

Request No. LA66-1052

Report No. 6611-0179

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakomsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 1 (S4)

SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05302

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:05-10:10

TESTED DATE : 25-31/10/2023 REPORTED DATE : 06/11/2023

STACK DESCRIPTION @

Height :	36.00	m	Type of Process :	Combustion
Diameter :	1.35	m	Type of Fuel :	Natural Gas
Temperature :	786.00	°C	Oxygen Content :	7.85 %
Air Velocity :	7.09	m/s	Barometric Pressure :	755.50 mmHg
Dry Basic Flow rate <sup>3</sup> :	2.68	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	5.62	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			7.85 % O <sub>2</sub>	7 % O <sub>2</sub>		
Oxides of Nitrogen	Absorption, Phenoldisulfonic	10:05-10:10	12.2	13.0	376 , 77 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		6.5	6.9	200 , 41 <sup>2</sup>	ppm
			0.0327 <sup>@</sup>	-	0.33 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (จ-003-ก-0035)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....



(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0180

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 1 (S4)

SAMPLING DATE : 16/10/2023

RECEIVED DATE : 25/10/2023

TESTED DATE : 25/10/2023 – 04/11/2023

SAMPLE NO. : 05303

SAMPLING TIME : 10:00-10:10

REPORTED DATE : 06/11/2023

STACK DESCRIPTION @

Height :	36.00	m	Type of Process :	Combustion
Diameter :	1.35	m	Type of Fuel :	Natural Gas
Temperature :	786.00	°C	Oxygen Content :	7.85 %
Air Velocity :	7.09	m/s	Barometric Pressure :	755.50 mmHg
Dry Basic Flow rate <sup>3</sup> :	2.68	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	5.62	%		

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			7.85 % O <sub>2</sub>	7 % O <sub>2</sub>		
Carbon Monoxide (CO)	Non-Dispersive Infrared	10:00-10:10	50.3	53.6	790 , 350 <sup>2</sup>	mg/m <sup>3</sup>
	(U.S. EPA Method 10)		43.9	46.8	690 , 306 <sup>2</sup>	ppm
			0.1348 <sup>@</sup>	-	1.49 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (จ-003-ก-0035)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0178

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 1 (S4)

SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05301

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:55-10:35

TESTED DATE : 25-30/10/2023 REPORTED DATE : 06/11/2023

STACK DESCRIPTION <sup>Ⓔ</sup>

Height :	36.00	m	Type of Process :	Combustion
Diameter :	1.35	m	Type of Fuel :	Natural Gas
Temperature :	786.00	°C	Oxygen Content :	7.85 %
Air Velocity :	7.09	m/s	Barometric Pressure :	755.50 mmHg
Dry Basic Flow rate <sup>3</sup> :	2.68	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	5.62	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			7.85 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Suspended Particulate	Isokinetic, Gravimetric	09:55-10:35	9.1	9.7	240 , 20 <sup>2</sup>	mg/m <sup>3</sup>
(TSP)	(U.S. EPA Method 5)		0.0244 <sup>Ⓔ</sup>	-	0.09 <sup>2</sup>	g/s

- REMARK:**
- <sup>1/</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
  - <sup>2/</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
  - <sup>3/</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
  - Sampling By Mr. Metee Sukprasert (จ-003-ก-0035)
  - <sup>Ⓔ</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0150

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Furnace Stack MCL 2 (S8)  
 SAMPLING DATE : 20/10/2023 SAMPLE NO. : 05273  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:10-09:15  
 TESTED DATE : 25/10/2023 – 09/11/2023 REPORTED DATE : 14/11/2023  
 STACK DESCRIPTION @

Height :	39.30	m	Type of Process :	Combustion
Diameter :	1.40	m	Type of Fuel :	Natural Gas
Temperature :	240.00	°C	Oxygen Content :	13.20 %
Air Velocity :	4.31	m/s	Barometric Pressure :	760.00 mmHg
Dry Basic Flow rate <sup>3</sup> :	3.69	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	4.24	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			13.20 % O <sub>2</sub>	7 % O <sub>2</sub>		
Oxides of Nitrogen	Absorption, Phenoldisulfonic	09:10-09:15	18.5	33.4	376 , 95 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		9.8	17.7	200 , 51 <sup>2</sup>	ppm
			0.0683 <sup>@</sup>	-	0.70 <sup>2</sup>	g/s

## REMARK:

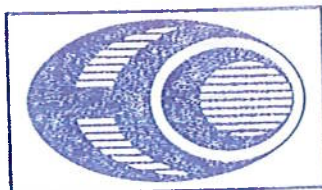
- <sup>1/</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2/</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3/</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayaseewee (1-003-ก-0021)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(1-003-ก-0007)

14/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(1-003-ก-0012)

14/11/2023

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

COPY

Request No. LA66-1051

Report No. 6611-0151

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 2 (S8)

SAMPLING DATE : 20/10/2023

SAMPLE NO. : 05274

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:20-09:30

TESTED DATE : 25/10/2023 – 04/11/2023

REPORTED DATE : 07/11/2023

STACK DESCRIPTION<sup>®</sup>

Height : 39.30 m

Type of Process : Combustion

Diameter : 1.40 m

Type of Fuel : Natural Gas

Temperature : 240.00 °C

Oxygen Content : 13.20 %

Air Velocity : 4.31 m/s

Barometric Pressure : 760.00 mmHg

Dry Basic Flow rate<sup>3</sup> : 3.69 m<sup>3</sup>/s

Atmospheric Temperature : 32.00 °C

Moisture Content : 4.24 %

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			13.20 % O <sub>2</sub>	7 % O <sub>2</sub>		
Carbon Monoxide (CO)	Non-Dispersive Infrared	09:20-09:30	5.2	9.4	790 , 350 <sup>2</sup>	mg/m <sup>3</sup>
	(U.S. EPA Method 10)		4.5	8.1	690 , 306 <sup>2</sup>	ppm
			0.0192 <sup>®</sup>	-	2.56 <sup>2</sup>	g/s

## REMARK:

1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25583.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis

4. Sampling By Mr. Warakorn Vitayasewee (ว-003-ค-0021)

5.<sup>®</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

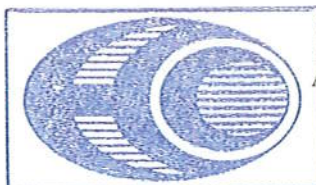
Examined By.....



(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

07/11/2023

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



Request No. LA66-1051

Report No. 6611-0149

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut, A. Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 2 (S8)

SAMPLING DATE : 20/10/2023

SAMPLE NO. : 05272

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:00-09:50

TESTED DATE : 25-30/10/2023

REPORTED DATE : 07/11/2023

STACK DESCRIPTION<sup>@</sup>

Height : 39.30 m

Type of Process : Combustion

Diameter : 1.40 m

Type of Fuel : Natural Gas

Temperature : 240.00 °C

Oxygen Content : 13.20 %

Air Velocity : 4.31 m/s

Barometric Pressure : 760.00 mmHg

Dry Basic Flow rate<sup>3</sup> : 3.69 m<sup>3</sup>/s

Atmospheric Temperature : 32.00 °C

Moisture Content : 4.24 %

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			13.20 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Suspended Particulate	Isokinetic, Gravimetric	09:00-09:50	1.3	2.3	240, 20 <sup>2</sup>	mg/m <sup>3</sup>
(TSP)	(U.S. EPA Method 5)		0.0048 <sup>@</sup>	-	0.15 <sup>2</sup>	g/s

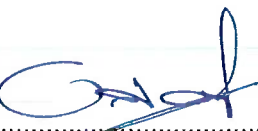
## REMARK:

1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25583.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis

4. Sampling By Mr. Warakorn Vitayasewee (ว-003-ก-0021)

5.<sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

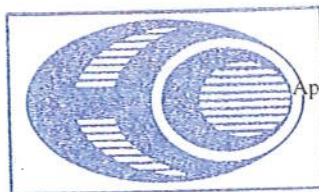
Examined By.....



(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

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

COPY

Request No. LA66-1052

Report No. 6611-0190

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : ROPT Oven Stack CPL (S12)  
 SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05313  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:10-10:15  
 TESTED DATE : 25/10/2023 – 02/11/2023 REPORTED DATE : 06/11/2023

STACK DESCRIPTION<sup>⑥</sup>

Height :	24.00	m	Type of Process :	Combustion
Diameter :	0.50	m	Type of Fuel :	Natural Gas
Temperature :	223.00	°C	Oxygen Content :	17.97 %
Air Velocity :	9.77	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>③</sup> :	1.09	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	4.70	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>③</sup>	STD <sup>①</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	10:10-10:15	7.4	376 , 50 <sup>②</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		3.9	200 , 27 <sup>②</sup>	ppm
			0.0081 <sup>④</sup>	0.06 <sup>②</sup>	g/s

## REMARK:

- <sup>①</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>②</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>③</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (จ-003-ก-0035)
- <sup>⑥</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....



(Miss Apiradee Chuen-arom)

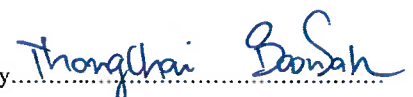
(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

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

COPY

Request No. LA66-1052

Report No. 6611-0191

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : ROPT Oven Stack CPL (S12)

SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05314

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:20-10:30

TESTED DATE : 25/10/2023 – 04/11/2023 REPORTED DATE : 06/11/2023

STACK DESCRIPTION @

Height :	24.00	m	Type of Process :	Combustion
Diameter :	0.50	m	Type of Fuel :	Natural Gas
Temperature :	223.00	°C	Oxygen Content :	17.97 %
Air Velocity :	9.77	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	1.09	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	4.70	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Carbon Monoxide	Non-Dispersive Infrared	10:20-10:30	1.9	790 , 100 <sup>2</sup>	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		1.7	690 , 87 <sup>2</sup>	ppm
			0.0021 <sup>6</sup>	0.13 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (ว-003-ค-0035)
- <sup>6</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0189

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : ROPT Oven Stack CPL (S12)  
 SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05312  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:00-10:35  
 TESTED DATE : 25/10/2023 – 23/11/2023 REPORTED DATE : 23/11/2023

## STACK DESCRIPTION @

Height :	24.00	m	Type of Process :	Combustion
Diameter :	0.50	m	Type of Fuel :	Natural Gas
Temperature :	223.00	°C	Oxygen Content :	17.97 %
Air Velocity :	9.77	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>2</sup> :	1.09	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	4.70	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Chromium	Isokinetic, Digestion, ICP	10:00-10:35	< 0.05	1	mg/m <sup>3</sup>
	(U.S. EPA Method 29)		< 0.00005@	0.0013	g/s

## REMARK:

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (ว-003-ก-0035)
- @ These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By

(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

23/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

23/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0157

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : RTO Stack CPL (S13)

SAMPLING DATE : 17/10/2023

SAMPLE NO. : 05280

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 11:00-11:05

TESTED DATE : 25/10/2023 – 02/11/2023

REPORTED DATE : 07/11/2023

STACK DESCRIPTION<sup>@</sup>

Height : 24.00 m

Type of Process : Combustion

Diameter : 1.70 m

Type of Fuel : Natural Gas

Temperature : 122.00 °C

Oxygen Content : 20.80 %

Air Velocity : 4.30 m/s

Barometric Pressure : 758.50 mmHg

Dry Basic Flow rate<sup>3</sup> : 7.12 m<sup>3</sup>/s

Atmospheric Temperature : 33.00 °C

Moisture Content : - %

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	11:00-11:05	6.6	376 , 25 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		3.5	200 , 13 <sup>2</sup>	ppm
			0.0470 <sup>@</sup>	0.42 <sup>2</sup>	g/s

## REMARK:

1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25583.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis

4. Sampling By Mr. Wirakorn Vitayasewee (ว-003-ค-0021)

5.<sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY



Request No. LA66-1051

Report No. 6611-0158

TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : RTO Stack CPL (S13)  
SAMPLING DATE : 17/10/2023  
RECEIVED DATE : 25/10/2023  
TESTED DATE : 25/10/2023 – 04/11/2023  
STACK DESCRIPTION@

Height :	24.00	m	Type of Process :	Combustion
Diameter :	1.70	m	Type of Fuel :	Natural Gas
Temperature :	122.00	°C	Oxygen Content :	20.80 %
Air Velocity :	4.30	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>3</sup> :	7.12	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Carbon Monoxide	Non-Dispersive Infrared	11:10-11:20	4.7	790 , 300 <sup>2</sup>	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		4.1	690 , 262 <sup>2</sup>	ppm
			0.0335 <sup>4</sup>	4.98 <sup>2</sup>	g/s

REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayaseewee (ว-003-ค-0021)
- <sup>4</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....  
(Miss Apiradee Chuen-arom)  
(ว-003-ค-0007)  
07/11/2023



Approved By.....  
(Mr. Thongchai Boonsak)  
(ว-003-ค-0012)  
07/11/2023

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

COPY

Request No. LA66-1051

Report No. 6611-0155

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorrad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : RTO Stack CPL (S13)  
 SAMPLING DATE : 17/10/2023 SAMPLE NO. : 05278  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:50-11:15  
 TESTED DATE : 25-30/10/2023 REPORTED DATE : 07/11/2023

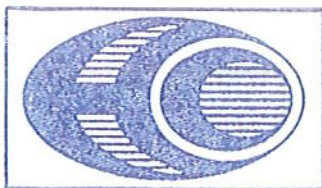
## STACK DESCRIPTION

Height :	24.00	m	Type of Process :	Combustion
Diameter :	1.70	m	Type of Fuel :	Natural Gas
Temperature :	122.00	°C	Oxygen Content :	20.80 %
Air Velocity :	4.30	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>2</sup> :	7.12	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Toluene	Adsorption, Gas Chromatography	10:50-11:15	<2.07	5.0	mg/m <sup>3</sup>
	(U.S. EPA Method 18)		<0.55	1.3	ppm
			<0.0147	0.08	g/s

## REMARK:

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayaseewee
- Parameter Outside The Scope of The Registration of The Department of Industrial Works.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0156

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : RTO Stack CPL (S13)

SAMPLING DATE : 17/10/2023

SAMPLE NO. : 05279

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 10:50-11:15

TESTED DATE : 25-30/10/2023

REPORTED DATE : 07/11/2023

## STACK DESCRIPTION @

Height :	24.00	m	Type of Process :	Combustion
Diameter :	1.70	m	Type of Fuel :	Natural Gas
Temperature :	122.00	°C	Oxygen Content :	20.80 %
Air Velocity :	4.30	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>2</sup> :	7.12	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Xylene	Adsorption, Gas Chromatographic	10:50-11:15	8.07	70	mg/m <sup>3</sup>
	(U.S. EPA Method 18)		1.86	16	ppm
			0.0575 <sup>@</sup>	1.16	g/s

## REMARK:

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayasewee (ว-003-ก-0021)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

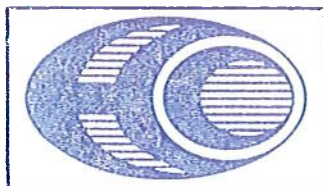
Examined By.....



(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-1050

Report No. 6611-0140

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Inline Painting Stack MCL 1 (S6)  
SAMPLING DATE : 16/10/2023  
RECEIVED DATE : 25/10/2023  
TESTED DATE : 25-31/10/2023  
SAMPLE NO. : 05263  
SAMPLING TIME : 10:20-10:25  
REPORTED DATE : 06/11/2023

## STACK DESCRIPTION

Height :	30.00	m	Type of Process :	Exhaust
Diameter :	1.00	m	Type of Fuel :	-
Temperature :	50.00	°C	Oxygen Content :	20.90 %
Air Velocity :	8.46	m/s	Barometric Pressure :	759.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	5.96	m <sup>3</sup> /s	Atmospheric Temperature :	36.00 °C
Moisture Content :	-	%		

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen (NO <sub>x</sub> as NO <sub>2</sub> )	Absorption, Phenoldisulfonic	10:20-10:25	< 2.0	376 , 50 <sup>2</sup>	mg/m <sup>3</sup>
	Acid (U.S. EPA Method 7)		< 1.0	200 , 27 <sup>2</sup>	ppm
			< 0.0119 <sup>4</sup>	0.17 <sup>2</sup>	g/s

## REMARK:

- 1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- 2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- 3.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
4. Sampling By Mr. Teerapong Naulin(จ-003-ก-0014)
- 5.<sup>4</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1050

Report No. 6611-0139

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Inline Painting Stack MCL 1 (S6)  
 SAMPLING DATE : 16/10/2023  
 RECEIVED DATE : 25/10/2023  
 TESTED DATE : 25-30/10/2023  
 STACK DESCRIPTION

Height :	30.00	m	Type of Process :	Exhaust
Diameter :	1.00	m	Type of Fuel :	-
Temperature :	50.00	°C	Oxygen Content :	20.90 %
Air Velocity :	8.46	m/s	Barometric Pressure :	759.25 mmHg
Dry Basic Flow rate <sup>2</sup> :	5.96	m <sup>3</sup> /s	Atmospheric Temperature :	36.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Formaldehyde	Adsorption, Gas Chromatography	10:20-10:45	< 0.31	2.5	mg/m <sup>3</sup>
	NIOSH2541		< 0.25	2.04	ppm
			< 0.0018	0.008	g/s

**REMARK:**

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Tee-apon Naulin
- Parameter Outside The Scope of The Registration of The Department of Industrial Works.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0146

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muar g , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Pickle Line Fume Stack PKL (S1)

SAMPLING DATE : 16/10/2023

SAMPLE NO. : 05269

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 10:50-11:50

TESTED DATE : 25-31/10/2023

REPORTED DATE : 07/11/2023

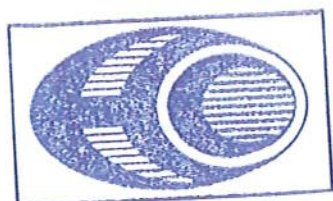
## STACK DESCRIPTION

Height :	21.50	m	Type of Process :	Exhaust
Diameter :	0.90	m	Type of Fuel :	-
Temperature :	48.00	°C	Oxygen Content :	20.80 %
Air Velocity :	3.62	m/s	Barometric Pressure :	759.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	2.07	m <sup>3</sup> /s	Stack Pressure :	759.17 mmHg
Moisture Content :	-	%	Atmospheric Temperature :	34.00 °C

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Hydrogen Chloride	Adsorption, Ion Chromatography	10:50-11:50	0.171	200 , 15 <sup>2</sup>	mg/m <sup>3</sup>
(HCl)	(U.S.EPA Method 26A)		0.115	134 , 10 <sup>2</sup>	ppm
			0.0004	0.06 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Parameter Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr. Warakorn Vitayaseewee



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By... *Thongchai Boonsak*

(Mr. Thongchai Boonsak)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITH OUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0163

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang , Rayong

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : WWTP Sludge Dryer (S14)

SAMPLING DATE : 17/10/2023

SAMPLE NO. : 05286

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:10-09:15

TESTED DATE : 25/10/2023 – 03/11/2023

REPORTED DATE : 07/11/2023

STACK DESCRIPTION<sup>®</sup>

Height : 12.00 m

Type of Process : Combustion

Diameter : 0.60 m

Type of Fuel : Natural Gas

Temperature : 94.00 °C

Oxygen Content : 20.90 %

Air Velocity : 7.73 m/s

Barometric Pressure : 758.50 mmHg

Dry Basic Flow rate<sup>3</sup> : 1.71 m<sup>3</sup>/s

Atmospheric Temperature : 32.00 °C

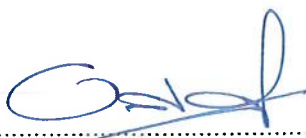
Moisture Content : 3.47 %

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	09:10-09:15	8.9	376 , 15 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		4.7	200 , 8 <sup>2</sup>	ppm
			0.0152 <sup>®</sup>	0.03 <sup>2</sup>	g/s

## REMARK:

- 1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- 2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- 3.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
4. Sampling By Mr. Warakorn Vitayaseewee (ว-003-ก-0021)
- 5.<sup>®</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

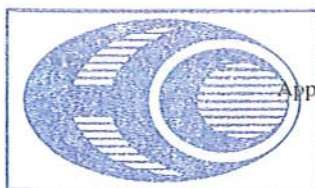
Examined By.....



(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

ACCREDITED LABORATORY  
ISO/IEC 17025

Request No. LA66-1051

Report No. 6611-0164

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang , Rayong

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : WWTP Sludge Dryer (S14)

SAMPLING DATE : 17/10/2023

SAMPLE NO. : 05287

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:20-09:30

TESTED DATE : 25/10/2023 – 04/11/2023

REPORTED DATE : 07/11/2023

## STACK DESCRIPTION@

Height : 12.00 m  
Diameter : 0.60 m  
Temperature : 94.00 °C  
Air Velocity : 7.73 m/s  
Dry Basic Flow rate<sup>3</sup> : 1.71 m<sup>3</sup>/s  
Moisture Content : 3.47 %

Type of Process : Combustion  
Type of Fuel : Natural Gas  
Oxygen Content : 20.90 %  
Barometric Pressure : 758.50 mmHg  
Atmospheric Temperature : 32.00 °C

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Carbon Monoxide	Non-Dispersive Infrared	09:20-09:30	0.3	790 , 119 <sup>2</sup>	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		0.3	690 , 104 <sup>2</sup>	ppm
			0.0005 <sup>6</sup>	0.26 <sup>2</sup>	g/s

## REMARK:

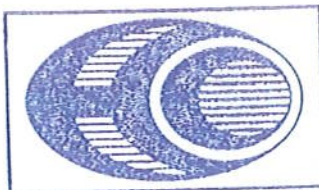
- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayaseewee (ว-003-ก-0021)
- <sup>6</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0162

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang , Rayong

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : WWTP Sludge Dryer (S14)

SAMPLING DATE : 17/10/2023

SAMPLE NO. : 05285

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:00-09:40

TESTED DATE : 25-30/10/2023

REPORTED DATE : 07/11/2023

## STACK DESCRIPTION @

Height :	12.00	m	Type of Process :	Combustion
Diameter :	0.60	m	Type of Fuel :	Natural Gas
Temperature :	94.00	°C	Oxygen Content :	20.90 %
Air Velocity :	7.73	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>B</sup> :	1.71	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	3.47	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>C</sup>	STD <sup>1</sup>	UNIT
Total Suspended Particulate	Isokinetic, Gravimetric	09:00-09:40	0.1	240 , 200 <sup>2</sup>	mg/m <sup>3</sup>
(TSP)	(U.S. EPA Method 5)		0.0002 <sup>@</sup>	0.44 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayasewee (ว-003-ค-0021)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

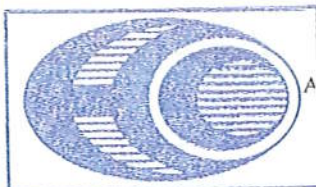
Examined By.....



