2
8/13/2021 15:30	0:10:00	33.0	28.3	2.7
8/13/2021 15:40	0:10:00	33.6	28.4	2.7
8/13/2021 15:50	0:10:00	29.2	28.0	2.2
8/13/2021 16:00	0:10:00	28.6	27.4	2.2
8/13/2021 16:10	0:10:00	30.1	28.4	2.2
8/13/2021 16:20	0:10:00	31.2	28.4	2.2
8/13/2021 16:30	0:10:00	32.7	29.1	2.2
8/13/2021 16:40	0:10:00	32.2	29.2	1.8
8/13/2021 16:50	0:10:00	33.2	30.4	1.8
8/13/2021 17:00	0:10:00	35.0	32.1	1.8
8/13/2021 17:10	0:10:00	36.2	34.6	1.8
8/13/2021 17:20	0:10:00	42.5	34.9	2.2
8/13/2021 17:30	0:10:00	32.5	30.4	1.3
8/13/2021 17:40	0:10:00	36.2	32.0	0.9
8/13/2021 17:50	0:10:00	40.3	35.7	2.2
8/13/2021 18:00	0:10:00	43.8	34.6	2.2
8/13/2021 18:10	0:10:00	45.5	34.7	2.2
8/13/2021 18:20	0:10:00	55.3	50.3	3.6
8/13/2021 18:30	0:10:00	53.2	51.0	1.8
8/13/2021 18:40	0:10:00	43.7	42.9	1.8
8/13/2021 18:50	0:10:00	45.9	43.5	2.7
8/13/2021 19:00	0:10:00	45.8	44.9	2.7
8/13/2021 19:10	0:10:00	46.4	45.2	2.7
8/13/2021 19:20	0:10:00	44.0	43.4	2.2
8/13/2021 19:30	0:10:00	44.5	42.9	1.3
8/13/2021 19:40	0:10:00	51.0	45.9	1.8
8/13/2021 19:50	0:10:00	61.3	59.8	4.0
8/13/2021 20:00	0:10:00	54.7	42.3	1.8
8/13/2021 20:10	0:10:00	43.0	41.2	1.3
8/13/2021 20:20	0:10:00	40.4	38.8	0.9
8/13/2021 20:30	0:10:00	40.9	40.3	1.3
8/13/2021 20:40	0:10:00	43.4	41.2	1.3
8/13/2021 20:50	0:10:00	44.2	43.3	1.3
8/13/2021 21:00	0:10:00	42.7	42.1	1.3

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/13/2021 21:10	0:10:00	42.7	41.4	1.3
8/13/2021 21:20	0:10:00	43.4	41.8	1.3
8/13/2021 21:30	0:10:00	39.6	38.6	1.8
8/13/2021 21:40	0:10:00	39.7	37.7	2.2
8/13/2021 21:50	0:10:00	41.9	41.0	2.7
8/13/2021 22:00	0:10:00	42.3	40.0	2.2
8/13/2021 22:10	0:10:00	42.6	41.8	2.7
8/13/2021 22:20	0:10:00	44.8	42.7	2.2
8/13/2021 22:30	0:10:00	42.7	41.0	2.2
8/13/2021 22:40	0:10:00	41.2	39.1	1.8
8/13/2021 22:50	0:10:00	42.8	41.5	1.3
8/13/2021 23:00	0:10:00	43.4	41.7	0.9
8/13/2021 23:10	0:10:00	43.6	42.4	0.9
8/13/2021 23:20	0:10:00	43.9	43.1	1.3
8/13/2021 23:30	0:10:00	43.6	42.6	0.9
8/13/2021 23:40	0:10:00	42.5	41.1	1.3
8/13/2021 23:50	0:10:00	43.3	42.5	0.9
8/14/2021 0:00	0:10:00	42.6	41.5	1.3
8/14/2021 0:10	0:10:00	43.0	42.3	1.3
8/14/2021 0:20	0:10:00	42.5	41.6	1.3
8/14/2021 0:30	0:10:00	44.1	43.1	1.3
8/14/2021 0:40	0:10:00	44.0	42.2	1.8
8/14/2021 0:50	0:10:00	42.9	41.8	1.3
8/14/2021 1:00	0:10:00	43.7	42.7	1.8
8/14/2021 1:10	0:10:00	43.8	42.5	2.2
8/14/2021 1:20	0:10:00	42.8	41.5	1.8
8/14/2021 1:30	0:10:00	42.9	41.8	2.7
8/14/2021 1:40	0:10:00	42.7	41.6	2.2
8/14/2021 1:50	0:10:00	42.2	40.0	2.2
8/14/2021 2:00	0:10:00	42.3	41.1	2.2
8/14/2021 2:10	0:10:00	42.1	41.2	3.1
8/14/2021 2:20	0:10:00	42.2	41.4	2.2
8/14/2021 2:30	0:10:00	42.3	41.0	2.7
8/14/2021 2:40	0:10:00	41.6	40.1	2.7
8/14/2021 2:50	0:10:00	43.6	42.3	2.7
8/14/2021 3:00	0:10:00	42.5	41.9	2.7
8/14/2021 3:10	0:10:00	42.9	42.5	2.7
8/14/2021 3:20	0:10:00	42.8	43.5	2.7
8/14/2021 3:30	0:10:00	42.0	40.7	2.7
8/14/2021 3:40	0:10:00	40.6	39.8	2.7
8/14/2021 3:50	0:10:00	40.1	39.2	3.1
8/14/2021 4:00	0:10:00	40.9	40.0	3.1
8/14/2021 4:10	0:10:00	40.9	40.1	2.7
8/14/2021 4:20	0:10:00	40.2	39.7	3.6
8/14/2021 4:30	0:10:00	40.6	39.9	4.0
8/14/2021 4:40	0:10:00	41.3	40.2	3.6
8/14/2021 4:50	0:10:00	40.9	40.2	3.6
8/14/2021 5:00	0:10:00	40.4	39.8	4.0
8/14/2021 5:10	0:10:00	40.7	39.7	3.6
8/14/2021 5:20	0:10:00	41.2	39.7	3.1
8/14/2021 5:30	0:10:00	41.0	39.8	2.7
8/14/2021 5:40	0:10:00	40.9	39.5	2.7
8/14/2021 5:50	0:10:00	40.4	39.4	2.7
8/14/2021 6:00	0:10:00	39.6	38.2	2.7
8/14/2021 6:10	0:10:00	38.8	38.2	3.6

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/14/2021 6:20	0:10:00	40.4	35.2	3.1
8/14/2021 6:30	0:10:00	37.2	35.8	2.7
8/14/2021 6:40	0:10:00	36.7	34.0	2.7
8/14/2021 6:50	0:10:00	36.6	33.5	1.8
8/14/2021 7:00	0:10:00	52.3	36.7	3.1
8/14/2021 7:10	0:10:00	54.3	48.1	2.2
8/14/2021 7:20	0:10:00	50.7	46.6	3.6
8/14/2021 7:30	0:10:00	43.6	41.1	4.5
8/14/2021 7:40	0:10:00	42.6	40.4	3.6
8/14/2021 7:50	0:10:00	38.4	34.8	3.1
8/14/2021 8:00	0:10:00	36.6	35.7	3.1
8/14/2021 8:10	0:10:00	39.8	35.5	3.1
8/14/2021 8:20	0:10:00	47.4	45.5	2.7
8/14/2021 8:30	0:10:00	47.8	46.3	3.1
8/14/2021 8:40	0:10:00	53.0	52.2	3.6
8/14/2021 8:50	0:10:00	54.3	52.2	3.6
8/14/2021 9:00	0:10:00	51.8	48.9	3.6
8/14/2021 9:10	0:10:00	52.0	47.8	1.3
8/14/2021 9:20	0:10:00	51.1	47.0	1.3
8/14/2021 9:30	0:10:00	53.1	51.9	2.2
8/14/2021 9:40	0:10:00	60.4	52.0	4.5
8/14/2021 9:50	0:10:00	54.3	52.6	5.4
8/14/2021 10:00	0:10:00	51.6	49.5	5.8
8/14/2021 10:10	0:10:00	49.4	45.8	5.4
8/14/2021 10:20	0:10:00	46.4	44.6	4.0
8/14/2021 10:30	0:10:00	43.9	39.7	3.1
8/14/2021 10:40	0:10:00	38.3	35.4	1.8
8/14/2021 10:50	0:10:00	36.6	35.4	1.8
8/14/2021 11:00	0:10:00	38.3	35.9	1.8
8/14/2021 11:10	0:10:00	42.5	39.0	2.2
8/14/2021 11:20	0:10:00	38.1	36.0	2.2
8/14/2021 11:30	0:10:00	38.5	34.9	2.2
8/14/2021 11:40	0:10:00	35.9	33.8	2.2
8/14/2021 11:50	0:10:00	35.9	34.4	2.7
8/14/2021 12:00	0:10:00	34.4	33.1	2.2
8/14/2021 12:10	0:10:00	33.7	32.1	1.8
8/14/2021 12:20	0:10:00	34.0	31.8	2.2
8/14/2021 12:30	0:10:00	33.8	31.3	2.2
8/14/2021 12:40	0:10:00	37.7	32.2	2.7
8/14/2021 12:50	0:10:00	37.9	35.0	2.2
8/14/2021 13:00	0:10:00	36.4	33.4	2.7
8/14/2021 13:10	0:10:00	38.6	36.8	3.1
8/14/2021 13:20	0:10:00	44.1	38.8	3.1
8/14/2021 13:30	0:10:00	41.7	40.1	3.1
8/14/2021 13:40	0:10:00	40.5	38.1	2.7
8/14/2021 13:50	0:10:00	40.9	39.4	2.7
8/14/2021 14:00	0:10:00	38.6	35.6	2.7
8/14/2021 14:10	0:10:00	38.5	36.1	2.2
8/14/2021 14:20	0:10:00	38.7	37.6	1.8
8/14/2021 14:30	0:10:00	37.4	35.7	2.7
8/14/2021 14:40	0:10:00	35.0	32.4	3.1
8/14/2021 14:50	0:10:00	36.0	33.9	2.7
8/14/2021 15:00	0:10:00	36.2	35.5	3.1
8/14/2021 15:10	0:10:00	36.8	36.0	2.2
8/14/2021 15:20	0:10:00	37.4	36.4	2.7

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/14/2021 15:30	0:10:00	38.1	36.9	3.1
8/14/2021 15:40	0:10:00	36.5	36.0	2.7
8/14/2021 15:50	0:10:00	39.7	38.7	2.2
8/14/2021 16:00	0:10:00	40.2	37.3	1.8
8/14/2021 16:10	0:10:00	40.1	37.6	2.7
8/14/2021 16:20	0:10:00	39.8	37.8	2.7
8/14/2021 16:30	0:10:00	38.8	38.3	2.2
8/14/2021 16:40	0:10:00	39.3	37.9	2.7
8/14/2021 16:50	0:10:00	39.5	38.8	2.7
8/14/2021 17:00	0:10:00	41.1	40.2	2.7
8/14/2021 17:10	0:10:00	41.8	37.9	2.2
8/14/2021 17:20	0:10:00	42.0	40.5	1.8
8/14/2021 17:30	0:10:00	44.0	42.9	1.8
8/14/2021 17:40	0:10:00	40.7	38.8	2.2
8/14/2021 17:50	0:10:00	40.7	37.8	1.8
8/14/2021 18:00	0:10:00	40.3	39.3	2.2
8/14/2021 18:10	0:10:00	40.1	38.3	2.7
8/14/2021 18:20	0:10:00	40.3	39.3	2.7
8/14/2021 18:30	0:10:00	39.2	38.3	3.1
8/14/2021 18:40	0:10:00	43.8	40.7	3.1
8/14/2021 18:50	0:10:00	43.2	41.5	2.7
8/14/2021 19:00	0:10:00	41.3	40.8	2.7
8/14/2021 19:10	0:10:00	41.4	40.5	2.7
8/14/2021 19:20	0:10:00	41.3	40.5	3.1
8/14/2021 19:30	0:10:00	41.4	40.3	2.7
8/14/2021 19:40	0:10:00	42.1	41.8	2.2
8/14/2021 19:50	0:10:00	41.7	40.4	2.2
8/14/2021 20:00	0:10:00	41.9	41.2	2.7
8/14/2021 20:10	0:10:00	42.2	41.0	2.2
8/14/2021 20:20	0:10:00	41.9	41.0	2.7
8/14/2021 20:30	0:10:00	40.8	39.2	2.7
8/14/2021 20:40	0:10:00	40.9	40.4	2.7
8/14/2021 20:50	0:10:00	41.1	39.8	2.2
8/14/2021 21:00	0:10:00	41.4	40.3	2.7
8/14/2021 21:10	0:10:00	42.3	41.5	2.7
8/14/2021 21:20	0:10:00	41.2	40.2	2.2
8/14/2021 21:30	0:10:00	40.3	40.0	2.7
8/14/2021 21:40	0:10:00	40.6	39.8	2.7
8/14/2021 21:50	0:10:00	41.1	40.5	2.7
8/14/2021 22:00	0:10:00	41.6	40.9	2.7
8/14/2021 22:10	0:10:00	41.3	40.9	1.8
8/14/2021 22:20	0:10:00	40.9	40.3	2.2
8/14/2021 22:30	0:10:00	41.4	40.4	2.7
8/14/2021 22:40	0:10:00	40.8	40.2	3.1
8/14/2021 22:50	0:10:00	41.0	40.6	3.1
8/14/2021 23:00	0:10:00	41.4	40.9	3.1
8/14/2021 23:10	0:10:00	41.6	40.5	3.1
8/14/2021 23:20	0:10:00	41.4	40.9	3.1
8/14/2021 23:30	0:10:00	36.7	35.3	3.1
8/14/2021 23:40	0:10:00	39.2	34.3	4.5
8/14/2021 23:50	0:10:00	37.0	34.9	2.7
8/15/2021 0:00	0:10:00	36.6	35.6	3.6
8/15/2021 0:10	0:10:00	38.1	35.1	2.2
8/15/2021 0:20	0:10:00	40.4	38.6	1.8
8/15/2021 0:30	0:10:00	39.9	38.4	1.8

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/15/2021 0:40	0:10:00	41.2	36.4	1.8
8/15/2021 0:50	0:10:00	40.2	36.7	2.2
8/15/2021 1:00	0:10:00	40.5	39.6	2.2
8/15/2021 1:10	0:10:00	41.3	41.1	2.2
8/15/2021 1:20	0:10:00	41.1	40.1	2.2
8/15/2021 1:30	0:10:00	40.8	39.6	2.2
8/15/2021 1:40	0:10:00	40.4	39.6	1.8
8/15/2021 1:50	0:10:00	41.1	40.3	1.3
8/15/2021 2:00	0:10:00	41.2	40.6	1.3
8/15/2021 2:10	0:10:00	41.8	40.7	1.8
8/15/2021 2:20	0:10:00	42.5	41.4	2.2
8/15/2021 2:30	0:10:00	42.5	41.2	1.8
8/15/2021 2:40	0:10:00	41.6	40.6	2.2
8/15/2021 2:50	0:10:00	40.2	38.8	2.7
8/15/2021 3:00	0:10:00	39.9	38.7	3.1
8/15/2021 3:10	0:10:00	40.3	38.3	2.2
8/15/2021 3:20	0:10:00	40.7	39.7	2.7
8/15/2021 3:30	0:10:00	39.9	39.2	2.7
8/15/2021 3:40	0:10:00	40.6	39.5	2.7
8/15/2021 3:50	0:10:00	40.9	40.1	2.2
8/15/2021 4:00	0:10:00	40.9	40.3	1.3
8/15/2021 4:10	0:10:00	40.9	39.9	1.3
8/15/2021 4:20	0:10:00	41.3	40.2	1.8
8/15/2021 4:30	0:10:00	41.7	39.7	2.2
8/15/2021 4:40	0:10:00	40.3	39.0	2.2
8/15/2021 4:50	0:10:00	40.1	39.4	1.3
8/15/2021 5:00	0:10:00	40.2	39.7	1.8
8/15/2021 5:10	0:10:00	40.6	40.0	1.8
8/15/2021 5:20	0:10:00	40.0	39.2	1.8
8/15/2021 5:30	0:10:00	39.4	37.9	2.2
8/15/2021 5:40	0:10:00	38.1	36.5	1.3
8/15/2021 5:50	0:10:00	37.0	35.6	1.3
8/15/2021 6:00	0:10:00	38.0	37.3	1.3
8/15/2021 6:10	0:10:00	38.0	35.0	1.8
8/15/2021 6:20	0:10:00	35.8	34.9	1.3
8/15/2021 6:30	0:10:00	40.2	36.9	1.3
8/15/2021 6:40	0:10:00	38.4	34.5	1.8
8/15/2021 6:50	0:10:00	36.0	35.1	1.3
8/15/2021 7:00	0:10:00	36.8	35.8	1.3
8/15/2021 7:10	0:10:00	37.7	34.9	0.9
8/15/2021 7:20	0:10:00	38.5	36.2	0.9
8/15/2021 7:30	0:10:00	40.8	37.4	1.8
8/15/2021 7:40	0:10:00	38.1	36.8	1.8
8/15/2021 7:50	0:10:00	38.0	33.8	2.7
8/15/2021 8:00	0:10:00	36.2	33.0	2.2
8/15/2021 8:10	0:10:00	36.8	33.8	4.0
8/15/2021 8:20	0:10:00	38.0	32.9	4.0
8/15/2021 8:30	0:10:00	37.8	33.0	4.0
8/15/2021 8:40	0:10:00	35.5	31.7	3.1
8/15/2021 8:50	0:10:00	35.4	32.2	2.7
8/15/2021 9:00	0:10:00	33.4	31.2	2.7
8/15/2021 9:10	0:10:00	32.1	30.3	2.7
8/15/2021 9:20	0:10:00	36.8	31.4	3.6
8/15/2021 9:30	0:10:00	33.7	31.1	3.1
8/15/2021 9:40	0:10:00	33.4	31.7	2.7

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/15/2021 9:50	0:10:00	39.7	34.5	2.7
8/15/2021 10:00	0:10:00	41.5	30.3	2.7
8/15/2021 10:10	0:10:00	35.2	31.7	3.1
8/15/2021 10:20	0:10:00	34.3	29.9	3.1
8/15/2021 10:30	0:10:00	34.9	30.6	3.1
8/15/2021 10:40	0:10:00	33.3	31.3	3.1
8/15/2021 10:50	0:10:00	32.3	29.7	3.1
8/15/2021 11:00	0:10:00	34.5	29.6	3.1
8/15/2021 11:10	0:10:00	33.0	29.5	3.1
8/15/2021 11:20	0:10:00	30.8	29.0	2.7
8/15/2021 11:30	0:10:00	32.0	29.4	2.7
8/15/2021 11:40	0:10:00	33.8	29.8	3.6
8/15/2021 11:50	0:10:00	32.5	29.5	3.6
8/15/2021 12:00	0:10:00	35.7	30.7	4.0
8/15/2021 12:10	0:10:00	33.6	30.9	4.0
8/15/2021 12:20	0:10:00	32.6	30.2	3.6
8/15/2021 12:30	0:10:00	35.1	30.0	3.1
8/15/2021 12:40	0:10:00	33.1	31.2	3.1
8/15/2021 12:50	0:10:00	32.4	30.2	2.7
8/15/2021 13:00	0:10:00	33.2	29.7	3.6
8/15/2021 13:10	0:10:00	30.8	29.4	1.8
8/15/2021 13:20	0:10:00	34.6	29.0	2.7
8/15/2021 13:30	0:10:00	33.5	29.1	2.7
8/15/2021 13:40	0:10:00	33.8	30.1	3.6
8/15/2021 13:50	0:10:00	33.5	29.2	2.7
8/15/2021 14:00	0:10:00	35.8	30.1	3.6
8/15/2021 14:10	0:10:00	32.6	29.7	3.6
8/15/2021 14:20	0:10:00	34.1	29.1	3.1
8/15/2021 14:30	0:10:00	34.3	29.4	3.1
8/15/2021 14:40	0:10:00	30.5	29.6	2.2
8/15/2021 14:50	0:10:00	33.2	30.1	2.7
8/15/2021 15:00	0:10:00	36.1	32.1	2.2
8/15/2021 15:10	0:10:00	34.1	31.5	3.1
8/15/2021 15:20	0:10:00	32.1	30.8	2.2
8/15/2021 15:30	0:10:00	33.6	31.0	2.7
8/15/2021 15:40	0:10:00	33.2	29.9	2.7
8/15/2021 15:50	0:10:00	32.8	30.5	1.8
8/15/2021 16:00	0:10:00	33.7	32.4	2.7
8/15/2021 16:10	0:10:00	38.8	31.8	4.0
8/15/2021 16:20	0:10:00	42.5	30.8	3.6
8/15/2021 16:30	0:10:00	47.0	30.3	1.8
8/15/2021 16:40	0:10:00	34.6	31.9	1.8
8/15/2021 16:50	0:10:00	39.5	37.2	1.8
8/15/2021 17:00	0:10:00	41.8	40.7	1.8
8/15/2021 17:10	0:10:00	41.2	38.3	1.3
8/15/2021 17:20	0:10:00	37.9	33.8	2.7
8/15/2021 17:30	0:10:00	33.5	32.2	2.2
8/15/2021 17:40	0:10:00	36.4	35.2	2.2
8/15/2021 17:50	0:10:00	37.6	35.8	1.8
8/15/2021 18:00	0:10:00	39.7	38.5	2.2
8/15/2021 18:10	0:10:00	40.6	39.4	1.8
8/15/2021 18:20	0:10:00	41.7	40.3	1.8
8/15/2021 18:30	0:10:00	42.7	41.8	1.3
8/15/2021 18:40	0:10:00	44.3	43.6	0.9
8/15/2021 18:50	0:10:00	44.9	44.7	0.9

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/15/2021 19:00	0:10:00	45.2	44.9	0.9
8/15/2021 19:10	0:10:00	44.5	43.8	0.9
8/15/2021 19:20	0:10:00	44.8	44.3	0.9
8/15/2021 19:30	0:10:00	44.5	43.1	1.3
8/15/2021 19:40	0:10:00	43.4	42.6	1.3
8/15/2021 19:50	0:10:00	42.2	41.8	1.8
8/15/2021 20:00	0:10:00	43.2	42.6	1.3
8/15/2021 20:10	0:10:00	43.4	42.8	1.3
8/15/2021 20:20	0:10:00	43.1	42.4	0.9
8/15/2021 20:30	0:10:00	43.0	42.4	0.9
8/15/2021 20:40	0:10:00	43.3	42.9	0.9
8/15/2021 20:50	0:10:00	43.7	43.2	0.4
8/15/2021 21:00	0:10:00	44.0	43.7	0.0
8/15/2021 21:10	0:10:00	44.0	43.4	0.0
8/15/2021 21:20	0:10:00	44.1	43.3	0.9
8/15/2021 21:30	0:10:00	44.0	43.3	0.9
8/15/2021 21:40	0:10:00	44.4	43.7	0.9
8/15/2021 21:50	0:10:00	42.0	40.8	1.3
8/15/2021 22:00	0:10:00	43.3	42.7	0.4
8/15/2021 22:10	0:10:00	43.2	42.7	0.0
8/15/2021 22:20	0:10:00	43.4	43.0	0.0
8/15/2021 22:30	0:10:00	42.7	42.4	0.0
8/15/2021 22:40	0:10:00	42.9	42.2	0.0
8/15/2021 22:50	0:10:00	42.5	42.1	0.4
8/15/2021 23:00	0:10:00	42.8	42.1	0.4
8/15/2021 23:10	0:10:00	42.2	41.6	0.9
8/15/2021 23:20	0:10:00	42.2	41.7	0.9
8/15/2021 23:30	0:10:00	42.5	41.9	0.9
8/15/2021 23:40	0:10:00	42.0	41.2	1.3
8/15/2021 23:50	0:10:00	41.7	40.8	0.9
8/16/2021 0:00	0:10:00	42.3	41.5	0.9
8/16/2021 0:10	0:10:00	42.6	41.4	0.9
8/16/2021 0:20	0:10:00	42.0	41.3	0.9
8/16/2021 0:30	0:10:00	42.4	41.4	0.9
8/16/2021 0:40	0:10:00	42.7	41.7	0.9
8/16/2021 0:50	0:10:00	43.4	42.3	0.9
8/16/2021 1:00	0:10:00	42.9	41.7	0.4
8/16/2021 1:10	0:10:00	42.4	40.6	0.4
8/16/2021 1:20	0:10:00	42.6	41.8	0.4
8/16/2021 1:30	0:10:00	42.4	41.5	0.9
8/16/2021 1:40	0:10:00	42.0	40.3	1.3
8/16/2021 1:50	0:10:00	41.0	39.7	1.3
8/16/2021 2:00	0:10:00	40.2	39.8	1.3
8/16/2021 2:10	0:10:00	40.1	39.2	1.3
8/16/2021 2:20	0:10:00	39.2	38.6	1.3
8/16/2021 2:30	0:10:00	40.7	39.4	1.3
8/16/2021 2:40	0:10:00	39.9	38.3	2.2
8/16/2021 2:50	0:10:00	39.6	38.8	2.2
8/16/2021 3:00	0:10:00	40.1	39.0	2.2
8/16/2021 3:10	0:10:00	39.1	36.9	2.2
8/16/2021 3:20	0:10:00	39.5	38.6	2.7
8/16/2021 3:30	0:10:00	38.9	37.4	2.7
8/16/2021 3:40	0:10:00	38.1	37.1	2.7
8/16/2021 3:50	0:10:00	39.1	38.0	1.8
8/16/2021 4:00	0:10:00	39.3	38.2	1.8

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
8/16/2021 4:10	0:10:00	39.4	38.5	1.8
8/16/2021 4:20	0:10:00	40.1	38.8	1.3
8/16/2021 4:30	0:10:00	40.3	39.0	1.3
8/16/2021 4:40	0:10:00	40.8	39.7	1.3
8/16/2021 4:50	0:10:00	40.2	39.2	1.3
8/16/2021 5:00	0:10:00	38.8	37.6	0.9
8/16/2021 5:10	0:10:00	38.2	37.5	0.4
8/16/2021 5:20	0:10:00	38.4	37.7	0.4
8/16/2021 5:30	0:10:00	37.2	35.6	0.9
8/16/2021 5:40	0:10:00	35.5	34.6	1.3
8/16/2021 5:50	0:10:00	35.3	34.1	1.3
8/16/2021 6:00	0:10:00	35.8	34.0	1.8
8/16/2021 6:10	0:10:00	37.8	36.0	1.3
8/16/2021 6:20	0:10:00	36.6	34.0	1.3
8/16/2021 6:30	0:10:00	35.9	34.4	0.9
8/16/2021 6:40	0:10:00	37.1	34.5	1.3
8/16/2021 6:50	0:10:00	37.8	33.6	1.8
8/16/2021 7:00	0:10:00	35.6	33.7	3.1
8/16/2021 7:10	0:10:00	36.1	33.4	3.1
8/16/2021 7:20	0:10:00	36.3	33.7	3.1
8/16/2021 7:30	0:10:00	38.3	35.3	3.1
8/16/2021 7:40	0:10:00	36.9	34.4	2.2
8/16/2021 7:50	0:10:00	38.1	34.9	2.7
8/16/2021 8:00	0:10:00	39.9	37.5	2.7
8/16/2021 8:10	0:10:00	38.8	36.1	3.1
8/16/2021 8:20	0:10:00	39.0	35.3	3.6
8/16/2021 8:30	0:10:00	36.5	34.6	3.1
8/16/2021 8:40	0:10:00	36.5	31.9	2.7
8/16/2021 8:50	0:10:00	35.6	31.5	2.7
8/16/2021 9:00	0:10:00	32.5	30.0	2.7
8/16/2021 9:10	0:10:00	31.3	29.1	2.2
8/16/2021 9:20	0:10:00	30.6	29.2	2.7
8/16/2021 9:30	0:10:00	36.2	29.5	3.1
8/16/2021 9:40	0:10:00	34.2	29.9	3.6
8/16/2021 9:50	0:10:00	36.0	29.6	2.7
8/16/2021 10:00	0:10:00	53.0	33.6	3.1
8/16/2021 10:10	0:10:00	34.7	30.5	3.6
8/16/2021 10:20	0:10:00	33.2	31.7	3.6
8/16/2021 10:30	0:10:00	32.8	29.7	3.1
8/16/2021 10:40	0:10:00	35.0	31.0	3.6
8/16/2021 10:50	0:10:00	35.0	30.2	3.6
8/16/2021 11:00	0:10:00	33.2	31.4	3.1
8/16/2021 11:10	0:10:00	35.2	30.2	2.7
8/16/2021 11:20	0:10:00	32.8	30.2	3.6
8/16/2021 11:30	0:10:00	33.7	31.5	3.6
8/16/2021 11:40	0:10:00	33.7	30.9	3.1
8/16/2021 11:50	0:10:00	33.9	31.9	3.6
8/16/2021 12:00	0:10:00	35.8	31.1	2.2

Noise Measurements Datasheet at Noise Sampling Point 2

Receptor

Measurement Description
References time
Date 1-4/11/2021
Day time 72 hours

Coordinates: UTM
N 723041
E 1686341

Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter
Wind Speed Instrument: Davis Vantage PRO2