(Miss Apiradee Chuen-arom)

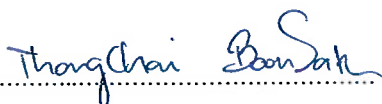
(ว-003-ค-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0177

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut, A. Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Alkali Cleaning Stack MCL 1 (S3)

SAMPLING DATE : 16/10/2023

SAMPLE NO. : 05300

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 10:35-11:05

TESTED DATE : 25/10/2023 – 06/11/2023

REPORTED DATE : 06/11/2023

## STACK DESCRIPTION

Height :	36.00	m	Type of Process :	Exhaust
Diameter :	0.25	m	Type of Fuel :	-
Temperature :	56.00	°C	Oxygen Content :	20.90 %
Air Velocity :	5.87	m/s	Barometric Pressure :	755.50 mmHg
Dry Basic Flow rate <sup>2</sup> :	0.25	m <sup>3</sup> /s	Atmospheric Temperature :	35.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Sodium Hydroxide <sup>3</sup> (NaOH)	Acid-Base Titration	10:35-11:05	1.389	10	mg/m <sup>3</sup>
			0.849	6	ppm
			0.0003	0.02	g/s

## REMARK:

1.<sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25582.<sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis3.<sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Metee Sukprasert

Analysed By The Environmental Center Rajabhat Suan Dusit University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0147

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Alkali Cleaning Stack MCL 2 (S7)

SAMPLING DATE : 20/10/2023

SAMPLE NO. : 05270

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 11:00-11:30

TESTED DATE : 25/10/2023 – 06/11/2023

REPORTED DATE : 07/11/2023

## STACK DESCRIPTION

Height : 40.30 m

Type of Process : Exhaust

Diameter : 0.80 m

Type of Fuel : -

Temperature : 38.00 °C

Oxygen Content : 20.90 %

Air Velocity : 3.34 m/s

Barometric Pressure : 760.00 mmHg

Dry Basic Flow rate<sup>2</sup> : 1.55 m<sup>3</sup>/s

Atmospheric Temperature : 34.00 °C

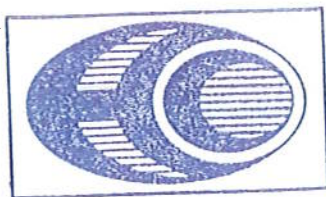
Moisture Content : - %

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Sodium Hydroxide <sup>3</sup> (NaOH)	Acid-Base Titration	11:00-11:30	< 0.100	10	mg/m <sup>3</sup>
			< 0.061	6	ppm
			< 0.0002	0.04	g/s

## REMARK:

1.<sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25582.<sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis3.<sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Warakorn Vitayasewee

Analysed By The Environmental Center Rajabhat Suan Dusit University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

Thongchai Boonsak

(Mr. Thongchai Boonsak)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0143

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Cold Mill Stack CRM (S2)

SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05266

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:00-09:35

TESTED DATE : 25-30/10/2023 REPORTED DATE : 07/11/2023

## STACK DESCRIPTION @

Height :	24.50	m	Type of Process :	Exhaust
Diameter :	1.60	m	Type of Fuel :	-
Temperature :	40.00	°C	Oxygen Content :	20.90 %
Air Velocity :	14.95	m/s	Barometric Pressure :	759.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	27.72	m <sup>3</sup> /s	Stack Pressure :	760.21 mmHg
Moisture Content :	3.20	%	Atmospheric Temperature :	32.00 °C

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Total Suspended Particulate	Isokinetic, Gravimetric	09:00-09:35	1.3	240, 15 <sup>2</sup>	mg/m <sup>3</sup>
(TSP)	(U.S. EPA Method 5)		0.0360 <sup>@</sup>	0.50 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayasewee (ว-003-ก-0021)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....



(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0184

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Alkali Cleaning Stack CPL (S11)

SAMPLING DATE : 17/10/2023

SAMPLE NO. : 05307

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:25-09:55

TESTED DATE : 25/10/2023 – 06/11/2023

REPORTED DATE : 06/11/2023

## STACK DESCRIPTION

Height :	24.00	m	Type of Process :	Exhaust
Diameter :	0.25	m	Type of Fuel :	-
Temperature :	38.00	°C	Oxygen Content :	20.90 %
Air Velocity :	5.40	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>2</sup> :	0.25	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Potassium Hydroxide <sup>3</sup>	Acid-Base Titration	09:25-09:55	< 0.100	2	mg/m <sup>3</sup>
(KOH)			< 0.0001	0.0043	g/s

## REMARK:

1.<sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบต่อสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25582.<sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis3.<sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Metee Sukprasert

Analysed By The Environmental Center Rajabhat Suan Dusit University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0211

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut, A. Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Passivation & Resin Combine Stack MCL 2 (S9)

SAMPLING DATE : 20/10/2023 SAMPLE NO. : 05334

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:10-10:15

TESTED DATE : 25/10/2023 – 09/11/2023 REPORTED DATE : 23/11/2023

STACK DESCRIPTION<sup>®</sup>

Height :	39.30	m	Type of Process :	Combustion
Diameter :	1.00	m	Type of Fuel :	Natural Gas
Temperature :	123.00	°C	Oxygen Content :	20.29 %
Air Velocity :	8.82	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	5.02	m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	3.12	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	10:10-10:15	< 2.0	376, 25 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		< 1.0	200, 13 <sup>2</sup>	ppm
			< 0.0100 <sup>®</sup>	0.16 <sup>2</sup>	g/s

## REMARK:

- 1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- 2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- 3.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
4. Sampling By Mr. Metee Sukprasert (ว-003-ค-0035)
- 5.<sup>®</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

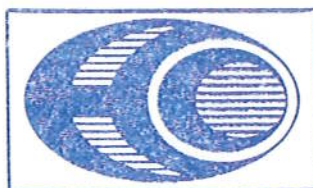
Examined By



(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

23/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

23/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0210

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Passivation & Resin Combine Stack MCL 2 (S9)  
 SAMPLING DATE : 20/10/2023 SAMPLE NO. : 05333  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:00-10:35  
 TESTED DATE : 25/10/2023 – 10/11/2023 REPORTED DATE : 23/11/2023

## STACK DESCRIPTION

Height :	39.30	m	Type of Process :	Combustion
Diameter :	1.00	m	Type of Fuel :	Natural Gas
Temperature :	123.00	°C	Oxygen Content :	20.29 %
Air Velocity :	8.82	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>2</sup> :	5.02	m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	3.12	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Chromic Acid <sup>3</sup>	Spectrophotometer	10:00-10:35	0.0022	0.01	mg/m <sup>3</sup>
			0.00001	0.00007	g/s

**REMARK:**

- 1.<sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- 2.<sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- 3.<sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Teerapong Naulin

Analysed By The Office of Public Health and Environmental Technology Services, Faculty of Public Health, Mahidol University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

23/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1235

Report No. 6701-0111

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Passivation & Resin Combine Stack MCL 2 (S9)  
SAMPLING DATE : 25/12/2023  
RECEIVED DATE : 27/12/2023  
TESTED DATE : 27/12/2023 – 08/01/2024

SAMPLE NO. : 06231  
SAMPLING TIME : 10:55-11:20  
REPORTED DATE : 08/01/2024

## STACK DESCRIPTION

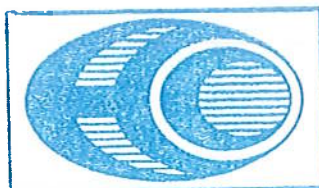
Height :	39.30	m	Type of Process :	Combustion
Diameter :	1.00	m	Type of Fuel :	Natural Gas
Temperature :	114.00	°C	Oxygen Content :	20.52 %
Air Velocity :	8.72	m/s	Barometric Pressure :	760.00 mmHg
Dry Basic Flow rate <sup>1/2</sup> :	5.17	m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>1/2</sup>	STD <sup>1/1</sup>	UNIT
Phosphoric Acid <sup>1/3</sup>	Ion Chromatrography	10:55-11:20	<0.010	0.01	mg/m <sup>3</sup>
(H <sub>3</sub> PO <sub>4</sub> )			<0.002	0.002	ppm
			<0.00005	0.00007	g/s

## REMARK:

- <sup>1/1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>1/2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>1/3</sup> Sampling By Eastern Thai Consuting 1992 Co., Ltd., Sampling By Mr. Metee Sukprasert

Analysed By The Office of Public Health and Environmental Technology Services, Faculty of Public Health, Mahidol University.



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Examined By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

08/01/2024

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

COPY

Request No. LA66-1050

Report No. 6611-0135

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Passivation Stack MCL 1 (S5)  
 SAMPLING DATE : 16/10/2023  
 RECEIVED DATE : 25/10/2023  
 TESTED DATE : 25-31/10/2023  
 STACK DESCRIPTION @

Height :	30.00	m	Type of Process :	Combustion
Diameter :	0.40	m	Type of Fuel :	Natural Gas
Temperature :	360.00	°C	Oxygen Content :	17.49 %
Air Velocity :	16.09	m/s	Barometric Pressure :	759.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	0.90	m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	5.71	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	10:00-10:05	13.0	376 , 25 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		6.9	200 , 13 <sup>2</sup>	ppm
			0.0117 <sup>@</sup>	0.05 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Teerapong Naulin(ว-003-ค-0014)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

06/11/2023

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

COPY

Request No. LA66-1050

Report No. 6611-0134

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut, A. Muang, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Passivation Stack MCL 1 (S5)  
SAMPLING DATE : 16/10/2023 SAMPLE NO. : 05257  
RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:40-10:15  
TESTED DATE : 25/10/2023 – 10/11/2023 REPORTED DATE : 17/11/2023

## STACK DESCRIPTION

Height :	30.00	m	Type of Process :	Combustion
Diameter :	0.40	m	Type of Fuel :	Natural Gas
Temperature :	360.00	°C	Oxygen Content :	17.49 %
Air Velocity :	16.09	m/s	Barometric Pressure :	759.25 mmHg
Dry Basic Flow rate <sup>2</sup> :	0.90	m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	5.71	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Chromic Acid <sup>3</sup>	Spectrophotometer	09:40-10:15	0.0042	0.01	mg/m <sup>3</sup>
			<0.00001	0.00002	g/s

**REMARK:**

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Teerapong Naulin

Analysed By The Office of Public Health and Environmental Technology Services, Faculty of Public Health, Mahidol University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

17/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0213

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Passivation Stack MCL 2 (S10)  
SAMPLING DATE : 20/10/2023  
RECEIVED DATE : 25/10/2023  
TESTED DATE : 25/10/2023 – 03/11/2023  
STACK DESCRIPTION<sup>@</sup>

Height :	31.00	m	Type of Process :	Combustion
Diameter :	0.55	m	Type of Fuel :	Natural Gas
Temperature :	64.00	°C	Oxygen Content :	20.90 %
Air Velocity :	9.73	m/s	Barometric Pressure :	756.25 mmHg
Dry Basic Flow rate <sup>3</sup> :	1.97	m <sup>3</sup> /s	Atmospheric Temperature :	34.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	09:40-09:45	< 2.0	376 , 7 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		< 1.0	200 , 3 <sup>2</sup>	ppm
			< 0.0039 <sup>@</sup>	0.02 <sup>2</sup>	g/s

**REMARK:**

- <sup>1/</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2/</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3/</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (จ-003-ค-0035)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

06/11/2023



บริษัท อีทีซีไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ค-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0171

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Furnace Stack MCL 3 (S16)  
SAMPLING DATE : 18/10/2023 SAMPLE NO. : 05294  
RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:10-09:15  
TESTED DATE : 25/10/2023 – 03/11/2023 REPORTED DATE : 07/11/2023

## STACK DESCRIPTION @

Height :	50.00 m	Type of Process :	Combustion
Diameter :	1.40 m	Type of Fuel :	Natural Gas
Temperature :	172.00 °C	Oxygen Content :	11.40 %
Air Velocity :	4.01 m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>3</sup> :	3.94 m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	4.52 %		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			11.40 % O <sub>2</sub>	7 % O <sub>2</sub>		
Oxides of Nitrogen (NO <sub>x</sub> as NO <sub>2</sub> )	Absorption, Phenoldisulfonic	09:10-09:15	31.8	46.5	376 , 160 <sup>2</sup>	mg/m <sup>3</sup>
	Acid (U.S. EPA Method 7)		16.9	24.7	200 , 85 <sup>2</sup>	ppm
			0.1253 <sup>4</sup>	-	0.422 <sup>2</sup>	g/s

## REMARK:

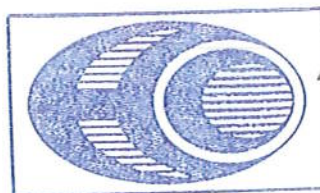
- <sup>1/</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2/</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบต่อสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3/</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayasewee (ว-003-ก-0021)
- <sup>4/</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0172

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut, A. Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 3 (S16)

SAMPLING DATE : 18/10/2023

SAMPLE NO. : 05295

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:20-09:30

TESTED DATE : 25/10/2023 – 04/11/2023

REPORTED DATE : 07/11/2023

STACK DESCRIPTION<sup>@</sup>

Height :	50.00	m	Type of Process :	Combustion
Diameter :	1.40	m	Type of Fuel :	Natural Gas
Temperature :	172.00	°C	Oxygen Content :	11.40 %
Air Velocity :	4.01	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>1/3</sup> :	3.94	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	4.52	%		

PARAMETER*	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			11.40 % O <sub>2</sub>	7 % O <sub>2</sub>		
Carbon Monoxide	Non-Dispersive Infrared	09:20-09:30	29.0	42.4	790 , 350 <sup>2</sup>	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		25.3	37.0	690 , 306 <sup>2</sup>	ppm
			0.1143 <sup>@</sup>	-	0.924 <sup>2</sup>	g/s

## REMARK:

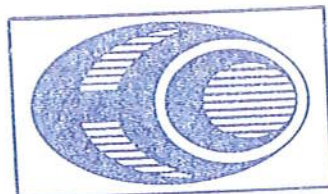
- <sup>1/</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2/</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3/</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayasewee (ว-003-ก-0021)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ก-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

(ว-003-ก-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1051

Report No. 6611-0170

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Furnace Stack MCL 3 (S16)

SAMPLING DATE : 18/10/2023 SAMPLE NO. : 05293

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:00-09:45

TESTED DATE : 25-30/10/2023 REPORTED DATE : 07/11/2023

## STACK DESCRIPTION @

Height :	50.00	m	Type of Process :	Combustion
Diameter :	1.40	m	Type of Fuel :	Natural Gas
Temperature :	172.00	°C	Oxygen Content :	11.40 %
Air Velocity :	4.01	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>3</sup> :	3.94	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	4.52	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>		STD <sup>1</sup>	UNIT
			11.40 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Suspended Particulate (TSP)	Isokinetic, Gravimetric (U.S. EPA Method 5)	09:00-09:45	1.2	1.8	240 , 30 <sup>2</sup>	mg/m <sup>3</sup>
			0.0047 <sup>@</sup>	-	0.079 <sup>2</sup>	g/s

**REMARK:**

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environr ental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Warakorn Vitayaseewee (ว-003-ค-0021)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

07/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0193

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Oven Stack MCL 3 (S17)

SAMPLING DATE : 18/10/2023 SAMPLE NO. : 05316

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:45-09:50

TESTED DATE : 25/10/2023 – 02/11/2023 REPORTED DATE : 06/11/2023

STACK DESCRIPTION<sup>@</sup>

Height :	52.50	m	Type of Process :	Combustion
Diameter :	0.60	m	Type of Fuel :	Natural Gas
Temperature :	81.00	°C	Oxygen Content :	18.67 %
Air Velocity :	2.91	m/s	Barometric Pressure :	757.00 mmHg
Dry Basic Flow rate <sup>3</sup> :	0.66	m <sup>3</sup> /s	Atmospheric Temperature :	30.00 °C
Moisture Content :	3.90	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	09:45-09:50	11.1	376 , 45 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		5.9	200 , 23 <sup>2</sup>	ppm
			0.0073 <sup>@</sup>	0.023 <sup>2</sup>	g/s

## REMARK:

- 1.<sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- 2.<sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- 3.<sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
4. Sampling By Mr. Metee Sukprasert (จ-003-ก-0035)
- 5.<sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITH OUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0194

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakomsongkhroard Rd., T. Maptaphut, A. Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Oven Stack MCL 3 (S17)

SAMPLING DATE : 18/10/2023

SAMPLE NO. : 05317

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:40-09:50

TESTED DATE : 25/10/2023 – 04/11/2023

REPORTED DATE : 06/11/2023

STACK DESCRIPTION<sup>@</sup>

Height :	52.50	m	Type of Process :	Combustion
Diameter :	0.60	m	Type of Fuel :	Natural Gas
Temperature :	81.00	°C	Oxygen Content :	18.67 %
Air Velocity :	2.91	m/s	Barometric Pressure :	757.00 mmHg
Dry Basic Flow rate <sup>3</sup> :	0.66	m <sup>3</sup> /s	Atmospheric Temperature :	30.00 °C
Moisture Content :	3.90	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Carbon Monoxide	Non-Dispersive Infrared	09:40-09:50	2.6	790 , 350 <sup>2</sup>	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		2.3	690 , 305 <sup>2</sup>	ppm
			0.0017 <sup>@</sup>	0.175 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (ว-003-ค-0035)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0192

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Oven Stack MCL 3 (S17)

SAMPLING DATE : 18/10/2023

SAMPLE NO. : 05315

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 09:30-10:20

TESTED DATE : 25/10/2023 – 10/11/2023

REPORTED DATE : 23/11/2023

## STACK DESCRIPTION

Height : 52.50 m

Type of Process : Combustion

Diameter : 0.60 m

Type of Fuel : Natural Gas

Temperature : 81.00 °C

Oxygen Content : 18.67 %

Air Velocity : 2.91 m/s

Barometric Pressure : 757.00 mmHg

Dry Basic Flow rate<sup>2</sup> : 0.66 m<sup>3</sup>/s

Atmospheric Temperature : 30.00 °C

Moisture Content : 3.90 %

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Chromic Acid <sup>3</sup>	Spectrophotometric Method	09:30-10:20	0.0020	0.01	mg/m <sup>3</sup>
			0.000001	0.000005	g/s

**REMARK:**1.<sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบต่อสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25582.<sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis3.<sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Metee Sukprasert

Analysed By The Office of Public Health and Environmental Technology Services, Faculty of Public Health, Mahidol University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Mr. Thongchai Boonsak)

23/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-1052

Report No. 6611-0200

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Painting stack MCL 3 (S18)

SAMPLING DATE : 18/10/2023 SAMPLE NO. : 05323

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:10-10:15

TESTED DATE : 25/10/2023 – 03/11/2023 REPORTED DATE : 06/11/2023

STACK DESCRIPTION<sup>@</sup>

Height :	52.50	m	Type of Process :	Combustion
Diameter :	1.80	m	Type of Fuel :	Natural Gas
Temperature :	38.00	°C	Oxygen Content :	20.90 %
Air Velocity :	3.59	m/s	Barometric Pressure :	757.00 mmHg
Dry Basic Flow rate <sup>3</sup> :	8.49	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Oxides of Nitrogen	Absorption, Phenoldisulfonic	10:10-10:15	3.7	376 , 20 <sup>2</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		2.0	200 , 10 <sup>2</sup>	ppm
			0.0314 <sup>@</sup>	0.20 <sup>2</sup>	g/s

## REMARK:

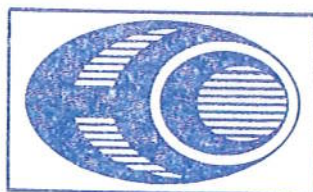
- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (ว-003-ค-0035)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0201

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhroard Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Painting stack MCL 3 (S18)

SAMPLING DATE : 18/10/2023

SAMPLE NO. : 05324

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 10:20-10:30

TESTED DATE : 25/10/2023 – 04/11/2023

REPORTED DATE : 06/11/2023

## STACK DESCRIPTION @

Height :	52.50	m	Type of Process :	Combustion
Diameter :	1.80	m	Type of Fuel :	Natural Gas
Temperature :	38.00	°C	Oxygen Content :	20.90 %
Air Velocity :	3.59	m/s	Barometric Pressure :	757.00 mmHg
Dry Basic Flow rate <sup>3</sup> :	8.49	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>3</sup>	STD <sup>1</sup>	UNIT
Carbon Monoxide	Non-Dispersive Infrared	10:20-10:30	8.7	790 , 350 <sup>2</sup>	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		7.6	690 , 305 <sup>2</sup>	ppm
			0.0739 <sup>@</sup>	3.00 <sup>2</sup>	g/s

## REMARK:

- <sup>1</sup> Notification Of Ministry Of Science, Technology And Environmental B.E.2544 (2001)
- <sup>2</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>3</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert (จ-003-ค-0035)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ค-0012)

06/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-1052

Report No. 6611-0199

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakomsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Painting stack MCL 3 (S18)  
 SAMPLING DATE : 18/10/2023 SAMPLE NO. : 05322  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 10:00-10:25  
 TESTED DATE : 25-30/10/2023 REPORTED DATE : 06/11/2023  
 STACK DESCRIPTION

Height :	52.50	m	Type of Process :	Combustion
Diameter :	1.80	m	Type of Fuel :	Natural Gas
Temperature :	38.00	°C	Oxygen Content :	20.90 %
Air Velocity :	3.59	m/s	Barometric Pressure :	757.00 mmHg
Dry Basic Flow rate <sup>2</sup> :	8.49	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Toluene	Adsorption, Gas Chromatography	10:00-10:25	<2.07	5.0	mg/m <sup>3</sup>
	(U.S. EPA Method 18)		<0.55	1.3	ppm
			<0.0176	0.05	g/s

**REMARK:**

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Metee Sukprasert
- Parameter Outside The Scope of The Registration of The Department of Industrial Works.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

Thongchai Boonsak

(Mr. Thongchai Boonsak)

11/10/2023

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

COPY

Request No. LA66-1052

Report No. 6611-0198

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Painting stack MCL 3 (S18)

SAMPLING DATE : 18/10/2023

SAMPLE NO. : 05321

RECEIVED DATE : 25/10/2023

SAMPLING TIME : 10:00-10:25

TESTED DATE : 25-30/10/2023

REPORTED DATE : 06/11/2023

STACK DESCRIPTION<sup>6</sup>

Height :	52.50	m	Type of Process :	Combustion
Diameter :	1.80	m	Type of Fuel :	Natural Gas
Temperature :	38.00	°C	Oxygen Content :	20.90 %
Air Velocity :	3.59	m/s	Barometric Pressure :	757.00 mmHg
Dry Basic Flow rate <sup>2</sup> :	8.49	m <sup>3</sup> /s	Atmospheric Temperature :	31.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Xylene	Adsorption, Gas Chromatographic	10:00-10:25	<2.05	70	mg/m <sup>3</sup>
	(U.S. EPA Method 18)		<0.47	16	ppm
			<0.0174 <sup>6</sup>	0.70	g/s

## REMARK:

- <sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 2558
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- Sampling By Mr. Mete : Sukprasert (จ-003-ก-0035)
- <sup>6</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.

Examined By.....

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

06/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(จ-003-ก-0012)

06/11/2023

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

COPY

Request No. LA66-1051

Report No. 6611-0168

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : No.2 Soil G 9 Prakornsongkhorad Rd., T. Maptaphut , A. Muang , Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Cleaning Fume Exhaust Scrubber Stack MCL 3 (S15)  
 SAMPLING DATE : 18/10/2023 SAMPLE NO. : 05291  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 11:00-11:30  
 TESTED DATE : 25/10/2023 – 06/11/2023 REPORTED DATE : 07/11/2023

## STACK DESCRIPTION

Height :	20.00	m	Type of Process :	Exhaust
Diameter :	0.75	m	Type of Fuel :	-
Temperature :	46.00	°C	Oxygen Content :	20.90 %
Air Velocity :	11.32	m/s	Barometric Pressure :	758.50 mmHg
Dry Basic Flow rate <sup>2</sup> :	4.51	m <sup>3</sup> /s	Atmospheric Temperature :	33.00 °C
Moisture Content :	-	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Sodium Hydroxide <sup>3</sup> (NaOH)	Acid-Base Titration	11:00-11:30	< 0.100	10	mg/m <sup>3</sup>
			< 0.061	6	ppm
			< 0.0005	0.065	g/s

REMARK:1.<sup>1</sup> มาตรฐานที่กำหนดไว้ในรายงานการประเมินผลกระทบสิ่งแวดล้อมฉบับสมบูรณ์ ฉบับเดือน กันยายน 25582.<sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis3.<sup>3</sup> Sampling By Eastern Thai Consulting 1992 Co., Ltd. Sampling By Mr. Warakorn Vitayasewee

Analysed By The Environmental Center Rajabhat Suan Dusit University.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By...

Thongchai Boonsak

(Mr. Thongchai Boonsak)

07/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R1065

Report No. R6610-1990 – R6610-1996

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : ชุมชนนาบขลุค

RECEIVED DATE : 21/10/2023

SAMPLE NO. : 31226-31232

DETERMINATION METHOD : Non-Dispersive Infrared

REPORTED DATE : 28/10/2023

INSTRUMENT : API Model M300E S/N 3028

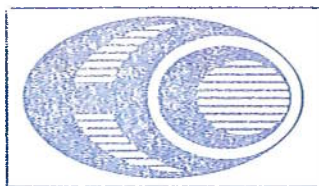
PARAMETER*	SAMPLING DATE	TIME	RESULT	STANDARD <sup>/1</sup>	UNIT
Carbon monoxide (CO)	14/10/2023	09:00-17:00	1.79	9.0	ppm
	15/10/2023	09:00-17:00	1.03	9.0	ppm
	16/10/2023	09:00-17:00	0.94	9.0	ppm
	17/10/2023	09:00-17:00	0.89	9.0	ppm
	18/10/2023	09:00-17:00	0.87	9.0	ppm
	19/10/2023	09:00-17:00	0.86	9.0	ppm
	20/10/2023	09:00-17:00	0.85	9.0	ppm

**REMARK :** <sup>/1</sup> Notification of Office of The National Environmental Board Volume 10 B.E. 2538 (1995)

Standard for 8-hr Average

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Measurement By Mr. Tummarut Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

28/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6610073

Report No. 6610-1098 - 6610-1104

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : วัดมาบขลุ่ย  
RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101098 - A66101104  
TESTED DATE : 30/10/2023-02/11/2023 REPORTED DATE : 09/11/2023

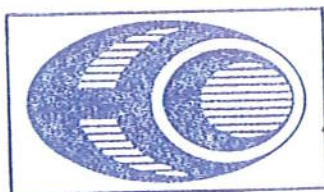
PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD <sup>1</sup>	UNIT
Total Suspended Particulate (TSP)	Gravimetric Method	14-15/10/2023	0.054	0.33	mg/m <sup>3</sup>
		15-16/10/2023	0.028	0.33	mg/m <sup>3</sup>
		16-17/10/2023	0.051	0.33	mg/m <sup>3</sup>
		17-18/10/2023	0.054	0.33	mg/m <sup>3</sup>
		18-19/10/2023	0.046	0.33	mg/m <sup>3</sup>
		19-20/10/2023	0.050	0.33	mg/m <sup>3</sup>
		20-21/10/2023	0.039	0.33	mg/m <sup>3</sup>

## REMARK:


<sup>1</sup> Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(Miss Thanatporn Klinsoon)

09/11/2023

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

COPY

Request No. ATR6610073

Report No. 6610-1105 - 6610-1111

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : วัสดุบางชนิด  
 RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101105 - A66101111  
 TESTED DATE : 30/10/2023-08/11/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	UNIT
Zinc (Zn)	Filtration, ICP-OES Method	14-15/10/2023	< 0.01	mg/m <sup>3</sup>
		15-16/10/2023	< 0.01	mg/m <sup>3</sup>
		16-17/10/2023	< 0.01	mg/m <sup>3</sup>
		17-18/10/2023	< 0.01	mg/m <sup>3</sup>
		18-19/10/2023	< 0.01	mg/m <sup>3</sup>
		19-20/10/2023	< 0.01	mg/m <sup>3</sup>
		20-21/10/2023	< 0.01	mg/m <sup>3</sup>

## REMARK:

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
 (Sampling By Mr. Tummarat Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Miss Thanatporn Klinsoapon)

09/11/2023

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

COPY

Request No. ATR6610073

Report No. 6610-1112 - 6610-1118

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakomsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : วัคซีนบาดูค  
 RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101112 - A66101118  
 TESTED DATE : 30/10/2023-08/11/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	UNIT
Aluminium (Al)	Filtration, ICP-OES	14-15/10/2023	< 0.01	mg/m <sup>3</sup>
	/NIOSH 7300	15-16/10/2023	< 0.01	mg/m <sup>3</sup>
		16-17/10/2023	< 0.01	mg/m <sup>3</sup>
		17-18/10/2023	< 0.01	mg/m <sup>3</sup>
		18-19/10/2023	< 0.01	mg/m <sup>3</sup>
		19-20/10/2023	< 0.01	mg/m <sup>3</sup>
		20-21/10/2023	< 0.01	mg/m <sup>3</sup>

## REMARK:

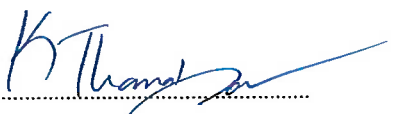
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Miss Thanatporn Klinsohon)

09/11/2023

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

COPY

Request No. ATR6610073

Report No. 6610-1119 - 6610-1125

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakomsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : วัดมาบชูด  
 RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101119 - A66101125  
 TESTED DATE : 30/10/2023-31/10/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	14-15/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		15-16/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		16-17/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		17-18/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		18-19/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		19-20/10/2023	0.047	mg/m <sup>3</sup>
			0.032	ppm
		20-21/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm

## REMARK:

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Miss Thanatporn Klinsoon)

09/11/2023

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

COPY

Request No. LA66-R1065

Report No. R6610-1976 – R6610-1982

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : ชุมชนหนองแฟบ

RECEIVED DATE : 21/10/2023 SAMPLE NO. : 31212-31218

DETERMINATION METHOD : Non-Dispersive Infrared REPORTED DATE : 28/10/2023

INSTRUMENT : API Model T300 S/N 5401

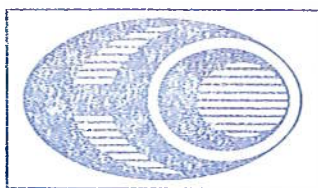
PARAMETER*	SAMPLING DATE	TIME	RESULT	STANDARD <sup>/1</sup>	UNIT
Carbon monoxide (CO)	14/10/2023	10:00-18:00	0.58	9.0	ppm
	15/10/2023	10:00-18:00	0.38	9.0	ppm
	16/10/2023	10:00-18:00	0.39	9.0	ppm
	17/10/2023	10:00-18:00	0.33	9.0	ppm
	18/10/2023	10:00-18:00	0.30	9.0	ppm
	19/10/2023	10:00-18:00	0.30	9.0	ppm
	20/10/2023	10:00-18:00	0.27	9.0	ppm

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 10 B.E. 2538 (1995)

Standard for 8-hr Average

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Measurement By Mr. Tummarut Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  


(MS. THANATPORN KLINSOPON)

28/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6610073

Report No. 6610-1126 - 6610-1132

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : วัดหนองแฟบ  
 RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101126 - A66101132  
 TESTED DATE : 30/10/2023-02/11/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD <sup>1</sup>	UNIT
Total Suspended Particulate (TSP)	Gravimetric Method	14-15/10/2023	0.040	0.33	mg/m <sup>3</sup>
		15-16/10/2023	0.032	0.33	mg/m <sup>3</sup>
		16-17/10/2023	0.044	0.33	mg/m <sup>3</sup>
		17-18/10/2023	0.029	0.33	mg/m <sup>3</sup>
		18-19/10/2023	0.037	0.33	mg/m <sup>3</sup>
		19-20/10/2023	0.048	0.33	mg/m <sup>3</sup>
		20-21/10/2023	0.038	0.33	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummara Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Miss Thanatporn Klinsoyon)

09/11/2023

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

COPY

Request No. ATR6610073

Report No. 6610-1133 - 6610-1139

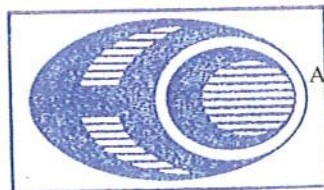
## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : วัดหนองแฟบ  
RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101133 - A66101139  
TESTED DATE : 30/10/2023-08/11/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	UNIT
Zinc (Zn)	Filtration, ICP-OES Method	14-15/10/2023	< 0.01	mg/m <sup>3</sup>
		15-16/10/2023	< 0.01	mg/m <sup>3</sup>
		16-17/10/2023	< 0.01	mg/m <sup>3</sup>
		17-18/10/2023	< 0.01	mg/m <sup>3</sup>
		18-19/10/2023	< 0.01	mg/m <sup>3</sup>
		19-20/10/2023	< 0.01	mg/m <sup>3</sup>
		20-21/10/2023	< 0.01	mg/m <sup>3</sup>

## REMARK:

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Sampling By Mr. Tummarat Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Miss Thanatporn Klinsopon)

09/11/2023

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

COPY

Request No. ATR6610073

Report No. 6610-1140 - 6610-1146

## TEST REPORT

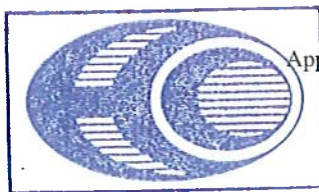
CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakomsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : วัดหนองแฟบ  
 RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101140 - A66101146  
 TESTED DATE : 30/10/2023-08/11/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	UNIT
Aluminium (Al)	Filtration, ICP-OES	14-15/10/2023	< 0.01	mg/m <sup>3</sup>
	/NIOSH 7300	15-16/10/2023	< 0.01	mg/m <sup>3</sup>
		16-17/10/2023	< 0.01	mg/m <sup>3</sup>
		17-18/10/2023	< 0.01	mg/m <sup>3</sup>
		18-19/10/2023	< 0.01	mg/m <sup>3</sup>
		19-20/10/2023	< 0.01	mg/m <sup>3</sup>
		20-21/10/2023	< 0.01	mg/m <sup>3</sup>

## REMARK:

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)



Approved By .....

(Miss Thanatporn Klinsoon)

09/11/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
 REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6610073

Report No. 6610-1147 - 6610-1153

## TEST REPORT

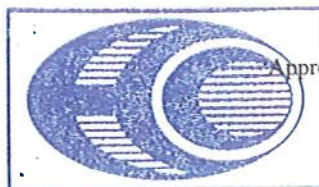
CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : วัดหนองแพบ  
RECEIVED DATE : 30/10/2023 SAMPLE NO. : A66101147 - A66101153  
TESTED DATE : 30/10/2023-31/10/2023 REPORTED DATE : 09/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	14-15/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		15-16/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		16-17/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		17-18/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		18-19/10/2023	0.057	mg/m <sup>3</sup>
			0.038	ppm
		19-20/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm
		20-21/10/2023	< 0.015	mg/m <sup>3</sup>
			< 0.010	ppm

## REMARK:

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.

(Sampling By Mr. Tummarat Photankhum)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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

Approved By .....

(Miss Thanatporn Klinsoapon)

09/11/2023

COPY

Request No. LA66-R1065

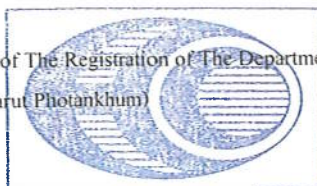
Report No. R6610-1997 - R6610-2003

## TEST REPORT

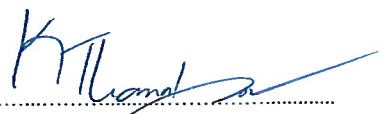
CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : ชุมชนนาบขลุ่ย  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model M200E S/N 3999

SAMPLE NO. : 31233-31239  
 SAMPLING DATE : 14-21/10/2023  
 RECEIVED DATE : 21/10/2023  
 REPORTED DATE : 28/10/2023

TIME / DATE	14-15/10/2023	15-16/10/2023	16-17/10/2023	UNIT
09:00 - 10:00 <sup>12</sup>	0.007	0.011	0.012	ppm
10:00 - 11:00	0.016	0.007	0.009	ppm
11:00 - 12:00	0.012	0.004	0.006	ppm
12:00 - 13:00	0.008	0.003	0.006	ppm
13:00 - 14:00	0.006	0.003	0.006	ppm
14:00 - 15:00	0.007	0.003	0.009	ppm
15:00 - 16:00	0.008	0.007	0.009	ppm
16:00 - 17:00	0.008	0.007	0.007	ppm
17:00 - 18:00	0.014	0.006	0.006	ppm
18:00 - 19:00	0.012	0.007	0.016	ppm
19:00 - 20:00	0.013	0.008	0.018	ppm
20:00 - 21:00	0.013	0.008	0.024	ppm
21:00 - 22:00	0.015	0.008	0.022	ppm
22:00 - 23:00	0.015	0.007	0.021	ppm
23:00 - 00:00	0.012	0.005	0.014	ppm
00:00 - 01:00	0.009	0.005	0.016	ppm
01:00 - 02:00	0.007	0.008	0.017	ppm
02:00 - 03:00	0.005	0.009	0.015	ppm
03:00 - 04:00	0.004	0.009	0.013	ppm
04:00 - 05:00	0.005	0.010	0.012	ppm
05:00 - 06:00	0.004	0.008	0.011	ppm
06:00 - 07:00	0.005	0.010	0.011	ppm
07:00 - 08:00	0.006	0.011	0.011	ppm
08:00 - 09:00	0.011	0.011	0.012	ppm
Maximum 1 hr.	0.016	0.011	0.024	ppm
Average 24 hr.	0.009	0.007	0.012	ppm
Standard (1 hr.) <sup>11</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>11</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>12</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By: 

(MS. THANATPORN KLINSOPON)

28/10/2023

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

COPY

Request No. LA66-R1065

Report No. R6610-1997 - R6610-2003

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : ชุมชนมาบขุด SAMPLE NO. : 31233-31239  
PARAMETER\* : Nitrogen Dioxide SAMPLING DATE : 14-21/10/2023  
DETERMINATION METHOD : Chemiluminescence RECEIVED DATE : 21/10/2023  
INSTRUMENT : API Model M200E S/N 3999 REPORTED DATE : 28/10/2023

TIME / DATE	17-18/10/2023	18-19/10/2023	19-20/10/2023	UNIT
09:00 - 10:00 <sup>2</sup>	0.012	0.010	0.016	ppm
10:00 - 11:00	0.013	0.011	0.011	ppm
11:00 - 12:00	0.009	0.013	0.015	ppm
12:00 - 13:00	0.009	0.008	0.007	ppm
13:00 - 14:00	0.006	0.014	0.006	ppm
14:00 - 15:00	0.007	0.014	0.006	ppm
15:00 - 16:00	0.011	0.013	0.012	ppm
16:00 - 17:00	0.009	0.014	0.009	ppm
17:00 - 18:00	0.010	0.019	0.007	ppm
18:00 - 19:00	0.006	0.024	0.012	ppm
19:00 - 20:00	0.005	0.026	0.023	ppm
20:00 - 21:00	0.009	0.023	0.029	ppm
21:00 - 22:00	0.015	0.023	0.026	ppm
22:00 - 23:00	0.012	0.019	0.021	ppm
23:00 - 00:00	0.011	0.017	0.017	ppm
00:00 - 01:00	0.008	0.015	0.014	ppm
01:00 - 02:00	0.009	0.012	0.012	ppm
02:00 - 03:00	0.009	0.009	0.010	ppm
03:00 - 04:00	0.012	0.007	0.007	ppm
04:00 - 05:00	0.008	0.006	0.007	ppm
05:00 - 06:00	0.008	0.012	0.007	ppm
06:00 - 07:00	0.009	0.014	0.011	ppm
07:00 - 08:00	0.008	0.017	0.013	ppm
08:00 - 09:00	0.008	0.019	0.018	ppm
Maximum 1 hr.	0.015	0.026	0.029	ppm
Average 24 hr.	0.009	0.015	0.013	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

28/10/2023

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

COPY

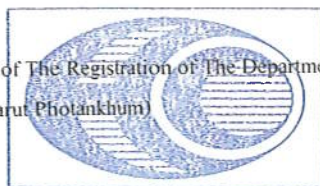
Request No. LA66-R1065

Report No. R6610-1997 - R6610-2003

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : ชุมชนมาบขุด SAMPLE NO. : 31233-31239  
PARAMETER\* : Nitrogen Dioxide SAMPLING DATE : 14-21/10/2023  
DETERMINATION METHOD : Chemiluminescence RECEIVED DATE : 21/10/2023  
INSTRUMENT : API Model M200E S/N 3999 REPORTED DATE : 28/10/2023

TIME / DATE	20-21/10/2023	UNIT
09:00 - 10:00 <sup>2</sup>	0.011	ppm
10:00 - 11:00	0.007	ppm
11:00 - 12:00	0.007	ppm
12:00 - 13:00	0.005	ppm
13:00 - 14:00	0.005	ppm
14:00 - 15:00	0.005	ppm
15:00 - 16:00	0.007	ppm
16:00 - 17:00	0.005	ppm
17:00 - 18:00	0.010	ppm
18:00 - 19:00	0.010	ppm
19:00 - 20:00	0.018	ppm
20:00 - 21:00	0.015	ppm
21:00 - 22:00	0.018	ppm
22:00 - 23:00	0.022	ppm
23:00 - 00:00	0.019	ppm
00:00 - 01:00	0.015	ppm
01:00 - 02:00	0.012	ppm
02:00 - 03:00	0.013	ppm
03:00 - 04:00	0.014	ppm
04:00 - 05:00	0.014	ppm
05:00 - 06:00	0.009	ppm
06:00 - 07:00	0.007	ppm
07:00 - 08:00	0.007	ppm
08:00 - 09:00	0.011	ppm
Maximum 1 hr.	0.022	ppm
Average 24 hr.	0.011	ppm
Standard (1 hr.) <sup>1</sup>	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MS. THANATPORN KLINSOPON)

28/10/2023

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

COPY

Request No. LA66-R1065

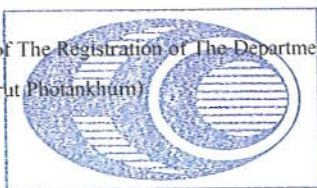
Report No. R6610-1983 - R6610-1989

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : ชุมชนหนองแฟบ  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 2005

SAMPLE NO. : 31219-31225  
 SAMPLING DATE : 14-21/10/2023  
 RECEIVED DATE : 21/10/2023  
 REPORTED DATE : 28/10/2023

TIME / DATE	14-15/10/2023	15-16/10/2023	16-17/10/2023	UNIT
10:00 - 11:00 <sup>2</sup>	0.008	0.006	0.008	ppm
11:00 - 12:00	0.008	0.006	0.007	ppm
12:00 - 13:00	0.008	0.007	0.007	ppm
13:00 - 14:00	0.008	0.006	0.007	ppm
14:00 - 15:00	0.008	0.006	0.006	ppm
15:00 - 16:00	0.008	0.006	0.005	ppm
16:00 - 17:00	0.008	0.006	0.005	ppm
17:00 - 18:00	0.009	0.007	0.015	ppm
18:00 - 19:00	0.009	0.008	0.013	ppm
19:00 - 20:00	0.009	0.006	0.023	ppm
20:00 - 21:00	0.009	0.005	0.019	ppm
21:00 - 22:00	0.008	0.005	0.016	ppm
22:00 - 23:00	0.008	0.004	0.016	ppm
23:00 - 00:00	0.008	0.004	0.014	ppm
00:00 - 01:00	0.009	0.005	0.013	ppm
01:00 - 02:00	0.007	0.006	0.011	ppm
02:00 - 03:00	0.006	0.007	0.010	ppm
03:00 - 04:00	0.006	0.006	0.011	ppm
04:00 - 05:00	0.006	0.008	0.009	ppm
05:00 - 06:00	0.007	0.005	0.010	ppm
06:00 - 07:00	0.006	0.005	0.010	ppm
07:00 - 08:00	0.008	0.006	0.014	ppm
08:00 - 09:00	0.010	0.009	0.009	ppm
09:00 - 10:00	0.008	0.008	0.008	ppm
Maximum 1 hr.	0.010	0.009	0.023	ppm
Average 24 hr.	0.008	0.006	0.011	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลต์ติ้ง 1992 จำกัด

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

Approved By.....