Noise Pressure Levels (dBA) - Laeq, day/night

Date	Time	LeqA	L05	L10	L50	L90	L95
11/01/2021 11:00-18:00	Day time	57.5	61.6	59.4	48.2	42	40.6
11/01-02/2021 18:00-06:0	Night time	50.4	56.3	49	44.3	41.1	40.7
11/02/2021 06:00-18:00	Day time	57.5	62	59.2	49	42.2	40.9
11/02-03/2021 18:00-06:0	Night time	49.8	52.4	50	47	42.2	40.9
11/03/2021 06:00-18:00	Day time	60.1	62.3	58.4	49.7	44.1	42.6
11/03-04/2021 18:00-06:0	Night time	51.9	55.2	50.4	45.7	41.6	39.9
11/04/2021 06:00-12:00	Day time	52.2	58.1	55.2	47.6	41.8	40.5

Noise Pressure Levels (dBA) - Laeq, 1h

Date	**Time**	**LeqA**	**L05**	**L10**	**L50**	**L90**	**L95**
11/1/2021	11:00-12:00	52	58.9	56.8	47.5	42.7	41.7
11/1/2021	12:00-13:00	54.3	59.8	59.3	44.5	40.1	38.3
11/1/2021	13:00-14:00	53	59.2	58	46.7	42.5	41.5
11/1/2021	14:00-15:00	54.5	59.3	56.4	46.6	41.5	41.2
11/1/2021	15:00-16:00	53.8	59.2	56.3	46.6	42.2	41.9
11/1/2021	16:00-17:00	56.4	62.2	58.7	49.5	44.6	43.4
11/1/2021	17:00-18:00	63.8	67.4	66.5	56.2	48.7	48
11/1/2021	18:00-19:00	55.1	62	59	47.6	45.5	45.1
11/1/2021	19:00-20:00	47.2	47.8	47.5	45.5	43.6	43.4
11/1/2021	20:00-21:00	44.3	47	46.5	43.6	41.9	41.7
11/1/2021	21:00-22:00	44.3	46.1	45.9	44.2	41.2	40.8
11/1/2021	22:00-23:00	43.8	46	45.9	44.2	39.8	39.5
11/1/2021	23:00-00:00	43.5	45.6	45.3	43.4	40.2	40.1
11/2/2021	00:00-01:00	45.2	46.8	46.6	45.2	43.3	42.9
11/2/2021	01:00-02:00	44.2	45.9	45.5	43.8	42.7	41.7
11/2/2021	02:00-03:00	43.4	45.7	45.1	43	41.1	40.9
11/2/2021	03:00-04:00	48.1	46.5	45.2	41.7	40.7	40.7
11/2/2021	04:00-05:00	44.8	50.3	49.2	42.4	41.1	40.7
11/2/2021	05:00-06:00	58.2	65.3	61.6	54.7	47.4	45.9
11/2/2021	06:00-07:00	60.3	62.9	60.7	53	46.2	43.9
11/2/2021	07:00-08:00	57	61.7	60	53.5	44.2	43.7
11/2/2021	08:00-09:00	56.5	61.1	60.7	53	46.3	45.3
11/2/2021	09:00-10:00	51.9	56.8	53.9	44.9	40.7	39
11/2/2021	10:00-11:00	55.9	58.2	55.5	46.7	42.3	41.5
11/2/2021	11:00-12:00	54.9	60.2	56.9	45.3	39.9	39
11/2/2021	12:00-13:00	54.8	61.9	57.1	46.3	42	40.8
11/2/2021	13:00-14:00	50.9	56.5	54.3	48.1	44.1	42.2
11/2/2021	14:00-15:00	57.8	65.6	61.3	49.1	41.3	40.3
11/2/2021	15:00-16:00	54.9	62.6	58.3	47.4	42.2	41.2

11/2/2021	16:00-17:00	58.7	64.7	62.3	53.8	45.4	44.9
11/2/2021	17:00-18:00	62.5	63.7	57.2	50.5	43.4	42.6
11/2/2021	18:00-19:00	49.3	53.3	51.2	48.6	45.1	44.6
11/2/2021	19:00-20:00	49.5	51.4	50.7	48.9	44.9	43.8
11/2/2021	20:00-21:00	47.7	49.6	49.2	47.5	45.3	43.5
11/2/2021	21:00-22:00	48.1	49.7	49.6	48.2	46.3	44.7
11/2/2021	22:00-23:00	48.2	49.5	49.4	48.3	46	44.1
11/2/2021	23:00-00:00	47.3	49.4	49.1	47.7	42.8	39.8
11/3/2021	00:00-01:00	46.9	49	48.6	46.9	43.7	43.5
11/3/2021	01:00-02:00	46.2	48.6	48.2	45.8	44.4	44.2
11/3/2021	02:00-03:00	46	48.5	47.4	45.6	44.1	44
11/3/2021	03:00-04:00	45.8	47.7	46.6	42.5	40.7	40.5
11/3/2021	04:00-05:00	51.9	57.8	48.1	42.6	40.5	40.2
11/3/2021	05:00-06:00	56.1	61.4	59.2	49.4	43.5	42.8
11/3/2021	06:00-07:00	64.3	70.9	65	52.4	46.4	45.7
11/3/2021	07:00-08:00	58.2	62.1	60.4	51.6	44.9	44.3
11/3/2021	08:00-09:00	53.5	57.7	56.8	50.1	46.4	45.7
11/3/2021	09:00-10:00	51.9	57.8	54.9	48.3	43	41.8
11/3/2021	10:00-11:00	54	57.1	55.8	48.8	43.1	42.5
11/3/2021	11:00-12:00	58.4	58.2	55	46.3	40.8	39.8
11/3/2021	12:00-13:00	57.2	62.5	57.2	50	44.2	43.6
11/3/2021	13:00-14:00	54.2	58.9	56.4	50.2	46.2	45.1
11/3/2021	14:00-15:00	67.7	63.3	59.7	50.9	43.6	43.1
11/3/2021	15:00-16:00	52.9	56.6	53.5	48.7	43.2	42.2
11/3/2021	16:00-17:00	56	62.5	59.3	48.8	44.1	43.6
11/3/2021	17:00-18:00	56	60.6	60.3	51.4	45.7	44.4
11/3/2021	18:00-19:00	52.3	57	53.4	49.2	46	45.3
11/3/2021	19:00-20:00	47.8	50.7	50.4	46.5	43.3	41.9
11/3/2021	20:00-21:00	46.6	48.5	48	46.7	43.6	42.4
11/3/2021	21:00-22:00	46.2	48.2	48	46	43.1	42.4
11/3/2021	22:00-23:00	45.6	47.5	47.1	45.5	42	41.8
11/3/2021	23:00-00:00	45.8	47.6	47.3	45.7	43.2	41.1
11/4/2021	00:00-01:00	43.2	46.9	46.7	46.9	38.6	37.9
11/4/2021	01:00-02:00	42.3	46	44.6	41.4	39.2	38.9
11/4/2021	02:00-03:00	43.2	45	44	42.9	42.4	42.3
11/4/2021	03:00-04:00	46.4	48.3	46.6	45.5	42.3	42.1
11/4/2021	04:00-05:00	52.4	61.6	53.1	46.3	44.6	43.8
11/4/2021	05:00-06:00	60.7	63.4	60.6	53.4	42.6	41.5
11/4/2021	06:00-07:00	53.1	58.2	56	49.6	45.2	44.5
11/4/2021	07:00-08:00	53.1	60.9	56.5	49.2	43	41.5
11/4/2021	08:00-09:00	49.3	55.4	52	45.4	40.2	39.2
11/4/2021	09:00-10:00	49.8	56.6	54.2	45.4	40.1	39.1
11/4/2021	10:00-11:00	54	58.3	55.8	48.5	43.9	41.9
11/4/2021	11:00-12:00	52.3	58.4	54.7	47.6	43.7	41.3

Receptor

Geographic Coordinations

Geographic Coordination System WGS 1984–UTM 48N

Coordinate [m]	X	Y
	723041	1686341

Measurement Description

Reference Time

Date 01-04/11/2021

Day time 72 hours

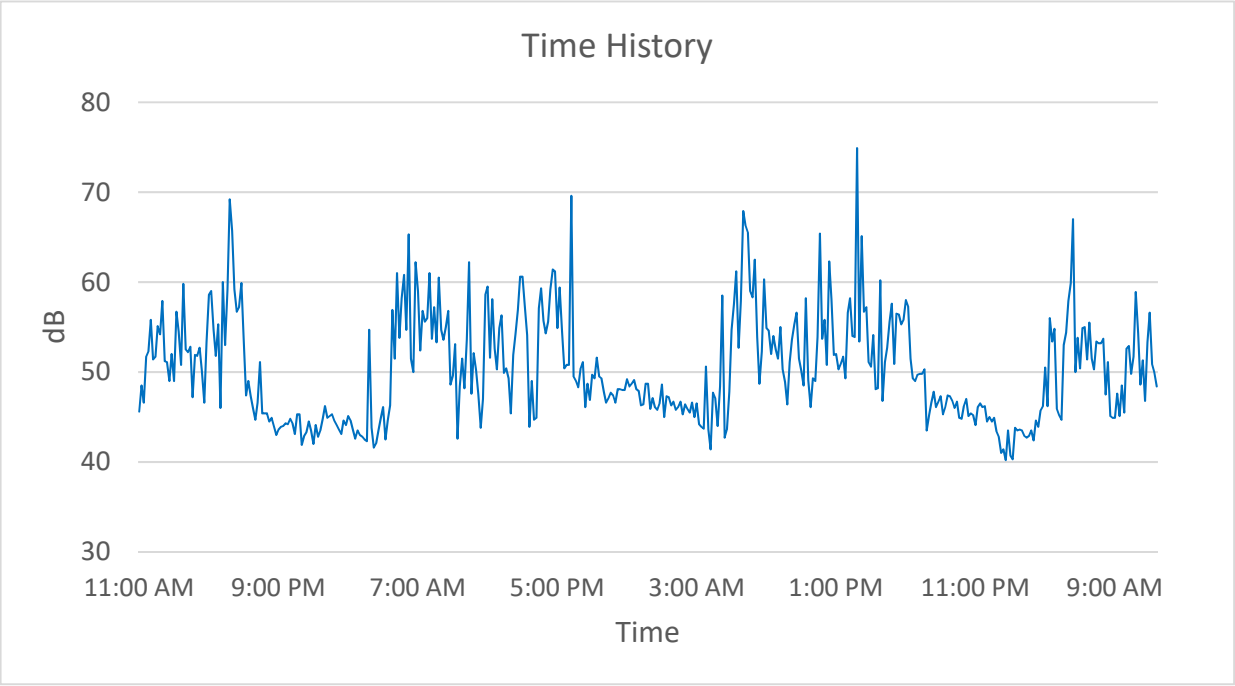
Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter

Wind Speed Instrument: Davis Vantage PRO2

Metheorological Conditions

	u.m.		LeqA	L5	L10	L50	L90	L95
Temperature	[°C]	23.8	**55.9**	59.8	56.4	46.7	41.9	40.8
Wind Speed	[m/s]	1.93						
Pressure	[Hpa]	893.1						
Rainfall	[mm]	0						
(*) Average Values								



Recording activities surrounding at Noise measurement and Wind Speed.

Sampling Point: N2

Recording activities surrounding at Noise measurement and Wind speed point N2. This point was near the house of Daksamor village, Sanxay District, Attapue Province. Surrounding area are nearly the household, community, near the access road and farming area. Particularly observation sound hearing from noise people speaking, Activities from hosehold, noise from community, pets (Chicken, Dogs) and People listen music.

Noise Measurements Datasheet at Noise Sampling Point 2

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/1/2021 11:00	0:10:00	45.6	41.0	3.1
11/1/2021 11:10	0:10:00	48.5	42.2	2.7
11/1/2021 11:20	0:10:00	46.6	44.0	3.1
11/1/2021 11:30	0:10:00	51.7	42.7	3.6
11/1/2021 11:40	0:10:00	52.3	43.3	2.7
11/1/2021 11:50	0:10:00	55.8	44.3	2.7
11/1/2021 12:00	0:10:00	51.4	42.2	2.7
11/1/2021 12:10	0:10:00	51.7	41.6	2.7
11/1/2021 12:20	0:10:00	55.1	40.9	2.2
11/1/2021 12:30	0:10:00	54.2	40.4	1.8
11/1/2021 12:40	0:10:00	57.9	43.7	2.7
11/1/2021 12:50	0:10:00	51.2	37.2	2.2
11/1/2021 13:00	0:10:00	51.1	38.7	1.8
11/1/2021 13:10	0:10:00	49.0	38.6	2.2
11/1/2021 13:20	0:10:00	52	44.9	1.3
11/1/2021 13:30	0:10:00	49.0	41.8	1.8
11/1/2021 13:40	0:10:00	56.7	45.7	1.8
11/1/2021 13:50	0:10:00	54.5	44.3	1.3
11/1/2021 14:00	0:10:00	50.8	43.7	1.3
11/1/2021 14:10	0:10:00	59.8	43.1	1.3
11/1/2021 14:20	0:10:00	52.5	44.0	2.2
11/1/2021 14:30	0:10:00	52.2	43.6	1.8
11/1/2021 14:40	0:10:00	52.8	41.6	1.8
11/1/2021 14:50	0:10:00	47.2	41.7	1.8
11/1/2021 15:00	0:10:00	51.9	41.3	2.7
11/1/2021 15:10	0:10:00	51.8	42.9	2.7
11/1/2021 15:20	0:10:00	52.7	42.2	2.2
11/1/2021 15:30	0:10:00	50.1	42.0	3.1
11/1/2021 15:40	0:10:00	46.6	42.6	3.1
11/1/2021 15:50	0:10:00	53.3	43.3	2.2
11/1/2021 16:00	0:10:00	58.6	44.4	2.2
11/1/2021 16:10	0:10:00	59.0	46.2	3.6
11/1/2021 16:20	0:10:00	54.7	49.3	3.6
11/1/2021 16:30	0:10:00	51.8	45.0	3.1
11/1/2021 16:40	0:10:00	55.3	45.0	3.6
11/1/2021 16:50	0:10:00	46.0	43.2	2.7
11/1/2021 17:00	0:10:00	60.0	46.4	1.8
11/1/2021 17:10	0:10:00	53.0	48.3	2.7
11/1/2021 17:20	0:10:00	59.2	48.6	2.7
11/1/2021 17:30	0:10:00	69.2	54.0	2.7
11/1/2021 17:40	0:10:00	65.7	56.2	3.1
11/1/2021 17:50	0:10:00	59.2	46.9	2.2
11/1/2021 18:00	0:10:00	56.7	50.7	2.2
11/1/2021 18:10	0:10:00	57.2	49.6	2.2
11/1/2021 18:20	0:10:00	59.9	45.2	2.2
11/1/2021 18:30	0:10:00	53.7	45.0	2.2
11/1/2021 18:40	0:10:00	47.4	46.2	2.7
11/1/2021 18:50	0:10:00	49.0	45.4	2.2
11/1/2021 19:00	0:10:00	47.3	45.6	2.7
11/1/2021 19:10	0:10:00	46.0	44.4	2.7
11/1/2021 19:20	0:10:00	44.7	43.6	1.8
11/1/2021 19:30	0:10:00	46.6	45.2	1.8
11/1/2021 19:40	0:10:00	51.1	44.0	2.2
11/1/2021 19:50	0:10:00	45.4	43.3	2.2
11/1/2021 20:00	0:10:00	45.4	43.5	2.2

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/1/2021 20:10	0:10:00	45.4	43.8	2.7
11/1/2021 20:20	0:10:00	44.5	42.8	1.8
11/1/2021 20:30	0:10:00	44.9	43.1	1.8
11/1/2021 20:40	0:10:00	44.0	42.7	1.3
11/1/2021 20:50	0:10:00	43.0	41.6	1.3
11/1/2021 21:00	0:10:00	43.6	40.9	1.3
11/1/2021 21:10	0:10:00	43.9	41.1	1.3
11/1/2021 21:20	0:10:00	44.0	40.8	1.3
11/1/2021 21:30	0:10:00	44.3	41.7	1.3
11/1/2021 21:40	0:10:00	44.2	42.9	1.3
11/1/2021 21:50	0:10:00	44.8	43.0	1.3
11/1/2021 22:00	0:10:00	44.3	42.1	1.8
11/1/2021 22:10	0:10:00	43.1	39.8	2.2
11/1/2021 22:20	0:10:00	45.3	44.6	2.7
11/1/2021 22:30	0:10:00	45.3	44.2	2.2
11/1/2021 22:40	0:10:00	41.9	39.2	1.8
11/1/2021 22:50	0:10:00	42.9	39.5	2.2
11/1/2021 23:00	0:10:00	43.3	41.0	2.7
11/1/2021 23:10	0:10:00	44.5	44.1	2.2
11/1/2021 23:20	0:10:00	43.5	40.2	2.2
11/1/2021 23:30	0:10:00	42.0	39.7	1.8
11/1/2021 23:40	0:10:00	44.1	42.6	1.3
11/1/2021 23:50	0:10:00	42.8	40.2	1.3
11/2/2021 0:00	0:10:00	43.5	42.0	1.8
11/2/2021 0:10	0:10:00	44.8	43.5	1.8
11/2/2021 0:20	0:10:00	46.2	45.8	1.8
11/2/2021 0:30	0:10:00	44.9	42.4	1.3
11/2/2021 0:40	0:10:00	45.1	42.9	2.2
11/2/2021 0:50	0:10:00	45.3	43.7	2.7
11/2/2021 1:00	0:10:00	44.6	43.2	1.8
11/2/2021 1:10	0:10:00	44.1	43.3	1.8
11/2/2021 1:20	0:10:00	43.6	43.3	1.3
11/2/2021 1:30	0:10:00	43.1	41.4	1.3
11/2/2021 1:40	0:10:00	44.6	42.0	1.3
11/2/2021 1:50	0:10:00	44.1	43.4	0.4
11/2/2021 2:00	0:10:00	45.1	44.6	0
11/2/2021 2:10	0:10:00	44.6	43.1	0
11/2/2021 2:20	0:10:00	43.6	41.5	0
11/2/2021 2:30	0:10:00	42.6	41.3	0.4
11/2/2021 2:40	0:10:00	43.5	41.1	1.3
11/2/2021 2:50	0:10:00	43.0	40.9	1.3
11/2/2021 3:00	0:10:00	42.8	41.3	1.3
11/2/2021 3:10	0:10:00	42.5	40.8	0.4
11/2/2021 3:20	0:10:00	42.3	40.7	0.4
11/2/2021 3:30	0:10:00	54.7	40.6	0
11/2/2021 3:40	0:10:00	43.8	40.8	0.9
11/2/2021 3:50	0:10:00	41.6	40.7	1.3
11/2/2021 4:00	0:10:00	42.1	40.9	1.3
11/2/2021 4:10	0:10:00	43.5	41.1	0.9
11/2/2021 4:20	0:10:00	44.9	41.1	0.9
11/2/2021 4:30	0:10:00	46.1	41.3	1.3
11/2/2021 4:40	0:10:00	42.5	40.6	1.3
11/2/2021 4:50	0:10:00	44.6	42.3	2.2
11/2/2021 5:00	0:10:00	46.3	41.2	2.2
11/2/2021 5:10	0:10:00	56.9	42.7	1.8

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/2/2021 5:20	0:10:00	51.5	47.2	1.3
11/2/2021 5:30	0:10:00	61.0	56.2	1.8
11/2/2021 5:40	0:10:00	53.8	48.2	2.2
11/2/2021 5:50	0:10:00	58.2	48.3	2.2
11/2/2021 6:00	0:10:00	60.8	56.2	2.7
11/2/2021 6:10	0:10:00	54.7	47.4	2.2
11/2/2021 6:20	0:10:00	65.3	46.9	1.8
11/2/2021 6:30	0:10:00	51.5	43.7	1.8
11/2/2021 6:40	0:10:00	50.0	46.0	2.2
11/2/2021 6:50	0:10:00	62.2	48.6	2.2
11/2/2021 7:00	0:10:00	59.0	51.0	1.8
11/2/2021 7:10	0:10:00	52.4	44.0	2.7
11/2/2021 7:20	0:10:00	56.8	46.9	3.1
11/2/2021 7:30	0:10:00	55.6	44.1	3.1
11/2/2021 7:40	0:10:00	56.0	49.6	3.1
11/2/2021 7:50	0:10:00	61.0	47.7	2.7
11/2/2021 8:00	0:10:00	53.7	47.7	2.7
11/2/2021 8:10	0:10:00	57.2	52.6	4
11/2/2021 8:20	0:10:00	53.3	44.3	3.6
11/2/2021 8:30	0:10:00	60.5	54.7	2.7
11/2/2021 8:40	0:10:00	54.7	48.3	3.1
11/2/2021 8:50	0:10:00	53.6	45.6	3.6
11/2/2021 9:00	0:10:00	55.0	47.7	3.6
11/2/2021 9:10	0:10:00	56.8	44.4	3.6
11/2/2021 9:20	0:10:00	48.6	42.3	3.6
11/2/2021 9:30	0:10:00	49.6	44.2	3.6
11/2/2021 9:40	0:10:00	53.1	42.0	3.1
11/2/2021 9:50	0:10:00	42.6	39.1	3.1
11/2/2021 10:00	0:10:00	48.4	39.0	3.1
11/2/2021 10:10	0:10:00	51.5	43.5	3.1
11/2/2021 10:20	0:10:00	48.2	40.5	2.2
11/2/2021 10:30	0:10:00	53.6	42.6	2.7
11/2/2021 10:40	0:10:00	62.2	43.7	3.6
11/2/2021 10:50	0:10:00	47.6	42.1	4
11/2/2021 11:00	0:10:00	52.1	45.9	4
11/2/2021 11:10	0:10:00	50.2	45.1	3.1
11/2/2021 11:20	0:10:00	47.5	39.8	2.7
11/2/2021 11:30	0:10:00	43.8	39.0	2.7
11/2/2021 11:40	0:10:00	47.0	38.8	3.1
11/2/2021 11:50	0:10:00	58.6	42.0	4
11/2/2021 12:00	0:10:00	59.5	40.6	3.1
11/2/2021 12:10	0:10:00	51.6	39.4	3.1
11/2/2021 12:20	0:10:00	58.1	40.8	3.6
11/2/2021 12:30	0:10:00	52.6	42.0	3.6
11/2/2021 12:40	0:10:00	50.3	42.4	3.1
11/2/2021 12:50	0:10:00	54.9	43.5	3.6
11/2/2021 13:00	0:10:00	56.3	45.5	3.6
11/2/2021 13:10	0:10:00	49.9	44.9	3.6
11/2/2021 13:20	0:10:00	50.4	44.9	4
11/2/2021 13:30	0:10:00	49.3	44.8	3.1
11/2/2021 13:40	0:10:00	45.4	42.2	3.1
11/2/2021 13:50	0:10:00	51.9	43.9	4
11/2/2021 14:00	0:10:00	54.2	45.0	3.6
11/2/2021 14:10	0:10:00	56.9	49.1	4
11/2/2021 14:20	0:10:00	60.6	48.6	2.7

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/2/2021 14:30	0:10:00	60.6	46.7	2.7
11/2/2021 14:40	0:10:00	57.4	42.0	3.1
11/2/2021 14:50	0:10:00	54.1	41.8	3.6
11/2/2021 15:00	0:10:00	43.9	39.2	2.2
11/2/2021 15:10	0:10:00	49.0	41.8	2.7
11/2/2021 15:20	0:10:00	44.7	39.7	2.7
11/2/2021 15:30	0:10:00	44.9	42.3	3.1
11/2/2021 15:40	0:10:00	57.1	43.4	3.6
11/2/2021 15:50	0:10:00	59.3	47.1	3.6
11/2/2021 16:00	0:10:00	55.7	49.4	3.6
11/2/2021 16:10	0:10:00	54.3	46.9	3.6
11/2/2021 16:20	0:10:00	55.6	45.7	1.3
11/2/2021 16:30	0:10:00	59.2	46.1	0.9
11/2/2021 16:40	0:10:00	61.4	50.3	0.9
11/2/2021 16:50	0:10:00	61.2	44.7	1.3
11/2/2021 17:00	0:10:00	54.9	47.8	0.9
11/2/2021 17:10	0:10:00	59.4	44.7	0.9
11/2/2021 17:20	0:10:00	54.5	43.4	0.4
11/2/2021 17:30	0:10:00	50.4	43.3	0.9
11/2/2021 17:40	0:10:00	50.8	43.8	1.3
11/2/2021 17:50	0:10:00	50.8	42.6	1.3
11/2/2021 18:00	0:10:00	69.6	49.9	0.9
11/2/2021 18:10	0:10:00	49.5	45.4	1.3
11/2/2021 18:20	0:10:00	49.0	47.2	1.3
11/2/2021 18:30	0:10:00	48.3	45.7	0.9
11/2/2021 18:40	0:10:00	50.4	46.9	0
11/2/2021 18:50	0:10:00	51.1	48.5	1.3
11/2/2021 19:00	0:10:00	46.1	43.8	0.4
11/2/2021 19:10	0:10:00	48.7	44.1	0.9
11/2/2021 19:20	0:10:00	46.9	43.6	1.3
11/2/2021 19:30	0:10:00	49.7	45.6	1.3
11/2/2021 19:40	0:10:00	49.3	48.3	1.3
11/2/2021 19:50	0:10:00	51.6	47.0	1.8
11/2/2021 20:00	0:10:00	49.5	48.3	1.8
11/2/2021 20:10	0:10:00	49.3	47.6	1.3
11/2/2021 20:20	0:10:00	47.8	45.2	1.3
11/2/2021 20:30	0:10:00	46.6	40.9	1.3
11/2/2021 20:40	0:10:00	47.1	44.9	1.8
11/2/2021 20:50	0:10:00	47.7	46.6	1.8
11/2/2021 21:00	0:10:00	47.4	46.8	1.3
11/2/2021 21:10	0:10:00	46.6	41.4	0.9
11/2/2021 21:20	0:10:00	48.1	46.4	0.9
11/2/2021 21:30	0:10:00	48.1	47.1	0.9
11/2/2021 21:40	0:10:00	48.0	44.5	1.3
11/2/2021 21:50	0:10:00	48.0	46.8	1.8
11/2/2021 22:00	0:10:00	49.2	48.8	1.8
11/2/2021 22:10	0:10:00	48.4	47.8	1.3
11/2/2021 22:20	0:10:00	48.7	48.2	1.3
11/2/2021 22:30	0:10:00	49.1	48.5	0.9
11/2/2021 22:40	0:10:00	48.1	47.2	0.9
11/2/2021 22:50	0:10:00	47.9	46.9	0.9
11/2/2021 23:00	0:10:00	46.3	41.8	0.4
11/2/2021 23:10	0:10:00	46.4	38.7	0.9
11/2/2021 23:20	0:10:00	48.7	47.9	1.3
11/2/2021 23:30	0:10:00	48.7	47.9	1.3

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/2/2021 23:40	0:10:00	45.9	39.8	1.8
11/2/2021 23:50	0:10:00	47.1	45.5	1.8
11/3/2021 0:00	0:10:00	46.1	43.9	2.2
11/3/2021 0:10	0:10:00	45.8	43.8	2.2
11/3/2021 0:20	0:10:00	46.5	44.3	2.2
11/3/2021 0:30	0:10:00	48.6	47.1	2.2
11/3/2021 0:40	0:10:00	45.0	43.6	2.2
11/3/2021 0:50	0:10:00	47.3	44.6	1.8
11/3/2021 1:00	0:10:00	47.2	44.2	1.8
11/3/2021 1:10	0:10:00	46.3	45.1	2.2
11/3/2021 1:20	0:10:00	46.7	44.4	2.2
11/3/2021 1:30	0:10:00	45.8	44.2	2.7
11/3/2021 1:40	0:10:00	46.1	44.5	2.7
11/3/2021 1:50	0:10:00	46.7	44.8	2.7
11/3/2021 2:00	0:10:00	45.3	44.6	1.8
11/3/2021 2:10	0:10:00	46.4	45.4	1.8
11/3/2021 2:20	0:10:00	45.9	44.0	1.3
11/3/2021 2:30	0:10:00	45.5	44.1	1.8
11/3/2021 2:40	0:10:00	46.6	44.1	2.7
11/3/2021 2:50	0:10:00	45.0	43.9	2.2
11/3/2021 3:00	0:10:00	46.5	44.4	1.8
11/3/2021 3:10	0:10:00	44.2	40.9	1.3
11/3/2021 3:20	0:10:00	43.9	41.8	2.2
11/3/2021 3:30	0:10:00	43.7	41.3	2.2
11/3/2021 3:40	0:10:00	50.6	40.5	2.2
11/3/2021 3:50	0:10:00	43.6	40.7	1.8
11/3/2021 4:00	0:10:00	41.4	40.5	2.7
11/3/2021 4:10	0:10:00	47.7	40.4	2.7
11/3/2021 4:20	0:10:00	47.1	40.9	3.6
11/3/2021 4:30	0:10:00	44.0	40.7	2.7
11/3/2021 4:40	0:10:00	48.4	40.5	1.8
11/3/2021 4:50	0:10:00	58.5	40.1	2.2
11/3/2021 5:00	0:10:00	42.7	40.5	3.6
11/3/2021 5:10	0:10:00	43.6	41.8	3.6
11/3/2021 5:20	0:10:00	47.8	45.6	3.1
11/3/2021 5:30	0:10:00	54.7	44.4	1.8
11/3/2021 5:40	0:10:00	57.6	52.0	1.8
11/3/2021 5:50	0:10:00	61.2	49.8	2.2
11/3/2021 6:00	0:10:00	52.7	47.3	2.7
11/3/2021 6:10	0:10:00	57.9	47.8	2.2
11/3/2021 6:20	0:10:00	67.9	49.5	2.2
11/3/2021 6:30	0:10:00	66.3	45.4	2.2
11/3/2021 6:40	0:10:00	65.5	46.1	2.2
11/3/2021 6:50	0:10:00	59.0	49.7	1.8
11/3/2021 7:00	0:10:00	58.3	47.6	1.8
11/3/2021 7:10	0:10:00	62.5	49.5	1.8
11/3/2021 7:20	0:10:00	53.9	48.5	2.2
11/3/2021 7:30	0:10:00	48.7	44.2	2.2
11/3/2021 7:40	0:10:00	52.3	44.2	2.2
11/3/2021 7:50	0:10:00	60.3	50.0	1.8
11/3/2021 8:00	0:10:00	54.9	48.4	2.2
11/3/2021 8:10	0:10:00	54.6	50.4	1.8
11/3/2021 8:20	0:10:00	52.0	46.0	1.8
11/3/2021 8:30	0:10:00	54.0	48.7	1.3
11/3/2021 8:40	0:10:00	52.5	45.7	1.8