(MS. THANATPORN KLINSOPON)

28/10/2023

COPY

Request No. LA66-R1065

Report No. R6610-1983 - R6610-1989

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : ชุมชนหนองแฟบ  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 2005

SAMPLE NO. : 31219-31225  
 SAMPLING DATE : 14-21/10/2023  
 RECEIVED DATE : 21/10/2023  
 REPORTED DATE : 28/10/2023

TIME / DATE	17-18/10/2023	18-19/10/2023	19-20/10/2023	UNIT
10:00 - 11:00 <sup>2</sup>	0.010	0.004	0.010	ppm
11:00 - 12:00	0.013	0.004	0.005	ppm
12:00 - 13:00	0.008	0.007	0.006	ppm
13:00 - 14:00	0.007	0.016	0.006	ppm
14:00 - 15:00	0.005	0.008	0.006	ppm
15:00 - 16:00	0.006	0.005	0.004	ppm
16:00 - 17:00	0.007	0.009	0.004	ppm
17:00 - 18:00	0.008	0.021	0.009	ppm
18:00 - 19:00	0.007	0.021	0.011	ppm
19:00 - 20:00	0.007	0.026	0.010	ppm
20:00 - 21:00	0.009	0.015	0.019	ppm
21:00 - 22:00	0.006	0.010	0.019	ppm
22:00 - 23:00	0.005	0.007	0.017	ppm
23:00 - 00:00	0.004	0.003	0.018	ppm
00:00 - 01:00	0.005	0.004	0.014	ppm
01:00 - 02:00	0.003	0.005	0.010	ppm
02:00 - 03:00	0.003	0.004	0.008	ppm
03:00 - 04:00	0.007	0.003	0.009	ppm
04:00 - 05:00	0.007	0.003	0.009	ppm
05:00 - 06:00	0.005	0.006	0.011	ppm
06:00 - 07:00	0.004	0.010	0.012	ppm
07:00 - 08:00	0.008	0.013	0.016	ppm
08:00 - 09:00	0.007	0.011	0.014	ppm
09:00 - 10:00	0.005	0.009	0.007	ppm
Maximum 1 hr.	0.013	0.026	0.019	ppm
Average 24 hr.	0.006	0.009	0.011	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut(Photankhum))

บริษัท อีสเทิร์น ไทย คอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

28/10/2023

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

COPY

Request No. LA66-R1065

Report No. R6610-1983 - R6610-1989

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : ชุมชนหนองแฟบ  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model T200 S/N 2005

SAMPLE NO. : 31219-31225  
SAMPLING DATE : 14-21/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME / DATE	20-21/10/2023	UNIT
10:00 - 11:00 <sup>2</sup>	0.005	ppm
11:00 - 12:00	0.005	ppm
12:00 - 13:00	0.005	ppm
13:00 - 14:00	0.005	ppm
14:00 - 15:00	0.005	ppm
15:00 - 16:00	0.006	ppm
16:00 - 17:00	0.010	ppm
17:00 - 18:00	0.010	ppm
18:00 - 19:00	0.016	ppm
19:00 - 20:00	0.014	ppm
20:00 - 21:00	0.018	ppm
21:00 - 22:00	0.021	ppm
22:00 - 23:00	0.017	ppm
23:00 - 00:00	0.014	ppm
00:00 - 01:00	0.011	ppm
01:00 - 02:00	0.009	ppm
02:00 - 03:00	0.011	ppm
03:00 - 04:00	0.012	ppm
04:00 - 05:00	0.007	ppm
05:00 - 06:00	0.008	ppm
06:00 - 07:00	0.008	ppm
07:00 - 08:00	0.007	ppm
08:00 - 09:00	0.006	ppm
09:00 - 10:00	0.005	ppm
Maximum 1 hr.	0.021	ppm
Average 24 hr.	0.010	ppm
Standard (1 hr.) <sup>1</sup>	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MS. THANATPORN KLINSOPON)

28/10/2023

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

COPY

## Wind Speed &amp; Wind Direction

Request No. LA66-R1065

NS BlueScope (Thailand) Limited

Sample No. 31261

Sampling Source : ชุมชนนาบขูด

Sampling Date : October 14-21, 2023

Time	October 14-15, 2023		October 15-16, 2023		October 16-17, 2023		October 17-18, 2023		October 18-19, 2023		October 19-20, 2023		October 20-21, 2023	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
09:00-10:00	0.9	NNE	0.9	NNE	1.3	NE	1.3	NE	0.0	-	0.0	-	0.0	-
10:00-11:00	0.9	NNE	1.3	NNE	0.9	NE	0.9	NE	0.0	-	0.4	SW	0.9	NNE
11:00-12:00	0.9	NNE	0.9	NNE	0.4	NE	0.9	NE	0.9	SSE	0.4	NNE	0.4	NE
12:00-13:00	0.9	N	0.9	NE	0.4	W	0.9	NE	0.0	-	0.4	NNE	0.4	WSW
13:00-14:00	0.4	NNE	0.4	NE	0.4	WSW	0.4	NE	0.0	-	0.0	-	0.4	WSW
14:00-15:00	0.4	WSW	0.9	SW	0.4	WSW	0.4	SW	0.0	-	0.0	-	0.0	-
15:00-16:00	0.0	-	0.4	WSW	0.9	WSW	0.4	WSW	0.0	-	0.0	-	0.0	-
16:00-17:00	0.4	NE	0.0	-	0.9	NNE	0.4	WSW	0.0	-	0.0	-	0.9	NE
17:00-18:00	0.0	-	0.9	NE	0.0	-	0.4	WSW	0.0	-	0.0	-	0.4	NNE
18:00-19:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
19:00-20:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
20:00-21:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
21:00-22:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
22:00-23:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
23:00-00:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
00:00-01:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
01:00-02:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
02:00-03:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
03:00-04:00	0.0	-	0.4	NNE	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE
04:00-05:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE
05:00-06:00	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE	0.0	-	0.0	-
06:00-07:00	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE	0.0	-	0.0	-
07:00-08:00	0.0	-	0.0	-	0.4	NNE	0.0	-	0.9	NNE	0.0	-	0.0	-
08:00-09:00	0.9	NNE	0.4	NE	0.9	NE	0.0	-	0.4	NNE	0.0	-	0.0	-

## Wind Speed &amp; Wind Direction

Request No. LA66-R1065

NS BlueScope (Thailand) Limited

Sample No. 31262

Sampling Source : ฐานหนองแฟบ

Sampling Date : October 14-21, 2023

Time	October 14-15, 2023		October 15-16, 2023		October 16-17, 2023		October 17-18, 2023		October 18-19, 2023		October 19-20, 2023		October 20-21, 2023	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
10:00-11:00	0.4	E	0.9	E	0.4	S	0.9	S	0.4	S	0.4	S	1.3	ESE
11:00-12:00	0.4	E	0.9	NW	0.9	S	0.9	ESE	0.9	WNW	1.3	WNW	1.3	ESE
12:00-13:00	0.4	E	0.9	NW	1.3	N	0.9	S	1.3	WNW	1.8	WNW	1.3	ESE
13:00-14:00	0.4	E	1.3	NW	1.8	WNW	1.3	W	1.8	WNW	1.3	W	1.8	N
14:00-15:00	0.9	E	1.3	N	1.8	WNW	1.3	NW	1.8	WNW	1.8	WNW	2.2	ESE
15:00-16:00	0.9	E	1.3	N	1.3	WNW	1.8	WNW	1.3	WNW	1.8	WNW	0.4	SSW
16:00-17:00	0.9	E	1.3	N	1.3	WNW	1.3	WNW	0.9	W	1.3	WNW	0.0	-
17:00-18:00	0.4	E	0.9	WNW	0.9	WNW	1.3	WNW	0.4	S	0.9	W	0.0	-
18:00-19:00	0.0	-	0.4	W	0.4	W	0.4	WNW	0.4	S	0.4	S	0.0	-
19:00-20:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
20:00-21:00	0.4	SE	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
21:00-22:00	0.4	SSE	0.0	-	0.9	ESE	0.0	-	0.0	-	0.0	-	0.0	-
22:00-23:00	0.4	SSE	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
23:00-00:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
00:00-01:00	0.0	-	0.0	-	0.0	-	0.4	SSE	0.0	-	0.0	-	0.0	-
01:00-02:00	0.4	SSE	0.0	-	0.0	-	0.0	-	0.4	SSE	0.0	-	0.0	-
02:00-03:00	0.0	-	0.0	-	0.4	SE	0.0	-	0.0	-	0.0	-	0.0	-
03:00-04:00	0.0	-	0.0	-	0.4	SE	0.0	-	0.0	-	0.0	-	0.0	-
04:00-05:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.9	ESE
05:00-06:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	1.8	ESE
06:00-07:00	0.0	-	0.0	-	0.4	SSE	0.0	-	0.0	-	0.0	-	1.3	ESE
07:00-08:00	0.4	ESE	0.0	-	0.4	SE	0.4	SE	0.0	-	0.0	-	1.3	ESE
08:00-09:00	0.0	-	0.0	-	0.9	SSE	0.9	SSE	0.4	SSE	0.4	SE	3.1	ESE
09:00-10:00	0.4	SSE	0.4	SSE	1.3	SSE	0.9	S	0.4	SSW	0.9	ESE	4.0	ESE

## Wind Speed &amp; Wind Direction

Request No. LA66-R1065

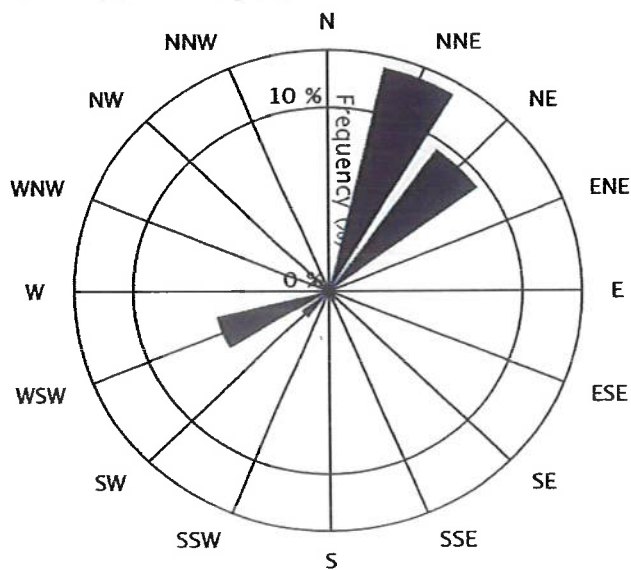
NS BlueScope (Thailand) Limited

Sample No. 31261

Sampling Source : ชุมชนมาบชดุด

Sampling Date : October 14-21, 2023

Calm 68.5 %



0.4-1.9
  2.0-3.9
  4.0-5.9
  6.0-7.9
  8.0-9.9
  > 9.9 (m/s)

WD/WS	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.4-1.9 m/s	2.0-3.9 m/s	4.0-5.9 m/s	6.0-7.9 m/s	8.0-9.9 m/s	> 9.9 m/s	
N	0.6	0.0	0.0	0.0	0.0	0.0	0.6
NNE	12.5	0.0	0.0	0.0	0.0	0.0	12.5
NE	9.5	0.0	0.0	0.0	0.0	0.0	9.5
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.6	0.0	0.0	0.0	0.0	0.0	0.6
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	1.8	0.0	0.0	0.0	0.0	0.0	1.8
WSW	6.0	0.0	0.0	0.0	0.0	0.0	6.0
W	0.6	0.0	0.0	0.0	0.0	0.0	0.6
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm	68.5						

## Wind Speed &amp; Wind Direction

Request No. LA66-R1065

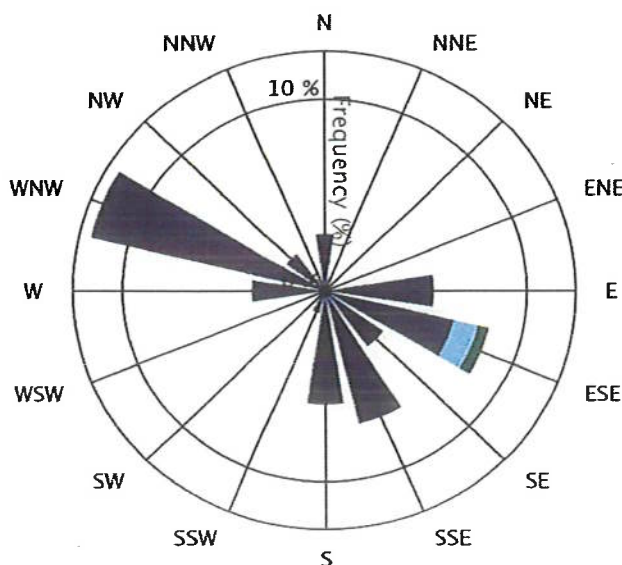
NS BlueScope (Thailand) Limited

Sample No. 31262

Sampling Source : ชุมชนหนองแฟบ

Sampling Date : October 14-21, 2023

Calm 47.6 %



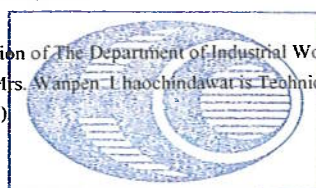
WD/WS	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.4-1.9 m/s	2.0-3.9 m/s	4.0-5.9 m/s	6.0-7.9 m/s	8.0-9.9 m/s	> 9.9 m/s	
N	3.0	0.0	0.0	0.0	0.0	0.0	3.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	5.4	0.0	0.0	0.0	0.0	0.0	5.4
ESE	6.6	1.2	0.6	0.0	0.0	0.0	8.4
SE	3.6	0.0	0.0	0.0	0.0	0.0	3.6
SSE	7.1	0.0	0.0	0.0	0.0	0.0	7.1
S	6.0	0.0	0.0	0.0	0.0	0.0	6.0
SSW	1.2	0.0	0.0	0.0	0.0	0.0	1.2
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	3.6	0.0	0.0	0.0	0.0	0.0	3.6
WNW	11.9	0.0	0.0	0.0	0.0	0.0	11.9
NW	2.4	0.0	0.0	0.0	0.0	0.0	2.4
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm	47.6						

**TEST REPORT**

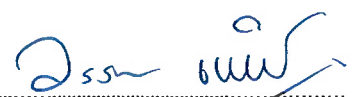
CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (N1)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2  
SAMPLE NO. : 31254  
MEASURING DATE : 14-15/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	14-15/10/2023 ( $L_{eq}$ )	14-15/10/2023 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	57.1	54.2	dB(A)
11:00 - 12:00	54.8	53.4	dB(A)
12:00 - 13:00	54.2	52.1	dB(A)
13:00 - 14:00	57.9	52.2	dB(A)
14:00 - 15:00	58.3	54.7	dB(A)
15:00 - 16:00	55.8	54.1	dB(A)
16:00 - 17:00	55.6	54.1	dB(A)
17:00 - 18:00	54.9	52.8	dB(A)
18:00 - 19:00	54.1	52.8	dB(A)
19:00 - 20:00	58.2	54.9	dB(A)
20:00 - 21:00	57.7	55.0	dB(A)
21:00 - 22:00	55.2	53.7	dB(A)
22:00 - 23:00	56.2	54.4	dB(A)
23:00 - 00:00	55.9	54.1	dB(A)
00:00 - 01:00	55.2	53.5	dB(A)
01:00 - 02:00	55.5	53.7	dB(A)
02:00 - 03:00	55.0	53.4	dB(A)
03:00 - 04:00	54.4	53.1	dB(A)
04:00 - 05:00	58.7	53.0	dB(A)
05:00 - 06:00	54.0	52.4	dB(A)
06:00 - 07:00	54.4	52.5	dB(A)
07:00 - 08:00	59.5	54.1	dB(A)
08:00 - 09:00	65.0	55.5	dB(A)
09:00 - 10:00	57.4	53.4	dB(A)
$L_{eq}$ 24 hr.	57.4	-	dB(A)
$L_{dn\#}$	62.6	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{1/1}, 70^{2/2}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1/1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>2/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>3/3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

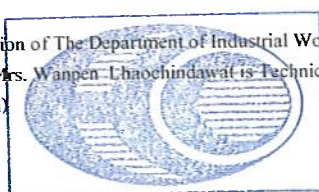
**TEST REPORT**

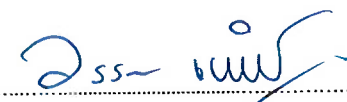
CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (N1)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2

SAMPLE NO. : 31255  
MEASURING DATE : 15-16/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	15-16/10/2023 ( $L_{eq}$ )	15-16/10/2023 ( $L_{90\#}$ )	UNIT
10:00 - 11:00	58.5	54.2	dB(A)
11:00 - 12:00	58.5	55.9	dB(A)
12:00 - 13:00	61.5	56.6	dB(A)
13:00 - 14:00	56.8	54.9	dB(A)
14:00 - 15:00	55.2	51.1	dB(A)
15:00 - 16:00	53.6	51.4	dB(A)
16:00 - 17:00	55.0	52.6	dB(A)
17:00 - 18:00	55.5	50.9	dB(A)
18:00 - 19:00	61.2	53.5	dB(A)
19:00 - 20:00	56.1	53.8	dB(A)
20:00 - 21:00	58.2	54.2	dB(A)
21:00 - 22:00	55.9	53.9	dB(A)
22:00 - 23:00	62.0	55.3	dB(A)
23:00 - 00:00	62.2	53.6	dB(A)
00:00 - 01:00	54.9	54.0	dB(A)
01:00 - 02:00	54.2	53.1	dB(A)
02:00 - 03:00	53.0	52.2	dB(A)
03:00 - 04:00	53.2	52.4	dB(A)
04:00 - 05:00	63.7	51.4	dB(A)
05:00 - 06:00	53.0	51.5	dB(A)
06:00 - 07:00	53.5	52.0	dB(A)
07:00 - 08:00	53.5	52.1	dB(A)
08:00 - 09:00	56.5	53.0	dB(A)
09:00 - 10:00	55.2	52.5	dB(A)
$L_{eq}$ 24 hr.	58.0	-	dB(A)
$L_{dn\#}$	65.1	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{11}$ , $70^{12}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
11 Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
12 Notification of Ministry of the Industry B.E. 2548 (2005)  
13 Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**COPY**

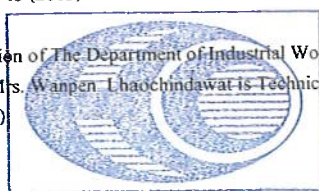
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (N1)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2

SAMPLE NO. : 31256  
MEASURING DATE : 16-17/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	16-17/10/2023 ( $L_{eq}$ )	16-17/10/2023 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	54.5	51.7	dB(A)
11:00 - 12:00	55.4	50.7	dB(A)
12:00 - 13:00	56.1	48.7	dB(A)
13:00 - 14:00	52.4	48.3	dB(A)
14:00 - 15:00	51.3	48.0	dB(A)
15:00 - 16:00	50.0	46.6	dB(A)
16:00 - 17:00	55.8	49.5	dB(A)
17:00 - 18:00	54.8	52.1	dB(A)
18:00 - 19:00	54.3	51.9	dB(A)
19:00 - 20:00	52.7	51.9	dB(A)
20:00 - 21:00	53.5	51.9	dB(A)
21:00 - 22:00	53.8	52.3	dB(A)
22:00 - 23:00	54.1	52.8	dB(A)
23:00 - 00:00	53.5	52.2	dB(A)
00:00 - 01:00	53.6	52.4	dB(A)
01:00 - 02:00	53.7	52.4	dB(A)
02:00 - 03:00	53.6	52.5	dB(A)
03:00 - 04:00	53.8	52.3	dB(A)
04:00 - 05:00	53.9	52.7	dB(A)
05:00 - 06:00	54.0	52.7	dB(A)
06:00 - 07:00	54.3	52.8	dB(A)
07:00 - 08:00	53.8	51.9	dB(A)
08:00 - 09:00	53.3	51.9	dB(A)
09:00 - 10:00	52.9	51.5	dB(A)
$L_{eq}$ 24 hr.	53.9	-	dB(A)
$L_{dn\#}$	60.3	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1/1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>1/3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

28/10/2023

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

**COPY**

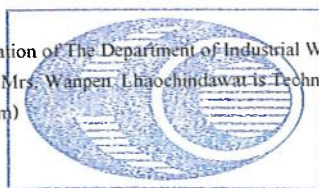
TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (N1)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2

SAMPLE NO. : 31257  
MEASURING DATE : 17-18/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	17-18/10/2023 ( $L_{eq}$ )	17-18/10/2023 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>3</sup>	53.3	51.8	dB(A)
11:00 - 12:00	52.2	49.5	dB(A)
12:00 - 13:00	51.5	49.6	dB(A)
13:00 - 14:00	52.1	50.0	dB(A)
14:00 - 15:00	55.3	50.0	dB(A)
15:00 - 16:00	52.2	50.2	dB(A)
16:00 - 17:00	53.2	50.6	dB(A)
17:00 - 18:00	59.3	50.7	dB(A)
18:00 - 19:00	65.4	50.7	dB(A)
19:00 - 20:00	61.2	54.2	dB(A)
20:00 - 21:00	56.1	54.3	dB(A)
21:00 - 22:00	56.5	54.1	dB(A)
22:00 - 23:00	68.2	52.7	dB(A)
23:00 - 00:00	59.7	52.5	dB(A)
00:00 - 01:00	59.5	51.8	dB(A)
01:00 - 02:00	53.7	51.6	dB(A)
02:00 - 03:00	53.8	52.4	dB(A)
03:00 - 04:00	52.7	51.1	dB(A)
04:00 - 05:00	51.4	50.5	dB(A)
05:00 - 06:00	51.8	50.3	dB(A)
06:00 - 07:00	53.2	51.0	dB(A)
07:00 - 08:00	53.9	50.9	dB(A)
08:00 - 09:00	54.8	50.4	dB(A)
09:00 - 10:00	51.0	49.0	dB(A)
$L_{eq}$ 24 hr.	58.8	-	dB(A)
$L_{dn\#}$	66.4	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>1</sup> , 70 <sup>2</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (N1)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2

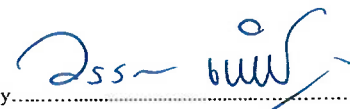
SAMPLE NO. : 31258  
MEASURING DATE : 18-19/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	18-19/10/2023 ( $L_{eq}$ )	18-19/10/2023 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>13</sup>	54.9	52.0	dB(A)
11:00 - 12:00	55.3	49.6	dB(A)
12:00 - 13:00	56.7	48.7	dB(A)
13:00 - 14:00	52.8	49.3	dB(A)
14:00 - 15:00	50.1	47.7	dB(A)
15:00 - 16:00	51.0	47.2	dB(A)
16:00 - 17:00	51.5	46.6	dB(A)
17:00 - 18:00	56.0	50.3	dB(A)
18:00 - 19:00	54.7	52.1	dB(A)
19:00 - 20:00	53.5	52.0	dB(A)
20:00 - 21:00	54.5	51.9	dB(A)
21:00 - 22:00	52.6	51.9	dB(A)
22:00 - 23:00	54.0	52.7	dB(A)
23:00 - 00:00	54.0	52.7	dB(A)
00:00 - 01:00	55.1	52.3	dB(A)
01:00 - 02:00	53.4	51.1	dB(A)
02:00 - 03:00	54.0	51.1	dB(A)
03:00 - 04:00	52.6	50.6	dB(A)
04:00 - 05:00	54.4	50.5	dB(A)
05:00 - 06:00	55.8	54.6	dB(A)
06:00 - 07:00	56.4	54.9	dB(A)
07:00 - 08:00	55.7	54.5	dB(A)
08:00 - 09:00	56.7	51.5	dB(A)
09:00 - 10:00	55.8	51.5	dB(A)
$L_{eq}$ 24 hr.	54.6	-	dB(A)
$L_{dn\#}$	61.0	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WAPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

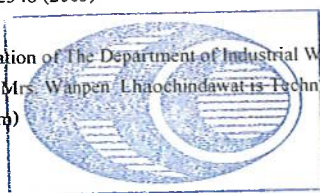
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (NI)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2

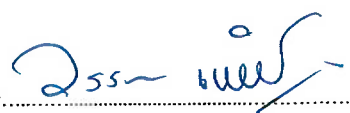
SAMPLE NO. : 31259  
MEASURING DATE : 19-20/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	19-20/10/2023 ( $L_{eq}$ )	19-20/10/2023 ( $L_{90\#}$ )	UNIT
10:00 - 11:00 <sup>13</sup>	66.8	52.1	dB(A)
11:00 - 12:00	68.2	53.4	dB(A)
12:00 - 13:00	65.9	54.5	dB(A)
13:00 - 14:00	62.1	52.5	dB(A)
14:00 - 15:00	55.6	51.8	dB(A)
15:00 - 16:00	52.9	50.3	dB(A)
16:00 - 17:00	53.9	51.0	dB(A)
17:00 - 18:00	53.3	51.2	dB(A)
18:00 - 19:00	54.5	52.2	dB(A)
19:00 - 20:00	54.9	53.6	dB(A)
20:00 - 21:00	55.6	53.6	dB(A)
21:00 - 22:00	55.4	53.6	dB(A)
22:00 - 23:00	54.5	52.4	dB(A)
23:00 - 00:00	52.8	51.7	dB(A)
00:00 - 01:00	54.4	52.2	dB(A)
01:00 - 02:00	53.9	52.5	dB(A)
02:00 - 03:00	53.8	52.7	dB(A)
03:00 - 04:00	54.5	52.4	dB(A)
04:00 - 05:00	53.2	52.1	dB(A)
05:00 - 06:00	54.4	53.2	dB(A)
06:00 - 07:00	54.9	53.9	dB(A)
07:00 - 08:00	53.8	52.7	dB(A)
08:00 - 09:00	54.8	50.5	dB(A)
09:00 - 10:00	55.2	51.4	dB(A)
$L_{eq}$ 24 hr.	59.7	-	dB(A)
$L_{dn\#}$	62.6	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsonon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhurng)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**  
FM-LAB-036 0-01-08-47

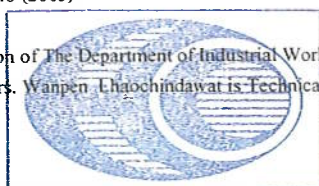
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศใต้ของที่ตั้งโครงการ (NI)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90}$ # &  $L_{dn}$ #  
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301660 : Class 2

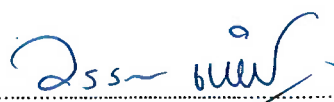
SAMPLE NO. : 31260  
MEASURING DATE : 20-21/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	20-21/10/2023 ( $L_{eq}$ )	20-21/10/2023 ( $L_{90}$ )#	UNIT
10:00 - 11:00 <sup>13</sup>	53.6	49.7	dB(A)
11:00 - 12:00	54.9	50.4	dB(A)
12:00 - 13:00	53.4	50.2	dB(A)
13:00 - 14:00	52.1	50.6	dB(A)
14:00 - 15:00	59.9	50.8	dB(A)
15:00 - 16:00	64.6	50.5	dB(A)
16:00 - 17:00	64.3	54.4	dB(A)
17:00 - 18:00	55.9	54.2	dB(A)
18:00 - 19:00	55.8	54.7	dB(A)
19:00 - 20:00	64.5	53.7	dB(A)
20:00 - 21:00	67.4	52.8	dB(A)
21:00 - 22:00	59.1	52.4	dB(A)
22:00 - 23:00	53.8	52.3	dB(A)
23:00 - 00:00	52.3	51.1	dB(A)
00:00 - 01:00	53.2	51.9	dB(A)
01:00 - 02:00	53.1	51.6	dB(A)
02:00 - 03:00	53.4	52.3	dB(A)
03:00 - 04:00	54.0	52.9	dB(A)
04:00 - 05:00	53.9	52.6	dB(A)
05:00 - 06:00	53.8	52.3	dB(A)
06:00 - 07:00	52.0	50.4	dB(A)
07:00 - 08:00	52.3	50.6	dB(A)
08:00 - 09:00	52.6	50.5	dB(A)
09:00 - 10:00	52.2	49.9	dB(A)
$L_{eq}$ 24 hr.	59.2	-	dB(A)
$L_{dn}$ #	61.9	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

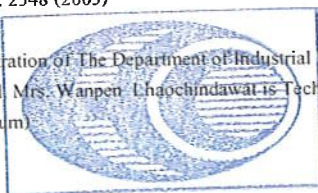
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2


SAMPLE NO. : 31240  
MEASURING DATE : 14-15/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	14-15/10/2023 ( $L_{eq}$ )	14-15/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	59.0	55.8	dB(A)
12:00 - 13:00	58.5	55.8	dB(A)
13:00 - 14:00	60.6	56.7	dB(A)
14:00 - 15:00	59.8	56.6	dB(A)
15:00 - 16:00	60.0	56.5	dB(A)
16:00 - 17:00	58.9	56.2	dB(A)
17:00 - 18:00	60.0	55.8	dB(A)
18:00 - 19:00	59.9	55.9	dB(A)
19:00 - 20:00	57.3	55.8	dB(A)
20:00 - 21:00	59.7	56.8	dB(A)
21:00 - 22:00	60.3	56.7	dB(A)
22:00 - 23:00	60.3	56.8	dB(A)
23:00 - 00:00	59.4	56.9	dB(A)
00:00 - 01:00	60.4	56.7	dB(A)
01:00 - 02:00	58.8	56.7	dB(A)
02:00 - 03:00	59.9	56.7	dB(A)
03:00 - 04:00	59.5	57.0	dB(A)
04:00 - 05:00	60.7	57.0	dB(A)
05:00 - 06:00	59.0	57.0	dB(A)
06:00 - 07:00	61.0	57.1	dB(A)
07:00 - 08:00	58.4	56.7	dB(A)
08:00 - 09:00	59.9	56.7	dB(A)
09:00 - 10:00	59.9	56.4	dB(A)
10:00 - 11:00	59.0	56.2	dB(A)
$L_{eq}$ 24 hr.	59.7	-	dB(A)
$L_{dn\#}$	66.3	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{11}, 70^{12}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

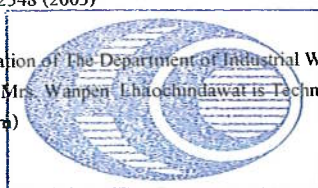
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90}$ # &  $L_{dn}$ #  
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2

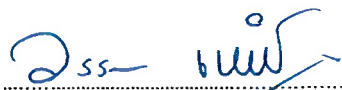
SAMPLE NO. : 31241  
MEASURING DATE : 15-16/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	15-16/10/2023 ( $L_{eq}$ )	15-16/10/2023 ( $L_{90}$ #)	UNIT
11:00 - 12:00 <sup>/3</sup>	60.4	56.3	dB(A)
12:00 - 13:00	57.5	56.1	dB(A)
13:00 - 14:00	60.2	56.7	dB(A)
14:00 - 15:00	60.8	57.3	dB(A)
15:00 - 16:00	60.7	56.9	dB(A)
16:00 - 17:00	59.9	56.9	dB(A)
17:00 - 18:00	60.0	58.2	dB(A)
18:00 - 19:00	65.9	59.2	dB(A)
19:00 - 20:00	58.6	57.8	dB(A)
20:00 - 21:00	60.6	57.8	dB(A)
21:00 - 22:00	60.9	58.1	dB(A)
22:00 - 23:00	61.1	57.7	dB(A)
23:00 - 00:00	60.6	57.7	dB(A)
00:00 - 01:00	59.4	57.6	dB(A)
01:00 - 02:00	59.2	57.7	dB(A)
02:00 - 03:00	59.2	57.6	dB(A)
03:00 - 04:00	59.1	57.5	dB(A)
04:00 - 05:00	61.3	58.3	dB(A)
05:00 - 06:00	59.5	57.8	dB(A)
06:00 - 07:00	60.0	57.5	dB(A)
07:00 - 08:00	58.2	57.5	dB(A)
08:00 - 09:00	58.7	57.0	dB(A)
09:00 - 10:00	59.9	56.8	dB(A)
10:00 - 11:00	60.1	56.1	dB(A)
$L_{eq}$ 24 hr.	60.4	-	dB(A)
$L_{dn}$ #	66.5	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{/1}$ , $70^{/2}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>/1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>/3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhun)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

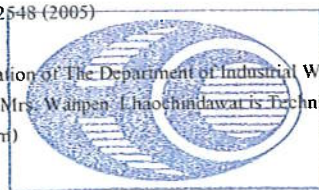
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2


SAMPLE NO. : 31242  
MEASURING DATE : 16-17/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	16-17/10/2023 ( $L_{eq}$ )	16-17/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>3</sup>	59.2	55.7	dB(A)
12:00 - 13:00	60.9	57.4	dB(A)
13:00 - 14:00	59.6	57.6	dB(A)
14:00 - 15:00	59.1	56.7	dB(A)
15:00 - 16:00	58.9	57.0	dB(A)
16:00 - 17:00	59.5	56.9	dB(A)
17:00 - 18:00	59.9	57.0	dB(A)
18:00 - 19:00	59.0	57.1	dB(A)
19:00 - 20:00	58.0	56.9	dB(A)
20:00 - 21:00	58.6	57.3	dB(A)
21:00 - 22:00	58.9	57.3	dB(A)
22:00 - 23:00	60.1	57.7	dB(A)
23:00 - 00:00	59.6	57.5	dB(A)
00:00 - 01:00	60.1	57.5	dB(A)
01:00 - 02:00	59.4	57.8	dB(A)
02:00 - 03:00	59.1	57.7	dB(A)
03:00 - 04:00	59.1	57.5	dB(A)
04:00 - 05:00	59.3	57.5	dB(A)
05:00 - 06:00	59.1	57.4	dB(A)
06:00 - 07:00	58.3	57.4	dB(A)
07:00 - 08:00	57.7	56.6	dB(A)
08:00 - 09:00	58.3	56.7	dB(A)
09:00 - 10:00	58.2	56.5	dB(A)
10:00 - 11:00	57.6	56.3	dB(A)
$L_{eq}$ 24 hr.	59.1	-	dB(A)
$L_{dn\#}$	65.7	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>1</sup> , 70 <sup>2</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

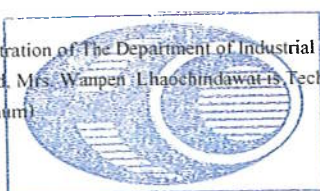
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat. Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2

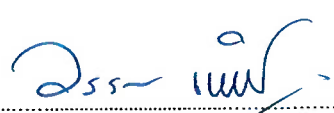
SAMPLE NO. : 31243  
MEASURING DATE : 17-18/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	17-18/10/2023 ( $L_{eq}$ )	17-18/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	59.1	56.1	dB(A)
12:00 - 13:00	58.9	56.9	dB(A)
13:00 - 14:00	58.6	57.1	dB(A)
14:00 - 15:00	60.7	57.3	dB(A)
15:00 - 16:00	59.3	57.0	dB(A)
16:00 - 17:00	59.1	57.0	dB(A)
17:00 - 18:00	60.4	57.4	dB(A)
18:00 - 19:00	63.0	57.7	dB(A)
19:00 - 20:00	63.6	57.9	dB(A)
20:00 - 21:00	59.4	57.5	dB(A)
21:00 - 22:00	60.5	58.5	dB(A)
22:00 - 23:00	59.9	58.4	dB(A)
23:00 - 00:00	60.9	58.7	dB(A)
00:00 - 01:00	60.7	58.1	dB(A)
01:00 - 02:00	59.4	57.9	dB(A)
02:00 - 03:00	60.5	58.4	dB(A)
03:00 - 04:00	60.9	58.8	dB(A)
04:00 - 05:00	60.3	58.6	dB(A)
05:00 - 06:00	59.8	58.5	dB(A)
06:00 - 07:00	60.1	58.7	dB(A)
07:00 - 08:00	58.6	57.6	dB(A)
08:00 - 09:00	58.6	57.5	dB(A)
09:00 - 10:00	59.0	57.4	dB(A)
10:00 - 11:00	59.8	57.9	dB(A)
$L_{eq}$ 24 hr.	60.2	-	dB(A)
$L_{dn\#}$	66.7	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

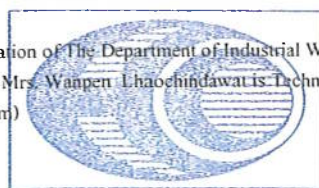
TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2

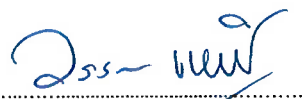
SAMPLE NO. : 31244  
MEASURING DATE : 18-19/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	18-19/10/2023 ( $L_{eq}$ )	18-19/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>3</sup>	62.9	58.3	dB(A)
12:00 - 13:00	64.3	59.2	dB(A)
13:00 - 14:00	60.9	57.7	dB(A)
14:00 - 15:00	59.2	57.5	dB(A)
15:00 - 16:00	59.3	57.4	dB(A)
16:00 - 17:00	58.7	57.6	dB(A)
17:00 - 18:00	59.5	57.6	dB(A)
18:00 - 19:00	61.3	57.6	dB(A)
19:00 - 20:00	64.7	64.2	dB(A)
20:00 - 21:00	64.5	64.2	dB(A)
21:00 - 22:00	64.7	63.9	dB(A)
22:00 - 23:00	64.3	63.7	dB(A)
23:00 - 00:00	64.5	63.7	dB(A)
00:00 - 01:00	64.4	63.6	dB(A)
01:00 - 02:00	64.7	63.6	dB(A)
02:00 - 03:00	64.5	63.6	dB(A)
03:00 - 04:00	64.6	63.6	dB(A)
04:00 - 05:00	64.3	63.3	dB(A)
05:00 - 06:00	64.1	63.4	dB(A)
06:00 - 07:00	64.1	63.3	dB(A)
07:00 - 08:00	63.7	63.1	dB(A)
08:00 - 09:00	63.7	62.7	dB(A)
09:00 - 10:00	64.2	62.9	dB(A)
10:00 - 11:00	69.2	63.3	dB(A)
$L_{eq}$ 24 hr.	64.0	-	dB(A)
$L_{dn\#}$	70.7	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>1/2</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1/1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>1/3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

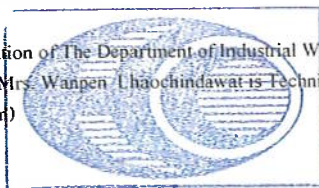
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat. Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2

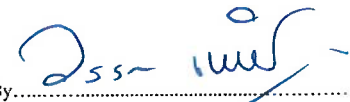
SAMPLE NO. : 31245  
MEASURING DATE : 19-20/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	19-20/10/2023 ( $L_{eq}$ )	19-20/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	66.1	63.7	dB(A)
12:00 - 13:00	64.3	63.5	dB(A)
13:00 - 14:00	64.8	63.7	dB(A)
14:00 - 15:00	64.6	63.5	dB(A)
15:00 - 16:00	64.4	63.4	dB(A)
16:00 - 17:00	64.4	63.3	dB(A)
17:00 - 18:00	64.2	63.4	dB(A)
18:00 - 19:00	64.3	63.4	dB(A)
19:00 - 20:00	63.8	63.3	dB(A)
20:00 - 21:00	64.4	63.2	dB(A)
21:00 - 22:00	64.6	63.4	dB(A)
22:00 - 23:00	64.4	63.4	dB(A)
23:00 - 00:00	64.0	63.4	dB(A)
00:00 - 01:00	63.8	63.3	dB(A)
01:00 - 02:00	64.1	63.4	dB(A)
02:00 - 03:00	63.9	63.3	dB(A)
03:00 - 04:00	63.7	63.3	dB(A)
04:00 - 05:00	63.7	63.3	dB(A)
05:00 - 06:00	63.8	63.3	dB(A)
06:00 - 07:00	63.6	63.3	dB(A)
07:00 - 08:00	63.3	63.0	dB(A)
08:00 - 09:00	63.3	63.0	dB(A)
09:00 - 10:00	63.5	62.2	dB(A)
10:00 - 11:00	65.6	62.2	dB(A)
$L_{eq}$ 24 hr.	64.2	-	dB(A)
$L_{dn\#}$	70.4	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{11}, 70^{12}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate. Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศเหนือของที่ตั้งโครงการ (N2)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301638 : Class 2

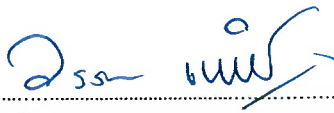
SAMPLE NO. : 31246  
MEASURING DATE : 20-21/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	20-21/10/2023 ( $L_{eq}$ )	20-21/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	63.4	62.1	dB(A)
12:00 - 13:00	62.8	62.3	dB(A)
13:00 - 14:00	66.8	62.7	dB(A)
14:00 - 15:00	65.2	62.7	dB(A)
15:00 - 16:00	64.9	62.9	dB(A)
16:00 - 17:00	63.9	63.2	dB(A)
17:00 - 18:00	63.3	62.8	dB(A)
18:00 - 19:00	63.5	62.9	dB(A)
19:00 - 20:00	63.1	62.8	dB(A)
20:00 - 21:00	63.3	62.8	dB(A)
21:00 - 22:00	63.5	62.9	dB(A)
22:00 - 23:00	63.8	63.1	dB(A)
23:00 - 00:00	63.6	62.9	dB(A)
00:00 - 01:00	64.0	63.4	dB(A)
01:00 - 02:00	64.3	63.6	dB(A)
02:00 - 03:00	64.0	63.3	dB(A)
03:00 - 04:00	63.2	61.8	dB(A)
04:00 - 05:00	64.2	63.6	dB(A)
05:00 - 06:00	63.9	63.4	dB(A)
06:00 - 07:00	64.0	63.5	dB(A)
07:00 - 08:00	63.5	63.0	dB(A)
08:00 - 09:00	63.8	63.0	dB(A)
09:00 - 10:00	64.1	62.9	dB(A)
10:00 - 11:00	63.2	62.6	dB(A)
$L_{eq}$ 24 hr.	64.0	-	dB(A)
$L_{dn\#}$	70.3	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsonon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

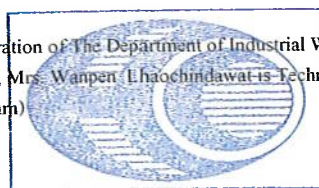
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2

SAMPLE NO. : 31247  
MEASURING DATE : 14-15/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	14-15/10/2023 ( $L_{eq}$ )	14-15/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	65.0	63.6	dB(A)
12:00 - 13:00	64.4	63.5	dB(A)
13:00 - 14:00	64.8	63.7	dB(A)
14:00 - 15:00	65.2	64.2	dB(A)
15:00 - 16:00	69.7	64.0	dB(A)
16:00 - 17:00	68.3	63.8	dB(A)
17:00 - 18:00	64.8	63.5	dB(A)
18:00 - 19:00	65.2	64.7	dB(A)
19:00 - 20:00	65.2	64.9	dB(A)
20:00 - 21:00	65.4	64.8	dB(A)
21:00 - 22:00	65.4	64.3	dB(A)
22:00 - 23:00	65.0	64.3	dB(A)
23:00 - 00:00	65.5	64.8	dB(A)
00:00 - 01:00	65.4	64.9	dB(A)
01:00 - 02:00	68.3	65.1	dB(A)
02:00 - 03:00	68.1	67.7	dB(A)
03:00 - 04:00	66.8	64.8	dB(A)
04:00 - 05:00	66.1	65.2	dB(A)
05:00 - 06:00	65.9	65.3	dB(A)
06:00 - 07:00	66.1	65.2	dB(A)
07:00 - 08:00	65.6	65.0	dB(A)
08:00 - 09:00	65.8	64.9	dB(A)
09:00 - 10:00	65.2	64.2	dB(A)
10:00 - 11:00	64.6	63.8	dB(A)
$L_{eq}$ 24 hr.	66.1	-	dB(A)
$L_{dn\#}$	72.8	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

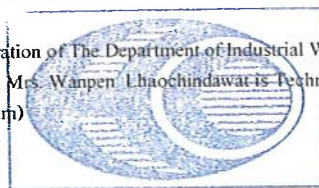
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90}^{\#}$  &  $L_{dn}^{\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2


SAMPLE NO. : 31248  
MEASURING DATE : 15-16/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	15-16/10/2023 ( $L_{eq}$ )	15-16/10/2023 ( $L_{90}^{\#}$ )	UNIT
11:00 - 12:00 <sup>1)</sup>	64.2	63.4	dB(A)
12:00 - 13:00	64.1	63.1	dB(A)
13:00 - 14:00	66.5	63.5	dB(A)
14:00 - 15:00	66.1	63.9	dB(A)
15:00 - 16:00	64.5	64.1	dB(A)
16:00 - 17:00	64.7	64.3	dB(A)
17:00 - 18:00	70.2	64.4	dB(A)
18:00 - 19:00	67.6	65.2	dB(A)
19:00 - 20:00	65.6	64.9	dB(A)
20:00 - 21:00	65.7	64.7	dB(A)
21:00 - 22:00	65.3	64.6	dB(A)
22:00 - 23:00	65.6	64.8	dB(A)
23:00 - 00:00	65.3	64.7	dB(A)
00:00 - 01:00	65.5	64.7	dB(A)
01:00 - 02:00	65.1	64.6	dB(A)
02:00 - 03:00	65.2	64.7	dB(A)
03:00 - 04:00	65.6	64.8	dB(A)
04:00 - 05:00	65.9	64.8	dB(A)
05:00 - 06:00	65.2	64.7	dB(A)
06:00 - 07:00	65.7	64.9	dB(A)
07:00 - 08:00	65.7	64.4	dB(A)
08:00 - 09:00	65.8	63.9	dB(A)
09:00 - 10:00	64.7	63.2	dB(A)
10:00 - 11:00	64.1	63.1	dB(A)
$L_{eq}$ 24 hr.	65.8	-	dB(A)
$L_{dn}^{\#}$	72.0	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^1, 70^2$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1)</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>2)</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>3)</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhun)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

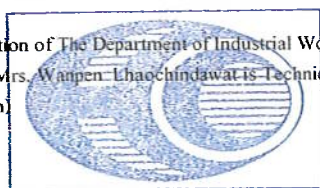
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2