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/3/2021 8:50	0:10:00	51.5	46.8	1.8
11/3/2021 9:00	0:10:00	55.0	46.5	1.8
11/3/2021 9:10	0:10:00	50.3	42.5	2.2
11/3/2021 9:20	0:10:00	48.9	41.3	2.7
11/3/2021 9:30	0:10:00	46.4	43.0	2.7
11/3/2021 9:40	0:10:00	51.1	45.3	2.2
11/3/2021 9:50	0:10:00	53.6	45.4	2.2
11/3/2021 10:00	0:10:00	55.3	48.2	2.7
11/3/2021 10:10	0:10:00	56.6	46.0	2.7
11/3/2021 10:20	0:10:00	51.5	43.8	2.2
11/3/2021 10:30	0:10:00	50.2	46.2	2.7
11/3/2021 10:40	0:10:00	48.5	43.5	3.1
11/3/2021 10:50	0:10:00	58.2	43.4	3.1
11/3/2021 11:00	0:10:00	49.1	42.4	2.7
11/3/2021 11:10	0:10:00	46.1	41.3	2.7
11/3/2021 11:20	0:10:00	49.3	39.8	3.1
11/3/2021 11:30	0:10:00	49.0	41.6	2.7
11/3/2021 11:40	0:10:00	53.9	45.2	2.7
11/3/2021 11:50	0:10:00	65.4	40.9	2.2
11/3/2021 12:00	0:10:00	53.7	43.3	2.2
11/3/2021 12:10	0:10:00	55.8	46.6	2.2
11/3/2021 12:20	0:10:00	50.8	47.1	1.8
11/3/2021 12:30	0:10:00	62.3	43.8	1.8
11/3/2021 12:40	0:10:00	58.1	46.5	2.2
11/3/2021 12:50	0:10:00	51.9	44.0	1.8
11/3/2021 13:00	0:10:00	52.0	43.5	1.3
11/3/2021 13:10	0:10:00	50.3	47.9	2.2
11/3/2021 13:20	0:10:00	50.9	47.2	3.6
11/3/2021 13:30	0:10:00	51.7	45.2	3.6
11/3/2021 13:40	0:10:00	49.3	43.8	3.1
11/3/2021 13:50	0:10:00	56.6	48.9	3.6
11/3/2021 14:00	0:10:00	58.2	48.3	2.7
11/3/2021 14:10	0:10:00	54.0	42.5	1.8
11/3/2021 14:20	0:10:00	53.9	46.0	2.7
11/3/2021 14:30	0:10:00	74.9	43.2	1.3
11/3/2021 14:40	0:10:00	53.4	44.8	1.3
11/3/2021 14:50	0:10:00	65.1	45.4	1.3
11/3/2021 15:00	0:10:00	56.7	44.0	1.3
11/3/2021 15:10	0:10:00	57.2	45.7	1.3
11/3/2021 15:20	0:10:00	51.1	44.3	1.8
11/3/2021 15:30	0:10:00	50.6	43.9	1.3
11/3/2021 15:40	0:10:00	54.1	42.9	1.3
11/3/2021 15:50	0:10:00	48.1	42.3	0.9
11/3/2021 16:00	0:10:00	48.2	44.3	1.3
11/3/2021 16:10	0:10:00	60.2	44.4	1.3
11/3/2021 16:20	0:10:00	46.8	43.2	1.3
11/3/2021 16:30	0:10:00	51.1	43.9	1.3
11/3/2021 16:40	0:10:00	52.7	46.4	1.3
11/3/2021 16:50	0:10:00	55.6	46.5	1.3
11/3/2021 17:00	0:10:00	57.6	45.0	1.3
11/3/2021 17:10	0:10:00	50.9	44.2	1.3
11/3/2021 17:20	0:10:00	56.5	44.3	1.3
11/3/2021 17:30	0:10:00	56.4	47.9	0.9
11/3/2021 17:40	0:10:00	55.3	49.0	0.9
11/3/2021 17:50	0:10:00	55.8	48.9	1.3

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/3/2021 18:00	0:10:00	58.0	48.5	1.3
11/3/2021 18:10	0:10:00	57.3	47.4	1.8
11/3/2021 18:20	0:10:00	51.5	46.1	1.3
11/3/2021 18:30	0:10:00	49.3	45.0	0.9
11/3/2021 18:40	0:10:00	49.0	46.8	0.9
11/3/2021 18:50	0:10:00	49.7	47.9	1.3
11/3/2021 19:00	0:10:00	49.8	47.9	1.3
11/3/2021 19:10	0:10:00	49.8	47.7	1.3
11/3/2021 19:20	0:10:00	50.3	46.9	1.3
11/3/2021 19:30	0:10:00	43.5	41.8	1.3
11/3/2021 19:40	0:10:00	45.2	44.0	1.3
11/3/2021 19:50	0:10:00	46.6	45.1	2.2
11/3/2021 20:00	0:10:00	47.8	45.0	2.7
11/3/2021 20:10	0:10:00	46.1	44.3	2.2
11/3/2021 20:20	0:10:00	46.7	45.6	1.3
11/3/2021 20:30	0:10:00	47.3	43.9	1.3
11/3/2021 20:40	0:10:00	45.3	42.4	0.4
11/3/2021 20:50	0:10:00	46.1	41.2	1.8
11/3/2021 21:00	0:10:00	47.4	46.7	1.3
11/3/2021 21:10	0:10:00	47.3	46.2	1.3
11/3/2021 21:20	0:10:00	46.8	43.5	1.3
11/3/2021 21:30	0:10:00	46.0	43.9	
11/3/2021 21:40	0:10:00	46.7	43.5	1.3
11/3/2021 21:50	0:10:00	44.9	42.1	1.3
11/3/2021 22:00	0:10:00	44.8	42.8	1.8
11/3/2021 22:10	0:10:00	46.2	44.3	1.3
11/3/2021 22:20	0:10:00	47.0	45.8	1.3
11/3/2021 22:30	0:10:00	45.1	42.4	1.3
11/3/2021 22:40	0:10:00	45.4	42.0	1.3
11/3/2021 22:50	0:10:00	45.2	42.7	1.8
11/3/2021 23:00	0:10:00	44.1	40.3	2.7
11/3/2021 23:10	0:10:00	46.1	44.2	0.9
11/3/2021 23:20	0:10:00	46.5	45.4	0.4
11/3/2021 23:30	0:10:00	46.1	45.1	0.9
11/3/2021 23:40	0:10:00	46.2	45.1	0.4
11/3/2021 23:50	0:10:00	44.5	43.2	0.9
11/4/2021 0:00	0:10:00	45.0	41.1	1.3
11/4/2021 0:10	0:10:00	44.5	41.7	1.3
11/4/2021 0:20	0:10:00	44.9	40.5	0.9
11/4/2021 0:30	0:10:00	43.4	39.9	0
11/4/2021 0:40	0:10:00	42.8	39.7	0
11/4/2021 0:50	0:10:00	41.0	38.2	0
11/4/2021 1:00	0:10:00	41.4	37.7	0
11/4/2021 1:10	0:10:00	40.2	39.1	0
11/4/2021 1:20	0:10:00	43.5	40.2	0
11/4/2021 1:30	0:10:00	40.7	38.9	0
11/4/2021 1:40	0:10:00	40.3	39.1	0
11/4/2021 1:50	0:10:00	43.8	41.0	0.4
11/4/2021 2:00	0:10:00	43.5	42.7	0
11/4/2021 2:10	0:10:00	43.6	42.7	0
11/4/2021 2:20	0:10:00	43.5	42.6	0
11/4/2021 2:30	0:10:00	42.9	42.6	0
11/4/2021 2:40	0:10:00	42.7	42.3	0
11/4/2021 2:50	0:10:00	42.9	42.5	0
11/4/2021 3:00	0:10:00	43.5	42.3	2.2

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
11/4/2021 3:10	0:10:00	42.4	42.1	1.8
11/4/2021 3:20	0:10:00	44.6	42.3	1.3
11/4/2021 3:30	0:10:00	43.9	42.2	1.8
11/4/2021 3:40	0:10:00	45.7	45.1	1.8
11/4/2021 3:50	0:10:00	46.2	45.8	3.1
11/4/2021 4:00	0:10:00	50.5	46.2	2.7
11/4/2021 4:10	0:10:00	46.2	45.2	3.1
11/4/2021 4:20	0:10:00	56.0	45.6	2.7
11/4/2021 4:30	0:10:00	53.4	45.9	2.2
11/4/2021 4:40	0:10:00	54.8	46.0	2.7
11/4/2021 4:50	0:10:00	45.9	45.3	2.2
11/4/2021 5:00	0:10:00	45.2	43.6	2.2
11/4/2021 5:10	0:10:00	44.7	40.7	2.2
11/4/2021 5:20	0:10:00	53.0	42.0	2.2
11/4/2021 5:30	0:10:00	54.4	44.5	2.7
11/4/2021 5:40	0:10:00	57.9	55.4	3.1
11/4/2021 5:50	0:10:00	59.9	53.2	2.7
11/4/2021 6:00	0:10:00	67.0	48.0	2.2
11/4/2021 6:10	0:10:00	50.0	44.7	2.7
11/4/2021 6:20	0:10:00	53.8	46.8	3.1
11/4/2021 6:30	0:10:00	50.4	45.3	3.1
11/4/2021 6:40	0:10:00	54.9	44.3	2.7
11/4/2021 6:50	0:10:00	55.0	49.0	2.7
11/4/2021 7:00	0:10:00	51.4	45.1	3.1
11/4/2021 7:10	0:10:00	55.5	45.7	2.7
11/4/2021 7:20	0:10:00	51.5	40.9	2.7
11/4/2021 7:30	0:10:00	50.3	46.2	2.2
11/4/2021 7:40	0:10:00	53.4	47.3	2.2
11/4/2021 7:50	0:10:00	53.2	50.1	2.2
11/4/2021 8:00	0:10:00	53.2	44.4	1.8
11/4/2021 8:10	0:10:00	53.7	47.0	1.8
11/4/2021 8:20	0:10:00	47.5	42.6	2.2
11/4/2021 8:30	0:10:00	51.1	41.5	1.8
11/4/2021 8:40	0:10:00	45.1	39.2	1.3
11/4/2021 8:50	0:10:00	44.9	40.8	1.3
11/4/2021 9:00	0:10:00	44.9	39.8	1.8
11/4/2021 9:10	0:10:00	47.6	42.2	1.3
11/4/2021 9:20	0:10:00	45.1	41.9	0.9
11/4/2021 9:30	0:10:00	48.5	38.0	1.3
11/4/2021 9:40	0:10:00	45.5	40.1	1.3
11/4/2021 9:50	0:10:00	52.6	44.0	1.3
11/4/2021 10:00	0:10:00	52.9	46.3	0.9
11/4/2021 10:10	0:10:00	49.8	41.8	0.4
11/4/2021 10:20	0:10:00	51.7	44.3	0.4
11/4/2021 10:30	0:10:00	58.9	48.3	0.4
11/4/2021 10:40	0:10:00	54.3	43.4	0.4
11/4/2021 10:50	0:10:00	48.6	46.1	0
11/4/2021 11:00	0:10:00	51.3	44.2	0
11/4/2021 11:10	0:10:00	46.8	43.3	0
11/4/2021 11:20	0:10:00	53.3	44.2	0
11/4/2021 11:30	0:10:00	56.6	44.3	0
11/4/2021 11:40	0:10:00	50.9	46.6	0
11/4/2021 11:50	0:10:00	50.0	43.6	0
11/4/2021 12:00	0:10:00	48.4	43.6	0

Noise Measurements Datasheet at Noise Sampling Point 3

Receptor

Measurement Description
References time
Date 28-31/10/2021
Day time 72 hours

Coordinates: UTM
E 730100
N 1698592

Instrumentation
Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter
Wind Speed Instrument: Davis Vantage PRO2

Noise Pressure Levels (dBA) - Laeq, day/night

Date	Time	LeqA	L05	L10	L50	L90	L95
10/28/2021 11:00-18:00	Day time	51.8	51.8	47.2	38.7	33.8	32.4
10/28-29/2021 18:00-06:00	Night time	46.5	51.4	50.4	43.9	41.7	41.3
10/29/2021 06:00-18:00	Day time	49	52.3	49.5	39.9	35	33.9
10/29-30/2021 18:00-06:00	Night time	47.9	51.7	50.4	45.7	43	42.2
10/30/2021 06:00-18:00	Day time	50.5	56.2	51.9	42.2	36.1	34.7
10/30-31//2021 18:00-06:00	Night time	48.9	51.4	49.9	46.2	42.3	41.7
10/31//2021 06:00-12:00	Day time	54	59.8	57.8	42.8	35.2	33.7

Noise Pressure Levels (dBA) - Laeq, 1h

Date	**Time**	**LeqA**	**L05**	**L10**	**L50**	**L90**	**L95**
10/28/2021	11:00-12:00	39.5	44.1	42.2	36.7	32	31.2
10/28/2021	12:00-13:00	49.7	52.7	48	39.5	36.2	35.7
10/28/2021	13:00-14:00	42.5	47.3	46.1	39.6	35.8	34.7
10/28/2021	14:00-15:00	44.5	49.3	46.2	39.7	35.2	34.4
10/28/2021	15:00-16:00	41.8	47.7	42.3	35.4	32.1	30.9
10/28/2021	16:00-17:00	56.3	56	50.2	39.8	33.5	32.1
10/28/2021	17:00-18:00	56.7	58.3	51.8	41.1	37.2	36.5
10/28/2021	18:00-19:00	46.6	51.1	50.5	44.9	42.5	41.9
10/28/2021	19:00-20:00	44.9	49.6	47.4	43.3	41.7	41.6
10/28/2021	20:00-21:00	48.1	50.4	50.3	48.2	44.4	43.9
10/28/2021	21:00-22:00	50.4	52.9	52.4	49.5	48.4	47.5
10/28/2021	22:00-23:00	50.1	51.9	51.8	50.6	45.9	45.7
10/28/2021	23:00-00:00	45.6	48	47.3	45.5	42.6	42.2
10/29/2021	00:00-01:00	42.5	43.5	43.2	42.1	41.3	41.2
10/29/2021	01:00-02:00	41.9	44.1	43.2	41.8	40.5	40.3
10/29/2021	02:00-03:00	43.7	45.3	44.1	43.2	42	41.5
10/29/2021	03:00-04:00	43.9	44.9	44.3	43.6	42.9	42.7
10/29/2021	04:00-05:00	43.9	45.4	44.8	43.7	42.5	42.2
10/29/2021	05:00-06:00	46.1	51.2	47.7	43.7	41.6	40.6
10/29/2021	06:00-07:00	51	45.4	43.9	40.8	39	38.8
10/29/2021	07:00-08:00	48.3	53.1	50.4	43.6	39	38.4
10/29/2021	08:00-09:00	42.8	48.3	44	39.4	36.8	36.4
10/29/2021	09:00-10:00	47.2	51.4	45.7	39.5	35.6	34.8
10/29/2021	10:00-11:00	40.5	45.3	42.4	37.5	34.7	33.8
10/29/2021	11:00-12:00	44.1	44	42	37.4	34.4	33.6
10/29/2021	12:00-13:00	42.1	46.9	45.3	35.6	33	32.4
10/29/2021	13:00-14:00	43.1	50.7	45.3	37.1	34.5	33.6
10/29/2021	14:00-15:00	43.7	49.8	47.5	38	34.9	34.2
10/29/2021	15:00-16:00	53.4	55.5	54.4	43.9	35.6	34.9

10/29/2021	16:00-17:00	49.3	51.2	50	41.6	37.2	36.5
10/29/2021	17:00-18:00	54.5	59.9	57.6	46.9	42.4	41.5
10/29/2021	18:00-19:00	48.8	52.8	51.7	47.3	43.9	43.3
10/29/2021	19:00-20:00	48.9	51.8	50.7	48.6	46.3	46.2
10/29/2021	20:00-21:00	50.5	55.9	54.8	47.8	42.7	41.9
10/29/2021	21:00-22:00	50.4	50.6	49.9	48.1	43.2	42.7
10/29/2021	22:00-23:00	48.2	50.9	50.4	46.9	44.9	44.2
10/29/2021	23:00-00:00	48.7	51.7	51.3	47.5	45.4	44.1
10/30/2021	00:00-01:00	46.4	49.1	47.8	46	44.6	44
10/30/2021	01:00-02:00	45.9	49.9	47.8	44.5	43.4	43
10/30/2021	02:00-03:00	44.2	47.6	45.3	42.7	40	39.6
10/30/2021	03:00-04:00	46.9	49.9	49.3	45.5	44	43.7
10/30/2021	04:00-05:00	44.4	47.1	46.4	43.9	42.6	42.2
10/30/2021	05:00-06:00	45.4	46.5	46	44.3	42.7	41.9
10/30/2021	06:00-07:00	42.7	45.5	45.1	42.3	38.6	38.2
10/30/2021	07:00-08:00	49.8	55.6	54.6	45	39.8	39.3
10/30/2021	08:00-09:00	48.6	50.9	47.6	40.9	37.9	36.8
10/30/2021	09:00-10:00	49.5	55.9	53.8	44.8	37.4	36.5
10/30/2021	10:00-11:00	50.4	46.2	44.4	39.4	36	35.3
10/30/2021	11:00-12:00	44	51	48.3	38.2	35.4	34.4
10/30/2021	12:00-13:00	38.7	43.4	41.4	37	33.1	32
10/30/2021	13:00-14:00	42.7	47	43.8	37.5	32.6	32.4
10/30/2021	14:00-15:00	53.1	60.2	52.9	44.9	37.5	36.2
10/30/2021	15:00-16:00	56.3	63.5	58.4	49.1	40.4	38.6
10/30/2021	16:00-17:00	54.1	59.8	58.9	48.3	42.9	41.4
10/30/2021	17:00-18:00	44	46.2	45.7	43.1	39.3	38.9
10/30/2021	18:00-19:00	47.7	49.4	49.3	48	43.1	42.9
10/30/2021	19:00-20:00	51.8	52.4	51.4	49	47.8	47.3
10/30/2021	20:00-21:00	48.2	50	49.7	48.2	46.4	45.8
10/30/2021	21:00-22:00	48.9	51.1	50.6	48.7	47	46.7
10/30/2021	22:00-23:00	48.6	51.7	51.1	48	45.4	45
10/30/2021	23:00-00:00	47.8	52.2	50.1	46.7	45.6	45
10/31/2021	00:00-01:00	46.4	49	48.1	45.9	44.6	44.4
10/31/2021	01:00-02:00	44.1	47.7	46.9	42.9	41.3	41.1
10/31/2021	02:00-03:00	42.1	43.3	42.8	42	41.2	40.8
10/31/2021	03:00-04:00	51.1	45.6	45	43.8	42.7	42.3
10/31/2021	04:00-05:00	46	46.1	45.8	44.3	43.4	43
10/31/2021	05:00-06:00	52.8	54.7	52.8	45.6	42.7	42.1
10/31/2021	06:00-07:00	56.5	60	59.3	55.2	49.3	42.4
10/31/2021	07:00-08:00	55.1	61.1	59.9	47.4	39.6	39.2
10/31/2021	08:00-09:00	58.1	63.5	59.8	45.6	37.7	35.5
10/31/2021	09:00-10:00	48.1	49.8	46.6	39.3	34.5	33.7
10/30/2021	10:00-11:00	45.4	52.7	49	41	36	34.9
10/31/2021	11:00-12:00	39.9	44.7	42.6	36.7	32.9	31.7
10/31/2021	12:00-13:00	53.7	55.5	49.8	40.3	33.5	32.9
10/31/2021	13:00-14:00	44.3	46.8	46.1	39.6	35.6	35.2
10/31/2021	14:00-15:00	54	60.2	56.9	44.4	37.7	36.9
10/31/2021	15:00-16:00	46.1	51	49.4	43.5	38.3	37.5
10/31/2021	16:00-17:00	52.3	59.8	57.4	46.6	39.8	38.4

Receptor

Geographic Coordinations

Geographic Coordination System WGS 1984 – UTM 48

Coordinate [m]	X	Y
	730100	1698592

Measurement Description

Reference Time

Date 28-31/10/2021

Day time 72 hours

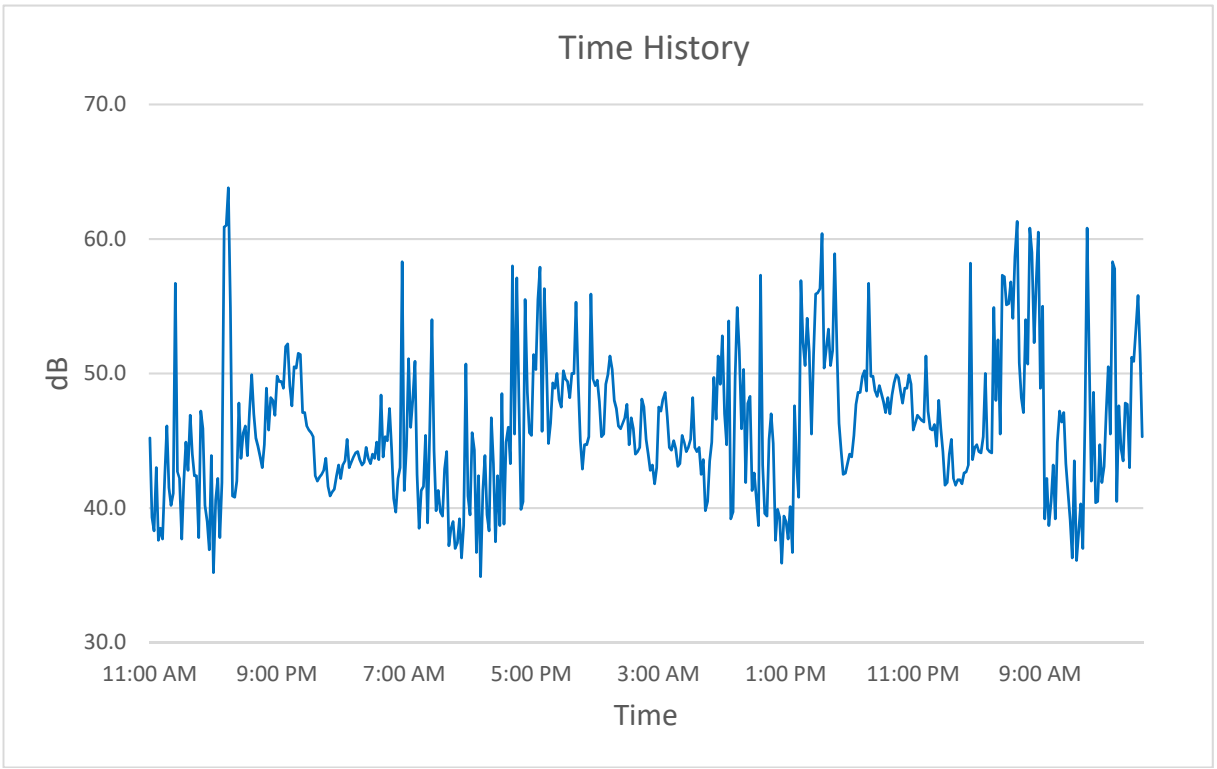
Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter

Wind Speed Instrument: Davis Vantage PRO2

Metheorological Conditions

	u.m.		LeqA	L5	L10	L50	L90	L95
Temperature	[°C]	26.9	**49.9**	53.0	50.7	43.9	36.7	35.0
Wind Speed	[m/s]	2.27						
Pressure	[Hpa]	882.2						
Rainfall	[mm]	0						
(*) Average Values								



Recording activities surrounding at Noise measurement and Wind Speed.
Sampling Point: N3

Recording activities surrounding at Noise measurement and Wind speed point N3. This point was near the house of Dakbrang village. Surrounding there are household, community, near the access road to village and farming area. Particularly observation sound hearing from noise people speaking, motorbike on road, noise from community, pets (cow) and noise from rain.