SAMPLE NO. : 31249  
MEASURING DATE : 16-17/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	16-17/10/2023 ( $L_{eq}$ )	16-17/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>B</sup>	63.8	62.8	dB(A)
12:00 - 13:00	64.7	63.1	dB(A)
13:00 - 14:00	64.4	63.2	dB(A)
14:00 - 15:00	64.5	62.6	dB(A)
15:00 - 16:00	63.7	62.5	dB(A)
16:00 - 17:00	63.8	62.6	dB(A)
17:00 - 18:00	63.4	62.9	dB(A)
18:00 - 19:00	63.9	63.1	dB(A)
19:00 - 20:00	64.1	63.4	dB(A)
20:00 - 21:00	64.3	63.6	dB(A)
21:00 - 22:00	64.9	63.8	dB(A)
22:00 - 23:00	65.7	64.6	dB(A)
23:00 - 00:00	65.6	64.8	dB(A)
00:00 - 01:00	65.8	65.0	dB(A)
01:00 - 02:00	65.8	65.0	dB(A)
02:00 - 03:00	65.7	65.0	dB(A)
03:00 - 04:00	65.8	65.1	dB(A)
04:00 - 05:00	66.2	65.4	dB(A)
05:00 - 06:00	66.4	65.6	dB(A)
06:00 - 07:00	66.1	65.6	dB(A)
07:00 - 08:00	66.1	65.4	dB(A)
08:00 - 09:00	66.4	65.3	dB(A)
09:00 - 10:00	66.6	65.3	dB(A)
10:00 - 11:00	65.9	65.0	dB(A)
$L_{eq}$ 24 hr.	65.3	-	dB(A)
$L_{dn\#}$	72.2	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>1)</sup> , 70 <sup>2)</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1)</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>2)</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>3)</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2

SAMPLE NO. : 31250  
MEASURING DATE : 17-18/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	17-18/10/2023 ( $L_{eq}$ )	17-18/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>3</sup>	66.1	65.3	dB(A)
12:00 - 13:00	66.2	65.4	dB(A)
13:00 - 14:00	66.1	65.3	dB(A)
14:00 - 15:00	65.9	64.9	dB(A)
15:00 - 16:00	65.6	64.8	dB(A)
16:00 - 17:00	65.2	64.4	dB(A)
17:00 - 18:00	66.6	64.9	dB(A)
18:00 - 19:00	67.3	65.4	dB(A)
19:00 - 20:00	67.0	65.3	dB(A)
20:00 - 21:00	66.0	65.4	dB(A)
21:00 - 22:00	66.2	65.3	dB(A)
22:00 - 23:00	65.8	65.3	dB(A)
23:00 - 00:00	65.3	64.7	dB(A)
00:00 - 01:00	65.4	64.8	dB(A)
01:00 - 02:00	65.4	64.8	dB(A)
02:00 - 03:00	65.8	65.3	dB(A)
03:00 - 04:00	65.8	65.4	dB(A)
04:00 - 05:00	65.8	65.4	dB(A)
05:00 - 06:00	65.7	65.3	dB(A)
06:00 - 07:00	65.9	65.4	dB(A)
07:00 - 08:00	65.7	65.2	dB(A)
08:00 - 09:00	66.6	65.3	dB(A)
09:00 - 10:00	66.7	65.9	dB(A)
10:00 - 11:00	66.6	65.7	dB(A)
$L_{eq}$ 24 hr.	66.1	-	dB(A)
$L_{dn\#}$	72.2	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{11}, 70^{12}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1/1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>1/3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90}$ # &  $L_{dn}$ #  
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2

SAMPLE NO. : 31251  
MEASURING DATE : 18-19/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	18-19/10/2023 ( $L_{eq}$ )	18-19/10/2023 ( $L_{90}$ #)	UNIT
11:00 - 12:00 <sup>13</sup>	67.4	65.9	dB(A)
12:00 - 13:00	69.1	67.6	dB(A)
13:00 - 14:00	68.2	67.0	dB(A)
14:00 - 15:00	67.5	66.7	dB(A)
15:00 - 16:00	67.5	66.7	dB(A)
16:00 - 17:00	66.4	65.4	dB(A)
17:00 - 18:00	66.2	65.4	dB(A)
18:00 - 19:00	65.8	65.4	dB(A)
19:00 - 20:00	66.0	65.6	dB(A)
20:00 - 21:00	66.1	65.6	dB(A)
21:00 - 22:00	66.4	65.6	dB(A)
22:00 - 23:00	66.2	65.6	dB(A)
23:00 - 00:00	66.6	65.5	dB(A)
00:00 - 01:00	65.8	65.3	dB(A)
01:00 - 02:00	66.1	65.4	dB(A)
02:00 - 03:00	66.2	65.6	dB(A)
03:00 - 04:00	66.2	65.7	dB(A)
04:00 - 05:00	66.6	65.8	dB(A)
05:00 - 06:00	66.9	66.3	dB(A)
06:00 - 07:00	66.9	66.2	dB(A)
07:00 - 08:00	66.5	66.0	dB(A)
08:00 - 09:00	66.7	65.7	dB(A)
09:00 - 10:00	66.7	65.2	dB(A)
10:00 - 11:00	69.9	66.1	dB(A)
$L_{eq}$ 24 hr.	67.0	-	dB(A)
$L_{dn}$ #	72.9	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{11}, 70^{12}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

28/10/2023

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

**COPY**

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2


SAMPLE NO. : 31252  
MEASURING DATE : 19-20/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	19-20/10/2023 ( $L_{eq}$ )	19-20/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>13</sup>	68.5	66.4	dB(A)
12:00 - 13:00	66.7	66.0	dB(A)
13:00 - 14:00	66.7	66.1	dB(A)
14:00 - 15:00	67.0	66.1	dB(A)
15:00 - 16:00	66.0	65.0	dB(A)
16:00 - 17:00	65.7	64.9	dB(A)
17:00 - 18:00	65.8	65.1	dB(A)
18:00 - 19:00	65.7	65.1	dB(A)
19:00 - 20:00	65.5	65.1	dB(A)
20:00 - 21:00	65.9	65.3	dB(A)
21:00 - 22:00	66.1	65.5	dB(A)
22:00 - 23:00	66.0	65.5	dB(A)
23:00 - 00:00	66.1	65.5	dB(A)
00:00 - 01:00	66.2	65.6	dB(A)
01:00 - 02:00	66.5	65.8	dB(A)
02:00 - 03:00	66.5	65.8	dB(A)
03:00 - 04:00	66.4	65.9	dB(A)
04:00 - 05:00	66.3	65.5	dB(A)
05:00 - 06:00	66.2	65.6	dB(A)
06:00 - 07:00	66.4	65.7	dB(A)
07:00 - 08:00	65.9	65.5	dB(A)
08:00 - 09:00	66.1	65.4	dB(A)
09:00 - 10:00	66.5	65.3	dB(A)
10:00 - 11:00	67.4	64.7	dB(A)
$L_{eq}$ 24 hr.	66.4	-	dB(A)
$L_{dn\#}$	72.7	-	dB(A)
Maximum	-	-	dB(A)
Standard	70 <sup>11</sup> , 70 <sup>12</sup>	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>11</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>12</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>13</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhum)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By:   
(MRS. WANPEN LHAOCHINDAWAT)  
28/10/2023

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

**COPY**

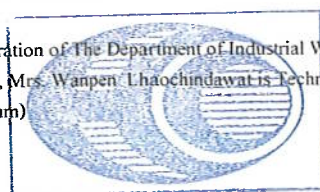
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*  
SAMPLE POINT : บริเวณริมรั้วด้านทิศตะวันตกของที่ตั้งโครงการ (N3)\*\*  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{90\#}$  &  $L_{dn\#}$   
DETERMINATION METHOD : ISO 1996-1:2016##  
INSTRUMENT : Integrated Sound Level Meter  
S/N G301013 : Class 2

SAMPLE NO. : 31253  
MEASURING DATE : 20-21/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 28/10/2023

TIME \ DATE	20-21/10/2023 ( $L_{eq}$ )	20-21/10/2023 ( $L_{90\#}$ )	UNIT
11:00 - 12:00 <sup>1/3</sup>	65.9	64.9	dB(A)
12:00 - 13:00	65.9	65.1	dB(A)
13:00 - 14:00	67.9	65.8	dB(A)
14:00 - 15:00	67.3	65.5	dB(A)
15:00 - 16:00	66.6	65.2	dB(A)
16:00 - 17:00	65.9	65.2	dB(A)
17:00 - 18:00	66.2	65.7	dB(A)
18:00 - 19:00	66.3	65.7	dB(A)
19:00 - 20:00	66.2	65.8	dB(A)
20:00 - 21:00	66.5	65.9	dB(A)
21:00 - 22:00	66.5	66.0	dB(A)
22:00 - 23:00	67.4	66.2	dB(A)
23:00 - 00:00	66.9	66.1	dB(A)
00:00 - 01:00	66.6	65.8	dB(A)
01:00 - 02:00	66.7	66.2	dB(A)
02:00 - 03:00	66.8	66.2	dB(A)
03:00 - 04:00	67.1	66.3	dB(A)
04:00 - 05:00	67.1	66.4	dB(A)
05:00 - 06:00	67.4	66.4	dB(A)
06:00 - 07:00	67.0	66.3	dB(A)
07:00 - 08:00	66.7	66.0	dB(A)
08:00 - 09:00	66.8	65.9	dB(A)
09:00 - 10:00	66.2	65.1	dB(A)
10:00 - 11:00	66.4	63.6	dB(A)
$L_{eq}$ 24 hr.	66.7	-	dB(A)
$L_{dn\#}$	73.4	-	dB(A)
Maximum	-	-	dB(A)
Standard	$70^{1/1}, 70^{1/2}$	-	dB(A)

**REMARK :** # Test Report/Sampling marked 'Not TISI Accredited' in this report are not included in the TISI Accreditation Schedule for our laboratory  
## ISO 1996-1:2016, Notification of The National Environmental Board Volume 15 B.E. 2540 (1997) on General Noise Level Standards, Dated March 12, 1997,  
Notification of The Pollution Control Department on The Calculation of The Noise Level, Dated August 11, 1997,  
Notification of The Department of Industrial Works on Methods for Measuring Noise Annoyance, Noise Level 24-Hour Average and Maximum Noise Level  
From Factory B.E. 2553, Dated December 20, 2010  
<sup>1/1</sup> Notification of The National Environmental Board Volume 15 B.E. 2540 (1997)  
<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)  
<sup>1/3</sup> Start Time  
\* Parameter Outside The Scope of The Registration of The Department of Industrial Works.  
(Ms. Thanatporn Klinsoon is Section Head, Mrs. Wanpen Lhaochindawat is Technical Management)  
(Measurement By Mr. Tummarut Photankhurn)  
\*\* These Data are Non Laboratory Data



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By: 

(MRS. WANPEN LHAOCHINDAWAT)

28/10/2023

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

**COPY**

## Test Report

Request No : W6607143

Report No : 6607-1326

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66070542

Sample Name : Effluent

Sampling Date : 04/07/2023

Sampling By : Customer

Sampling Time : 10:00 AM

Sampling Method : Grab

Received Date : 06/07/2023

Tested Date : 07/07/2023 - 14/07/2023

Reported Date : 18/07/2023

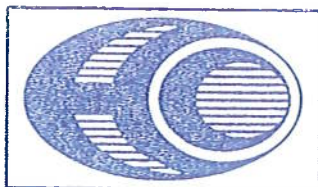
Parameter	Unit	Method	Result	Standard/ <sup>1</sup>
Aluminium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.10	-
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	13.1	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	93	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	589	≤ 2000
Flow Rate	m <sup>3</sup> /hr.	Calculation	60.00	-
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 0.25
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	3.59	≤ 10

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบบ้างแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

18/07/2023

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

COPY

## Test Report

Request No : W6607143

Report No : 6607-1326

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66070542

Sample Name : Effluent

Sampling Date : 04/07/2023

Sampling By : Customer

Sampling Time : 10:00 AM

Sampling Method : Grab

Received Date : 06/07/2023

Tested Date : 07/07/2023 - 14/07/2023

Reported Date : 18/07/2023

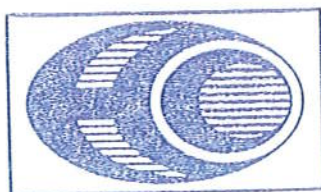
Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site)		Electrometric Method	7.1	5.5-9.0
Temperature	°C	Laboratory and Field Method	32	≤45
Total Dissolved Solids	mg/L	Dried at 180 C (SM:2540C)	1,602	≤3000
Total Kjeldahl Nitrogen	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 C (SM:2540D)	8	≤200
Trivalent Chromium	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤0.75
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.04	≤5

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : 

(Miss Apiradee Chuen-arom)

18/07/2023

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

COPY

## Test Report

Request No : W6608246

Report No : 6608-1514

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66080905

Sample Name : Effluent

Sampling Date : 08/08/2023

Sampling By : Customer

Sampling Time : 9:50 AM

Sampling Method : Grab

Received Date : 10/08/2023

Tested Date : 10/08/2023 - 21/08/2023

Reported Date : 21/08/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.10	-
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤ 500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	51	≤ 750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	589	≤ 2000
Flow Rate	m <sup>3</sup> /hr.	Calculation	60.00	-
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 0.25
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.71	≤ 10

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L , G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

21/08/2023

## Test Report

Request No : W6608246

Report No : 6608-1514

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakomsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66080905

Sample Name : Effluent

Sampling Date : 08/08/2023

Sampling By : Customer

Sampling Time : 9:50 AM

Sampling Method : Grab

Received Date : 10/08/2023

Tested Date : 10/08/2023 - 21/08/2023

Reported Date : 21/08/2023

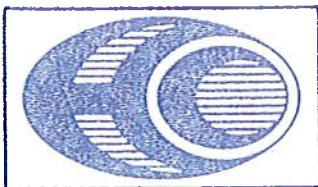
Parameter	Unit	Method	Result	Standard <sup>1</sup>
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site)		Electrometric Method	7.2	5.5-9.0
Temperature	°C	Laboratory and Field Method	32	≤45
Total Dissolved Solids	mg/L	Dried at 180 C (SM:2540C)	1,600	≤3000
Total Kjeldahl Nitrogen	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 C (SM:2540D)	< 5	≤200
Trivalent Chromium	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤0.75
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤5

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L , G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยายฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

21/08/2023

## Test Report

Request No : W6609173

Report No : 6609-0959

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66090631

Sample Name : Effluent

Sampling Date : 04/09/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 07/09/2023

Tested Date : 07/09/2023 - 18/09/2023

Reported Date : 18/09/2023

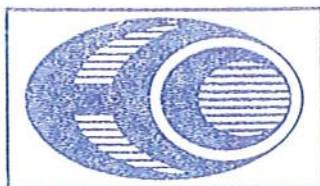
Parameter	Unit	Method	Result	Standard/ <sup>1</sup>
Aluminium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.10	-
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	2.4	≤500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	86	≤750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	568	≤2000
Flow Rate	m <sup>3</sup> /hr.	Calculation	60.00	-
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤0.25
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	6.03	≤10

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยายฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : 

(Miss Apiradee Chuen-arom)

18/09/2023

## Test Report

Request No : W6609173

Report No : 6609-0959

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66090631

Sample Name : Effluent

Sampling Date : 04/09/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 07/09/2023

Tested Date : 07/09/2023 - 18/09/2023

Reported Date : 18/09/2023

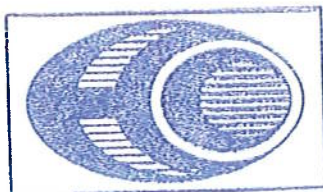
Parameter	Unit	Method	Result	Standard/I
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	3.0	≤10
pH (on site)		Electrometric Method	7.2	5.5-9.0
Temperature	°C	Laboratory and Field Method	33	≤45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	1,620	≤3000
Total Kjeldahl Nitrogen	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540D)	8	≤200
Trivalent Chromium	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤0.75

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบบ้างแล้วของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

18/09/2023

## Test Report

Request No : W6609173

Report No : 6609-0959

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66090631

Sample Name : Effluent

Sampling Date : 04/09/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 07/09/2023

Tested Date : 07/09/2023 - 18/09/2023

Reported Date : 18/09/2023

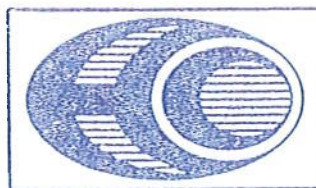
Parameter	Unit	Method	Result	Standard <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.03	≤5

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L, PE 1.8 L, G 1.0 L]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบบ้างแสดงของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

18/09/2023

## Test Report

Request No : W6610125

Report No : 6610-1203

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66100486

Sample Name : Effluent

Sampling Date : 03/10/2023

Sampling By : Customer

Sampling Time : 9:00 AM

Sampling Method : Grab

Received Date : 05/10/2023

Tested Date : 05/10/2023 - 18/10/2023

Reported Date : 18/10/2023

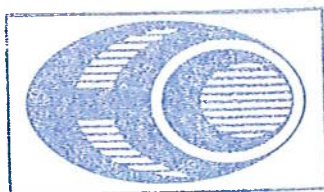
Parameter	Unit	Method	Result	Standard/ <sup>1</sup>
Aluminium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.10	-
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	6.0	≤500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	60	≤750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	449	≤2000
Flow Rate	m <sup>3</sup> /hr.	Calculation	60.00	-
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤0.25
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	2.55	≤10

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบบ้างแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยายฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

18/10/2023

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

COPY

## Test Report

Request No : W6610125

Report No : 6610-1203

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66100486

Sample Name : Effluent

Sampling Date : 03/10/2023

Sampling By : Customer

Sampling Time : 9:00 AM

Sampling Method : Grab

Received Date : 05/10/2023

Tested Date : 05/10/2023 - 18/10/2023

Reported Date : 18/10/2023

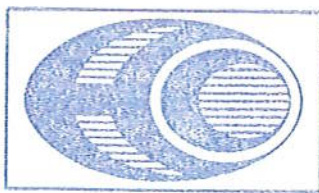
Parameter	Unit	Method	Result	Standard/ <sup>1</sup>
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	3.3	≤10
pH (on site)		Electrometric Method	7.1	5.5-9.0
Temperature	°C	Laboratory and Field Method	32	≤45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	1,472	≤3000
Total Kjeldahl Nitrogen	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540D)	11	≤200
Trivalent Chromium	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤0.75

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

18/10/2023

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

COPY

## Test Report

Request No : W6610125

Report No : 6610-1203

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66100486

Sample Name : Effluent

Sampling Date : 03/10/2023

Sampling By : Customer

Sampling Time : 9:00 AM

Sampling Method : Grab

Received Date : 05/10/2023

Tested Date : 05/10/2023 - 18/10/2023

Reported Date : 18/10/2023

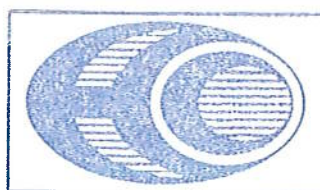
Parameter	Unit	Method	Result	Standard/ <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤5

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L , G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบบ้างแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

18/10/2023

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

COPY

## Test Report

Request No : W6611238

Report No : 6611-1435

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66110893

Sample Name : Effluent

Sampling Date : 07/11/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 09/11/2023

Tested Date : 09/11/2023 - 16/11/2023

Reported Date : 20/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.17	-
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	5.0	≤500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	93	≤750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	645	≤2000
Flow Rate	m <sup>3</sup> /hr.	Calculation	60.00	-
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	<0.050	≤0.25
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	1.98	≤10

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยายฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : 

(Miss Apiradee Chuen-arom)

20/11/2023

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

COPY

## Test Report

Request No : W6611238

Report No : 6611-1435

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakomsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66110893

Sample Name : Effluent

Sampling Date : 07/11/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 09/11/2023

Tested Date : 09/11/2023 - 16/11/2023

Reported Date : 20/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site)		Electrometric Method	7.0	5.5-9.0
Temperature	°C	Laboratory and Field Method	31	≤45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	1,864	≤3000
Total Kjeldahl Nitrogen	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540D)	9	≤200
Trivalent Chromium	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤0.75

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบบ่งชี้ว่าสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

20/11/2023

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

COPY

## Test Report

Request No : W6611238

Customer : NS BlueScope (Thailand) Limited

Report No : 6611-1435

Address : No.2 Soi G 9 Pakomsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66110893

Sample Name : Effluent

Sampling Date : 07/11/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 09/11/2023

Tested Date : 09/11/2023 - 16/11/2023

Reported Date : 20/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 5

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L (3 Bottle) , PE 1.0 L , PE 1.8 L , G 1.0 L ]

Remark : 1. /1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์น ไทย คอนซัลติ้ง 1992 จำกัด

Examined By : 

(Miss Apiradee Chuen-arom)

20/11/2023

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

COPY



## Test Report

Request No : W6612095

Customer : NS BlueScope (Thailand) Limited

Report No : 6612-1072

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66120392

Sample Name : Effluent

Sampling Date : 04/12/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 06/12/2023

Tested Date : 06/12/2023 - 16/12/2023

Reported Date : 21/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.14	-
Biochemical Oxygen Demand	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	8.9	≤500
Chemical Oxygen Demand	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	83	≤750
Chloride	mg/L as Cl <sub>2</sub>	Argentometric Method (SM:4500-Cl- B)	680	≤2000
Flow Rate	m <sup>3</sup> /hr.	Calculation	60.00	-
Hexavalent Chromium	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤0.25
Iron	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	2.63	≤10

Physical Appearance : 1. Sample : lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L , PE 1.8 L, G 1.0 L]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

21/12/2023

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

COPY

## Test Report

Request No : W6612095

Customer : NS BlueScope (Thailand) Limited

Report No : 6612-1072

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66120392

Sample Name : Effluent

Sampling Date : 04/12/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 06/12/2023

Tested Date : 06/12/2023 - 16/12/2023

Reported Date : 21/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Oil and Grease	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site)		Electrometric Method	7.4	5.5-9.0
Temperature	°C	Laboratory and Field Method	31	≤45
Total Dissolved Solids	mg/L	Dried at 180 degree celsius (SM:2540C)	1,646	≤3000
Total Kjeldahl Nitrogen	mg/L as NH <sub>3</sub> -N	Macro Kjeldahl Method (SM:4500 -Norg B)	< 5	≤100
Total Suspended Solids	mg/L	Dried at 103-105 degree celsius (SM:2540D)	8	≤200
Trivalent Chromium	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	≤0.75

Physical Apperance : 1. Sample : lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L , PE 1.8 L , G 1.0 L ]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของ โครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

21/12/2023

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

COPY

## Test Report

Request No : W6612095

Report No : 6612-1072

Customer : NS BlueScope (Thailand) Limited

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150

Sampling Source : NS BlueScope (Thailand) Limited

Sample No : W 66120392

Sample Name : Effluent

Sampling Date : 04/12/2023

Sampling By : Customer

Sampling Time : 9:30 AM

Sampling Method : Grab

Received Date : 06/12/2023

Tested Date : 06/12/2023 - 16/12/2023

Reported Date : 21/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Zinc	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.03	≤ 5

Physical Appearance : 1. Sample : lightly SS

2. Container : Normal [ PE 0.5 L(3 Bottle) , PE 1.0 L, PE 1.8 L, G 1.0 L]

Remark : 1./1 ค่าที่กำหนดไว้ในรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อมของโครงการนิคมอุตสาหกรรมเหมราชตะวันออก (มาบตาพุด) ส่วนขยาย  
ฉบับเดือนมิถุนายน พ.ศ. 2551

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



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Apiradee Chuen-arom)

21/12/2023

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

COPY

## Test Report

Request No : W6610652

Report No : 6611-0490

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102305

Sample Name : Ground Water Bore # 1\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 9:40 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023


Reported Date : 08/11/2023

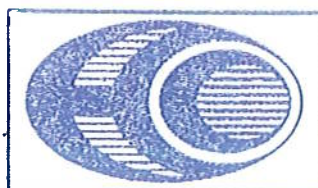
Parameter	Unit	Method	Result	Standard <sup>1</sup>
Hexavalent Chromium *	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤0.05
pH (on site) *		Electrometric Method	4.8	-
Trivalent Chromium *	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	-
Zinc @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	1.03	≤5

Physical Appearance : 1. Sample : yellowish, turbid  
2. Container : Normal [ PE 0.5 L, PE 1.8 L ]

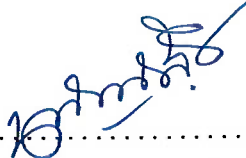
Remark : 1. /1 Ground Water Standard Notification of the National of Environment Board No. 20, B.E. 2543 (2000)

- @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
- Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
- \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)\*
- \*\* = These data are non laboratory data.