Wind Speed Measurement at Noise Sampling Point 3

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/28/2021 11:00	0:10:00	45.2	35.1	2.2
10/28/2021 11:10	0:10:00	39.3	31.9	1.8
10/28/2021 11:20	0:10:00	38.3	31.0	1.3
10/28/2021 11:30	0:10:00	43	34.4	3.6
10/28/2021 11:40	0:10:00	37.6	34.2	2.7
10/28/2021 11:50	0:10:00	38.5	33.4	3.6
10/28/2021 12:00	0:10:00	37.7	35.5	4
10/28/2021 12:10	0:10:00	42.4	37.1	2.7
10/28/2021 12:20	0:10:00	46.1	36.8	2.7
10/28/2021 12:30	0:10:00	41.5	36.7	2.7
10/28/2021 12:40	0:10:00	40.2	37.3	2.7
10/28/2021 12:50	0:10:00	41.1	35.3	2.7
10/28/2021 13:00	0:10:00	56.7	36.4	4.5
10/28/2021 13:10	0:10:00	42.7	36.9	3.1
10/28/2021 13:20	0:10:00	42.2	34.7	3.6
10/28/2021 13:30	0:10:00	37.7	34.7	4
10/28/2021 13:40	0:10:00	42.0	38.2	3.6
10/28/2021 13:50	0:10:00	44.9	38.6	4
10/28/2021 14:00	0:10:00	42.8	38.2	4
10/28/2021 14:10	0:10:00	46.9	37.3	3.6
10/28/2021 14:20	0:10:00	44.0	34.8	4.5
10/28/2021 14:30	0:10:00	42.4	39.5	4.9
10/28/2021 14:40	0:10:00	42.4	36.5	4.9
10/28/2021 14:50	0:10:00	37.8	35.1	4.5
10/28/2021 15:00	0:10:00	47.2	34.2	1.8
10/28/2021 15:10	0:10:00	45.9	30.6	1.8
10/28/2021 15:20	0:10:00	40.2	31.4	1.8
10/28/2021 15:30	0:10:00	39.0	32.7	2.7
10/28/2021 15:40	0:10:00	36.9	34.6	3.1
10/28/2021 15:50	0:10:00	43.9	34.0	1.8
10/28/2021 16:00	0:10:00	35.2	33.3	1.8
10/28/2021 16:10	0:10:00	40.6	33.8	1.8
10/28/2021 16:20	0:10:00	42.2	32.0	1.3
10/28/2021 16:30	0:10:00	37.8	32.8	0.9
10/28/2021 16:40	0:10:00	41.9	36.4	0.9
10/28/2021 16:50	0:10:00	60.9	36.6	0.9
10/28/2021 17:00	0:10:00	61.0	42.8	0.4
10/28/2021 17:10	0:10:00	63.8	37.0	1.3
10/28/2021 17:20	0:10:00	54.9	37.1	2.2
10/28/2021 17:30	0:10:00	40.9	35.7	2.2
10/28/2021 17:40	0:10:00	40.8	37.5	0.4
10/28/2021 17:50	0:10:00	42.0	38.1	0.9
10/28/2021 18:00	0:10:00	47.8	41.3	0.4
10/28/2021 18:10	0:10:00	43.7	41.7	0
10/28/2021 18:20	0:10:00	45.6	42.6	1.3
10/28/2021 18:30	0:10:00	46.1	42.5	0.9
10/28/2021 18:40	0:10:00	43.9	42.7	0.9
10/28/2021 18:50	0:10:00	47.1	45.7	1.3
10/28/2021 19:00	0:10:00	49.9	44.6	2.2
10/28/2021 19:10	0:10:00	47.0	42.4	1.8
10/28/2021 19:20	0:10:00	45.2	42.5	1.8
10/28/2021 19:30	0:10:00	44.6	41.7	2.2
10/28/2021 19:40	0:10:00	43.8	41.9	1.8
10/28/2021 19:50	0:10:00	43.0	41.6	2.2
10/28/2021 20:00	0:10:00	44.7	42.2	2.2

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/28/2021 20:10	0:10:00	48.9	45.8	2.2
10/28/2021 20:20	0:10:00	45.8	42.0	2.2
10/28/2021 20:30	0:10:00	48.2	47.0	1.8
10/28/2021 20:40	0:10:00	48.0	45.0	1.3
10/28/2021 20:50	0:10:00	46.9	44.1	1.8
10/28/2021 21:00	0:10:00	49.8	49.0	2.2
10/28/2021 21:10	0:10:00	49.4	48.7	2.2
10/28/2021 21:20	0:10:00	49.4	48.0	2.2
10/28/2021 21:30	0:10:00	48.9	47.5	2.2
10/28/2021 21:40	0:10:00	52.0	51.4	1.8
10/28/2021 21:50	0:10:00	52.2	51.4	1.3
10/28/2021 22:00	0:10:00	49.1	48.2	0.9
10/28/2021 22:10	0:10:00	47.6	45.8	0.9
10/28/2021 22:20	0:10:00	50.5	45.7	1.3
10/28/2021 22:30	0:10:00	50.4	49.7	1.3
10/28/2021 22:40	0:10:00	51.5	51.1	0.9
10/28/2021 22:50	0:10:00	51.4	50.4	1.3
10/28/2021 23:00	0:10:00	47.1	45.4	1.3
10/28/2021 23:10	0:10:00	47.1	45.4	1.3
10/28/2021 23:20	0:10:00	46.1	44.9	1.8
10/28/2021 23:30	0:10:00	45.8	45.1	1.3
10/28/2021 23:40	0:10:00	45.6	44.6	2.2
10/28/2021 23:50	0:10:00	45.3	44.6	2.2
10/29/2021 0:00	0:10:00	42.4	41.8	1.8
10/29/2021 0:10	0:10:00	42.0	41.4	1.8
10/29/2021 0:20	0:10:00	42.3	41.6	2.2
10/29/2021 0:30	0:10:00	42.5	41.8	1.8
10/29/2021 0:40	0:10:00	42.8	41.8	1.8
10/29/2021 0:50	0:10:00	43.7	41.2	2.2
10/29/2021 1:00	0:10:00	41.6	41.1	1.8
10/29/2021 1:10	0:10:00	40.9	40.3	1.8
10/29/2021 1:20	0:10:00	41.2	40.1	1.8
10/29/2021 1:30	0:10:00	41.4	40.6	1.3
10/29/2021 1:40	0:10:00	42.4	40.8	1.3
10/29/2021 1:50	0:10:00	43.2	42.0	1.8
10/29/2021 2:00	0:10:00	42.2	41.6	1.8
10/29/2021 2:10	0:10:00	43.2	41.5	1.3
10/29/2021 2:20	0:10:00	43.5	42.0	1.8
10/29/2021 2:30	0:10:00	45.1	41.6	1.3
10/29/2021 2:40	0:10:00	43.0	42.4	1.8
10/29/2021 2:50	0:10:00	43.4	42.9	1.8
10/29/2021 3:00	0:10:00	43.8	42.7	1.8
10/29/2021 3:10	0:10:00	44.1	43.3	2.2
10/29/2021 3:20	0:10:00	44.2	43.2	2.2
10/29/2021 3:30	0:10:00	43.6	43.0	2.2
10/29/2021 3:40	0:10:00	43.2	42.7	2.2
10/29/2021 3:50	0:10:00	43.4	43.0	1.3
10/29/2021 4:00	0:10:00	44.5	43.2	2.2
10/29/2021 4:10	0:10:00	43.7	43.0	2.2
10/29/2021 4:20	0:10:00	43.3	42.6	2.2
10/29/2021 4:30	0:10:00	44.0	42.5	1.8
10/29/2021 4:40	0:10:00	43.7	42.5	1.8
10/29/2021 4:50	0:10:00	44.9	43.4	1.8
10/29/2021 5:00	0:10:00	43.6	42.3	2.2
10/29/2021 5:10	0:10:00	48.4	42.9	1.8

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/29/2021 5:20	0:10:00	43.8	42.7	2.2
10/29/2021 5:30	0:10:00	45.3	41.9	2.2
10/29/2021 5:40	0:10:00	45.0	41.6	1.8
10/29/2021 5:50	0:10:00	47.4	40.6	1.8
10/29/2021 6:00	0:10:00	44.4	40.1	1.8
10/29/2021 6:10	0:10:00	40.7	39.4	1.8
10/29/2021 6:20	0:10:00	39.7	38.8	2.2
10/29/2021 6:30	0:10:00	42.2	39.0	1.8
10/29/2021 6:40	0:10:00	43.0	40.1	1.8
10/29/2021 6:50	0:10:00	58.3	40.0	2.2
10/29/2021 7:00	0:10:00	41.3	39.9	2.2
10/29/2021 7:10	0:10:00	44.6	38.4	2.2
10/29/2021 7:20	0:10:00	51.1	39.9	2.7
10/29/2021 7:30	0:10:00	46.0	42.4	2.7
10/29/2021 7:40	0:10:00	48.0	43.0	3.1
10/29/2021 7:50	0:10:00	50.9	40.6	2.7
10/29/2021 8:00	0:10:00	42.5	38.6	2.2
10/29/2021 8:10	0:10:00	38.5	36.8	2.7
10/29/2021 8:20	0:10:00	41.3	37.3	3.1
10/29/2021 8:30	0:10:00	41.6	38.3	3.6
10/29/2021 8:40	0:10:00	45.4	37.8	3.1
10/29/2021 8:50	0:10:00	38.9	36.9	2.2
10/29/2021 9:00	0:10:00	45.7	36.2	1.8
10/29/2021 9:10	0:10:00	54.0	37.9	2.7
10/29/2021 9:20	0:10:00	44.3	35.9	3.1
10/29/2021 9:30	0:10:00	39.8	36.4	2.7
10/29/2021 9:40	0:10:00	41.3	36.1	3.1
10/29/2021 9:50	0:10:00	39.7	35.9	3.1
10/29/2021 10:00	0:10:00	39.4	34.8	3.1
10/29/2021 10:10	0:10:00	42.9	36.4	2.7
10/29/2021 10:20	0:10:00	44.2	35.4	2.2
10/29/2021 10:30	0:10:00	37.2	34.5	2.2
10/29/2021 10:40	0:10:00	38.5	33.8	2.7
10/29/2021 10:50	0:10:00	39.0	37.4	3.1
10/29/2021 11:00	0:10:00	37.0	34.6	3.1
10/29/2021 11:10	0:10:00	37.4	35.0	3.6
10/29/2021 11:20	0:10:00	39.2	34.6	3.1
10/29/2021 11:30	0:10:00	36.3	33.6	2.7
10/29/2021 11:40	0:10:00	38.7	33.6	3.1
10/29/2021 11:50	0:10:00	50.7	35.3	3.1
10/29/2021 12:00	0:10:00	40.9	37.4	3.1
10/29/2021 12:10	0:10:00	39.5	33.1	2.7
10/29/2021 12:20	0:10:00	45.6	35.0	2.2
10/29/2021 12:30	0:10:00	44.3	35.5	2.7
10/29/2021 12:40	0:10:00	36.7	33.3	2.2
10/29/2021 12:50	0:10:00	42.4	32.9	3.1
10/29/2021 13:00	0:10:00	34.9	32.1	2.2
10/29/2021 13:10	0:10:00	41.3	34.5	3.1
10/29/2021 13:20	0:10:00	43.9	35.8	2.2
10/29/2021 13:30	0:10:00	39.5	33.9	2.2
10/29/2021 13:40	0:10:00	38.3	36.0	1.3
10/29/2021 13:50	0:10:00	46.7	35.5	2.2
10/29/2021 14:00	0:10:00	43.3	33.4	1.8
10/29/2021 14:10	0:10:00	37.5	35.0	2.2
10/29/2021 14:20	0:10:00	42.4	36.0	2.2

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/29/2021 14:30	0:10:00	38.7	34.6	3.1
10/29/2021 14:40	0:10:00	48.5	34.8	2.2
10/29/2021 14:50	0:10:00	38.8	35.5	1.8
10/29/2021 15:00	0:10:00	44.9	35.0	1.8
10/29/2021 15:10	0:10:00	46.0	37.9	3.6
10/29/2021 15:20	0:10:00	43.3	35.5	2.2
10/29/2021 15:30	0:10:00	58.0	35.5	1.8
10/29/2021 15:40	0:10:00	45.5	32.9	1.8
10/29/2021 15:50	0:10:00	57.1	49.2	2.7
10/29/2021 16:00	0:10:00	48.3	37.6	2.7
10/29/2021 16:10	0:10:00	39.9	36.4	2.7
10/29/2021 16:20	0:10:00	40.5	36.5	3.1
10/29/2021 16:30	0:10:00	55.5	39.2	3.1
10/29/2021 16:40	0:10:00	48.6	41.7	2.7
10/29/2021 16:50	0:10:00	45.6	38.8	2.7
10/29/2021 17:00	0:10:00	45.4	40.0	2.2
10/29/2021 17:10	0:10:00	51.4	42.0	2.2
10/29/2021 17:20	0:10:00	50.3	41.6	2.7
10/29/2021 17:30	0:10:00	55.5	43.2	2.2
10/29/2021 17:40	0:10:00	57.9	41.4	2.2
10/29/2021 17:50	0:10:00	45.7	43.0	1.8
10/29/2021 18:00	0:10:00	56.3	43.8	2.7
10/29/2021 18:10	0:10:00	50.9	42.8	1.8
10/29/2021 18:20	0:10:00	44.8	43.5	2.7
10/29/2021 18:30	0:10:00	46.3	43.9	2.7
10/29/2021 18:40	0:10:00	49.3	47.1	1.8
10/29/2021 18:50	0:10:00	48.9	47.1	1.3
10/29/2021 19:00	0:10:00	50.0	48.4	2.2
10/29/2021 19:10	0:10:00	48.1	46.6	2.7
10/29/2021 19:20	0:10:00	47.5	46.2	3.1
10/29/2021 19:30	0:10:00	50.2	47.9	2.7
10/29/2021 19:40	0:10:00	49.6	46.3	2.7
10/29/2021 19:50	0:10:00	49.4	48.7	2.7
10/29/2021 20:00	0:10:00	48.2	46.6	3.1
10/29/2021 20:10	0:10:00	50.0	48.3	3.6
10/29/2021 20:20	0:10:00	50.0	45.0	3.6
10/29/2021 20:30	0:10:00	55.3	53.3	3.6
10/29/2021 20:40	0:10:00	49.3	44.4	3.1
10/29/2021 20:50	0:10:00	45.0	42.5	3.1
10/29/2021 21:00	0:10:00	42.9	41.1	3.1
10/29/2021 21:10	0:10:00	44.7	42.5	2.7
10/29/2021 21:20	0:10:00	44.7	42.8	3.1
10/29/2021 21:30	0:10:00	45.3	43.0	3.1
10/29/2021 21:40	0:10:00	55.9	48.5	3.1
10/29/2021 21:50	0:10:00	49.6	48.7	2.7
10/29/2021 22:00	0:10:00	49.1	48.3	3.1
10/29/2021 22:10	0:10:00	49.5	45.9	3.6
10/29/2021 22:20	0:10:00	47.9	45.1	2.7
10/29/2021 22:30	0:10:00	45.3	44.0	2.2
10/29/2021 22:40	0:10:00	45.5	45.0	2.2
10/29/2021 22:50	0:10:00	49.2	47.1	2.7
10/29/2021 23:00	0:10:00	49.9	49.2	1.8
10/29/2021 23:10	0:10:00	51.3	49.7	2.2
10/29/2021 23:20	0:10:00	50.3	49.5	1.8
10/29/2021 23:30	0:10:00	48.0	43.5	2.7

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/29/2021 23:40	0:10:00	47.4	46.4	2.2
10/29/2021 23:50	0:10:00	46.1	45.0	3.1
10/30/2021 0:00	0:10:00	45.9	45.3	2.7
10/30/2021 0:10	0:10:00	46.3	45.5	1.8
10/30/2021 0:20	0:10:00	46.7	44.9	2.2
10/30/2021 0:30	0:10:00	47.7	45.7	2.7
10/30/2021 0:40	0:10:00	44.7	43.6	2.7
10/30/2021 0:50	0:10:00	46.7	45.8	1.8
10/30/2021 1:00	0:10:00	45.9	45.2	1.8
10/30/2021 1:10	0:10:00	44.0	43.0	1.8
10/30/2021 1:20	0:10:00	44.2	43.5	1.8
10/30/2021 1:30	0:10:00	44.5	43.7	1.8
10/30/2021 1:40	0:10:00	48.1	44.5	1.3
10/30/2021 1:50	0:10:00	47.5	44.1	1.8
10/30/2021 2:00	0:10:00	45.1	42.8	1.3
10/30/2021 2:10	0:10:00	44.0	42.2	0.9
10/30/2021 2:20	0:10:00	42.8	41.9	0.4
10/30/2021 2:30	0:10:00	43.2	39.8	0.4
10/30/2021 2:40	0:10:00	41.8	39.3	0.9
10/30/2021 2:50	0:10:00	43.0	41.4	0.9
10/30/2021 3:00	0:10:00	47.5	40.7	0.9
10/30/2021 3:10	0:10:00	47.2	43.9	1.3
10/30/2021 3:20	0:10:00	48.1	44.7	0.9
10/30/2021 3:30	0:10:00	48.6	46.6	1.3
10/30/2021 3:40	0:10:00	46.8	44.2	1.8
10/30/2021 3:50	0:10:00	44.5	44.0	1.3
10/30/2021 4:00	0:10:00	44.3	43.7	0.9
10/30/2021 4:10	0:10:00	45.0	43.7	1.3
10/30/2021 4:20	0:10:00	44.4	42.9	2.2
10/30/2021 4:30	0:10:00	43.1	42.6	2.2
10/30/2021 4:40	0:10:00	43.3	42.1	2.2
10/30/2021 4:50	0:10:00	45.4	43.4	1.8
10/30/2021 5:00	0:10:00	44.9	43.9	2.2
10/30/2021 5:10	0:10:00	44.2	42.7	1.8
10/30/2021 5:20	0:10:00	44.5	44.0	1.8
10/30/2021 5:30	0:10:00	45.1	43.6	1.3
10/30/2021 5:40	0:10:00	48.2	42.1	1.8
10/30/2021 5:50	0:10:00	44.5	42.5	1.8
10/30/2021 6:00	0:10:00	44.2	41.6	1.8
10/30/2021 6:10	0:10:00	44.5	43.7	2.2
10/30/2021 6:20	0:10:00	42.5	39.2	2.7
10/30/2021 6:30	0:10:00	43.6	39.0	2.7
10/30/2021 6:40	0:10:00	39.8	37.6	2.2
10/30/2021 6:50	0:10:00	40.5	38.6	2.2
10/30/2021 7:00	0:10:00	43.5	39.1	2.7
10/30/2021 7:10	0:10:00	44.9	39.5	2.7
10/30/2021 7:20	0:10:00	49.7	40.4	2.7
10/30/2021 7:30	0:10:00	46.6	40.3	3.1
10/30/2021 7:40	0:10:00	51.3	41.7	3.1
10/30/2021 7:50	0:10:00	49.2	40.1	3.1
10/30/2021 8:00	0:10:00	52.8	43.6	2.2
10/30/2021 8:10	0:10:00	47.0	38.5	3.1
10/30/2021 8:20	0:10:00	44.7	39.0	3.1
10/30/2021 8:30	0:10:00	53.9	37.7	2.7
10/30/2021 8:40	0:10:00	39.2	38.0	3.1

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/30/2021 8:50	0:10:00	39.7	36.1	2.7
10/30/2021 9:00	0:10:00	49.7	38.1	4
10/30/2021 9:10	0:10:00	54.9	45.7	4
10/30/2021 9:20	0:10:00	51.7	45.7	3.6
10/30/2021 9:30	0:10:00	45.9	43.9	2.7
10/30/2021 9:40	0:10:00	50.3	40.2	3.6
10/30/2021 9:50	0:10:00	41.9	36.2	3.1
10/30/2021 10:00	0:10:00	47.8	36.6	3.6
10/30/2021 10:10	0:10:00	48.3	34.5	4
10/30/2021 10:20	0:10:00	41.3	37.4	4
10/30/2021 10:30	0:10:00	42.6	37.1	2.7
10/30/2021 10:40	0:10:00	40.8	37.4	2.7
10/30/2021 10:50	0:10:00	38.7	36.1	2.7
10/30/2021 11:00	0:10:00	57.3	35.9	3.6
10/30/2021 11:10	0:10:00	43.2	35.9	3.1
10/30/2021 11:20	0:10:00	39.6	36.1	2.7
10/30/2021 11:30	0:10:00	39.4	36.9	3.1
10/30/2021 11:40	0:10:00	45.1	37.1	2.7
10/30/2021 11:50	0:10:00	47.0	34.1	2.2
10/30/2021 12:00	0:10:00	44.8	36.7	3.1
10/30/2021 12:10	0:10:00	37.6	35.6	3.1
10/30/2021 12:20	0:10:00	39.9	33.8	2.7
10/30/2021 12:30	0:10:00	39.3	35.5	3.1
10/30/2021 12:40	0:10:00	35.9	31.7	2.2
10/30/2021 12:50	0:10:00	39.4	33.9	3.1
10/30/2021 13:00	0:10:00	39.0	33.9	2.7
10/30/2021 13:10	0:10:00	37.7	32.3	2.2
10/30/2021 13:20	0:10:00	40.1	35.1	3.1
10/30/2021 13:30	0:10:00	36.7	32.3	2.2
10/30/2021 13:40	0:10:00	47.6	35.6	2.7
10/30/2021 13:50	0:10:00	43.2	34.4	2.2
10/30/2021 14:00	0:10:00	40.8	35.6	2.7
10/30/2021 14:10	0:10:00	56.9	35.6	2.7
10/30/2021 14:20	0:10:00	52.3	43.4	2.7
10/30/2021 14:30	0:10:00	50.6	39.3	1.8
10/30/2021 14:40	0:10:00	54.1	43.1	3.1
10/30/2021 14:50	0:10:00	51.6	39.0	1.8
10/30/2021 15:00	0:10:00	45.5	36.7	1.8
10/30/2021 15:10	0:10:00	51.4	41.1	1.8
10/30/2021 15:20	0:10:00	55.9	44.1	1.8
10/30/2021 15:30	0:10:00	56.0	43.0	1.3
10/30/2021 15:40	0:10:00	56.3	38.7	1.8
10/30/2021 15:50	0:10:00	60.4	43.6	1.8
10/30/2021 16:00	0:10:00	50.4	38.5	1.8
10/30/2021 16:10	0:10:00	51.8	40.9	1.8
10/30/2021 16:20	0:10:00	53.3	44.6	1.3
10/30/2021 16:30	0:10:00	50.6	41.3	0.9
10/30/2021 16:40	0:10:00	51.7	44.3	1.3
10/30/2021 16:50	0:10:00	58.9	47.6	2.2
10/30/2021 17:00	0:10:00	51.8	46.3	1.8
10/30/2021 17:10	0:10:00	46.3	41.0	1.3
10/30/2021 17:20	0:10:00	44.3	39.2	1.8
10/30/2021 17:30	0:10:00	42.5	38.9	1.8
10/30/2021 17:40	0:10:00	42.6	39.2	2.2
10/30/2021 17:50	0:10:00	43.3	41.6	2.2

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/30/2021 18:00	0:10:00	44.0	41.8	2.7
10/30/2021 18:10	0:10:00	43.8	42.6	1.8
10/30/2021 18:20	0:10:00	45.4	43.1	1.8
10/30/2021 18:30	0:10:00	47.7	46.8	1.8
10/30/2021 18:40	0:10:00	48.6	48.0	2.2
10/30/2021 18:50	0:10:00	48.6	47.5	2.2
10/30/2021 19:00	0:10:00	49.8	48.2	2.7
10/30/2021 19:10	0:10:00	50.2	48.4	1.8
10/30/2021 19:20	0:10:00	48.7	46.7	2.2
10/30/2021 19:30	0:10:00	56.7	47.7	1.8
10/30/2021 19:40	0:10:00	49.8	48.7	1.8
10/30/2021 19:50	0:10:00	49.8	48.8	1.8
10/30/2021 20:00	0:10:00	48.7	48.2	1.8
10/30/2021 20:10	0:10:00	48.3	47.2	2.2
10/30/2021 20:20	0:10:00	49.1	48.5	3.1
10/30/2021 20:30	0:10:00	48.5	47.4	3.1
10/30/2021 20:40	0:10:00	47.9	46.9	3.1
10/30/2021 20:50	0:10:00	47.1	45.4	3.1
10/30/2021 21:00	0:10:00	48.2	46.1	2.7
10/30/2021 21:10	0:10:00	47.0	46.3	2.7
10/30/2021 21:20	0:10:00	48.4	47.6	1.8
10/30/2021 21:30	0:10:00	49.3	48.0	2.2
10/30/2021 21:40	0:10:00	49.9	49.0	2.2
10/30/2021 21:50	0:10:00	49.7	47.5	2.2
10/30/2021 22:00	0:10:00	48.7	47.6	2.2
10/30/2021 22:10	0:10:00	47.8	45.5	1.8
10/30/2021 22:20	0:10:00	48.9	46.4	2.2
10/30/2021 22:30	0:10:00	48.9	46.5	2.2
10/30/2021 22:40	0:10:00	49.9	47.7	2.2
10/30/2021 22:50	0:10:00	49.2	45.6	1.8
10/30/2021 23:00	0:10:00	45.8	45.0	1.8
10/30/2021 23:10	0:10:00	46.3	44.2	1.8
10/30/2021 23:20	0:10:00	46.9	46.1	2.7
10/30/2021 23:30	0:10:00	46.7	45.9	1.8
10/30/2021 23:40	0:10:00	46.5	46.1	2.2
10/30/2021 23:50	0:10:00	46.4	45.0	1.8
10/31/2021 0:00	0:10:00	51.3	45.6	1.8
10/31/2021 0:10	0:10:00	47.2	45.5	1.8
10/31/2021 0:20	0:10:00	45.9	44.9	1.8
10/31/2021 0:30	0:10:00	45.8	45.5	1.8
10/31/2021 0:40	0:10:00	46.2	45.8	1.3
10/31/2021 0:50	0:10:00	44.6	43.9	2.2
10/31/2021 1:00	0:10:00	48.0	44.7	1.3
10/31/2021 1:10	0:10:00	45.9	43.6	1.8
10/31/2021 1:20	0:10:00	44.2	43.2	1.8
10/31/2021 1:30	0:10:00	41.7	41.1	0.9
10/31/2021 1:40	0:10:00	41.9	41.2	1.3
10/31/2021 1:50	0:10:00	44.0	41.3	0.9
10/31/2021 2:00	0:10:00	45.1	42.4	0.4
10/31/2021 2:10	0:10:00	42.2	41.5	0.9
10/31/2021 2:20	0:10:00	41.7	41.0	0.9
10/31/2021 2:30	0:10:00	42.1	41.0	0.9
10/31/2021 2:40	0:10:00	42.1	40.8	0.9
10/31/2021 2:50	0:10:00	41.8	41.3	0.9
10/31/2021 3:00	0:10:00	42.6	42.1	0.9

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/31/2021 3:10	0:10:00	42.7	41.1	0.9
10/31/2021 3:20	0:10:00	43.2	42.6	1.3
10/31/2021 3:30	0:10:00	58.2	43.1	0.9
10/31/2021 3:40	0:10:00	43.6	42.6	0.9
10/31/2021 3:50	0:10:00	44.5	43.9	0.9
10/31/2021 4:00	0:10:00	44.7	43.8	0.9
10/31/2021 4:10	0:10:00	44.2	43.0	0.9
10/31/2021 4:20	0:10:00	44.1	43.3	1.3
10/31/2021 4:30	0:10:00	45.3	44.4	1.3
10/31/2021 4:40	0:10:00	50.0	43.4	1.3
10/31/2021 4:50	0:10:00	44.4	43.4	1.3
10/31/2021 5:00	0:10:00	44.2	43.5	1.8
10/31/2021 5:10	0:10:00	44.1	42.2	1.8
10/31/2021 5:20	0:10:00	54.9	43.8	1.8
10/31/2021 5:30	0:10:00	48.0	44.5	2.2
10/31/2021 5:40	0:10:00	52.5	44.5	2.7
10/31/2021 5:50	0:10:00	45.5	42.1	2.2
10/31/2021 6:00	0:10:00	57.3	42.7	2.2
10/31/2021 6:10	0:10:00	57.2	42.4	2.2
10/31/2021 6:20	0:10:00	55.1	48.5	2.2
10/31/2021 6:30	0:10:00	55.2	49.5	1.8
10/31/2021 6:40	0:10:00	56.8	49.3	1.8
10/31/2021 6:50	0:10:00	54.1	49.3	1.8
10/31/2021 7:00	0:10:00	58.7	56.7	1.8
10/31/2021 7:10	0:10:00	61.3	58.7	2.2
10/31/2021 7:20	0:10:00	50.8	39.1	2.2
10/31/2021 7:30	0:10:00	48.2	41.7	1.8
10/31/2021 7:40	0:10:00	47.1	39.2	1.8
10/31/2021 7:50	0:10:00	54.0	41.6	1.8
10/31/2021 8:00	0:10:00	50.7	39.0	2.2
10/31/2021 8:10	0:10:00	60.8	37.4	2.7
10/31/2021 8:20	0:10:00	59.0	39.6	2.2
10/31/2021 8:30	0:10:00	52.3	37.2	2.7
10/31/2021 8:40	0:10:00	56.8	35.3	2.7
10/31/2021 8:50	0:10:00	60.5	38.7	3.1
10/31/2021 9:00	0:10:00	48.9	41.0	3.1
10/31/2021 9:10	0:10:00	55.0	38.1	2.2
10/31/2021 9:20	0:10:00	39.2	33.1	2.7
10/31/2021 9:30	0:10:00	42.2	35.8	3.1
10/31/2021 9:40	0:10:00	38.7	33.9	2.2
10/31/2021 9:50	0:10:00	40.5	36.5	2.2
10/31/2021 10:00	0:10:00	43.2	37.3	3.1
10/31/2021 10:10	0:10:00	39.2	36.1	3.1
10/31/2021 10:20	0:10:00	44.9	36.1	3.1
10/31/2021 10:30	0:10:00	47.2	38.2	3.1
10/31/2021 10:40	0:10:00	46.4	37.6	2.2
10/31/2021 10:50	0:10:00	47.1	37.1	2.7
10/31/2021 11:00	0:10:00	43.3	35.7	2.7
10/31/2021 11:10	0:10:00	41.1	35.3	2.2
10/31/2021 11:20	0:10:00	39.1	33.4	2.7
10/31/2021 11:30	0:10:00	36.3	32.0	2.2
10/31/2021 11:40	0:10:00	43.5	31.5	2.7
10/31/2021 11:50	0:10:00	36.1	32.6	2.2
10/31/2021 12:00	0:10:00	38.2	33.4	2.2
10/31/2021 12:10	0:10:00	40.3	33.9	1.8

Start time	Elapsed time	LAeq	LA 90	Wind 10 m
10/31/2021 12:20	0:10:00	37.0	32.2	1.8
10/31/2021 12:30	0:10:00	46.9	34.9	2.2
10/31/2021 12:40	0:10:00	60.8	37.0	1.8
10/31/2021 12:50	0:10:00	51.2	39.3	2.2
10/31/2021 13:00	0:10:00	42.0	37.8	1.8
10/31/2021 13:10	0:10:00	48.6	36.6	2.2
10/31/2021 13:20	0:10:00	40.4	35.4	1.8
10/31/2021 13:30	0:10:00	40.5	35.6	1.3
10/31/2021 13:40	0:10:00	44.7	35.4	2.2
10/31/2021 13:50	0:10:00	41.9	36.6	1.8
10/31/2021 14:00	0:10:00	43.1	36.8	2.2
10/31/2021 14:10	0:10:00	47.1	37.5	2.2
10/31/2021 14:20	0:10:00	50.5	38.3	1.8
10/31/2021 14:30	0:10:00	45.5	37.7	1.8
10/31/2021 14:40	0:10:00	58.3	44.2	1.8
10/31/2021 14:50	0:10:00	57.8	45.6	0.9
10/31/2021 15:00	0:10:00	40.5	36.9	0.4
10/31/2021 15:10	0:10:00	47.6	38.9	0.9
10/31/2021 15:20	0:10:00	44.4	37.0	0.9
10/31/2021 15:30	0:10:00	43.5	37.5	0.4
10/31/2021 15:40	0:10:00	47.8	44.1	0
10/31/2021 15:50	0:10:00	47.7	43.3	0
10/31/2021 16:00	0:10:00	43.0	38.8	0.4
10/31/2021 16:10	0:10:00	51.2	39.6	0.9
10/31/2021 16:20	0:10:00	50.9	45.6	1.3
10/31/2021 16:30	0:10:00	53.2	45.3	0.9
10/31/2021 16:40	0:10:00	55.8	40.6	0.9
10/31/2021 16:50	0:10:00	51.4	37.8	1.3
10/31/2021 17:00	0:10:00	45.3	40.7	1.8

Noise Measurements Datasheet at Noise Sampling Point 4

Receptor

Measurement description

References time

Date 09-12/8/2021

Day time 72 Hours

Coordinates: UTM

N 742952

E 1710413

Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter

Wind Speed Instrument: Davis Vantage PRO2

Noise Pressure Level [dBA] – LAeq, Day/Night

Date	Time	LeqA	L5	L10	L50	L90	L95
8/9/2021	12:00-18:00 *Day time*	42.6	46.2	42.8	35	30.8	30.2
8/9-10/2021	18:00-06:00 *Night time*	43	45.1	44.1	40.1	37.9	36.4
8/10/2021	06:00-18:00 *Day time*	51.7	48.8	44.8	34.4	30.8	30.2
8/10-11/2021	18:00-06:00 *Night time*	48.8	50.4	45.9	41.3	39.4	37.9
8/11/2021	06:00-18:00 *Day time*	40.1	44.7	41.8	35	32	31
8/11-12/2021	18:00-06:00 *Night time*	42.9	48.2	45.3	39.7	37.6	36.5
8/12/2021	06:00-12:00 *Day time*	40.6	43.9	41.8	33.6	30.6	29.8