Examined By :   
(Miss Apiradee Chuen-arom)  
(จ-003-ก-0007)  
08/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :   
(Miss Nunnaphat Bakhuntod)  
(จ-003-ก-0005)  
08/11/2023

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

## Test Report

Request No : W6610652

Report No : 6611- 0490

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102305

Sample Name : Ground Water Bore # 1\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 9:40 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium <sup>@</sup>	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.10	-
Iron <sup>@</sup>	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.03	-
Temperature *	°C	Laboratory and Field Method	31	-

Physical Apperance : 1. Sample : yellowish, turbid

2. Container : Normal [ PE 0.5 L, PE 1.8 L ]

Remark : 1. /1 Ground Water Standard Notification of the National of Environment Board No. 20 , B.E. 2543 (2000)

2. @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang \*

5. \*\* = These data are non laboratory data.

6. Parameter Outside The Scope of The Registration of Department of Industrial Works



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Nunnaphat Bakhuntod)

08/11/2023

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

**COPY**

## Test Report

Request No : W6610652

Report No : 6611-0491

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakomsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102306

Sample Name : Ground Water Bore # 2\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 10:05 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Hexavalent Chromium *	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤0.05
pH (on site) *		Electrometric Method	5.0	-
Trivalent Chromium *	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	-
Zinc @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.45	≤5

Physical Appearance : 1. Sample : yellowish , lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.8 L ]

Remark : 1. /I Ground Water Standard Notification of the National of Environment Board No. 20 , B.E. 2543 (2000)

2. @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

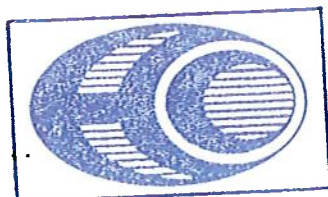
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)\*

5. \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)  
(จ-003-ก-0007)  
08/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : .....

(Miss Nunnaphat Bakhuntod)  
(จ-003-ก-0005)  
08/11/2023

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

## Test Report

Request No : W6610652

Report No : 6611-0491

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102306

Sample Name : Ground Water Bore # 2\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 10:05 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	< 0.10	-
Iron *	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	3.18	-
Temperature *	°C	Laboratory and Field Method	32	-

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, PE 1.8 L ]

Remark : 1. /1 Ground Water Standard Notification of the National of Environment Board No. 20, B.E. 2543 (2000)

2. @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
3. Miss Nunnaphat Bakhuntod is Technical Management.
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharek Phatklang \*
5. \*\* = These data are non laboratory data.
6. Parameter Outside The Scope of The Registration of Department of Industrial Works



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Nunnaphat Bakhuntod)  
08/11/2023

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

**COPY**

## Test Report

Request No : W6610652

Report No : 6611-0492

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102307

Sample Name : Ground Water Bore # 3\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 9:55 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Hexavalent Chromium *	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤0.05
pH (on site) *		Electrometric Method	5.6	-
Trivalent Chromium *	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	< 0.03	-
Zinc @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.77	≤5

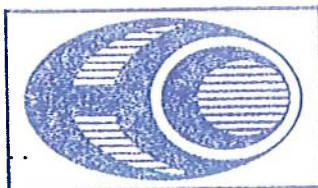
Physical Appearance : 1. Sample : orange, turbid  
2. Container : Normal [ PE 0.5 L, PE 1.8 L ]

Remark : 1. /I Ground Water Standard Notification of the National of Environment Board No. 20 , B.E. 2543 (2000)

- @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.
- Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
- \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)\*
- \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)  
(จ-003-ก-0007)  
08/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : .....

(Miss Nunnaphat Bakhuntod)  
(จ-003-ก-0005)  
08/11/2023

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

## Test Report

Request No : W6610652

Report No : 6611-0492

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102307

Sample Name : Ground Water Bore # 3\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 9:55 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	<0.10	-
Iron *	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	14.5	-
Temperature *	°C	Laboratory and Field Method	33	-

Physical Appearance : 1. Sample : orange, turbid

2. Container : Normal [ PE 0.5 L, PE 1.8 L ]

Remark : 1. /I Ground Water Standard Notification of the National of Environment Board No. 20 , B.E. 2543 (2000)

2. @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharek Phatklang \*

5. \*\* = These data are non laboratory data.

6. Parameter Outside The Scope of The Registration of Department of Industrial Works



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : 

(Miss Nunnaphat Bakhuntod)

08/11/2023

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

**COPY**

## Test Report

Request No : W6610652

Report No : 6611-0493

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakornsongkrohrad Rd., T. Maptaphut, A. Muang, Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102308

Sample Name : Ground Water Bore # 4\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 9:30 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Hexavalent Chromium *	mg/L as Cr <sup>6+</sup>	Filtration, Colorimetric Method (SM:3500 -Cr B)	< 0.050	≤ 0.05
pH (on site) *		Electrometric Method	5.5	-
Trivalent Chromium *	mg/L as Cr <sup>3+</sup>	Digestion, Direct ICP Method; Filtration, Colorimetric Method; Calculation (SM:3500 -Cr B, 3120B)	0.05	-
Zinc @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.74	≤ 5

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L [ 3 Bottle ] ]

Remark : 1. /I Ground Water Standard Notification of the National of Environment Board No. 20 , B.E. 2543 (2000)

2. @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)\*

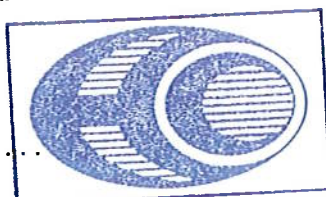
5. \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

08/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : .....

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-0005)

08/11/2023

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

## Test Report

Request No : W6610652

Report No : 6611-0493

Customer : NS BlueScope (Thailand) Limited\*\*

Address : No.2 Soi G 9 Pakomsongkrohrad Rd., T. Maptaphut , A. Muang , Rayong 21150\*\*

Sampling Source : NS BlueScope (Thailand) Limited\*\*

Sample No : W 66102308

Sample Name : Ground Water Bore # 4\*\*

Sampling Date : 30/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 9:30 AM\*\*

Sampling Method : Grab\*\*

Received Date : 31/10/2023

Tested Date : 31/10/2023 - 07/11/2023

Reported Date : 08/11/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Aluminium @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	<0.10	-
Iron @	mg/L	Digestion, Inductively Coupled Plasma Method (SM:3030F, 3120B)	0.06	-
Temperature *	°C	Laboratory and Field Method	30	-

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L [ 3 Bottle ] ]

Remark : 1./1 Ground Water Standard Notification of the National of Environment Board No. 20 , B.E. 2543 (2000)

2. @ = ISO/IEC 17025:2017 Accredited by TISI. SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang \*

5. \*\* = These data are non laboratory data.

6. Parameter Outside The Scope of The Registration of Department of Industrial Works



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By : .....

(Miss Nunnaphat Bakhuntod)  
08/11/2023

Request No. ATR6610031

Report No. 6610-0535

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Passivation ในสายการผลิต Zinalume Line : MCL1  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100535  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:58-11:58  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20200403077 REPORTED DATE : 21/10/2023

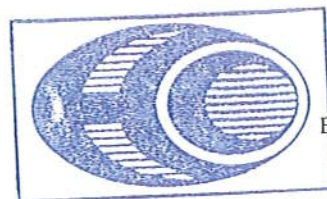
PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Chromium (Cr)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Witchawan Singto)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6611044

Report No. 6611-0647

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi 39 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limitedd  
 SAMPLE NAME : Passivation ในสายการผลิต Zinalume Line : MCL1  
 SAMPLING DATE : 20/11/2023 SAMPLE NO. : A66110647  
 RECEIVED DATE : 27/11/2023 SAMPLING TIME : 09:18-10:18  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 27/11/2023-27/11/2023  
 Serial No. 20211103003 REPORTED DATE : 06/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Chromium (Cr)	Filtrat on, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

**REMARK:**<sup>1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\* Parameter not have Licens : Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Weerachai Porjai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

06/12/2023

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

Request No. ATR6607021

Report No. 6607-0299

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE NAME : Passivation ในสายการผลิต Zinalume Line : MCL2

SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070299

RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:55-10:55

SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 10/07/2023-11/07/2023

Serial No. 20211102097 REPORTED DATE : 14/07/2023

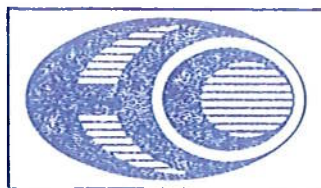
PARAMETER*	TEST METHOD	RESULT	STD <sup>1/</sup>	UNIT
Chromium (Cr)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>1/</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Suttha Songthaninai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

14/07/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6610045

Report No. 6610-0678

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE NAME : Passivation ในสายการผลิต Zincalume Line : MCL 2

SAMPLING DATE : 19/10/2023 SAMPLE NO. : A66100678

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:55-10:55

SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 25/10/2023-27/10/2023

Serial No. 20211102098 REPORTED DATE : 28/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Chromium (Cr)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

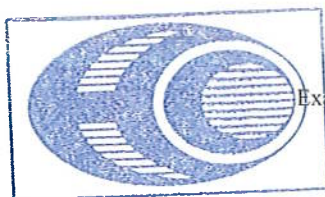
## REMARK:

<sup>1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

(Standard for Chromium metal and insol salts (as Cr))

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Suttha Songthaninai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

28/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6607021

Report No. 6607-0304

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : Passivation ในสายการผลิต Zincalume Line : MCL3  
SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070304  
RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:45-10:45  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 10/07/2023-11/07/2023  
Serial No. 20211102105 REPORTED DATE : 14/07/2023

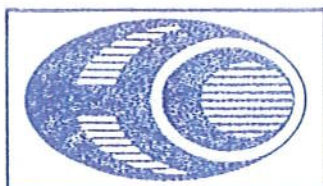
PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Chromium (Cr)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>/1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Suttha Songthaninai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

14/07/2023

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

Request No. ATR6610031

Report No. 6610-0536

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Passivation ในสายการผลิต Zincalume Line : MCL3  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100536  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:35-11:35  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20200403072 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Chromium (Cr)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> Occupational Safety and Health Administration (OSHA) ; Standard Number 1910.1000 Table Z-1 Limits for Air Contaminants.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Witchawan Singto)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6610045

Report No. 6610-0677

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE NAME : Alkali Cleaning Section (CPL Process Section)

SAMPLING DATE : 18/10/2023 SAMPLE NO. : A66100677

RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:35-10:35

SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 25/10/2023-27/10/2023

Serial No. 20200403071 REPORTED DATE : 28/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Sodium Hydroxide	Filtration Acid Base Titrimetric Method	< 0.4	2.0	mg/m <sup>3</sup>
		< 0.2	1.2	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

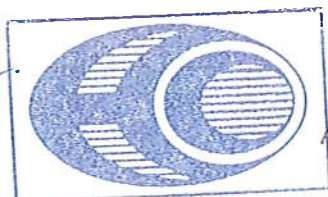
\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By

(Miss Thanatporn Klinsoon)

28/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

28/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6610031

Report No. 6610-0545

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Alkali Cleaning Section : MCL1  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100545  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:32-11:32  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20211103029 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Sodium Hydroxide	Filtration Acid Base Titrimetric Method	< 0.4	2.0	mg/m <sup>3</sup>
		< 0.2	1.2	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and

No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By .....

(Miss Thanatporn Klinsopon)

21/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6610045

Report No. 6610-0681

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : Alkali Cleaning Section : MCL 2  
SAMPLING DATE : 19/10/2023 SAMPLE NO. : A66100681  
RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:35-10:35  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 25/10/2023-27/10/2023  
Serial No. 20211102105 REPORTED DATE : 28/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Sodium Hydroxide	Filtration Acid Base Titrimetric Method	< 0.4	2.0	mg/m <sup>3</sup>
		< 0.2	1.2	ppm

## REMARK:

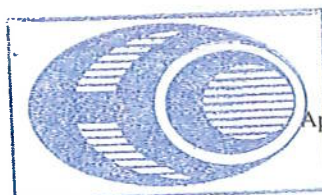
<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By

(Miss Thanatporn Klinsopon)

28/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

28/10/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0546

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Alkali Cleaning Section : MCL3  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100546  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:37-11:37  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20200403063 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Sodium Hydroxide	Filtration Acid Base Titrimetric Method	< 0.4	2.0	mg/m <sup>3</sup>
		< 0.2	1.2	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By

(Miss Thanatporn Klinsopon)

21/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0537

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : MCL Pot Area:MCL1  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100537  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:48-11:48  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20211102103 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Zinc (Zn)	Filtration, ICP-OES /NIOSH 7300	< 0.01	5	mg/m <sup>3</sup>

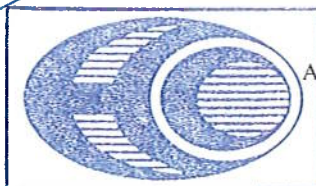
**REMARK:**<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By .....

(Miss Thanatporn Klinsopon)

21/10/2023



Approved By .....

(Mr. Kawee Suthasub)

21/10/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
 REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6611044

Report No. 6611-0648

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limitedd  
SAMPLE NAME : MCL Pot Area:MCL1  
SAMPLING DATE : 20/11/2023 SAMPLE NO. : A66110648  
RECEIVED DATE : 27/11/2023 SAMPLING TIME : 09:15-10:15  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 27/11/2023-27/11/2023  
Serial No. 20200403064 REPORTED DATE : 06/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Zinc (Zn)	Filtration, ICP-OES /NIOSH 7300	< 0.01	5	mg/m <sup>3</sup>

## REMARK:

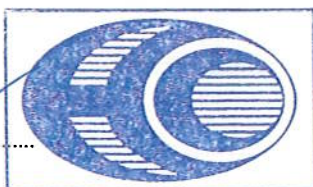
<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Weerachai Porjai)

Examined By .....

(Miss Thanatporn Klinsopon)

06/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Mr. Kawee Suthasub)

06/12/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0538

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : MCL Pot Area:MCL1  
SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100538  
RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:48-11:48  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
Serial No. 20211102103 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Aluminium (Al)	Filtration, ICP-OES /NIOSH 7300	0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> American Conference of Government Industrial Hygienists (ACGIH) B.E. 2563 (2020)

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Witchawan Singto)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6611044

Report No. 6611-0649

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limitedd  
SAMPLE NAME : MCL Pot Area:MCL1  
SAMPLING DATE : 20/11/2023 SAMPLE NO. : A66110649  
RECEIVED DATE : 27/11/2023 SAMPLING TIME : 09:15-10:15  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 27/11/2023-27/11/2023  
Serial No. 20200403064 REPORTED DATE : 06/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Aluminium (Al)	Filtration, ICP-OES /NIOSH 7300	<0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> American Conference of Government Industrial Hygienists (ACGIH) B.E. 2563 (2020)

\* Parameter not have Licens : Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Weerachai Porjai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

06/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. ATR6607021

Report No. 6607-0302

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : MCL Pot Area:MCL2  
 SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070302  
 RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:58-10:58  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 10/07/2023-11/07/2023  
 Serial No. 20200403079 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1)</sup>	UNIT
Zinc (Zn)	Filtration, ICP-OES /NIOSH 7300	< 0.01	5	mg/m <sup>3</sup>

**REMARK:**<sup>1)</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By .....

(Miss Thanatporn Klinsopon)

14/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610045

Report No. 6610-0679

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : MCL Pot Area : MCL 2  
SAMPLING DATE : 19/10/2023 SAMPLE NO. : A66100679  
RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:40-10:40  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 25/10/2023-27/10/2023  
Serial No. 20211102103 REPORTED DATE : 28/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Zinc (Zn)	Filtration, ICP-OES /NIOSH 7300	< 0.01	5	mg/m <sup>3</sup>

## REMARK:

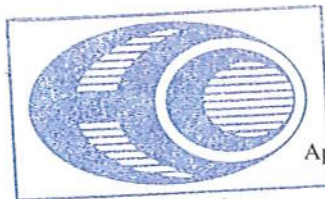
<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2569 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By

(Miss Thanatporn Klinsoon)

28/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

28/10/2023

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

COPY

Request No. ATR6607021

Report No. 6607-0303

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : MCL Pot Area:MCL2  
SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070303  
RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:58-10:58  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 10/07/2023-11/07/2023  
Serial No. 20200403079 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Aluminium (Al)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> American Conference of Government Industrial Hygienists (ACGIH) B.E. 2563 (2020)

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Suttha Songthaninai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610045

Report No. 6610-0680

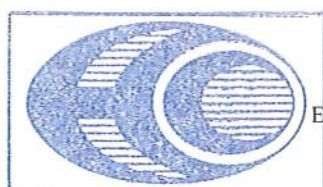
**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : MCL Pot Area : MCL 2  
 SAMPLING DATE : 19/10/2023 SAMPLE NO. : A66100680  
 RECEIVED DATE : 25/10/2023 SAMPLING TIME : 09:40-10:40  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 25/10/2023-27/10/2023  
 Serial No. 20211102103 REPORTED DATE : 28/10/2023

PARAMETER*	TEST METHOD	RESULT	UNIT
Aluminium (Al)	Filtration, ICP-OES /NIOSH 7300	< 0.01	mg/m <sup>3</sup>

**REMARK:**

\* Parameter not have License Registration of Department of Labour Protection and Welfare.  
 (Sampling By Mr. Suttha Songthaninai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

28/10/2023

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

COPY

Request No. ATR6607021

Report No. 6607-0305

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : MCL Pot Area : MCL 3  
SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070305  
RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:50-10:50  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 10/07/2023-11/07/2023  
Serial No. 20211102125 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Zinc (Zn)	Filtration, ICP-OES /NIOSH 7300	< 0.01	5	mg/m <sup>3</sup>

## REMARK:

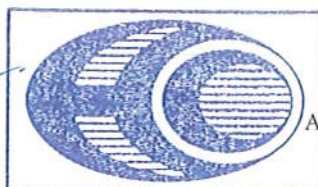
<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By .....

(Miss Thanatporn Klinsoon)

14/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0539

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : MCL Pot Area:MCL3  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100539  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:18-11:18  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20200403061 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Zinc (Zn)	Filtration, ICP-OES /NIOSH 7300	0.01	5	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By

(Miss Thanatporn Klinsoon)

21/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6607021

Report No. 6607-0306

## TEST REPORT

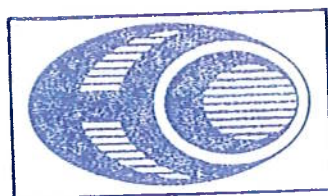
CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : MCL Pot Area : MCL 3  
SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070306  
RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:50-10:50  
SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 10/07/2023-11/07/2023  
Serial No. 20211102125 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Aluminium (Al)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

**REMARK:**<sup>1</sup> American Conference of Government Industrial Hygienists (ACGIH) B.E. 2563 (2020)

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Suttha Songthaninai)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0540

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : MCL Pot Area:MCL3  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100540  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:18-11:18  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 2.00 L/min TESTED DATE : 18/10/2023-19/10/2023  
 Serial No. 20200403061 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Aluminium (Al)	Filtration, ICP-OES /NIOSH 7300	< 0.01	1	mg/m <sup>3</sup>

**REMARK:**<sup>1</sup> American Conference of Government Industrial Hygienists (ACGIH) B.E. 2563 (2020)

\* Parameter not have Licens : Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Witchawan Singto)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6607021

Report No. 6607-0297

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Pickel Line Entry Section  
 SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070297  
 RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:47-10:02  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.50 L/min TESTED DATE : 10/07/2023-11/07/2023  
 Serial No. 218411 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	0.034	7	mg/m <sup>3</sup>
		0.023	5	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

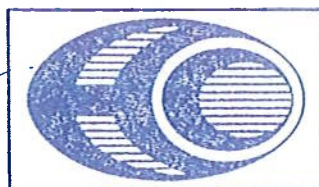
\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By

(Miss Thanaporn Klinsopon)

14/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0533

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Pickel Line Entry Section  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100533  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:38-10:53  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.50 L/min TESTED DATE : 18/10/2023-20/10/2023  
 Serial No. 218432 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	0.016	7	mg/m <sup>3</sup>
		0.011	5	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

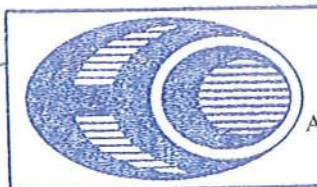
\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By

(Miss Thanatporn Klinsoon)

21/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6607021

Report No. 6607-0296

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : Pickle Line Exit Section  
SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070296  
RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:45-10:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.50 L/min TESTED DATE : 10/07/2023-11/07/2023  
Serial No. 218402 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	0.058	7	mg/m <sup>3</sup>
		0.039	5	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By

(Miss Thanatporn Klinsoon)

14/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0532

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Pickle Line Exit Section  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100532  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:33-10:48  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.50 L/min TESTED DATE : 18/10/2023-20/10/2023  
 Serial No. 218444 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	0.030	7	mg/m <sup>3</sup>
		0.020	5	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2569 (2017), Concentration Limits of Hazardous Chemicals.