Noise Pressure Level [dBA] – LAeq,1 Hours

Date	Time	LeqA	L5	L10	L50	L90	L95
8/9/2021	11:30-12:00	55	58.1	54.2	43.1	31.9	30.5
8/9/2021	12:00-13:00	40.8	46.8	43.6	34.6	30.3	29.9
8/9/2021	13:00-14:00	40.9	46.8	45.6	34.7	30.5	29.8
8/9/2021	14:00-15:00	45.9	51.2	41.4	35.8	32.5	31.8
8/9/2021	15:00-16:00	35.7	40.1	37.5	34.2	31.5	31.1
8/9/2021	16:00-17:00	45.2	46.4	42.8	36.8	31	30.7
8/9/2021	17:00-18:00	39.9	45.9	42.6	32.9	30.3	29.8
8/9/2021	18:00-19:00	41.5	46.4	45.9	36.7	33.4	32.5
8/9/2021	19:00-20:00	44.1	48.2	47.8	41.7	40.1	39.9
8/9/2021	20:00-21:00	41	43.9	41.5	40.2	39.1	38.5
8/9/2021	21:00-22:00	40.5	42.5	41.8	39.8	38.9	38.7
8/9/2021	22:00-23:00	39.2	40.2	40	38.9	37.8	37.6
8/9/2021	23:00-00:00	39.1	40.4	40	38.8	38	37.8
8/10/2021	00:00-01:00	40.3	42.5	42.2	39.5	38.5	38.3
8/10/2021	01:00-02:00	40.3	43.2	42.8	39.3	38.1	37.7
8/10/2021	02:00-03:00	39.4	41.1	40.9	39.3	37.7	37.4
8/10/2021	03:00-04:00	42.5	44.1	43.8	42.3	40.3	40.2
8/10/2021	04:00-05:00	43.9	45	45	43.8	42.4	42.2
8/10/2021	05:00-06:00	49.5	45.1	44.8	42	35.6	34.6
8/10/2021	06:00-07:00	37.5	41.3	39.5	34.6	32.4	32.3
8/10/2021	07:00-08:00	41	47	45.2	35	32.8	32.3
8/10/2021	08:00-09:00	61.8	47.6	45	34.7	31.3	30.7
8/10/2021	09:00-10:00	36.5	43.3	39.5	34.2	30.7	30.2
8/10/2021	10:00-11:00	35.5	41	37.8	32	30.3	29.8
8/10/2021	11:00-12:00	51.5	61.2	48.8	35.2	32.2	31.4
8/10/2021	12:00-13:00	36.2	37	36	31.6	29.9	29.6
8/10/2021	13:00-14:00	34.5	37.2	36.2	32.2	29.8	29
8/10/2021	14:00-15:00	50.6	58.1	53.8	40.3	32.3	30.7
8/10/2021	15:00-16:00	47.1	51.9	49.2	37.4	32.6	31.9

8/10/2021	16:00-17:00	45	54.7	47.4	35.7	32.6	32.3
8/10/2021	17:00-18:00	35.5	40.2	38.9	33.5	30.9	30.8
8/10/2021	18:00-19:00	51.6	52.1	47.3	39	35.6	35.4
8/10/2021	19:00-20:00	57.3	66.6	64.3	41.8	40.6	40.4
8/10/2021	20:00-21:00	42.6	46.2	43.5	40.6	39.8	39.6
8/10/2021	21:00-22:00	48	53.7	53.2	41.8	40.4	40.3
8/10/2021	22:00-23:00	45.5	51	50.4	40.8	39.3	39.1
8/10/2021	23:00-00:00	40.7	42.1	41.9	40.2	39.4	39.2
8/11/2021	00:00-01:00	42.8	42.7	42.1	40.3	39.6	39.4
8/11/2021	01:00-02:00	41.5	43.4	42.8	41.1	40	39.7
8/11/2021	02:00-03:00	42	43.5	43.2	41.8	40.7	40.6
8/11/2021	03:00-04:00	43	45.4	45	42.5	40.2	40
8/11/2021	04:00-05:00	44	45.3	44.9	44	42.8	42.4
8/11/2021	05:00-06:00	41.9	44.8	44.1	41.1	36.4	35.5
8/11/2021	06:00-07:00	40.4	43.6	40.6	36.8	34.3	34.1
8/11/2021	07:00-08:00	41.2	45.8	43.7	38.2	34.9	34.4
8/11/2021	08:00-09:00	43.7	45	43.6	35.5	32.4	32
8/11/2021	09:00-10:00	36.2	41.5	39.6	34.5	31.6	31
8/11/2021	10:00-11:00	37.9	40	38.8	35.4	33.6	32.9
8/11/2021	11:00-12:00	38.6	45.1	39.6	34.5	32.4	31.4
8/11/2021	12:00-13:00	42	47.6	40.5	34.4	31.4	30.8
8/11/2021	13:00-14:00	36.6	40.9	39.6	35	31.9	30.7
8/11/2021	14:00-15:00	38.6	40.9	39.7	35.1	33.9	33.5
8/11/2021	15:00-16:00	42.2	48.1	45.2	36.6	34.1	33.4
8/11/2021	16:00-17:00	40.5	46.5	44.4	37.7	33.1	32.6
8/11/2021	17:00-18:00	38.3	43.6	40.5	33.3	30	29.2
8/11/2021	18:00-19:00	39.3	42.9	40.3	36.2	34.2	33.7
8/11/2021	19:00-20:00	39.8	41.3	41	39.7	38.4	38.2
8/11/2021	20:00-21:00	46.6	51.9	49.8	42	37.4	37.3
8/11/2021	21:00-22:00	39.8	40.9	40.1	38.9	37.8	37.5
8/11/2021	22:00-23:00	40.8	45.3	41.6	39.9	39.2	39
8/11/2021	23:00-00:00	39.7	40.4	40.3	39.4	38.9	38.6
8/12/2021	00:00-01:00	40.5	41.5	40.5	39.7	38.9	38.2
8/12/2021	01:00-02:00	39.5	40.9	40.5	39.4	38.2	37.8
8/12/2021	02:00-03:00	45.6	50.1	48.3	39.5	38.2	37.7
8/12/2021	03:00-04:00	46.1	51	48.1	43.8	41	40
8/12/2021	04:00-05:00	44.3	45.8	45.7	44	42.9	42.6
8/12/2021	05:00-06:00	41.8	45.1	43.3	41.6	37.1	36.5
8/12/2021	06:00-07:00	40.7	41.2	39.1	34.9	32.7	32.2
8/12/2021	07:00-08:00	37.5	42.4	40.3	33.9	31.3	31.3
8/12/2021	08:00-09:00	34.6	38.5	37.2	32.3	30.3	30.2
8/12/2021	09:00-10:00	37.1	43.3	41	33.6	31.2	30.8
8/12/2021	10:00-11:00	40.7	47.4	44.2	32.5	29.7	29.6
8/12/2021	11:00-12:00	45.6	48.8	44.4	32.1	29.5	29

Receptor

Geographic Coordinations

Geographic Coordination System WGS 1984 – UTM 48N

Coordinate [m]	X	Y
	742952	1710413

Measurement Description

Reference Time

Date 09-12/08/2021

Day time 72 hours

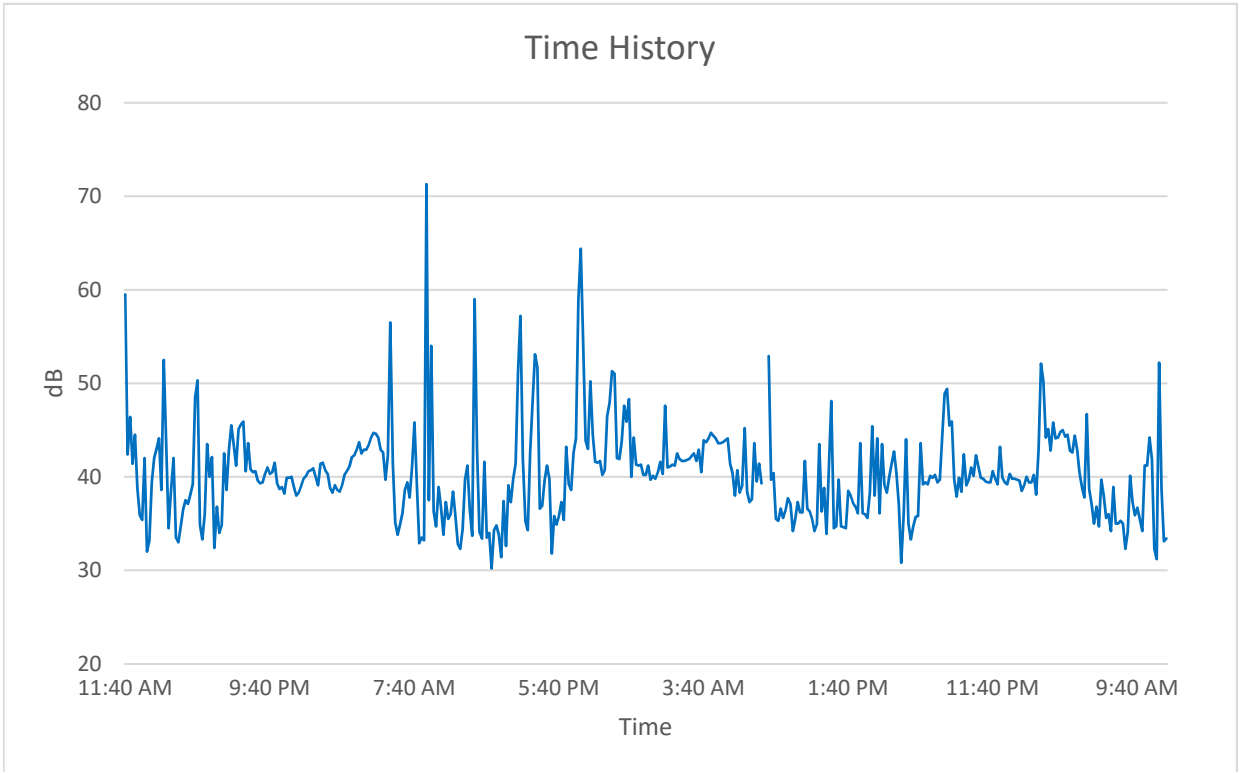
Instrumentation

Noise Measure Instrument: ST-107S Class 2 Integrating Sound Level Meter

Wind Speed Instrument: Davis Vantage PRO2

Metheorological Conditions

	u.m.		LeqA	L5	L10	L50	L90	L95
Temperature	[°C]	26.3	**41.6**	46.0	44	38	32	31.0
Wind Speed	[m/s]	2.32						
Pressure	[Hpa]	875.9						
Rainfall	[mm]	0						
(*) Average Values								



Recording activities surrounding at Noise measurement and Wind Speed.
Sampling Point: N4

Recording activities surrounding at Noise measurement and Wind speed point N1. This point installs Urban Dakchueng Nearly the household around 25 m, Hospital is about 180-meter distance. Currently, there are building activities in hospital area. Sometimes we heard a faint sound hammer, drilling tools from worker. The point is nearly access road to farming and Normally the sound impact from motorbike, Tractor. After that noise from dogs barking in nearly household, noise from kid in community and pets (Cow, Buffalo).

Wind Speed Measurement at Noise Sampling Point 4

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/9/2021 11:40	0:10:00	59.5	37.2	2.2
8/9/2021 11:50	0:10:00	42.4	38.0	2.2
8/9/2021 12:00	0:10:00	46.4	30.4	3.1
8/9/2021 12:10	0:10:00	41.4	31.3	3.6
8/9/2021 12:20	0:10:00	44.5	30.3	3.6
8/9/2021 12:30	0:10:00	38.8	32.5	3.6
8/9/2021 12:40	0:10:00	35.9	31.2	4
8/9/2021 12:50	0:10:00	35.4	30.2	2.7
8/9/2021 13:00	0:10:00	42	28.5	3.1
8/9/2021 13:10	0:10:00	32	29.6	3.1
8/9/2021 13:20	0:10:00	33.2	29.7	3.6
8/9/2021 13:30	0:10:00	39.4	31.5	3.6
8/9/2021 13:40	0:10:00	42	34.0	3.1
8/9/2021 13:50	0:10:00	43	34.7	2.7
8/9/2021 14:00	0:10:00	44.1	34.0	2.2
8/9/2021 14:10	0:10:00	38.6	32.9	2.2
8/9/2021 14:20	0:10:00	52.5	34.8	3.6
8/9/2021 14:30	0:10:00	43.6	34.9	2.2
8/9/2021 14:40	0:10:00	34.5	32.5	4
8/9/2021 14:50	0:10:00	38.5	34.1	4
8/9/2021 15:00	0:10:00	42	30.9	3.1
8/9/2021 15:10	0:10:00	33.5	32.1	4.5
8/9/2021 15:20	0:10:00	33	30.9	2.7
8/9/2021 15:30	0:10:00	34.7	31.1	2.7
8/9/2021 15:40	0:10:00	36.5	33.6	2.2
8/9/2021 15:50	0:10:00	37.5	32.9	2.7
8/9/2021 16:00	0:10:00	37.1	34.7	2.7
8/9/2021 16:10	0:10:00	38.1	35.9	1.8
8/9/2021 16:20	0:10:00	39.2	32.0	2.7
8/9/2021 16:30	0:10:00	48.5	39.9	1.8
8/9/2021 16:40	0:10:00	50.3	30.8	1.8
8/9/2021 16:50	0:10:00	34.9	30.7	1.3
8/9/2021 17:00	0:10:00	33.3	30.4	1.3
8/9/2021 17:10	0:10:00	36	31.3	2.2
8/9/2021 17:20	0:10:00	43.5	30.6	2.2
8/9/2021 17:30	0:10:00	40	30.9	1.8
8/9/2021 17:40	0:10:00	42.1	32.0	1.3
8/9/2021 17:50	0:10:00	32.4	29.0	1.8
8/9/2021 18:00	0:10:00	36.8	32.6	1.3
8/9/2021 18:10	0:10:00	34	31.5	1.8
8/9/2021 18:20	0:10:00	34.8	34.0	0.9
8/9/2021 18:30	0:10:00	42.5	34.4	0
8/9/2021 18:40	0:10:00	38.6	34.8	0.4
8/9/2021 18:50	0:10:00	42.9	40.3	0.4
8/9/2021 19:00	0:10:00	45.5	42.9	0.4
8/9/2021 19:10	0:10:00	43.4	41.6	0
8/9/2021 19:20	0:10:00	41.2	39.9	0
8/9/2021 19:30	0:10:00	45.1	41.5	0
8/9/2021 19:40	0:10:00	45.6	41.0	0.9

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/9/2021 19:50	0:10:00	45.9	40.0	0.9
8/9/2021 20:00	0:10:00	40.6	39.7	1.8
8/9/2021 20:10	0:10:00	43.6	39.8	1.3
8/9/2021 20:20	0:10:00	40.8	40.2	1.3
8/9/2021 20:30	0:10:00	40.5	39.8	1.3
8/9/2021 20:40	0:10:00	40.6	39.5	2.2
8/9/2021 20:50	0:10:00	39.6	39.1	2.2
8/9/2021 21:00	0:10:00	39.3	38.5	2.7
8/9/2021 21:10	0:10:00	39.4	38.6	2.2
8/9/2021 21:20	0:10:00	40.3	39.2	1.8
8/9/2021 21:30	0:10:00	41	38.9	0.4
8/9/2021 21:40	0:10:00	40.3	39.2	0.4
8/9/2021 21:50	0:10:00	40.5	39.0	0.4
8/9/2021 22:00	0:10:00	41.5	39.6	0.9
8/9/2021 22:10	0:10:00	39.3	38.8	2.2
8/9/2021 22:20	0:10:00	38.7	38.3	2.2
8/9/2021 22:30	0:10:00	38.9	37.7	1.3
8/9/2021 22:40	0:10:00	38.2	37.6	1.3
8/9/2021 22:50	0:10:00	39.9	38.2	1.3
8/9/2021 23:00	0:10:00	39.9	39.5	0.4
8/9/2021 23:10	0:10:00	40	39.1	0.4
8/9/2021 23:20	0:10:00	38.9	38.5	0.9
8/9/2021 23:30	0:10:00	38	37.8	1.3
8/9/2021 23:40	0:10:00	38.3	38.2	0.9
8/9/2021 23:50	0:10:00	39	38.3	0.9
8/10/2021 0:00	0:10:00	39.8	38.8	2.2
8/10/2021 0:10	0:10:00	40.1	39.2	2.2
8/10/2021 0:20	0:10:00	40.6	39.3	2.2
8/10/2021 0:30	0:10:00	40.7	39.3	1.3
8/10/2021 0:40	0:10:00	40.9	38.5	2.7
8/10/2021 0:50	0:10:00	40	38.5	2.2
8/10/2021 1:00	0:10:00	39.1	38.3	1.8
8/10/2021 1:10	0:10:00	41.4	38.7	0.9
8/10/2021 1:20	0:10:00	41.5	39.7	1.3
8/10/2021 1:30	0:10:00	40.7	38.1	1.3
8/10/2021 1:40	0:10:00	40.3	38.1	0.9
8/10/2021 1:50	0:10:00	38.8	38.2	2.2
8/10/2021 2:00	0:10:00	38.3	37.7	2.7
8/10/2021 2:10	0:10:00	39.1	37.9	2.2
8/10/2021 2:20	0:10:00	38.6	37.7	2.7
8/10/2021 2:30	0:10:00	38.4	37.2	3.1
8/10/2021 2:40	0:10:00	39.1	38.6	2.7
8/10/2021 2:50	0:10:00	40.2	39.3	1.3
8/10/2021 3:00	0:10:00	40.6	39.8	1.3
8/10/2021 3:10	0:10:00	41.1	39.9	1.8
8/10/2021 3:20	0:10:00	42.1	40.3	2.2
8/10/2021 3:30	0:10:00	42.3	40.8	2.2
8/10/2021 3:40	0:10:00	42.9	42.0	1.8
8/10/2021 3:50	0:10:00	43.7	42.1	0.9

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/10/2021 4:00	0:10:00	42.5	41.6	1.3
8/10/2021 4:10	0:10:00	42.9	42.2	2.2
8/10/2021 4:20	0:10:00	42.9	41.7	1.8
8/10/2021 4:30	0:10:00	43.4	42.6	2.2
8/10/2021 4:40	0:10:00	44.2	43.1	2.2
8/10/2021 4:50	0:10:00	44.7	44.1	1.8
8/10/2021 5:00	0:10:00	44.6	43.6	1.8
8/10/2021 5:10	0:10:00	44.2	43.1	1.8
8/10/2021 5:20	0:10:00	42.9	41.1	2.2
8/10/2021 5:30	0:10:00	42.6	40.5	1.8
8/10/2021 5:40	0:10:00	39.7	36.3	2.2
8/10/2021 5:50	0:10:00	42.3	37.0	2.7
8/10/2021 6:00	0:10:00	56.5	33.3	1.8
8/10/2021 6:10	0:10:00	41.4	33.6	2.2
8/10/2021 6:20	0:10:00	35.1	32.9	2.2
8/10/2021 6:30	0:10:00	33.8	32.4	2.2
8/10/2021 6:40	0:10:00	34.9	32.2	1.8
8/10/2021 6:50	0:10:00	36.1	34.1	2.2
8/10/2021 7:00	0:10:00	38.6	32.6	2.7
8/10/2021 7:10	0:10:00	39.4	32.8	2.7
8/10/2021 7:20	0:10:00	37.8	34.8	3.1
8/10/2021 7:30	0:10:00	41.1	33.4	3.6
8/10/2021 7:40	0:10:00	45.8	35.8	3.6
8/10/2021 7:50	0:10:00	39.2	33.9	3.6
8/10/2021 8:00	0:10:00	32.9	31.7	3.1
8/10/2021 8:10	0:10:00	33.5	31.4	3.1
8/10/2021 8:20	0:10:00	33.2	30.4	1.8
8/10/2021 8:30	0:10:00	71.3	44.7	2.7
8/10/2021 8:40	0:10:00	37.5	31.5	2.7
8/10/2021 8:50	0:10:00	54	34.6	4
8/10/2021 9:00	0:10:00	36.3	33.3	3.6
8/10/2021 9:10	0:10:00	34.7	32.5	2.2
8/10/2021 9:20	0:10:00	38.9	34.5	2.2
8/10/2021 9:30	0:10:00	36.7	30.7	3.1
8/10/2021 9:40	0:10:00	33.8	30.2	3.6
8/10/2021 9:50	0:10:00	37.3	30.5	4
8/10/2021 10:00	0:10:00	35.5	30.6	3.6
8/10/2021 10:10	0:10:00	36	31.8	2.7
8/10/2021 10:20	0:10:00	38.4	30.2	2.7
8/10/2021 10:30	0:10:00	35.8	30.2	3.1
8/10/2021 10:40	0:10:00	32.8	30.1	2.7
8/10/2021 10:50	0:10:00	32.3	30.2	2.2
8/10/2021 11:00	0:10:00	34.4	30.5	3.1
8/10/2021 11:10	0:10:00	39.7	31.1	3.1
8/10/2021 11:20	0:10:00	41.2	32.7	3.1
8/10/2021 11:30	0:10:00	36.4	33.4	4
8/10/2021 11:40	0:10:00	33.7	31.9	3.1
8/10/2021 11:50	0:10:00	59	33.6	2.7
8/10/2021 12:00	0:10:00	42.9	34.6	2.2

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/10/2021 12:10	0:10:00	34.1	30.3	1.3
8/10/2021 12:20	0:10:00	33.4	30.5	1.8
8/10/2021 12:30	0:10:00	41.6	30.2	2.2
8/10/2021 12:40	0:10:00	33.5	31.2	1.8
8/10/2021 12:50	0:10:00	34	29.9	2.7
8/10/2021 13:00	0:10:00	30.2	29.5	2.7
8/10/2021 13:10	0:10:00	34.3	28.7	2.7
8/10/2021 13:20	0:10:00	34.8	31.0	4
8/10/2021 13:30	0:10:00	33.8	31.0	3.1
8/10/2021 13:40	0:10:00	31.4	30.0	3.6
8/10/2021 13:50	0:10:00	37.4	30.4	3.6
8/10/2021 14:00	0:10:00	32.6	29.5	2.7
8/10/2021 14:10	0:10:00	39.1	30.7	4
8/10/2021 14:20	0:10:00	37.3	30.7	4
8/10/2021 14:30	0:10:00	39.8	32.3	4
8/10/2021 14:40	0:10:00	41.4	33.4	3.6
8/10/2021 14:50	0:10:00	51.2	43.3	3.6
8/10/2021 15:00	0:10:00	57.2	43.1	2.2
8/10/2021 15:10	0:10:00	42	33.8	1.8
8/10/2021 15:20	0:10:00	35.3	32.0	2.2
8/10/2021 15:30	0:10:00	34.3	31.5	3.1
8/10/2021 15:40	0:10:00	42.7	34.7	2.2
8/10/2021 15:50	0:10:00	48	36.3	3.1
8/10/2021 16:00	0:10:00	53.1	34.6	3.1
8/10/2021 16:10	0:10:00	51.7	35.9	2.7
8/10/2021 16:20	0:10:00	36.6	32.9	1.3
8/10/2021 16:30	0:10:00	36.9	32.9	1.8
8/10/2021 16:40	0:10:00	39.6	32.5	2.2
8/10/2021 16:50	0:10:00	41.2	33.0	2.2
8/10/2021 17:00	0:10:00	39.8	32.2	2.2
8/10/2021 17:10	0:10:00	31.8	30.5	1.8
8/10/2021 17:20	0:10:00	35.8	31.2	2.2
8/10/2021 17:30	0:10:00	34.9	30.9	1.8
8/10/2021 17:40	0:10:00	35.8	32.6	1.3
8/10/2021 17:50	0:10:00	37.3	33.2	2.2
8/10/2021 18:00	0:10:00	35.4	33.1	2.2
8/10/2021 18:10	0:10:00	43.2	34.9	3.6
8/10/2021 18:20	0:10:00	39.2	35.6	3.1
8/10/2021 18:30	0:10:00	38.6	35.2	1.8
8/10/2021 18:40	0:10:00	42.6	36.0	0.9
8/10/2021 18:50	0:10:00	44.1	38.3	1.8
8/10/2021 19:00	0:10:00	58.9	40.4	2.2
8/10/2021 19:10	0:10:00	64.4	41.2	1.8
8/10/2021 19:20	0:10:00	54.3	40.7	2.7
8/10/2021 19:30	0:10:00	43.9	40.6	1.8
8/10/2021 19:40	0:10:00	43	40.5	1.3
8/10/2021 19:50	0:10:00	50.2	46.8	1.8
8/10/2021 20:00	0:10:00	44.5	40.5	1.8
8/10/2021 20:10	0:10:00	41.6	39.2	2.2

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/10/2021 20:20	0:10:00	41.5	40.3	0.9
8/10/2021 20:30	0:10:00	41.7	40.3	1.3
8/10/2021 20:40	0:10:00	40.2	39.6	1.3
8/10/2021 20:50	0:10:00	40.7	40.0	1.3
8/10/2021 21:00	0:10:00	46.5	39.8	1.3
8/10/2021 21:10	0:10:00	47.9	40.7	1.3
8/10/2021 21:20	0:10:00	51.3	40.3	1.3
8/10/2021 21:30	0:10:00	51	40.2	1.8
8/10/2021 21:40	0:10:00	42	41.1	1.3
8/10/2021 21:50	0:10:00	41.9	41.1	1.3
8/10/2021 22:00	0:10:00	43.8	40.6	0.9
8/10/2021 22:10	0:10:00	47.6	40.7	2.7
8/10/2021 22:20	0:10:00	45.9	40.6	2.7
8/10/2021 22:30	0:10:00	48.3	40.0	3.1
8/10/2021 22:40	0:10:00	40	39.1	2.2
8/10/2021 22:50	0:10:00	44.2	39.1	3.1
8/10/2021 23:00	0:10:00	41.3	39.6	3.1
8/10/2021 23:10	0:10:00	41.2	40.1	2.2
8/10/2021 23:20	0:10:00	41.3	40.4	2.7
8/10/2021 23:30	0:10:00	40.2	39.6	2.7
8/10/2021 23:40	0:10:00	40.2	39.7	3.1
8/10/2021 23:50	0:10:00	41.2	39.0	2.7
8/11/2021 0:00	0:10:00	39.7	39.1	3.1
8/11/2021 0:10	0:10:00	40.1	39.5	3.1
8/11/2021 0:20	0:10:00	39.8	39.4	3.1
8/11/2021 0:30	0:10:00	40.5	39.8	2.7
8/11/2021 0:40	0:10:00	41.6	40.3	1.8
8/11/2021 0:50	0:10:00	40.3	39.8	1.8
8/11/2021 1:00	0:10:00	47.6	40.1	3.6
8/11/2021 1:10	0:10:00	41	39.7	3.1
8/11/2021 1:20	0:10:00	41.1	40.2	4.5
8/11/2021 1:30	0:10:00	41.3	40.4	3.6
8/11/2021 1:40	0:10:00	41.2	39.7	3.1
8/11/2021 1:50	0:10:00	42.5	41.0	2.7
8/11/2021 2:00	0:10:00	41.9	41.1	2.7
8/11/2021 2:10	0:10:00	41.7	40.7	2.7
8/11/2021 2:20	0:10:00	41.7	40.8	3.1
8/11/2021 2:30	0:10:00	41.8	40.7	4
8/11/2021 2:40	0:10:00	41.9	41.1	3.1
8/11/2021 2:50	0:10:00	42.2	41.1	2.7
8/11/2021 3:00	0:10:00	42.5	41.1	1.8
8/11/2021 3:10	0:10:00	41.7	40.8	1.8
8/11/2021 3:20	0:10:00	42.9	40.8	1.8
8/11/2021 3:30	0:10:00	40.5	39.0	3.1
8/11/2021 3:40	0:10:00	43.9	41.9	3.1
8/11/2021 3:50	0:10:00	43.7	42.6	3.1
8/11/2021 4:00	0:10:00	44.1	43.3	2.2
8/11/2021 4:10	0:10:00	44.7	44.1	1.3
8/11/2021 4:20	0:10:00	44.4	44.0	2.7

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/11/2021 4:30	0:10:00	44.1	42.4	2.7
8/11/2021 4:40	0:10:00	43.6	42.9	3.6
8/11/2021 4:50	0:10:00	43.6	42.7	2.7
8/11/2021 5:00	0:10:00	43.7	42.7	0.9
8/11/2021 5:10	0:10:00	43.9	42.9	0.9
8/11/2021 5:20	0:10:00	44.1	42.0	1.3
8/11/2021 5:30	0:10:00	41.4	39.8	0.9
8/11/2021 5:40	0:10:00	40.4	38.8	2.7
8/11/2021 5:50	0:10:00	38	36.0	3.1
8/11/2021 6:00	0:10:00	40.7	35.0	3.1
8/11/2021 6:10	0:10:00	38.3	34.2	3.1
8/11/2021 6:20	0:10:00	39	34.0	4
8/11/2021 6:30	0:10:00	45.2	35.7	4.5
8/11/2021 6:40	0:10:00	38.4	34.9	4
8/11/2021 6:50	0:10:00	37.3	35.5	4.5
8/11/2021 7:00	0:10:00	37.6	34.6	4
8/11/2021 7:10	0:10:00	43.6	46.4	4.9
8/11/2021 7:20	0:10:00	39.5	34.9	4
8/11/2021 7:30	0:10:00	41.4	35.3	3.1
8/11/2021 7:40	0:10:00	39.3	35.3	3.1
8/11/2021 7:50	Change battery and set a new record			3.1
8/11/2021 8:00				3.1
8/11/2021 8:10	0:10:00	52.9	38.2	3.1
8/11/2021 8:20	0:10:00	39.7	33.0	2.2
8/11/2021 8:30	0:10:00	40.4	32.4	2.7
8/11/2021 8:40	0:10:00	35.5	33.2	2.7
8/11/2021 8:50	0:10:00	35.3	32.0	3.1
8/11/2021 9:00	0:10:00	36.6	32.4	2.7
8/11/2021 9:10	0:10:00	35.6	32.6	2.7
8/11/2021 9:20	0:10:00	36.4	30.8	3.1
8/11/2021 9:30	0:10:00	37.7	31.5	3.1
8/11/2021 9:40	0:10:00	37.1	32.2	2.7
8/11/2021 9:50	0:10:00	34.2	33.2	3.6
8/11/2021 10:00	0:10:00	35.5	34.0	2.7
8/11/2021 10:10	0:10:00	37.3	34.5	2.2
8/11/2021 10:20	0:10:00	36.2	34.2	3.1
8/11/2021 10:30	0:10:00	36.2	33.6	3.1
8/11/2021 10:40	0:10:00	41.7	33.0	2.2
8/11/2021 10:50	0:10:00	36.6	33.2	1.8
8/11/2021 11:00	0:10:00	36.3	33.8	2.2
8/11/2021 11:10	0:10:00	35.5	32.9	2.7
8/11/2021 11:20	0:10:00	34.2	32.5	1.3
8/11/2021 11:30	0:10:00	34.9	31.6	2.7
8/11/2021 11:40	0:10:00	43.5	34.5	2.2
8/11/2021 11:50	0:10:00	36.3	32.8	3.6
8/11/2021 12:00	0:10:00	38.8	32.2	1.8
8/11/2021 12:10	0:10:00	33.9	31.9	1.8
8/11/2021 12:20	0:10:00	41	33.5	3.1
8/11/2021 12:30	0:10:00	48.1	34.1	3.6

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/11/2021 12:40	0:10:00	34.5	30.7	2.7
8/11/2021 12:50	0:10:00	34.7	33.5	1.8
8/11/2021 13:00	0:10:00	39.7	30.4	2.7
8/11/2021 13:10	0:10:00	34.7	32.1	2.7
8/11/2021 13:20	0:10:00	34.6	30.6	2.2
8/11/2021 13:30	0:10:00	34.5	32.2	2.7
8/11/2021 13:40	0:10:00	38.5	33.9	2.7
8/11/2021 13:50	0:10:00	38	33.2	3.6
8/11/2021 14:00	0:10:00	37.2	31.4	4
8/11/2021 14:10	0:10:00	36.8	33.6	3.1
8/11/2021 14:20	0:10:00	36.1	33.9	4
8/11/2021 14:30	0:10:00	43.6	34.3	3.6
8/11/2021 14:40	0:10:00	36.1	34.8	3.1
8/11/2021 14:50	0:10:00	36	34.1	2.7
8/11/2021 15:00	0:10:00	35.6	33.4	3.6
8/11/2021 15:10	0:10:00	38.3	35.4	3.1
8/11/2021 15:20	0:10:00	45.4	35.0	3.1
8/11/2021 15:30	0:10:00	38	34.6	2.2
8/11/2021 15:40	0:10:00	44.1	36.1	2.7
8/11/2021 15:50	0:10:00	36.1	33.5	3.1
8/11/2021 16:00	0:10:00	43.5	33.4	2.2
8/11/2021 16:10	0:10:00	39.1	33.6	2.2
8/11/2021 16:20	0:10:00	38.3	33.6	3.1
8/11/2021 16:30	0:10:00	40	33.3	2.2
8/11/2021 16:40	0:10:00	41.4	33.9	1.8
8/11/2021 16:50	0:10:00	42.7	33.1	0.9
8/11/2021 17:00	0:10:00	40.4	32.4	1.8
8/11/2021 17:10	0:10:00	37	29.9	2.2
8/11/2021 17:20	0:10:00	30.8	29.0	2.7
8/11/2021 17:30	0:10:00	35.9	31.6	2.2
8/11/2021 17:40	0:10:00	44	33.4	2.7
8/11/2021 17:50	0:10:00	35	31.6	2.7
8/11/2021 18:00	0:10:00	33.3	30.6	2.7
8/11/2021 18:10	0:10:00	34.7	33.6	1.8
8/11/2021 18:20	0:10:00	35.7	34.3	1.3
8/11/2021 18:30	0:10:00	35.8	34.6	0.9
8/11/2021 18:40	0:10:00	43.6	33.8	0.9
8/11/2021 18:50	0:10:00	39.2	36.9	1.3
8/11/2021 19:00	0:10:00	39.4	36.3	1.8
8/11/2021 19:10	0:10:00	39.2	37.8	0.9
8/11/2021 19:20	0:10:00	40.1	39.3	1.3
8/11/2021 19:30	0:10:00	39.9	38.6	2.7
8/11/2021 19:40	0:10:00	40.2	39.0	2.2
8/11/2021 19:50	0:10:00	39.4	38.7	2.2
8/11/2021 20:00	0:10:00	39.7	38.4	1.3
8/11/2021 20:10	0:10:00	44.3	38.8	2.2
8/11/2021 20:20	0:10:00	48.9	48.1	2.7
8/11/2021 20:30	0:10:00	49.4	38.7	1.8
8/11/2021 20:40	0:10:00	45.5	37.1	2.2

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/11/2021 20:50	0:10:00	45.9	37.4	1.8
8/11/2021 21:00	0:10:00	39.7	37.4	2.2
8/11/2021 21:10	0:10:00	37.9	37.4	2.7
8/11/2021 21:20	0:10:00	39.9	38.5	2.7
8/11/2021 21:30	0:10:00	38.4	37.8	2.7
8/11/2021 21:40	0:10:00	42.4	38.7	2.7
8/11/2021 21:50	0:10:00	39.1	38.7	2.7
8/11/2021 22:00	0:10:00	39.7	38.5	1.8
8/11/2021 22:10	0:10:00	41	39.1	2.7
8/11/2021 22:20	0:10:00	40.1	39.7	2.2
8/11/2021 22:30	0:10:00	42.3	39.3	0.9
8/11/2021 22:40	0:10:00	41.1	39.2	1.3
8/11/2021 22:50	0:10:00	39.9	39.3	1.3
8/11/2021 23:00	0:10:00	39.8	39.3	1.3
8/11/2021 23:10	0:10:00	39.5	39.1	1.3
8/11/2021 23:20	0:10:00	39.4	38.9	0.9
8/11/2021 23:30	0:10:00	39.4	39.1	0.4
8/11/2021 23:40	0:10:00	40.6	39.2	1.3
8/11/2021 23:50	0:10:00	39.8	39.2	0.9
8/12/2021 0:00	0:10:00	39.2	38.6	1.3
8/12/2021 0:10	0:10:00	43.2	39.5	1.3
8/12/2021 0:20	0:10:00	39.9	38.7	1.3
8/12/2021 0:30	0:10:00	39.4	38.9	1.8
8/12/2021 0:40	0:10:00	39.2	37.9	1.8
8/12/2021 0:50	0:10:00	40.3	39.5	2.7
8/12/2021 1:00	0:10:00	39.8	39.1	2.2
8/12/2021 1:10	0:10:00	39.8	39.1	1.8
8/12/2021 1:20	0:10:00	39.7	38.7	1.8
8/12/2021 1:30	0:10:00	39.6	38.3	1.8
8/12/2021 1:40	0:10:00	38.5	37.5	2.2
8/12/2021 1:50	0:10:00	39.1	38.2	1.8
8/12/2021 2:00	0:10:00	40	39.1	2.2
8/12/2021 2:10	0:10:00	39.4	38.9	3.1
8/12/2021 2:20	0:10:00	39.4	38.6	2.7
8/12/2021 2:30	0:10:00	40.2	38.3	2.2
8/12/2021 2:40	0:10:00	38.1	37.3	1.8
8/12/2021 2:50	0:10:00	42.9	38.8	1.3
8/12/2021 3:00	0:10:00	52.1	44.9	2.2
8/12/2021 3:10	0:10:00	50.2	40.4	2.2
8/12/2021 3:20	0:10:00	44.2	41.5	1.8
8/12/2021 3:30	0:10:00	45.1	40.8	2.2
8/12/2021 3:40	0:10:00	42.8	39.9	3.1
8/12/2021 3:50	0:10:00	45.8	42.4	4.9
8/12/2021 4:00	0:10:00	44.1	43.0	4.5
8/12/2021 4:10	0:10:00	44.2	43.6	4
8/12/2021 4:20	0:10:00	44.8	43.7	3.1
8/12/2021 4:30	0:10:00	45	43.8	3.6
8/12/2021 4:40	0:10:00	44.3	43.7	2.2
8/12/2021 4:50	0:10:00	44.5	42.9	1.8

Start Time	Elapsed Time	LAeq	LA 90	Wind Speed H=10m
8/12/2021 5:00	0:10:00	42.8	42.5	1.3
8/12/2021 5:10	0:10:00	42.6	42.0	1.8
8/12/2021 5:20	0:10:00	44.4	42.5	1.8
8/12/2021 5:30	0:10:00	42.9	41.2	0.4
8/12/2021 5:40	0:10:00	40.4	38.8	0.4
8/12/2021 5:50	0:10:00	38.9	36.8	0.9
8/12/2021 6:00	0:10:00	37.8	33.9	1.3
8/12/2021 6:10	0:10:00	46.7	33.9	0.4
8/12/2021 6:20	0:10:00	38.7	31.4	0.4
8/12/2021 6:30	0:10:00	37.1	33.2	1.3
8/12/2021 6:40	0:10:00	35	33.0	1.3
8/12/2021 6:50	0:10:00	36.8	32.5	1.3
8/12/2021 7:00	0:10:00	34.7	32.7	2.2
8/12/2021 7:10	0:10:00	39.7	31.0	2.7
8/12/2021 7:20	0:10:00	38	32.0	3.1
8/12/2021 7:30	0:10:00	35.6	32.1	2.2
8/12/2021 7:40	0:10:00	36	31.6	1.8
8/12/2021 7:50	0:10:00	34.2	32.6	2.7
8/12/2021 8:00	0:10:00	38.9	33.0	3.1
8/12/2021 8:10	0:10:00	35	31.5	2.7
8/12/2021 8:20	0:10:00	35	30.8	3.1
8/12/2021 8:30	0:10:00	35.3	30.2	2.2
8/12/2021 8:40	0:10:00	35	31.3	2.7
8/12/2021 8:50	0:10:00	32.3	30.1	2.2
8/12/2021 9:00	0:10:00	34.1	31.4	3.6
8/12/2021 9:10	0:10:00	40.1	32.6	3.6
8/12/2021 9:20	0:10:00	37.3	32.1	2.7
8/12/2021 9:30	0:10:00	35.9	31.5	2.7
8/12/2021 9:40	0:10:00	36.7	30.9	2.7
8/12/2021 9:50	0:10:00	35.5	31.4	3.1
8/12/2021 10:00	0:10:00	34.2	30.8	3.6
8/12/2021 10:10	0:10:00	41.2	30.1	3.1
8/12/2021 10:20	0:10:00	41.2	31.8	3.1
8/12/2021 10:30	0:10:00	44.2	30.3	4
8/12/2021 10:40	0:10:00	41.9	35.4	1.8
8/12/2021 10:50	0:10:00	32.3	29.0	2.2
8/12/2021 11:00	0:10:00	31.2	29.7	2.2
8/12/2021 11:10	0:10:00	52.2	30.7	2.7
8/12/2021 11:20	0:10:00	38.7	29.0	3.1
8/12/2021 11:30	0:10:00	33.1	29.7	1.8
8/12/2021 11:40	0:10:00	33.4	30.9	2.2

APPENDIX C SURFACE WATER FIELD LOGS, CALIBRATION SHEETS, AND SAMPLING RAW DATA

Sampling points	Points_Name		SW01	SW02	SW03	SW04	SW05	SW06	National Environmental Standards No.81/MONRE 2017
	Date		12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	
	Time		17:40	17:05	14:45	15:30	14:00	15:50	
	Village		Daktiem	Daktiem	Dakrun	Dakrun	Dakbong	Dakbong	
	Observations	Unit							
1	Oder		Non	Non	Non	Non	Non	Non	
2	Color		Clear	Clear	Clear	Clear	Clear	Clear	
3	Turbidity		light	light	light	light	light	light	
	On Site Parameters								
1	Temperture	°c	22.4	22.3	22	21.4	26.4	26.4	-
2	pH		7.9	7.9	7.3	7.4	7.4	6.3	6 - 8
3	DO	mg/L	9.7	8.3	9.1	9.4	9	10.8	6.0
4	Conductivity	ms/cm	7	7.4	27.7	41	25	26.4	≤ 1000
5	Salinity	ppt	0	0	0.01	0.02	0.01	0.01	-
6	TDS	ppm	3.5	3.7	13.9	20.7	13.6	13.2	-
	Laboratory Analysis								
8	Ammonia	mg/L	ND	ND	ND	ND	ND	ND	-
9	BOD	mg/L	<1.00	ND	<1.00	ND	<1.00	ND	-
10	COD	mg/L	5.53	ND	21.5	12.9	11.7	ND	5 - 7
11	Chloride	mg/L	ND	ND	ND	ND	ND	ND	-
12	Hardness	mg/L	<10.0	<10.0	10.9	17.6	11.4	10.9	-
13	Fe (Iron)	mg/L	0.3	0.13	0.33	0.15	ND	0.44	-
14	Alkalinity	mg/L	<10.0	<10.0	16.8	24	16.8	14.4	-
15	Nitrate	mg/L	ND	ND	ND	ND	ND	1.5	-
16	Nitrite	mg/L	ND	ND	ND	ND	ND	ND	-
17	Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND	-
18	Sulfate	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	-
19	TSS	mg/L	<2.50	3.70	7.2	6.2	6.1	7.1	≤ 25
20	Ortho Phosphate	mg/L	ND	ND	ND	ND	ND	ND	-
21	Coliform Bacteria	MPN/100mL	2,200	2,100	11,000	3,900	4,900	2,100	5,000
22	Phosphorus	mg/L	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	-
23	Total Nitrogen	mg/L	<5	<5	<5	<5	<5	<5	-
24	ORP	mV	-63.7	-40.8	0.4	26.1	24.7	27.6	-
25	Aluminium	mg/L	0.19	0.21	0.15	0.17	0.22	0.26	-
26	Arsenic	mg/L	ND	ND	ND	ND	ND	ND	0.01
27	Cadmium	mg/L	ND	ND	ND	ND	ND	ND	0.003
28	Calcium	mg/L	<1.00	<1.00	1.90	4.02	2.31	2.16	-
29	Mercury	mg/L	ND	ND	ND	ND	ND	ND	0.001
30	Copper	mg/L	ND	ND	ND	ND	ND	ND	1.5
31	Lead	mg/L	ND	ND	ND	ND	ND	ND	0.01
32	Magnesium	mg/L	<1.00	<1.00	1.76	1.95	1.47	1.41	-
33	Sodium	mg/L	1.26	1.12	1.65	1.49	1.4	1.22	-
34	Potassium	mg/L	1.15	<1.00	<1.00	2.41	<1.00	1.03	-
35	Zine	mg/L	ND	<0.03	ND	ND	ND	ND	1
36	Manganese	mg/L	<0.03	0.2	0.1	0.03	<0.03	<0.03	1
37	Nickel	mg/L	ND	ND	ND	ND	ND	ND	0.1
	Pesticides Organochlorine Group								
38	Aldrin	µg/L	ND	ND	ND	ND	ND	ND	0.1
39	a-BHC	µg/L	ND	ND	ND	ND	ND	ND	0.02
40	a-Endosulfan	µg/L	ND	ND	ND	ND	ND	ND	-
41	ß-BHC	µg/L	ND	ND	ND	ND	ND	ND	-
42	Dicofol	µg/L	ND	ND	ND	ND	ND	ND	-
43	ß-Endosulfan	µg/L	ND	ND	ND	ND	ND	ND	-
44	Dieldrin	µg/L	ND	ND	ND	ND	ND	ND	0.1
45	cis-Chlordane	µg/L	ND	ND	ND	ND	ND	ND	-
46	Endosulfan Sulfate	µg/L	ND	ND	ND	ND	ND	ND	-
47	Endrin	µg/L	ND	ND	ND	ND	ND	ND	Must Not Have
48	Y-BHC	µg/L	ND	ND	ND	ND	ND	ND	-
49	HCB	µg/L	ND	ND	ND	ND	ND	ND	-
50	Heptachlor	µg/L	ND	ND	ND	ND	ND	ND	0.2
51	Heptachlor-exo-epoxide	µg/L	ND	ND	ND	ND	ND	ND	0.2

Sampling points	Points_Name		SW01	SW02	SW03	SW04	SW05	SW06	National Environmental Standards No.81/MONRE 2017
	Date		12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	12/8/2021	
	Time		17:40	17:05	14:45	15:30	14:00	15:50	
	Village		Daktiem	Daktiem	Dakrun	Dakrun	Dakbong	Dakbong	
52	Methoxychlor	µg/L	ND	ND	ND	ND	ND	ND	-
53	o,p'-DDT	µg/L	ND	ND	ND	ND	ND	ND	-
54	o,p'-DDE	µg/L	ND	ND	ND	ND	ND	ND	-
55	o,p'-DDD	µg/L	ND	ND	ND	ND	ND	ND	-
56	p,p'-DDD	µg/L	ND	ND	ND	ND	ND	ND	-
57	p,p'-DDE	µg/L	ND	ND	ND	ND	ND	ND	-
58	p,p'-DDT	µg/L	ND	ND	ND	ND	ND	ND	-
59	Total DDT	µg/L	ND	ND	ND	ND	ND	ND	1
60	trans-Chlordane	µg/L	ND	ND	ND	ND	ND	ND	-
61	Anilofos	µg/L	ND	ND	ND	ND	ND	ND	-
62	Azinphos-ethyl	µg/L	ND	ND	ND	ND	ND	ND	-
63	Azinphos-methyl	µg/L	ND	ND	ND	ND	ND	ND	-
64	Chlorfenvinphos	µg/L	ND	ND	ND	ND	ND	ND	-
65	Diazinon	µg/L	ND	ND	ND	ND	ND	ND	-
66	Dichlorvos	µg/L	ND	ND	ND	ND	ND	ND	-
67	Dicrotophos	µg/L	ND	ND	ND	ND	ND	ND	-
68	Dimethoate	µg/L	ND	ND	ND	ND	ND	ND	-
69	EPN	µg/L	ND	ND	ND	ND	ND	ND	-
70	Ethion	µg/L	ND	ND	ND	ND	ND	ND	-
71	Ethoprophos	µg/L	ND	ND	ND	ND	ND	ND	-
72	Etrimfos	µg/L	ND	ND	ND	ND	ND	ND	-
73	Fenitrothion	µg/L	ND	ND	ND	ND	ND	ND	-
74	Fenthion	µg/L	ND	ND	ND	ND	ND	ND	-
	Organophosphate Group								
75	Malathion	µg/L	ND	ND	ND	ND	ND	ND	-
76	Methamidophos	µg/L	ND	ND	ND	ND	ND	ND	-
77	Methidathion	µg/L	ND	ND	ND	ND	ND	ND	-
78	Mevinphos	µg/L	ND	ND	ND	ND	ND	ND	-
79	Monocrotophos	µg/L	ND	ND	ND	ND	ND	ND	-
80	Omethoate	µg/L	ND	ND	ND	ND	ND	ND	-
81	Parathion-methyl	µg/L	ND	ND	ND	ND	ND	ND	-
82	Phosalone	µg/L	ND	ND	ND	ND	ND	ND	-
83	Phosphamidon	µg/L	ND	ND	ND	ND	ND	ND	-
84	Pirimiphos-ethyl	µg/L	ND	ND	ND	ND	ND	ND	-
85	Pirimiphos-methyl	µg/L	ND	ND	ND	ND	ND	ND	-
86	Profenofos	µg/L	ND	ND	ND	ND	ND	ND	-
87	Prothiofos	µg/L	ND	ND	ND	ND	ND	ND	-
88	Terbufos	µg/L	ND	ND	ND	ND	ND	ND	-
89	Triazophos	µg/L	ND	ND	ND	ND	ND	ND	-

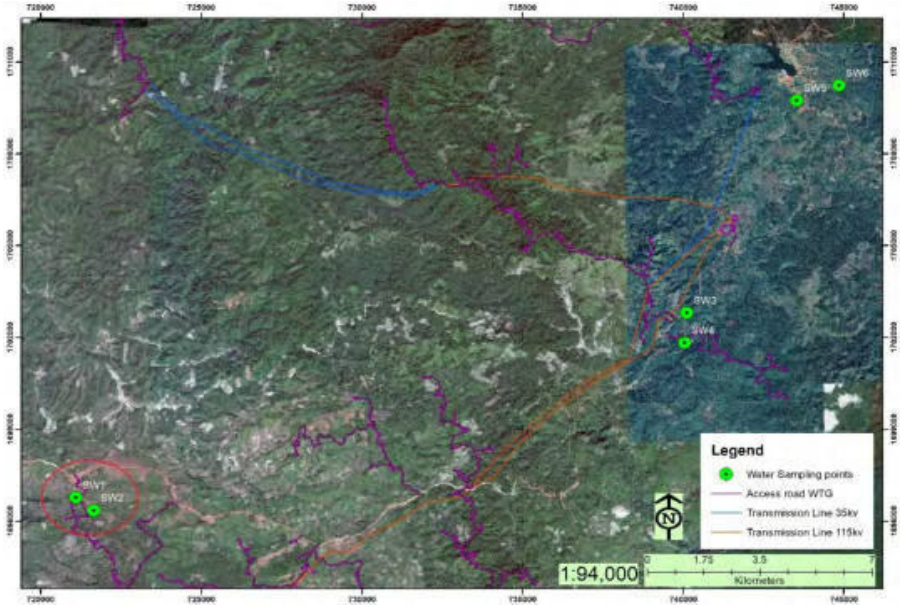
Red mark: The result of water were over standard.

Field Record

1	Water Sampling Point	**SW01**				On Site Parameters	Result
2	Date	12/8/2021				pH	7.9
3	Time	17:40				DO	9.7
4	Location	Village	District		Province	Conductivity	7
		Daktiem	Dakcheung		Sekong	Salinity	0
5	Coordinate	N	721096			TDS	3.5
		E	1696768			Air temperature	25
6	Observations	Oder	Color	Turbidity		Water temperature	22.4
		Non	Clear	light			
8	Environment Condition in the Sampling Point	It is a medium stream with water low all year round because the upper part of the stream is civered by a forest. The sampling point is below a water fall which has been created due to an exlosion of rock for for constrcution. The enclosed area consists of fine rock and cliff with the water is clear and no smell.					

Photo Sampling Survey

Water Survey Location Map



Name of Sampling Equipment	
PONPE 510PD pH/COND./SALT/DO METER	
Recorded By	
Name: KeoOudone	
Signature: Date: 12/08/2021	

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055

TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-015
Sampling Source	:	Surface Water	Sample No.	:	W64080164
Sample Name	:	SW01	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	17:40
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Ammonia	mg/L	SM 2017:4500-NH_3 F: Phenate	ND	-	-	-
Biochemical Oxygen Demand	mg/L	SM 2017:5210 B: 5-Day BOD test, Azide Modification	< 1.00	-	0.30	1.00
Chemical Oxygen Demand**	mg/L	SM 2017:5220 C: Closed Reflux, Titrimetric	5.53	5-7	1.00	4.00
Chloride**	mg/L as Cl^-	In-house method: SOP-LAB-013 based on SM 2017:4500-Cl B	ND	-	1.00	3.00
Hardness**	mg/L as $CaCO_3$	In-house method: SOP-LAB-013 based on SM 2017:2340 C	< 10.0	-	3.00	10.0
Iron	mg/L	SM 2017:3500-Fe B: Phenanthroline	0.30	-	0.01	0.10
Alkalinity	mg/L	SM 2017:2320 B: Titration	< 10.0	-	3.00	10.0
Nitrate	mg/L as NO_3^-	SM 2017:4500-NO_3^- E: Cadmium Reduction	ND	-	0.09	0.22
Nitrite	mg/L as NO_2^-	SM 2017:4500-NO_2 E: Colorimetric	ND	-	0.02	0.07
Oil and Grease	mg/L	SM 2017:5520 B: Partition-Gravimetric	ND	-	0.70	2.00
Sulfate	mg/L as SO_4^{2-}	SM 2017:4500-SO_4^{2-} E: Turbidimetric	< 5.00	-	1.50	5.00
Total Suspended Solids	mg/L	SM 2017:2540 D: Dried at 103-105°C	< 2.50	≤ 25	1.00	2.50
Ortho Phosphate ###	mg/L	Based on APHA (2017)	ND	-	-	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
**Out of Accreditation Scope
Parameter tested by ALS Laboratory Group(Thailand) Co.,Ltd

Approved By:.....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION BLA-DSS
TESTING
No.0162

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-015
Sampling Source	: Surface Water	Sample No.	: W64080164
Sample Name	: SW01	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 17:40
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard[1]	LOD[2]	LOQ[3]
Coliform Bacteria #	MPN/100mL	SM 2017:9221 B: MPN Test	2,200	5,000	-	1.8
Phosphorus #	mg/L as P	SM 2017:4500-P: Ascorbic Acid	< 0.15	-	0.01	0.15
Total Nitrogen #	mg/L as N	SM 2017:4500-N: Calculation	< 5	-	-	-
ORP #	mV	ORP Meter	-63.7	-	-	-
Aluminium #	mg/L	SM 2017:3500 By ICP-OES	0.19	-	0.01	0.10
Arsenic #	mg/L	SM 2017:3500: Continuous Hydride Generation/Atomic Absorption Spectrometric	ND	0.01	0.0005	0.0020
Cadmium #	mg/L	SM 2017:3500 by ICP-OES	ND	0.003	0.002	0.003
Calcium #	mg/L	SM 2017:3500 by ICP-OES	< 1.00	-	0.50	1.00
Mercury #	mg/L	SM 2017:3500 By Cold-Vapor, Atomic Absorption Spectrometric	ND	0.001	0.0005	0.0020
Copper #	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	1.5	0.01	0.02
Lead #	mg/L	SM 2017:3500 by ICP-OES	ND	0.01	0.005	0.010
Magnesium #	mg/L	SM 2017:3500 By ICP-OES	< 1.00	-	0.50	1.00
Sodium #	mg/L	SM 2017:3500 By ICP-OES	1.26	-	1.00	1.00
Potassium #	mg/L	SM 2017:3500 by ICP-OES	1.15	-	0.02	0.05
Zinc #	mg/L	SM 2017:3500 by ICP-OES	ND	1.0	0.01	0.02

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017
Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23[rd] Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

Phanthamit Analytical Lab Co., Ltd.

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-015
Sampling Source	:	Surface Water	Sample No.	: W64080164
Sample Name	:	SW01	Sampling Date	: 12/08/2021
Sampling By	:	Customer	Sampling Time	: 17:40
Sampling Method	:	Grab Sample	Received Date	: 16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Manganese #	mg/L	SM 2017:3500 by ICP-OES	< 0.03	1.0	0.01	0.03
Nickel #	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	0.1	0.02	0.10
Pesticides ##						
Organochlorine Group						
Aldrin	µg/L	In-house method TM-CH-090 based on	ND	0.1	0.012	0.05
α-BHC	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.02	0.012	0.05
α-Endosulfan	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.012	0.05
β-BHC	µg/L		ND	-	0.012	0.05
Dicofol	µg/L		ND	-	0.012	0.05
β-Endosulfan	µg/L		ND	-	0.012	0.05
Dieldrin	µg/L		ND	0.1	0.012	0.05
cis-Chlordane	µg/L		ND	-	0.012	0.05
Endosulfan Sulfate	µg/L		ND	-	0.012	0.05
Endrin	µg/L		ND	Must Not Have	0.012	0.05
γ-BHC	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co., Ltd

Approved By .....
(Top Management)
14/09/2021

ACCREDITED LABORATORY
ISO/IEC 17025

Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-015
Sampling Source	:	Surface Water	Sample No.	:	W64080164
Sample Name	:	SW01	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	17:40
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides ##						
Organochlorine Group						
HCB	µg/L	In-house method TM-CH-090 based on	ND	-	0.012	0.05
Heptachlor	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.2	0.012	0.05
Heptachlor-exo-epoxide	µg/L	EPA method 508 (1995) Revision 3.1	ND	0.2	0.012	0.05
Methoxychlor	µg/L		ND	-	0.012	0.05
o,p'-DDT	µg/L		ND	-	0.012	0.05
o,p'-DDE	µg/L		ND	-	0.012	0.05
o,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDE	µg/L		ND	-	0.012	0.05
p,p'-DDT	µg/L		ND	-	0.012	0.05
Total DDT	µg/L		ND	1.0	0.012	0.05
trans-Chlordane	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.