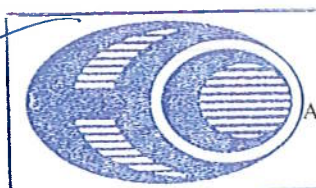
\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By

(Miss Thanatporn Klinsopon)

21/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. ATR6607021

Report No. 6607-0298

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE NAME : Pickle Line Test Section  
SAMPLING DATE : 04/07/2023 SAMPLE NO. : A66070298  
RECEIVED DATE : 10/07/2023 SAMPLING TIME : 09:50-10:05  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.50 L/min TESTED DATE : 10/07/2023-11/07/2023  
Serial No. 218391 REPORTED DATE : 14/07/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	0.042	7	mg/m <sup>3</sup>
		0.028	5	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

Examined By

(Miss Thanatporn Klinsohon)

14/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

14/07/2023

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

COPY

Request No. ATR6610031

Report No. 6610-0534

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : 2 Soi G9 Prakornsongkrohraj road, Mueang Rayong District, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE NAME : Pickle Line Test Section  
 SAMPLING DATE : 12/10/2023 SAMPLE NO. : A66100534  
 RECEIVED DATE : 18/10/2023 SAMPLING TIME : 10:36-10:51  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.50 L/min TESTED DATE : 18/10/2023-20/10/2023  
 Serial No. 218411 REPORTED DATE : 21/10/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Hydrogen chloride (HCl)	Ion Chromatography Method (OSHA ID 174sg)	< 0.015	7	mg/m <sup>3</sup>
		< 0.010	5	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

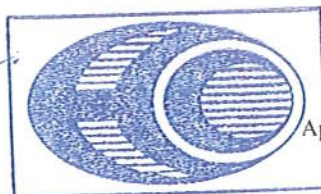
\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

Examined By .....

(Miss Thanatporn Klinsopon)

21/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Mr. Kawee Suthasub)

21/10/2023

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

COPY

Request No. LA66-R0727

Report No. R6607-1856

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Air Compressor

PARAMETER\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 19034

DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 04/07/2023

INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 04/07/2023

S/N 00322747 : Class 2 REPORTED DATE : 13/07/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
10:05-11:05	89	89	dB(A)
11:05-12:05	88	88	dB(A)
12:05-13:05	89	89	dB(A)
13:05-14:05	89	89	dB(A)
14:05-15:05	89	89	dB(A)
15:05-16:05	89	89	dB(A)
16:05-17:05	89	89	dB(A)
17:05-18:05	89	89	dB(A)
$L_{eq}$ 8 hr. (TWA)	88*	88**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** <sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

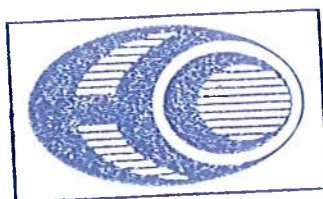
<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Approved By .....

(MRS. WANPEN LHAOCHINDAWAT)

13/07/2023

COPY



ACCREDITED  
ISO 9001 / ISO 14001

## EASTERN THAI CONSULTING 1992 CO., LTD.

683 Moo 11 Sukhapibarn 8 Rd., Nongkham, Sriracha, Chonburi 20230  
Tel. 0-3848-1197-8, 0-3876-3031-2 Fax : 0-3848-2095 E-mail : marketing@etc1992.com



NSC-TISI-TIS 17025  
TESTING 1712

Request No. LA66-R1036

Report No. R6610-1241

### TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited\*\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*\*  
SAMPLE POINT : Air Compressor\*\*\*  
PARAMETER\*\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 30640  
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 12/10/2023  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 12/10/2023  
S/N 01209916 : Class 2 REPORTED DATE : 24/10/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
09:55-10:55	87	87	dB(A)
10:55-11:55	87	87	dB(A)
11:55-12:55	86	86	dB(A)
12:55-13:55	86	86	dB(A)
13:55-14:55	86	86	dB(A)
14:55-15:55	87	87	dB(A)
15:55-16:55	86	86	dB(A)
16:55-17:55	85	85	dB(A)
$L_{eq}$ 8 hr. (TWA)	86*	86**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
(Published in the Government Gazette on January 26, 2018)

<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* These Data are Non Laboratory Data

\*\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*\*  
SAMPLE POINT : Zincalume Pot Area : MCL 1\*\*\*  
PARAMETER\*\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 30639  
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 12/10/2023  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 12/10/2023  
S/N 00222594 : Class 2 REPORTED DATE : 24/10/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
10:45-11:45	90	90	dB(A)
11:45-12:45	91	91	dB(A)
12:45-13:45	89	89	dB(A)
13:45-14:45	89	89	dB(A)
14:45-15:45	88	88	dB(A)
15:45-16:45	93	93	dB(A)
16:45-17:45	92	92	dB(A)
17:45-18:45	91	91	dB(A)
$L_{eq}$ 8 hr. (TWA)	90*	90**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

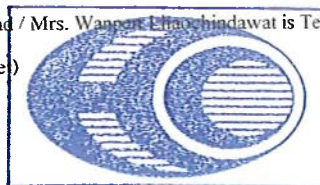
\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* These Data are Non Laboratory Data

\*\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsonon is Section Head / Mrs. Wannat Lhaochindawat is Technical Management)

(Measurement By Ms. Pornnapa Phongphe)



Approved By .....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
REPORTED TEST RESULT TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**COPY**

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150\*\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*\*  
SAMPLE POINT : Zincalume Pot Area : MCL 1\*\*\*  
PARAMETER\*\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 33780  
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 20/11/2023  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 21/11/2023  
S/N 00322744 : Class 2 REPORTED DATE : 25/11/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
09:10-10:10	90	90	dB(A)
10:10-11:10	90	90	dB(A)
11:10-12:10	90	90	dB(A)
12:10-13:10	90	90	dB(A)
13:10-14:10	90	90	dB(A)
14:10-15:10	90	90	dB(A)
15:10-16:10	90	90	dB(A)
16:10-17:10	90	90	dB(A)
$L_{eq}$ 8 hr. (TWA)	90*	90**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

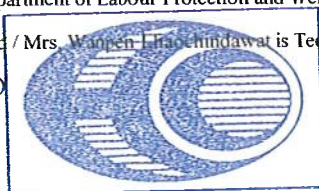
\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* These Data are Non Laboratory Data

\*\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanaporn Klinsopon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(MRS. WANPEN LHAOCHINDAWAT)

25/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

**COPY**

Request No. LA66-R0727

Report No. R6607-1857

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Zinacume Pot Area : MCL 2

PARAMETER\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. -

DETERMINATION METHOD : ISO 11202:2010

INSTRUMENT : Integrated Sound Level Meter

S/N 00322755 : Class 2

SAMPLE NO. : 19035

MEASURING DATE : 04/07/2023

RECEIVED DATE : 04/07/2023

REPORTED DATE : 13/07/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
09:50-10:50	87	87	dB(A)
10:50-11:50	87	87	dB(A)
11:50-12:50	87	87	dB(A)
12:50-13:50	87	87	dB(A)
13:50-14:50	87	87	dB(A)
14:50-15:50	87	87	dB(A)
15:50-16:50	87	87	dB(A)
16:50-17:50	87	87	dB(A)
$L_{eq}$ 8 hr. (TWA)	87*	86**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** <sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

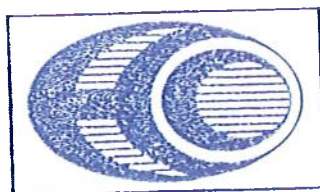
<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Approved By .....

(MRS. WANPEN LHAOCHINDAWAT)

13/07/2023

COPY

TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited\*\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150\*\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*\*  
SAMPLE POINT : Zincalume Pot Area : MCL 2\*\*\*  
PARAMETER\*\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 30838  
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 19/10/2023  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 19/10/2023  
S/N 01209916 : Class 2 REPORTED DATE : 26/10/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
09:40-10:40	89	89	dB(A)
10:40-11:40	90	90	dB(A)
11:40-12:40	89	89	dB(A)
12:40-13:40	89	89	dB(A)
13:40-14:40	89	89	dB(A)
14:40-15:40	89	89	dB(A)
15:40-16:40	89	89	dB(A)
16:40-17:40	88	88	dB(A)
$L_{eq}$ 8 hr. (TWA)	89*	89**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

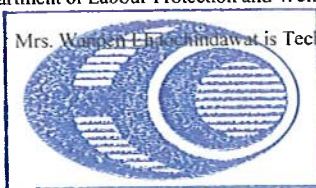
\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* These Data are Non Laboratory Data

\*\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head

(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

26/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R0727

Report No. R6607-1860

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Cold Reduction Mill (In Front of Mill CRM)

PARAMETER\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 19038

DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 04/07/2023

INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 04/07/2023

S/N 00322757 : Class 2 REPORTED DATE : 13/07/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
10:25-11:25	87	87	dB(A)
11:25-12:25	87	87	dB(A)
12:25-13:25	87	87	dB(A)
13:25-14:25	87	87	dB(A)
14:25-15:25	87	87	dB(A)
15:25-16:25	87	87	dB(A)
16:25-17:25	86	86	dB(A)
17:25-18:25	85	85	dB(A)
$L_{eq}$ 8 hr. (TWA)	86*	86**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** <sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

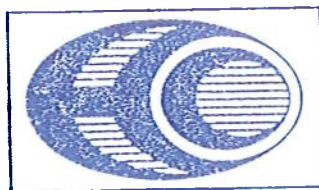
<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

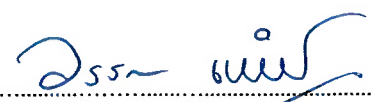
\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

13/07/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited\*\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150\*\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*\*  
SAMPLE POINT : Cold Reduction Mill (In Front of Mill CRM)\*\*\*  
PARAMETER\*\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 30641  
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 12/10/2023  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 12/10/2023  
S/N 00322750 : Class 2 REPORTED DATE : 24/10/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
10:20-11:20	85	85	dB(A)
11:20-12:20	86	86	dB(A)
12:20-13:20	85	85	dB(A)
13:20-14:20	85	85	dB(A)
14:20-15:20	86	86	dB(A)
15:20-16:20	81	81	dB(A)
16:20-17:20	79	79	dB(A)
17:20-18:20	80	80	dB(A)
$L_{eq}$ 8 hr. (TWA)	84*	83**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels. Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* These Data are Non Laboratory Data

\*\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsoon is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R0727

Report No. R6607-1858

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Zincalume Pot Area : MCL 3

PARAMETER\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 19036

DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 04/07/2023

INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 04/07/2023

S/N 00322753 : Class 2 REPORTED DATE : 13/07/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
09:40-10:40	91	91	dB(A)
10:40-11:40	90	90	dB(A)
11:40-12:40	88	88	dB(A)
12:40-13:40	91	91	dB(A)
13:40-14:40	90	90	dB(A)
14:40-15:40	91	91	dB(A)
15:40-16:40	91	91	dB(A)
16:40-17:40	91	91	dB(A)
$L_{eq}$ 8 hr. (TWA)	90*	90**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** <sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

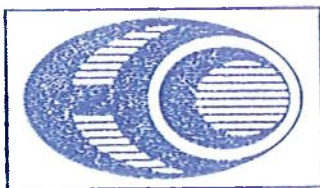
<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

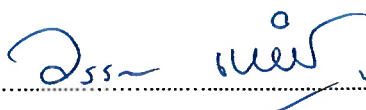
\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY
 Approved By   
(MRS. WANPEN LHAOCHINDAWAT)

13/07/2023

COPY

**TEST REPORT**

CUSTOMER : NS BlueScope (Thailand) Limited\*\*\*  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat. Muang. Rayong 21150\*\*\*  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited\*\*\*  
SAMPLE POINT : Zinalume Pot Area : MCL 3\*\*\*  
PARAMETER\*\*\*\* :  $L_{eq}$  1 hr. &  $L_{eq}$  8 hr. SAMPLE NO. : 30642  
DETERMINATION METHOD : ISO 11202:2010## MEASURING DATE : 12/10/2023  
INSTRUMENT : Integrated Sound Level Meter RECEIVED DATE : 12/10/2023  
S/N 00322757 : Class 2 REPORTED DATE : 24/10/2023

MEASURING TIME	RESULT <sup>1</sup>	RESULT <sup>2</sup>	UNIT
10:15-11:15	90	90	dB(A)
11:15-12:15	90	90	dB(A)
12:15-13:15	90	90	dB(A)
13:15-14:15	90	90	dB(A)
14:15-15:15	90	90	dB(A)
15:15-16:15	82	82	dB(A)
16:15-17:15	79	79	dB(A)
17:15-18:15	79	79	dB(A)
$L_{eq}$ 8 hr. (TWA)	88*	87**	dB(A)
Standard	85 <sup>1</sup>	90 <sup>2</sup>	dB(A)

**REMARK :** ## ISO 11202:2010, Notification of The Ministry of Industry B.E. 2546 (2003) on The Safety Protection Measures in Factory Regarding Working Area Environment, Dated November 6, 2003, Notification of The Department of Labour Protection and Welfare on The Standard of Noise Level That Employees are Allowed to Receive in Average Period of Work Each Day, Dated December 13, 2017, Notification of The Department of Labour Protection and Welfare on Criteria, Measurement Methods, and Analysis of Working Conditions Regarding Heat, Light, or Noise Levels, Including Duration and Types of Businesses to Be Performed, Dated February 8, 2018

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)

(Published in the Government Gazette on January 26, 2018)

<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

\* Based on Criteria 85 dB(A); 3 dB Exchange Rate

\*\* Based on Criteria 90 dB(A); 5 dB Exchange Rate

\*\*\* These Data are Non Laboratory Data

\*\*\*\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009

(Ms. Thanatporn Klinsonop is Section Head / Mrs. Wanpen Lhaochindawat is Technical Management)

(Measurement By Ms. Pornnapa Phongphet)



Approved By .....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

**COPY**

Request No. LA66-R1036

Report No. R6610-1225

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Zincalume Line Cleaning : MCL 1 SAMPLE NO. : 30624

MEASURING DATE : 12/10/2023 RECEIVED DATE : 12/10/2023

SAMPLING INSTRUMENT : Heat Stress ; REPORTED DATE : 24/10/2023

Wet Bulb Globe Temperature (WBGT) : Serial No. 22004318

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:00-09:30	27.6	34.1	33.6	29.6	°C
	09:30-10:00	27.4	34.7	34.0	29.6	°C
	10:00-10:30	28.0	34.7	34.1	30.0	°C
	10:30-11:00	28.2	34.3	33.7	30.0	°C
WBGT AVERAGE	09:00-11:00	-	-	-	29.8	°C
STANDARD		-	-	-	34.0 <sup>1,2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>/1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>/2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

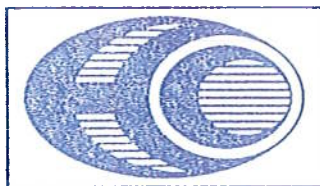
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R1056

Report No. R6610-1614

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Zincalume Line Cleaning : MCL 2  
MEASURING DATE : 19/10/2023  
SAMPLING INSTRUMENT : Heat Stress ;  
Wet Bulb Globe Temperature (WBGT) : Serial No. TPL060039

SAMPLE NO. : 30839  
RECEIVED DATE : 19/10/2023  
REPORTED DATE : 26/10/2023

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:30-10:00	28.5	33.9	33.3	30.1	°C
	10:00-10:30	28.6	33.7	33.0	30.1	°C
	10:30-11:00	28.5	33.8	33.2	30.1	°C
	11:00-11:30	28.5	33.7	33.3	30.1	°C
WBGT AVERAGE	09:30-11:30	-	-	-	30.1	°C
STANDARD		-	-	-	34.0 <sup>1/2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>1/</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>2/</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

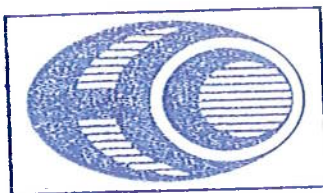
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

26/10/2023

COPY

Request No. LA66-R1036

Report No. R6610-1224

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Annealing Process : MCL 1

MEASURING DATE : 12/10/2023

SAMPLING INSTRUMENT : Heat Stress ;

SAMPLE NO. : 30623

RECEIVED DATE : 12/10/2023

REPORTED DATE : 24/10/2023

Wet Bulb Globe Temperature (WBGT) : Serial No. TEU080013

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:00-09:30	28.0	40.8	33.5	31.8	°C
	09:30-10:00	27.9	40.2	32.8	31.6	°C
	10:00-10:30	28.0	40.6	33.3	31.8	°C
	10:30-11:00	27.8	41.3	33.9	31.9	°C
WBGT AVERAGE	09:00-11:00	-	-	-	31.8	°C
STANDARD		-	-	-	34.0 <sup>1,2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

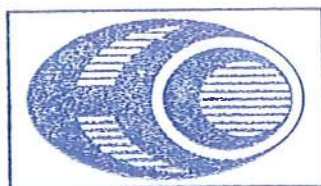
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R1056

Report No. R6610-1615

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakongsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Annealing Process : MCL 2 SAMPLE NO. : 30840

MEASURING DATE : 19/10/2023 RECEIVED DATE : 19/10/2023

SAMPLING INSTRUMENT : Heat Stress ; REPORTED DATE : 26/10/2023

Wet Bulb Globe Temperature (WBGT) : Serial No. TPL060040

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:30-10:00	29.0	35.9	33.4	31.1	°C
	10:00-10:30	29.0	36.0	33.4	31.1	°C
	10:30-11:00	29.1	35.9	33.5	31.1	°C
	11:00-11:30	29.2	36.1	33.6	31.3	°C
WBGT AVERAGE	09:30-11:30	-	-	-	31.1	°C
STANDARD		-	-	-	34.0 <sup>1,2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>/1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>/2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

26/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R1036

Report No. R6610-1226

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
SAMPLE POINT : Oven Room : CPL SAMPLE NO. : 30625  
MEASURING DATE : 12/10/2023 RECEIVED DATE : 12/10/2023  
SAMPLING INSTRUMENT : Heat Stress ; REPORTED DATE : 24/10/2023  
Wet Bulb Globe Temperature (WBGT) : Serial No. 22004316

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:00-09:30	26.4	30.4	29.6	27.6	°C
	09:30-10:00	27.3	31.8	30.9	28.7	°C
	10:00-10:30	27.7	32.7	31.7	29.2	°C
	10:30-11:00	27.1	33.0	32.1	28.9	°C
WBGT AVERAGE	09:00-11:00	-	-	-	28.6	°C
STANDARD		-	-	-	34.0 <sup>1/2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

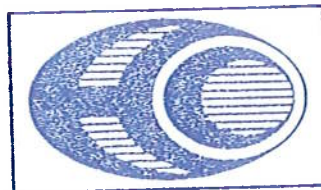
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

COPY

Request No. LA66-R1036

Report No. R6610-1223

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Coater Room : CPL SAMPLE NO. : 30622

MEASURING DATE : 12/10/2023 RECEIVED DATE : 12/10/2023

SAMPLING INSTRUMENT : Heat Stress ; REPORTED DATE : 24/10/2023

Wet Bulb Globe Temperature (WBGT) : Serial No. 22004319

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:00-09:30	27.0	30.4	30.2	28.0	°C
	09:30-10:00	27.2	31.2	30.7	28.4	°C
	10:00-10:30	27.2	31.8	31.2	28.6	°C
	10:30-11:00	27.3	31.5	30.7	28.6	°C
WBGT AVERAGE	09:00-11:00	-	-	-	28.4	°C
STANDARD		-	-	-	34.0 <sup>1,2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>/1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>/2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

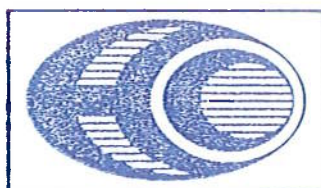
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY

Request No. LA66-R1036

Report No. R6610-1230

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited  
 ADDRESS : Soi G 9 Eastern Industrial Estate, Prakornsongkruarat, Muang, Rayong 21150  
 SAMPLE SOURCE : NS BlueScope (Thailand) Limited  
 SAMPLE POINT : Zinalume Line Cleaning : MCL 3  
 MEASURING DATE : 12/10/2023  
 SAMPLING INSTRUMENT : Heat Stress ;  
 SAMPLE NO. : 30629  
 RECEIVED DATE : 12/10/2023  
 REPORTED DATE : 24/10/2023  
 Wet Bulb Globe Temperature (WBGT) : Serial No. TEU080014

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:00-09:30	26.8	30.1	29.9	27.8	°C
	09:30-10:00	27.2	34.8	30.3	29.5	°C
	10:00-10:30	27.4	34.7	32.8	29.6	°C
	10:30-11:00	27.6	34.8	33.1	29.8	°C
WBGT AVERAGE	09:00-11:00	-	-	-	29.2	°C
STANDARD		-	-	-	34.0 <sup>1,2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

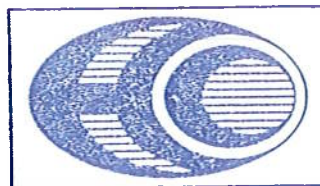
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

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

COPY

Request No. LA66-R1036

Report No. R6610-1229

## TEST REPORT

CUSTOMER : NS BlueScope (Thailand) Limited

ADDRESS : Soi G 9 Eastern Industrial Estate, Prakomsongkruarat, Muang, Rayong 21150

SAMPLE SOURCE : NS BlueScope (Thailand) Limited

SAMPLE POINT : Annealing Process : MCL 3 SAMPLE NO. : 30628

MEASURING DATE : 12/10/2023 RECEIVED DATE : 12/10/2023

SAMPLING INSTRUMENT : Heat Stress ; REPORTED DATE : 24/10/2023

Wet Bulb Globe Temperature (WBGT) : Serial No. TPI050069

PARAMETER*	SAMPLING TIME	RESULT				
		NWB	GT	DB	WBGT	UNIT
Heat Stress	09:00-09:30	27.5	33.8	31.7	29.4	°C
	09:30-10:00	27.6	33.7	32.1	29.4	°C
	10:00-10:30	27.6	34.0	33.3	29.5	°C
	10:30-11:00	27.6	34.2	33.5	29.6	°C
WBGT AVERAGE	09:00-11:00	-	-	-	29.5	°C
STANDARD		-	-	-	34.0 <sup>1,2</sup>	°C

## REMARK:

Work Load is Light, Indoor

<sup>/1</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)<sup>/2</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

NWB = Natural Wet - Bulb Temperature

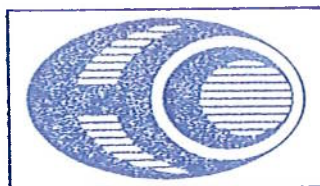
GT = Globe Temperature

DB = Dry - Bulb Temperature

WBGT = Wet - Bulb Globe Temperature

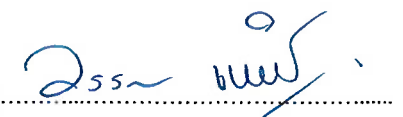
\* Parameter have License Registration of Department of Labour Protection and Welfare No. 0401-03-2564-0009

(Measurement By Ms. Pornnapa Phongphet)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(MRS. WANPEN LHAOCHINDAWAT)

24/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

COPY