TEST REPORT

Request No. : W6408022
Report No. : 6409-015

Customer : 600 MW Monsoon Wind farm Project
Address : Dakcheung District, Sekong Province and Sanxay District, Attapeu Province

Sampling Source : Surface Water
Sample Name : SW01
Sampling By : Customer
Sampling Method : Grab Sample
Tested Date : 16/08/2021-14/09/2021

Sample No. : W64080164
Sampling Date : 12/08/2021
Sampling Time : 17:40
Received Date : 16/08/2021
Reported Date : 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides ##						
Organophosphate Group						
Anilofos	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Azinphos-ethyl	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Azinphos-methyl	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Chlorfenvinphos	µg/L		ND	-	0.031	-
Chlorpyrifos	µg/L		ND	-	0.031	-
Diazinon	µg/L		ND	-	0.031	-
Dichlorvos	µg/L		ND	-	0.031	-
Dicrotophos	µg/L		ND	-	0.031	-
Dimethoate	µg/L		ND	-	0.031	-
EPN	µg/L		ND	-	0.031	-
Ethion	µg/L		ND	-	0.031	-
Ethoprophos	µg/L		ND	-	0.031	-
Etrimfos	µg/L		ND	-	0.031	-
Fenitrothion	µg/L		ND	-	0.031	-
Fenthion	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055

TEST REPORT

TESTING No.0162

Customer	:	600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-015
Sampling Source	:	Surface Water	Sample No.	: W64080164
Sample Name	:	SW01	Sampling Date	: 12/08/2021
Sampling By	:	Customer	Sampling Time	: 17:40
Sampling Method	:	Grab Sample	Received Date	: 16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides ##						
Organophosphate Group						
Malathion	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Methamidophos	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Methidathion	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Mevinphos	µg/L		ND	-	0.031	-
Monocrotophos	µg/L		ND	-	0.031	-
Omethoate	µg/L		ND	-	0.031	-
Parathion-methyl	µg/L		ND	-	0.031	-
Phosalone	µg/L		ND	-	0.031	-
Phosphamidon	µg/L		ND	-	0.031	-
Pirimiphos-ethyl	µg/L		ND	-	0.031	-
Pirimiphos-methyl	µg/L		ND	-	0.031	-
Profenofos	µg/L		ND	-	0.031	-
Prothiofos	µg/L		ND	-	0.031	-
Terbufos	µg/L		ND	-	0.031	-
Triazophos	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS

2. Container : Customer

Remark: 1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection

ND = Not Detected

3. LOQ = Limit Of Quantification

Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....

(Top Management)

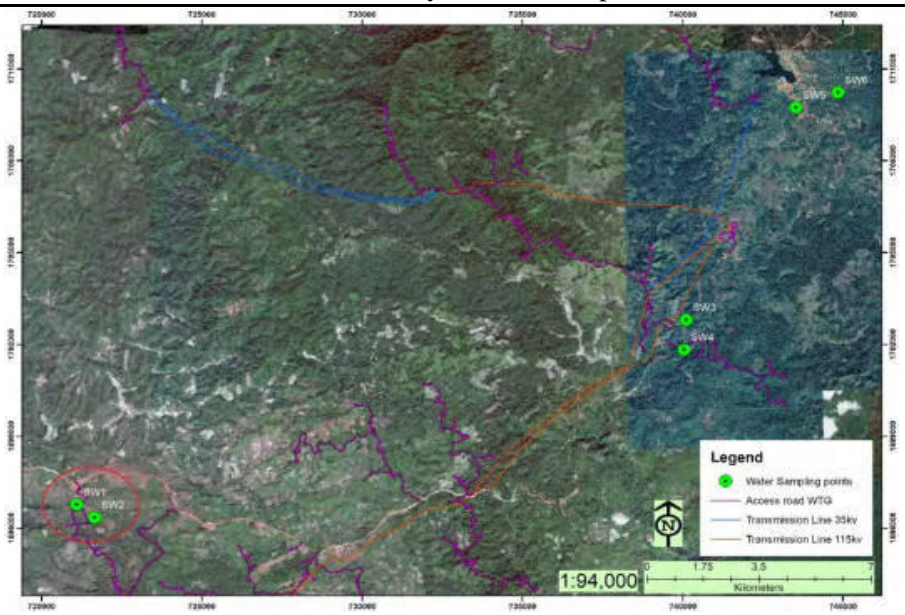
14/09/2021

Field Record

1	Water Sampling Point	**SW02**				On Site Parameters	Result
2	Date	12/8/2021				pH	7.9
3	Time	17:05				DO	8.3
4	Location	Village	District		Province	Conductivity	7.4
		Daktiem	Dakcheung		Sekong	Salinity	0
5	Coordinate	N	721658			TDS	3.7
		E	1696351			Air temperature	25
6	Observations	Oder	Color	Turbidity		Water temperature	22.3
		Non	Clear	light			
8	Environment Condition in the Sampling Point	It is a small-medium stream with all year water flow. It is the same stream with water sampling for SW1. The sampling point covere by mixed forest area which provides all year round of soil saturation with clear water and no smell but it is a muddy bed.					

Photo Sampling Survey

Water Survey Location Map



Name of Sampling Equipment	
PONPE 510PD pH/COND./SALT/DO METER	
Recorded By	
Name: KeoOudone	
Signature: Date: 12/08/2021	

ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
TESTING
No.0162

TEST REPORT

Request No. : W6408022
Report No. : 6409-016

Customer : 600 MW Monsoon Wind farm Project
Address : Dakcheung District, Sekong Province and Samxay District, Attapeu Province
Sampling Source : Surface Water
Sample Name : SW02
Sampling By : Customer
Sampling Method : Grab Sample
Tested Date : 16/08/2021-14/09/2021

Sample No. : W64080165
Sampling Date : 12/08/2021
Sampling Time : 17:05
Received Date : 16/08/2021
Reported Date : 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Ammonia*	mg/L	SM 2017:4500-NH_3 F: Phenate	ND	-	-	-
Biochemical Oxygen Demand*	mg/L	SM 2017:5210 B: 5-Day BOD test, Azide Modification	ND	-	0.30	1.00
Chemical Oxygen Demand**	mg/L	SM 2017:5220 C: Closed Reflux, Titrimetric	ND	5-7	1.00	4.00
Chloride**	mg/L as Cl	In-house method: SOP-LAB-013 based on SM 2017:4500-Cl B	ND	-	1.00	3.00
Hardness**	mg/L as $CaCO_3$	In-house method: SOP-LAB-013 based on SM 2017:2340 C	< 10.0	-	3.00	10.0
Iron*	mg/L	SM 2017:3500-Fe B: Phenanthroline	0.13	-	0.01	0.10
Alkalinity*	mg/L	SM 2017:2320 B: Titration	< 10.0	-	3.00	10.0
Nitrate*	mg/L as NO_3	SM 2017:4500-NO_3 E: Cadmium Reduction	ND	-	0.09	0.22
Nitrite*	mg/L as NO_2	SM 2017:4500-NO_2 B: Colorimetric	ND	-	0.02	0.07
Oil and Grease*	mg/L	SM 2017:5520 B: Partition-Gravimetric	ND	-	0.70	2.00
Sulfate *	mg/L as SO_4^{2-}	SM 2017:4500-SO_4^{2-} E: Turbidimetric	< 5.00	-	1.50	5.00
Total Suspended Solids	mg/L	SM 2017:2540 D: Dried at 103-105°C	3.70	≤ 25	1.00	2.50
Ortho Phosphate *###	mg/L	Based on APHA (2017)	ND	-	-	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
**Out of Accreditation Scope
* Parameter Not Accredited ISO/IEC 17025:2017
Parameter tested by ALS Laboratory Group(Thailand) Co.,Ltd.

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION BLA-0155
TESTING No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-016
Sampling Source	:	Surface Water	Sample No.	:	W64080165
Sample Name	:	SW02	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	17:05
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Coliform Bacteria *#	MPN/100mL	SM 2017:9221 B: MPN Test	2,100	5,000	-	1.8
Phosphorus *#	mg/L as P	SM 2017:4500-P: Ascorbic Acid	< 0.15	-	0.01	0.15
Total Nitrogen *#	mg/L as N	SM 2017:4500-N: Calculation	< 5	-	-	-
ORP *#	mV	ORP Meter	-40.8	-	-	-
Aluminium *#	mg/L	SM 2017:3500 By ICP-OES	0.21	-	0.01	0.10
Arsenic *#	mg/L	SM 2017:3500: Continuous Hydride Generation/Atomic Absorption Spectrometric	ND	0.01	0.0005	0.0020
Cadmium *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.003	0.002	0.003
Calcium *#	mg/L	SM 2017:3500 by ICP-OES	< 1.00	-	0.50	1.00
Mercury *#	mg/L	SM 2017:3500 By Cold-Vapor, Atomic Absorption Spectrometric	ND	0.001	0.0005	0.0020
Copper *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	1.5	0.01	0.02
Lead *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.01	0.005	0.010
Magnesium *#	mg/L	SM 2017:3500 By ICP-OES	< 1.00	-	0.50	1.00
Sodium *#	mg/L	SM 2017:3500 By ICP-OES	1.12	-	1.00	1.00
Potassium *#	mg/L	SM 2017:3500 by ICP-OES	< 1.00	-	0.02	0.05
Zinc *#	mg/L	SM 2017:3500 by ICP-OES	< 0.03	1.0	0.01	0.02

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL ACCREDITED LABORATORY ISO/IEC 17025

LABORATORY ACCREDITATION BLA-DSS TESTING No.0162

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-016
Sampling Source	: Surface Water	Sample No.	: W64080165
Sample Name	: SW02	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 17:05
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Manganese *#	mg/L	SM 2017:3500 by ICP-OES	0.2	1.0	0.01	0.03
Nickel *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	0.1	0.02	0.10
Pesticides *##						
Organochlorine Group						
Aldrin	µg/L	In-house method TM-CH-090 based on EPA method 507 (1995) Revision 2.1 and EPA method 508 (1995) Revision 3.1	ND	0.1	0.012	0.05
α-BHC	µg/L		ND	0.02	0.012	0.05
α-Endosulfan	µg/L		ND	-	0.012	0.05
β-BHC	µg/L		ND	-	0.012	0.05
Dicofol	µg/L		ND	-	0.012	0.05
β-Endosulfan	µg/L		ND	-	0.012	0.05
Dieldrin	µg/L		ND	0.1	0.012	0.05
cis-Chlordane	µg/L		ND	-	0.012	0.05
Endosulfan Sulfate	µg/L		ND	-	0.012	0.05
Endrin	µg/L		ND	Must Not Have	0.012	0.05
γ-BHC	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark: 1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017
Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
\# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
\## Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved by ....
(Top Management)
14/09/2021

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,

ACCREDITED LABORATORY
ISO/IEC 17025

Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055

TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-016
Sampling Source	:	Surface Water	Sample No.	:	W64080165
Sample Name	:	SW02	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	17:05
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organochlorine Group						
HCB	µg/L	In-house method TM-CH-090 based on	ND	-	0.012	0.05
Heptachlor	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.2	0.012	0.05
Heptachlor-exo-epoxide	µg/L	EPA method 508 (1995) Revision 3.1	ND	0.2	0.012	0.05
Methoxychlor	µg/L		ND	-	0.012	0.05
o,p'-DDT	µg/L		ND	-	0.012	0.05
o,p'-DDE	µg/L		ND	-	0.012	0.05
o,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDE	µg/L		ND	-	0.012	0.05
p,p'-DDT	µg/L		ND	-	0.012	0.05
Total DDT	µg/L		ND	1.0	0.012	0.05
trans-Chlordane	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co., Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.

LABORATORY ACCREDITATION
ILA-055

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-016
Sampling Source	:	Surface Water	Sample No.	:	W64080165
Sample Name	:	SW02	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	17:05
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Anilofos	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Azinphos-ethyl	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Azinphos-methyl	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Chlorfenvinphos	µg/L		ND	-	0.031	-
Chlorpyrifos	µg/L		ND	-	0.031	-
Diazinon	µg/L		ND	-	0.031	-
Dichlorvos	µg/L		ND	-	0.031	-
Dicrotophos	µg/L		ND	-	0.031	-
Dimethoate	µg/L		ND	-	0.031	-
EPN	µg/L		ND	-	0.031	-
Ethion	µg/L		ND	-	0.031	-
Ethoprophos	µg/L		ND	-	0.031	-
Etrimfos	µg/L		ND	-	0.031	-
Fenitrothion	µg/L		ND	-	0.031	-
Fenthion	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd.

Phanthamit Analytical Lab Co.,Ltd

Approved by .....
(Top Management)
14/09/2021

TEST REPORT

TESTING No.0162

Customer	:	600 MW Monsoon Wind farm Project	Request No.	: W6408022	
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-016	
Sampling Source	:	Surface Water	Sample No.	: W64080165	
Sample Name	:	SW02	Sampling Date	: 12/08/2021	
Sampling By	:	Customer	Sampling Time	: 17:05	
Sampling Method	:	Grab Sample	Received Date	: 16/08/2021	
Tested Date	:	16/08/2021-14/09/2021	Reported Date	: 14/09/2021	

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Malathion	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Methamidophos	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Methidathion	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Mevinphos	µg/L		ND	-	0.031	-
Monocrotophos	µg/L		ND	-	0.031	-
Omethoate	µg/L		ND	-	0.031	-
Parathion-methyl	µg/L		ND	-	0.031	-
Phosalone	µg/L		ND	-	0.031	-
Phosphamidon	µg/L		ND	-	0.031	-
Pirimiphos-ethyl	µg/L		ND	-	0.031	-
Pirimiphos-methyl	µg/L		ND	-	0.031	-
Profenofos	µg/L		ND	-	0.031	-
Prothiofos	µg/L		ND	-	0.031	-
Terbufos	µg/L		ND	-	0.031	-
Triazophos	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS

2. Container : Customer

Remark:

1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection

ND = Not Detected

3. LOQ = Limit Of Quantification

* Parameter Not Accredited ISO/IEC 17025:2017

Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved by .....

(Top Management)

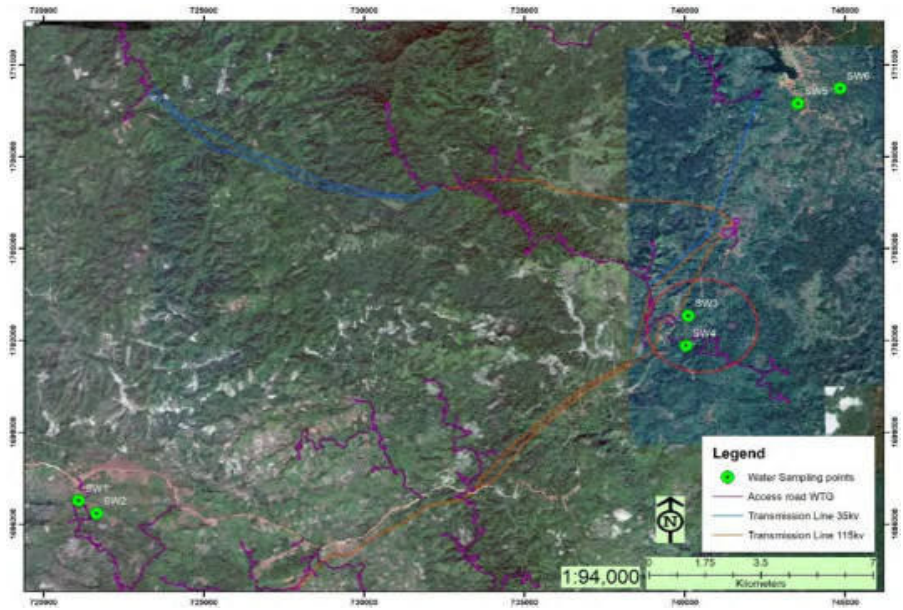
14/09/2021

Field Record

1	Water Sampling Point	**SW03**				On Site Parameters	Result
2	Date	12/8/2021				pH	7.3
3	Time	14:45 PM				DO	9.1
4	Location	Village	District		Province	Conductivity	27.7
		Dakrun	Dakcheung		Sekong	Salinity	0.01
5	Coordinate	N	740122			TDS	13.9
		E	1702793			Air temperature	27
6	Observations	Oder	Color	Turbidity		Water temperature	22
		Non	Clear	light			
8	Environment Condition in the Sampling Point	It is a small stream with water runs through an underpass drain of the main road. The sampling point is in a downstream area of the road (away from the road around 20-30m). Upstream area of the sapling location is grazing areas with nearby areas has small-big trees covering the areas. There are small and big rocks along the stream flow with clear water and no smell					

Photo Sampling Survey

Water Survey Location Map



Name of Sampling Equipment	
PONPE 510PD pH/COND./SALT/DO METER	
Recorded By	
Name: KeoOudone	
Signature: Date: 12/08/2021	

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-255
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-017
Sampling Source	:	Surface Water	Sample No.	:	W64080166
Sample Name	:	SW03	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:45
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Ammonia*	mg/L	SM 2017:4500-NH_3 F: Phenate	ND	-	-	-
Biochemical Oxygen Demand*	mg/L	SM 2017:5210 B: 5-Day BOD test, Azide Modification	< 1.00	-	0.30	1.00
Chemical Oxygen Demand**	mg/L	SM 2017:5220 C: Closed Reflux, Titrimetric	21.5	5-7	1.00	4.60
Chloride**	mg/L as Cl^-	In-house method: SOP-LAB-013 based on SM 2017:4500-Cl^-B	ND	-	1.00	3.00
Hardness	mg/L as $CaCO_3$	In-house method: SOP-LAB-013 based on SM 2017:2340 C	10.9	-	3.00	10.0
Iron*	mg/L	SM 2017:3500-Fe B: Phenanthroline	0.33	-	0.01	0.10
Alkalinity*	mg/L	SM 2017:2320 B: Titration	16.8	-	3.00	10.0
Nitrate*	mg/L as NO_3^-	SM 2017:4500-NO_3^- E: Cadmium Reduction	ND	-	0.09	0.22
Nitrite*	mg/L as NO_2^-	SM 2017:4500-NO_2 E: Colorimetric	ND	-	0.02	0.07
Oil and Grease*	mg/L	SM 2017:5520 B: Partition-Gravimetric	ND	-	0.70	2.00
Sulfate *	mg/L as SO_4^{2-}	SM 2017:4500-SO_4^{2-} E: Turbidimetric	< 5.00	-	1.50	5.00
Total Suspended Solids	mg/L	SM 2017:2540 D: Dried at 103-105°C	7.20	≤ 25	1.00	2.50
Ortho Phosphate *###	mg/L	Based on APHA (2017)	ND	-	-	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
**Out of Accreditation Scope
* Parameter Not Accredited ISO/IEC 17025:2017
Parameter tested by ALS Laboratory Group(Thailand) Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-056
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-017
Sampling Source	:	Surface Water	Sample No.	:	W64080166
Sample Name	:	SW03	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:45
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Coliform Bacteria *#	MPN/100mL	SM 2017:9221 B: MPN Test	11,000	5,000	-	1.8
Phosphorus *#	mg/L as P	SM 2017:4500-P: Ascorbic Acid	< 0.15	-	0.01	0.15
Total Nitrogen *#	mg/L as N	SM 2017:4500-N: Calculation	< 5	-	-	-
ORP *#	mV	ORP Meter	0.40	-	-	-
Aluminium *#	mg/L	SM 2017:3500 By ICP-OES	0.15	-	0.01	0.10
Arsenic *#	mg/L	SM 2017:3500: Continuous Hydride Generation/Atomic Absorption Spectrometric	ND	0.01	0.0005	0.0020
Cadmium *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.003	0.002	0.003
Calcium *#	mg/L	SM 2017:3500 by ICP-OES	1.90	-	0.50	1.00
Mercury *#	mg/L	SM 2017:3500 By Cold-Vapor, Atomic Absorption Spectrometric	ND	0.001	0.0005	0.0020
Copper *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	1.5	0.01	0.02
Lead *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.01	0.005	0.010
Magnesium *#	mg/L	SM 2017:3500 By ICP-OES	1.76	-	0.50	1.00
Sodium *#	mg/L	SM 2017:3500 By ICP-OES	1.65	-	1.00	1.00
Potassium *#	mg/L	SM 2017:3500 by ICP-OES	< 1.00	-	0.02	0.05
Zinc *#	mg/L	SM 2017:3500 by ICP-OES	ND	1.0	0.01	0.02

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
TESTING
No.0162

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project		Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province		Report No.	: 6409-017
Sampling Source	: Surface Water		Sample No.	: W64080166
Sample Name	: SW03		Sampling Date	: 12/08/2021
Sampling By	: Customer		Sampling Time	: 14:45
Sampling Method	: Grab Sample		Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021		Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Manganese *#	mg/L	SM 2017:3500 by ICP-OES	0.10	1.0	0.01	0.03
Nickel *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	0.1	0.02	0.10
Pesticides *##						
Organochlorine Group						
Aldrin	μg/L	In-house method TM-CH-090 based on EPA method 507 (1995) Revision 2.1 and EPA method 508 (1995) Revision 3.1	ND	0.1	0.012	0.05
α-BHC	μg/L		ND	0.02	0.012	0.05
α-Endosulfan	μg/L		ND	-	0.012	0.05
β-BHC	μg/L		ND	-	0.012	0.05
Dicofol	μg/L		ND	-	0.012	0.05
β-Endosulfan	μg/L		ND	-	0.012	0.05
Dieldrin	μg/L		ND	0.1	0.012	0.05
cis-Chlordane	μg/L		ND	-	0.012	0.05
Endosulfan Sulfate	μg/L		ND	-	0.012	0.05
Endrin	μg/L		ND	Must Not Have	0.012	0.05
γ-BHC	μg/L		ND	-	0.012	0.05

Physical Appearance:
1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

Phanthamit Analytical Lab Co., Ltd.

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-017
Sampling Source	: Surface Water	Sample No.	: W64080166
Sample Name	: SW03	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 14:45
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organochlorine Group						
HCB	µg/L	In-house method TM-CH-090 based on	ND	-	0.012	0.05
Heptachlor	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.2	0.012	0.05
Heptachlor-exo-epoxide	µg/L	EPA method 508 (1995) Revision 3.1	ND	0.2	0.012	0.05
Methoxychlor	µg/L		ND	-	0.012	0.05
o,p'-DDT	µg/L		ND	-	0.012	0.05
o,p'-DDE	µg/L		ND	-	0.012	0.05
o,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDE	µg/L		ND	-	0.012	0.05
p,p'-DDT	µg/L		ND	-	0.012	0.05
Total DDT	µg/L		ND	1.0	0.012	0.05
trans-Chlordane	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark: 1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017
Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-017
Sampling Source	: Surface Water	Sample No.	: W64080166
Sample Name	: SW03	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 14:45
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Anilofos	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Azinphos-ethyl	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Azinphos-methyl	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Chlorfenvinphos	µg/L		ND	-	0.031	-
Chlorpyrifos	µg/L		ND	-	0.031	-
Diazinon	µg/L		ND	-	0.031	-
Dichlorvos	µg/L		ND	-	0.031	-
Dicrotophos	µg/L		ND	-	0.031	-
Dimethoate	µg/L		ND	-	0.031	-
EPN	µg/L		ND	-	0.031	-
Ethion	µg/L		ND	-	0.031	-
Ethoprophos	µg/L		ND	-	0.031	-
Etrimfos	µg/L		ND	-	0.031	-
Fenitrothion	µg/L		ND	-	0.031	-
Fenthion	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

ISO/IEC 17025

TEST REPORT

TESTING
No.0162

Customer	:	600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-017
Sampling Source	:	Surface Water	Sample No.	: W64080166
Sample Name	:	SW03	Sampling Date	: 12/08/2021
Sampling By	:	Customer	Sampling Time	: 14:45
Sampling Method	:	Grab Sample	Received Date	: 16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Malathion	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Methamidophos	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Methidathion	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Mevinphos	µg/L		ND	-	0.031	-
Monocrotophos	µg/L		ND	-	0.031	-
Omethoate	µg/L		ND	-	0.031	-
Parathion-methyl	µg/L		ND	-	0.031	-
Phosalone	µg/L		ND	-	0.031	-
Phosphamidon	µg/L		ND	-	0.031	-
Pirimiphos-ethyl	µg/L		ND	-	0.031	-
Pirimiphos-methyl	µg/L		ND	-	0.031	-
Profenofos	µg/L		ND	-	0.031	-
Prothiofos	µg/L		ND	-	0.031	-
Terbufos	µg/L		ND	-	0.031	-
Triazophos	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

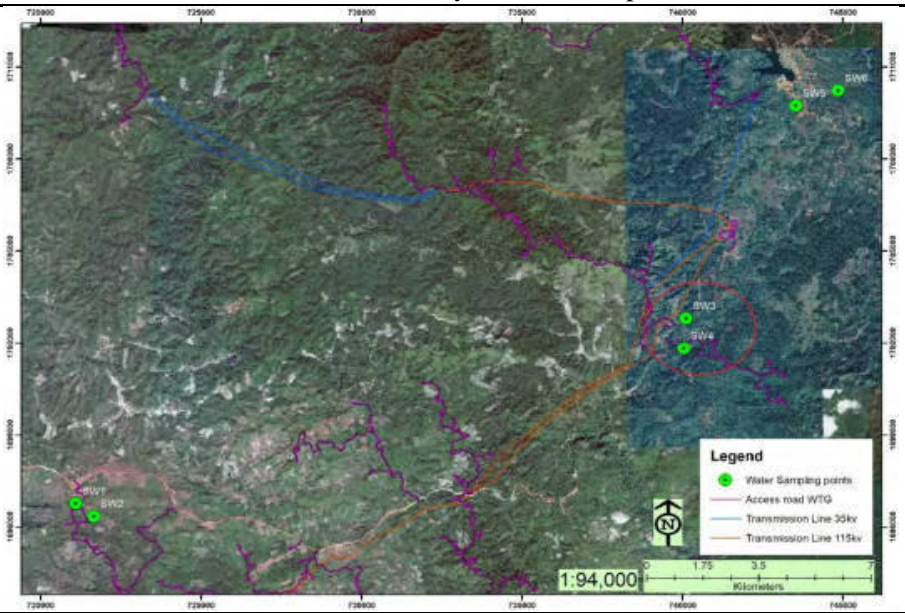
Approved By .....
(Top Management)
14/09/2021

Field Record

1	Water Sampling Point	**SW04**				On Site Parameters	Result
2	Date	12/8/2021				pH	7.4
3	Time	15:30 PM				DO	9.4
4	Location	Village	District		Province	Conductivity	41
		Dakrun	Dakcheung		Sekong	Salinity	0.02
5	Coordinate	N	740039			TDS	20.7
		E	1701833			Air temperature	26
6	Observations	Oder	Color	Turbidity		Water temperature	21.4
		Non	Clear	light			
8	Environment Condition in the Sampling Point	It is a small stream with small and bi trees covering along the stream reach. It is adjacent to agricultural lands of local people. There is an indication of soil erosion from the nearby agricultural lands runs into the stream. There are small trees near the sampling location. The stream bed consists of small to medium grevel sizes. The stream has a clear coulor with no smell					

Photo Sampling Survey

Water Survey Location Map



Name of Sampling Equipment	
PONPE 510PD pH/COND./SALT/DO METER	
Recorded By	
Name: KeoOudone	
Signature: Date: 12/08/2021	

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

LABORATORY ACCREDITATION
BLA-DSS
TESTING
No.0162

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-018
Sampling Source	: Surface Water	Sample No.	: W64080167
Sample Name	: SW04	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 15:30
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Ammonia*	mg/L	SM 2017:4500-NH_3 F: Phenate	ND	-	-	-
Biochemical Oxygen Demand*	mg/L	SM 2017:5210 B: 5-Day BOD test, Azide Modification	ND	-	0.30	1.00
Chemical Oxygen Demand**	mg/L	SM 2017:5220 C: Closed Reflux, Titrimetric	12.9	5-7	1.00	4.00
Chloride**	mg/L as Cl^-	In-house method: SOP-LAB-013 based on SM 2017:4500-Cl^-B	ND	-	1.00	3.00
Hardness	mg/L as $CaCO_3$	In-house method: SOP-LAB-013 based on SM 2017:2340 C	17.6	-	3.00	10.0
Iron*	mg/L	SM 2017:3500-Fe B: Phenanthroline	0.15	-	0.01	0.10
Alkalinity*	mg/L	SM 2017:2320 B: Titration	24.0	-	3.00	10.0
Nitrate*	mg/L as NO_3^-	SM 2017:4500-NO_3^- E: Cadmium Reduction	ND	-	0.09	0.22
Nitrite*	mg/L as NO_2^-	SM 2017:4500-NO_2 E: Colorimetric	ND	-	0.02	0.07
Oil and Grease*	mg/L	SM 2017:5520 B: Partition-Gravimetric	ND	-	0.70	2.00
Sulfate *	mg/L as SO_4^{2-}	SM 2017:4500-SO_4^{2-} E: Turbidimetric	< 5.00	-	1.50	5.00
Total Suspended Solids	mg/L	SM 2017:2540 D: Dried at 103-105°C	6.20	≤ 25	1.00	2.50
Ortho Phosphate *###	mg/L	Based on APHA (2017)	ND	-	-	-

Physical Appearance:
1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
**Out of Accreditation Scope
* Parameter Not Accredited ISO/IEC 17025:2017
Parameter tested by ALS Laboratory Group(Thailand) Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL
WITHOUT THE WRITTEN APPROVAL LABORATORY

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-018
Sampling Source	:	Surface Water	Sample No.	:	W64080167
Sample Name	:	SW04	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	15:30
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Coliform Bacteria *#	MPN/100mL	SM 2017:9221 B: MPN Test	3,900	5,000	-	1.8
Phosphorus *#	mg/L as P	SM 2017:4500-P: Ascorbic Acid	< 0.15	-	0.01	0.15
Total Nitrogen *#	mg/L as N	SM 2017:4500-N: Calculation	< 5	-	-	-
ORP *#	mV	ORP Meter	26.1	-	-	-
Aluminium *#	mg/L	SM 2017:3500 By ICP-OES	0.17	-	0.01	0.10
Arsenic *#	mg/L	SM 2017:3500: Continuous Hydride Generation/Atomic Absorption Spectrometric	ND	0.01	0.0005	0.0020
Cadmium *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.003	0.002	0.003
Calcium *#	mg/L	SM 2017:3500 by ICP-OES	4.02	-	0.50	1.00
Mercury *#	mg/L	SM 2017:3500 By Cold-Vapor, Atomic Absorption Spectrometric	ND	0.001	0.0005	0.0020
Copper *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	1.5	0.01	0.02
Lead *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.01	0.005	0.010
Magnesium *#	mg/L	SM 2017:3500 By ICP-OES	1.95	-	0.50	1.00
Sodium *#	mg/L	SM 2017:3500 By ICP-OES	1.49	-	1.00	1.00
Potassium *#	mg/L	SM 2017:3500 by ICP-OES	2.41	-	0.02	0.05
Zinc *#	mg/L	SM 2017:3500 by ICP-OES	ND	1.0	0.01	0.02

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-018
Sampling Source	:	Surface Water	Sample No.	:	W64080167
Sample Name	:	SW04	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	15:30
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Manganese *#	mg/L	SM 2017:3500 by ICP-OES	0.03	1.0	0.01	0.03
Nickel *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	0.1	0.02	0.10
Pesticides *##						
Organochlorine Group						
Aldrin	µg/L	In-house method TM-CH-090 based on EPA method 507 (1995) Revision 2.1 and EPA method 508 (1995) Revision 3.1	ND	0.1	0.012	0.05
α-BHC	µg/L		ND	0.02	0.012	0.05
α-Endosulfan	µg/L		ND	-	0.012	0.05
β-BHC	µg/L		ND	-	0.012	0.05
Dicofol	µg/L		ND	-	0.012	0.05
β-Endosulfan	µg/L		ND	-	0.012	0.05
Dieldrin	µg/L		ND	0.1	0.012	0.05
cis-Chlordane	µg/L		ND	-	0.012	0.05
Endosulfan Sulfate	µg/L		ND	-	0.012	0.05
Endrin	µg/L		ND	Must Not Have	0.012	0.05
γ-BHC	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-018
Sampling Source	:	Surface Water	Sample No.	:	W64080167
Sample Name	:	SW04	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	15:30
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [2]
Pesticides *##						
Organochlorine Group						
HCB	µg/L	In-house method TM-CH-090 based on	ND	-	0.012	0.05
Heptachlor	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.2	0.012	0.05
Heptachlor-exo-epoxide	µg/L	EPA method 508 (1995) Revision 3.1	ND	0.2	0.012	0.05
Methoxychlor	µg/L		ND	-	0.012	0.05
o,p'-DDT	µg/L		ND	-	0.012	0.05
o,p'-DDE	µg/L		ND	-	0.012	0.05
o,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDE	µg/L		ND	-	0.012	0.05
p,p'-DDT	µg/L		ND	-	0.012	0.05
Total DDT	µg/L		ND	1.0	0.012	0.05
trans-Chlordane	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-018
Sampling Source	:	Surface Water	Sample No.	:	W64080167
Sample Name	:	SW04	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	15:30
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Anilofos	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Azinphos-ethyl	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Azinphos-methyl	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Chlorfenvinphos	µg/L		ND	-	0.031	-
Chlorpyrifos	µg/L		ND	-	0.031	-
Diazinon	µg/L		ND	-	0.031	-
Dichlorvos	µg/L		ND	-	0.031	-
Dicrotophos	µg/L		ND	-	0.031	-
Dimethoate	µg/L		ND	-	0.031	-
EPN	µg/L		ND	-	0.031	-
Ethion	µg/L		ND	-	0.031	-
Ethoprophos	µg/L		ND	-	0.031	-
Etrimfos	µg/L		ND	-	0.031	-
Fenitrothion	µg/L		ND	-	0.031	-
Fenthion	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

บริษัท พันธมิต วิเคราะห์ และ วิจัย จำกัด
Phanthamit Analytical Ltd.

Approved By .....
(Top Management)
14/09/2021

ACCREDITED LABORATORY
ISO/IEC 17025

Tel: +856-21-263962 E-mail: info@phanthamit.com

TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-018
Sampling Source	:	Surface Water	Sample No.	:	W64080167
Sample Name	:	SW04	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	15:30
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Malathion	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Methamidophos	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Methidathion	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Mevinphos	µg/L		ND	-	0.031	-
Monocrotophos	µg/L		ND	-	0.031	-
Omethoate	µg/L		ND	-	0.031	-
Parathion-methyl	µg/L		ND	-	0.031	-
Phosalone	µg/L		ND	-	0.031	-
Phosphamidon	µg/L		ND	-	0.031	-
Pirimiphos-ethyl	µg/L		ND	-	0.031	-
Pirimiphos-methyl	µg/L		ND	-	0.031	-
Profenofos	µg/L		ND	-	0.031	-
Prothiofos	µg/L		ND	-	0.031	-
Terbufos	µg/L		ND	-	0.031	-
Triazophos	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

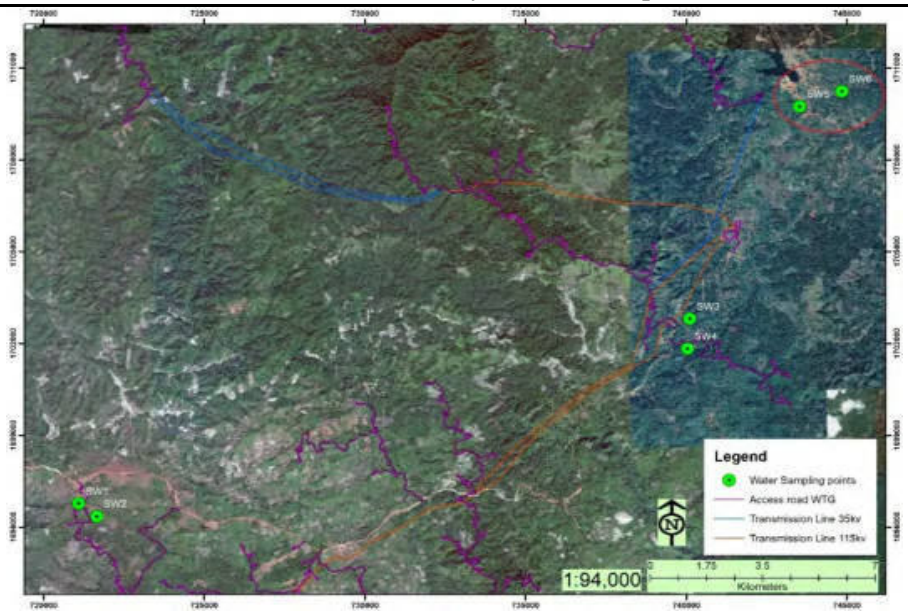
Approved By .....
(Top Management)
14/09/2021

Field Record

1	Water Sampling Point	**SW05**				On Site Parameters	Result
2	Date	12/8/2021				pH	7.4
3	Time	14:00 PM				DO	9
4	Location	Village	District		Province	Conductivity	25
		Dakbong	Dakcheung		Sekong	Salinity	0.01
5	Coordinate	N	743535			TDS	13.6
		E	1709743			Air temperature	29
6	Observations	Oder	Color	Turbidity		Water temperature	26.4
		Non	Clear	light			
8	Environment Condition in the Sampling Point	It is a full year water folw stream. The sampling point is by main road (about 20-30 off set from the road) with encloses by local houses, plantations and cattle cages. It was observed there is an erosion from agricultural areas discharging to the stream. There was also some small and big trees along the stream reach. Water in the stream is clear with no smell.					

Photo Sampling Survey

Water Survey Location Map



Name of Sampling Equipment	
PONPE 510PD pH/COND./SALT/DO METER	
Recorded By	
Name: KeoOudone	
Signature: Date: 12/08/2021	

ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
BLA-0155
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-019
Sampling Source	:	Surface Water	Sample No.	:	W64080168
Sample Name	:	SW05	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:00
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Ammonia*	mg/L	SM 2017:4500-NH_3 F: Phenate	ND	-	-	-
Biochemical Oxygen Demand*	mg/L	SM 2017:5210 B: 5-Day BOD test, Azide Modification	< 1.00	-	0.30	1.00
Chemical Oxygen Demand**	mg/L	SM 2017:5220 C: Closed Reflux, Titrimetric	11.7	5-7	1.00	4.00
Chloride**	mg/L as Cl^-	In-house method: SOP-LAB-013 based on SM 2017:4500-Cl^-B	ND	-	1.00	3.00
Hardness	mg/L as $CaCO_3$	In-house method: SOP-LAB-013 based on SM 2017:2340 C	11.4	-	3.00	10.0
Iron*	mg/L	SM 2017:3500-Fe B: Phenanthroline	ND	-	0.01	0.10
Alkalinity*	mg/L	SM 2017:2320 B: Titration	16.8	-	3.00	10.0
Nitrate*	mg/L as NO_3^-	SM 2017:4500-NO_3^- E: Cadmium Reduction	ND	-	0.09	0.22
Nitrite*	mg/L as NO_2^-	SM 2017:4500-NO_2 E: Colorimetric	ND	-	0.02	0.07
Oil and Grease*	mg/L	SM 2017:5520 B: Partition-Gravimetric	ND	-	0.70	2.00
Sulfate *	mg/L as SO_4^{2-}	SM 2017:4500-SO_4^{2-} E: Turbidimetric	< 5.00	-	1.50	5.00
Total Suspended Solids	mg/L	SM 2017:2540 D: Dried at 103-105°C	6.10	≤ 25	1.00	2.50
Ortho Phosphate *###	mg/L	Based on APHA (2017)	ND	-	-	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
**Out of Accreditation Scope
* Parameter Not Accredited ISO/IEC 17025:2017
Parameter tested by ALS Laboratory Group(Thailand) Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-019
Sampling Source	:	Surface Water	Sample No.	:	W64080168
Sample Name	:	SW05	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:00
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Coliform Bacteria *#	MPN/100mL	SM 2017:9221 B: MPN Test	4,900	5,000	-	1.8
Phosphorus *#	mg/L as P	SM 2017:4500-P: Ascorbic Acid	<0.15	-	0.01	0.15
Total Nitrogen *#	mg/L as N	SM 2017:4500-N: Calculation	<5	-	-	-
ORP *#	mV	ORP Meter	24.7	-	-	-
Aluminium *#	mg/L	SM 2017:3500 By ICP-OES	0.22	-	0.01	0.10
Arsenic *#	mg/L	SM 2017:3500: Continuous Hydride Generation/Atomic Absorption Spectrometric	ND	0.01	0.0005	0.0020
Cadmium *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.003	0.002	0.003
Calcium *#	mg/L	SM 2017:3500 by ICP-OES	2.31	-	0.50	1.00
Mercury *#	mg/L	SM 2017:3500 By Cold-Vapor, Atomic Absorption Spectrometric	ND	0.001	0.0005	0.0020
Copper *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	1.5	0.01	0.02
Lead *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.01	0.005	0.010
Magnesium *#	mg/L	SM 2017:3500 By ICP-OES	1.47	-	0.50	1.00
Sodium *#	mg/L	SM 2017:3500 By ICP-OES	1.40	-	1.00	1.00
Potassium *#	mg/L	SM 2017:3500 by ICP-OES	<1.00	-	0.02	0.05
Zinc *#	mg/L	SM 2017:3500 by ICP-OES	ND	1.0	0.01	0.02

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

บริษัท พันทะมิต วิทยะ แอนด์ ไอ จำกัด Phanthamit Analytical Lab Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION BLA-0155
TESTING No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-019
Sampling Source	:	Surface Water	Sample No.	:	W64080168
Sample Name	:	SW05	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:00
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Manganese *#	mg/L	SM 2017:3500 by ICP-OES	< 0.03	1.0	0.01	0.03
Nickel *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	0.1	0.02	0.10
Pesticides *##						
Organochlorine Group						
Aldrin	µg/L	In-house method TM-CH-090 based on	ND	0.1	0.012	0.05
α-BHC	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.02	0.012	0.05
α-Endosulfan	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.012	0.05
β-BHC	µg/L		ND	-	0.012	0.05
Dicofol	µg/L		ND	-	0.012	0.05
β-Endosulfan	µg/L		ND	-	0.012	0.05
Dieldrin	µg/L		ND	0.1	0.012	0.05
cis-Chlordane	µg/L		ND	-	0.012	0.05
Endosulfan Sulfate	µg/L		ND	-	0.012	0.05
Endrin	µg/L		ND	Must Not Have	0.012	0.05
γ-BHC	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By
(Top Management)
14/09/2021

Phanthamit Analytical Lab Co., Ltd.

ACCREDITED LABORATORY
ISO/IEC 17025

No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-055
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-019
Sampling Source	:	Surface Water	Sample No.	:	W64080168
Sample Name	:	SW05	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:00
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organochlorine Group						
HCB	µg/L	In-house method TM-CH-090 based on	ND	-	0.012	0.05
Heptachlor	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.2	0.012	0.05
Heptachlor-exo-epoxide	µg/L	EPA method 508 (1995) Revision 3.1	ND	0.2	0.012	0.05
Methoxychlor	µg/L		ND	-	0.012	0.05
o,p'-DDT	µg/L		ND	-	0.012	0.05
o,p'-DDE	µg/L		ND	-	0.012	0.05
o,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDE	µg/L		ND	-	0.012	0.05
p,p'-DDT	µg/L		ND	-	0.012	0.05
Total DDT	µg/L		ND	1.0	0.012	0.05
trans-Chlordane	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
		Report No.	: 6409-019
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province		
Sampling Source	: Surface Water	Sample No.	: W64080168
Sample Name	: SW05	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 14:00
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Anilofos	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Azinphos-ethyl	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Azinphos-methyl	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Chlorfenvinphos	µg/L		ND	-	0.031	-
Chlorpyrifos	µg/L		ND	-	0.031	-
Diazinon	µg/L		ND	-	0.031	-
Dichlorvos	µg/L		ND	-	0.031	-
Dicrotophos	µg/L		ND	-	0.031	-
Dimethoate	µg/L		ND	-	0.031	-
EPN	µg/L		ND	-	0.031	-
Ethion	µg/L		ND	-	0.031	-
Ethoprophos	µg/L		ND	-	0.031	-
Etrimfos	µg/L		ND	-	0.031	-
Fenitrothion	µg/L		ND	-	0.031	-
Fenthion	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017
Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017,
APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

ACCREDITED LABORATORY
ISO/IEC 17025

Tel: +856-21-265962 E-mail: info@phanthamit.com

TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-019
Sampling Source	:	Surface Water	Sample No.	:	W64080168
Sample Name	:	SW05	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	14:00
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Malathion	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Methamidophos	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Methidathion	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Mevinphos	µg/L		ND	-	0.031	-
Monocrotophos	µg/L		ND	-	0.031	-
Omethoate	µg/L		ND	-	0.031	-
Parathion-methyl	µg/L		ND	-	0.031	-
Phosalone	µg/L		ND	-	0.031	-
Phosphamidon	µg/L		ND	-	0.031	-
Pirimiphos-ethyl	µg/L		ND	-	0.031	-
Pirimiphos-methyl	µg/L		ND	-	0.031	-
Profenofos	µg/L		ND	-	0.031	-
Prothiofos	µg/L		ND	-	0.031	-
Terbufos	µg/L		ND	-	0.031	-
Triazophos	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

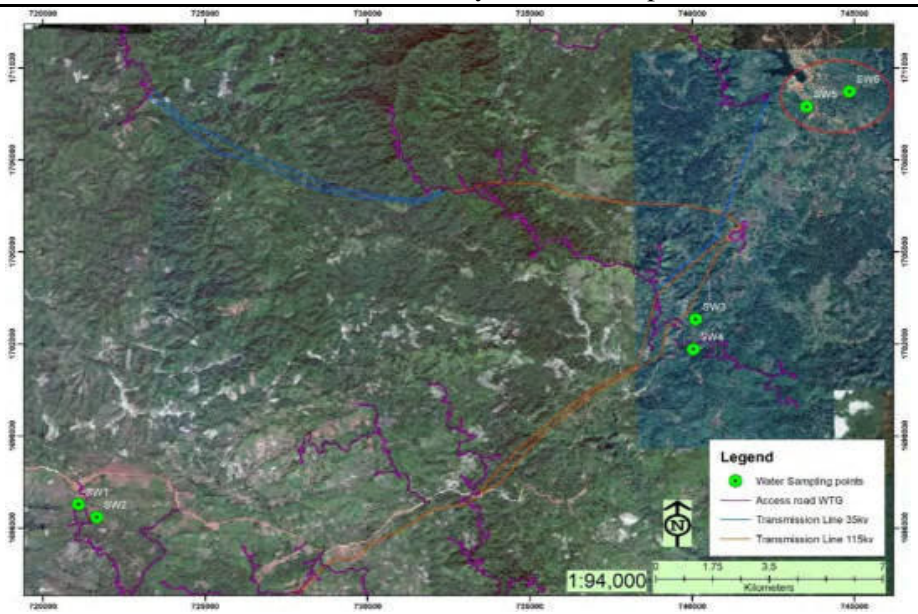
Approved By .....
(Top Management)
14/09/2021

Field Record

1	Water Sampling Point	**SW06**				On Site Parameters	Result
2	Date	12/8/2021				pH	6.3
3	Time	12:50 PM				DO	10.8
4	Location	Village	District		Province	Conductivity	26.4
		Dakbong	Dakcheung		Sekong	Salinity	0.01
5	Coordinate	N	744844			TDS	13.2
		E	1710236			Air temperature	30
6	Observations	Oder	Color	Turbidity		Water temperature	26.4
		Non	Clear	light			
8	Environment Condition in the Sampling Point	Water sampling location at the same stream with SW05, nearby area is coffee, and casava plantation, and is close to community about 1Km					

Photo Sampling Survey

Water Survey Location Map



Name of Sampling Equipment	
PONPE 510PD pH/COND./SALT/DO METER	
Recorded By	
Name: KeoOudone	
Signature: Date: 12/08/2021	

PAL
ACCREDITED LABORATORY
ISO/IEC 17025
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION BLA-DSS
TESTING No.0162

TEST REPORT

Customer	: 600 MW Monsoon Wind farm Project	Request No.	: W6408022
Address	: Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	: 6409-020
Sampling Source	: Surface Water	Sample No.	: W64080169
Sample Name	: SW06	Sampling Date	: 12/08/2021
Sampling By	: Customer	Sampling Time	: 12:50
Sampling Method	: Grab Sample	Received Date	: 16/08/2021
Tested Date	: 16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Ammonia*	mg/L	SM 2017:4500-NH_3 F: Phenate	ND	-	-	-
Biochemical Oxygen Demand*	mg/L	SM 2017:5210 B: 5-Day BOD test, Azide Modification	ND	-	0.30	1.00
Chemical Oxygen Demand**	mg/L	SM 2017:5220 C: Closed Reflux, Titrimetric	ND	5-7	1.00	4.00
Chloride**	mg/L as Cl	In-house method: SOP-LAB-013 based on SM 2017:4500-Cl B	ND	-	1.00	3.00
Hardness	mg/L as $CaCO_3$	In-house method: SOP-LAB-013 based on SM 2017:2340 C	10.9	-	3.00	10.0
Iron*	mg/L	SM 2017:3500-Fe B: Phenanthroline	0.44	-	0.01	0.10
Alkalinity*	mg/L	SM 2017:2320 B: Titration	14.4	-	3.00	10.0
Nitrate*	mg/L as NO_3^-	SM 2017:4500-NO_3^- E: Cadmium Reduction	1.50	-	0.09	0.22
Nitrite*	mg/L as NO_2^-	SM 2017:4500-NO_2^- E: Colorimetric	ND	-	0.02	0.07
Oil and Grease*	mg/L	SM 2017:5520 B: Partition-Gravimetric	ND	-	0.70	2.00
Sulfate *	mg/L as SO_4^{2-}	SM 2017:4500-SO_4^{2-} E: Turbidimetric	< 5.00	-	1.50	5.00
Total Suspended Solids	mg/L	SM 2017:2540 D: Dried at 103-105°C	7.10	≤ 25	1.00	2.50
Ortho Phosphate *###	mg/L	Based on APHA (2017)	ND	-	-	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark: 1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
**Out of Accreditation Scope
* Parameter Not Accredited ISO/IEC 17025:2017
Parameter tested by ALS Laboratory Group(Thailand) Co.,Ltd

Phanthamit Analytical Lab Co.,Ltd

Approved By ....
(Top Management)
14/09/2021

PAL
Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,

ACCREDITED LABORATORY
ISO/IEC 17025

Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
TESTING
No.0162

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-020
Sampling Source	:	Surface Water	Sample No.	:	W64080169
Sample Name	:	SW06	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	12:50
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Coliform Bacteria *#	MPN/100mL	SM 2017:9221 B: MPN Test	2,100	5,000	-	1.8
Phosphorus *#	mg/L as P	SM 2017:4500-P: Ascorbic Acid	<0.15	-	0.01	0.15
Total Nitrogen *#	mg/L as N	SM 2017:4500-N: Calculation	<5	-	-	-
ORP *#	mV	ORP Meter	27.6	-	-	-
Aluminium *#	mg/L	SM 2017:3500 By ICP-OES	0.26	-	0.01	0.10
Arsenic *#	mg/L	SM 2017:3500: Continuous Hydride Generation/Atomic Absorption Spectrometric	ND	0.01	0.0005	0.0020
Cadmium *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.003	0.002	0.003
Calcium *#	mg/L	SM 2017:3500 by ICP-OES	2.16	-	0.50	1.00
Mercury *#	mg/L	SM 2017:3500 By Cold-Vapor, Atomic Absorption Spectrometric	ND	0.001	0.0005	0.0020
Copper *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	1.5	0.01	0.02
Lead *#	mg/L	SM 2017:3500 by ICP-OES	ND	0.01	0.005	0.010
Magnesium *#	mg/L	SM 2017:3500 By ICP-OES	1.41	-	0.50	1.00
Sodium *#	mg/L	SM 2017:3500 By ICP-OES	1.22	-	1.00	1.00
Potassium *#	mg/L	SM 2017:3500 by ICP-OES	1.03	-	0.02	0.05
Zinc *#	mg/L	SM 2017:3500 by ICP-OES	ND	1.0	0.01	0.02

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd

Approved By: .....
(Top Management)
14/09/2021

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.

TEST REPORT

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-020
Sampling Source	:	Surface Water	Sample No.	:	W64080169
Sample Name	:	SW06	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	12:50
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Manganese *=	mg/L	SM 2017:3500 by ICP-OES	< 0.03	1.0	0.01	0.03
Nickel *#	mg/L	SM 2017:3500 by Atomic Absorption Spectrometer	ND	0.1	0.02	0.10
Pesticides *##						
Organochlorine Group						
Aldrin	µg/L	In-house method TM-CH-090 based on EPA method 507 (1995) Revision 2.1 and EPA method 508 (1995) Revision 3.1	ND	0.1	0.012	0.05
α-BHC	µg/L		ND	0.02	0.012	0.05
α-Endosulfan	µg/L		ND	-	0.012	0.05
β-BHC	µg/L		ND	-	0.012	0.05
Dicofol	µg/L		ND	-	0.012	0.05
β-Endosulfan	µg/L		ND	-	0.012	0.05
Dieldrin	µg/L		ND	0.1	0.012	0.05
cis-Chlordane	µg/L		ND	-	0.012	0.05
Endosulfan Sulfate	µg/L		ND	-	0.012	0.05
Endrin	µg/L		ND	Must Not Have	0.012	0.05
γ-BHC	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

TEST REPORT

Request No. : W6408022

TESTING
No.0162

Customer	:	600 MW Monsoon Wind farm Project	Report No.	: 6409-020
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province		
Sampling Source	:	Surface Water	Sample No.	: W64080169
Sample Name	:	SW06	Sampling Date	: 12/08/2021
Sampling By	:	Customer	Sampling Time	: 12:50
Sampling Method	:	Grab Sample	Received Date	: 16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organochlorine Group						
HCB	µg/L	In-house method TM-CH-090 based on	ND	-	0.012	0.05
Heptachlor	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	0.2	0.012	0.05
Heptachlor-exo-epoxide	µg/L	EPA method 508 (1995) Revision 3.1	ND	0.2	0.012	0.05
Methoxychlor	µg/L		ND	-	0.012	0.05
o,p'-DDT	µg/L		ND	-	0.012	0.05
o,p'-DDE	µg/L		ND	-	0.012	0.05
o,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDD	µg/L		ND	-	0.012	0.05
p,p'-DDE	µg/L		ND	-	0.012	0.05
p,p'-DDT	µg/L		ND	-	0.012	0.05
Total DDT	µg/L		ND	1.0	0.012	0.05
trans-Chlordane	µg/L		ND	-	0.012	0.05

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-095

TEST REPORT

Request No. : W6408022

TESTING

Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province		
Sampling Source	:	Surface Water	Sample No.	: W64080169
Sample Name	:	SW06	Sampling Date	: 12/08/2021
Sampling By	:	Customer	Sampling Time	: 12:50
Sampling Method	:	Grab Sample	Received Date	: 16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	: 14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Anilofos	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Azinphos-ethyl	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Azinphos-methyl	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Chlorfenvinphos	µg/L		ND	-	0.031	-
Chlorpyrifos	µg/L		ND	-	0.031	-
Diazinon	µg/L		ND	-	0.031	-
Dichlorvos	µg/L		ND	-	0.031	-
Dicrotophos	µg/L		ND	-	0.031	-
Dimethoate	µg/L		ND	-	0.031	-
EPN	µg/L		ND	-	0.031	-
Ethion	µg/L		ND	-	0.031	-
Ethoprophos	µg/L		ND	-	0.031	-
Etrimfos	µg/L		ND	-	0.031	-
Fenitrothion	µg/L		ND	-	0.031	-
Fenthion	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water
SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF
2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021

PAL
ACCREDITED LABORATORY
ISO/IEC 17025

Phanthamit Analytical Lab Co., Ltd.
No. 122, Unit 5, Dongpalane Thong Village, Sisattanak District,
Vientiane Capital, Lao PDR.
Tel: +856-21-263962 E-mail: info@phanthamit.com

LABORATORY ACCREDITATION
ILA-DSS

TEST REPORT

TESTING No.0162

Customer	:	600 MW Monsoon Wind farm Project	Request No.	:	W6408022
Address	:	Dakcheung District, Sekong Province and Sanxay District, Attapeu Province	Report No.	:	6409-020
Sampling Source	:	Surface Water	Sample No.	:	W64080169
Sample Name	:	SW06	Sampling Date	:	12/08/2021
Sampling By	:	Customer	Sampling Time	:	12:50
Sampling Method	:	Grab Sample	Received Date	:	16/08/2021
Tested Date	:	16/08/2021-14/09/2021	Reported Date	:	14/09/2021

Parameter	Unit	Standard Method	Result	Standard [1]	LOD [2]	LOQ [3]
Pesticides *##						
Organophosphate Group						
Malathion	µg/L	In-house method TM-CH-090 based on	ND	-	0.031	-
Methamidophos	µg/L	EPA method 507 (1995) Revision 2.1 and	ND	-	0.031	-
Methidathion	µg/L	EPA method 508 (1995) Revision 3.1	ND	-	0.031	-
Mevinphos	µg/L		ND	-	0.031	-
Monocrotophos	µg/L		ND	-	0.031	-
Omethoate	µg/L		ND	-	0.031	-
Parathion-methyl	µg/L		ND	-	0.031	-
Phosalone	µg/L		ND	-	0.031	-
Phosphamidon	µg/L		ND	-	0.031	-
Pirimiphos-ethyl	µg/L		ND	-	0.031	-
Pirimiphos-methyl	µg/L		ND	-	0.031	-
Profenofos	µg/L		ND	-	0.031	-
Prothiofos	µg/L		ND	-	0.031	-
Terbufos	µg/L		ND	-	0.031	-
Triazophos	µg/L		ND	-	0.031	-

Physical Appearance: 1. Sample : Yellow, SS
2. Container : Customer

Remark:
1. Lao Environmental Standard, Ministry of Natural Resources Environment, No 81, Date 07/02/2017 Standard for Surface Water

SM: Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, APHA, AWWA, and WEF

2. LOD = Limit Of Detection
ND = Not Detected
3. LOQ = Limit Of Quantification
* Parameter Not Accredited ISO/IEC 17025:2017
# Parameter tested by Eastern Thai Consulting 1992 Co.,Ltd
Parameter tested by Asia Medical and Agricultural Laboratory and Research Center Co.,Ltd

Approved By .....
(Top Management)
14/09/2021