

ภาคผนวก ค-5

คุณภาพน้ำผิวดิน



Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042
Lot ID: 2269236
Date Received : Jul 15, 2022
Date Reported : Jul 22, 2022
Report Number : 2335303-1

Page 1 of 5

Sample Number 2269236-1
Sampled Date Jul 15, 2022 3:16 PM
Sample Description Surface water
Location จุดที่ 1 : บริเวณคลองขุมพลเหนือจุดระบายน้ำทิ้งขึ้นไป 500 เมตร
Date Analysis Commenced Jul 15, 2022
Condition of Sample Contained in one BOD bottle, one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	4.4	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.6	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.3	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	248	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	98	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
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Approved by

D. Chamon.

Dej Changchon
Senior Manager

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Life Sciences

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2269236

Date Received : Jul 15, 2022

Date Reported : Jul 22, 2022

Report Number : 2335303-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 2 of 5

Sample Number	2269236-2						
Sampled Date	Jul 15, 2022 3:08 PM						
Sample Description	Surface water						
Location	จุดที่ 2 : บริเวณคลองขุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝ่ายทยายศร)						
Date Analysis Commenced	Jul 15, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	4.3	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.8	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	242	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	88	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

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Senior Manager

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2269236

Date Received : Jul 15, 2022

Date Reported : Jul 22, 2022

Report Number : 2335303-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 3 of 5

Sample Number	2269236-3						
Sampled Date	Jul 15, 2022 2:50 PM						
Sample Description	Surface water						
Location	จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน						
Date Analysis Commenced	Jul 15, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	3	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.6	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.4	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.0	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	201	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	113	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2269236

Date Received : Jul 15, 2022

Date Reported : Jul 22, 2022

Report Number : 2335303-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 4 of 5

Sample Number	2269236-4						
Sampled Date	Jul 15, 2022 2:46 PM						
Sample Description	Surface water						
Location	จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานขึ้นไป 500 เมตร						
Date Analysis Commenced	Jul 15, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	3	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.2	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.4	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.2	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	92	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	63	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2269236

Date Received : Jul 15, 2022

Date Reported : Jul 22, 2022

Report Number : 2335303-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 5 of 5

Sample Number	2269236-5						
Sampled Date	Jul 15, 2022 2:54 PM						
Sample Description	Surface water						
Location	จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานลงไป 500 เมตร						
Date Analysis Commenced	Jul 15, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.2	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.5	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	102	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	86	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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Dej Changchon
Senior Manager

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Analysis / Test Report

TESTING

No.0009

Lot ID: 2271281

Date Received : Aug 29, 2022

Date Reported : Sep 06, 2022

Report Number : 2338755-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 1 of 3

Sample Number	2271281-3						
Sampled Date	Aug 29, 2022 11:30 AM						
Sample Description	Surface water						
Location	จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน						
Date Analysis Commenced	Aug 29, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	7.1	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	8.2	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	32.1	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	64	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	25	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Narunat thammassaro

Remark :

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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0009

Lot ID: 2271281

Date Received : Aug 29, 2022

Date Reported : Sep 06, 2022

Report Number : 2338755-1

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418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 2 of 3

Sample Number	2271281-4						
Sampled Date	Aug 29, 2022 11:20 AM						
Sample Description	Surface water						
Location	จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานขึ้นไป 500 เมตร						
Date Analysis Commenced	Aug 29, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.0	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	8.3	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	31.8	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	60	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	34	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Narunat thammassaro

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N. Banchongkit

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Supervisor

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No.0009

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Date Reported : Sep 06, 2022

Report Number : 2338755-1

Client : Gulf NC Co., Ltd.

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P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 3 of 3

Sample Number	2271281-5						
Sampled Date	Aug 29, 2022 11:42 AM						
Sample Description	Surface water						
Location	จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานลงไป 500 เมตร						
Date Analysis Commenced	Aug 29, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.0	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	8.3	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	33.9	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	56	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	34	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Narunat thammassaro

Remark :

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2295272

Date Received : Sep 23, 2022

Date Reported : Oct 03, 2022

Report Number : 2394213-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 1 of 5

Sample Number	2295272-1						
Sampled Date	Sep 23, 2022 12:30 PM						
Sample Description	Surface water						
Location	จุดที่ 1 : บริเวณคลองขุมพลเหนือจุดระบายน้ำทิ้งขึ้นไป 500 เมตร						
Date Analysis Commenced	Sep 23, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	3	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.4	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.5	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	28.7	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	79	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	55	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2295272

Date Received : Sep 23, 2022

Date Reported : Oct 03, 2022

Report Number : 2394213-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 2 of 5

Sample Number	2295272-2						
Sampled Date	Sep 23, 2022 12:20 PM						
Sample Description	Surface water						
Location	จุดที่ 2 : บริเวณคลองขุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝ่ายทยายศร)						
Date Analysis Commenced	Sep 23, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.8	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.6	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	28.3	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	82	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	53	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2295272

Date Received : Sep 23, 2022

Date Reported : Oct 03, 2022

Report Number : 2394213-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 3 of 5

Sample Number	2295272-3						
Sampled Date	Sep 23, 2022 12:00 PM						
Sample Description	Surface water						
Location	จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน						
Date Analysis Commenced	Sep 23, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.0	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.5	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.0	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	67	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	49	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2295272

Date Received : Sep 23, 2022

Date Reported : Oct 03, 2022

Report Number : 2394213-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 4 of 5

Sample Number	2295272-4						
Sampled Date	Sep 23, 2022 11:40 AM						
Sample Description	Surface water						
Location	จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานขึ้นไป 500 เมตร						
Date Analysis Commenced	Sep 23, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.1	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.5	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.5	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	72	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	44	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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Approved by

N. Banchongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 2295272

Date Received : Sep 23, 2022

Date Reported : Oct 03, 2022

Report Number : 2394213-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 5 of 5

Sample Number	2295272-5						
Sampled Date	Sep 23, 2022 11:50 AM						
Sample Description	Surface water						
Location	จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานลงไป 500 เมตร						
Date Analysis Commenced	Sep 23, 2022						
Condition of Sample	Contained in one BOD bottle, one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.8	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.5	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	28.8	n'	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	70	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	52	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun , Panupong Manit

Remark :

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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0009
Lot ID: 22106005
Date Received : Oct 18, 2022
Date Reported : Oct 26, 2022
Report Number : 2415256-1

Page 1 of 4

Sample Number 22106005-2
Sampled Date Oct 18, 2022 10:30 AM
Sample Description Surface water
Location จุดที่ 2 : บริเวณคลองขุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝ่ายทยายศร)
Date Analysis Commenced Oct 18, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	4.4	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.2	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	59	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	11	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

N. Banngmit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

TESTING
No.0009
Lot ID: 22106005
Date Received : Oct 18, 2022
Date Reported : Oct 26, 2022
Report Number : 2415256-1

Page 2 of 4

Sample Number 22106005-3
Sampled Date Oct 18, 2022 11:10 AM
Sample Description Surface water
Location จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองขุมพลกับแควหนุมาน
Date Analysis Commenced Oct 18, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	4.9	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	28.2	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	57	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	10	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

TESTING
No.0009
Lot ID: 22106005
Date Received : Oct 18, 2022
Date Reported : Oct 26, 2022
Report Number : 2415256-1

Page 3 of 4

Sample Number 22106005-4
Sampled Date Oct 18, 2022 11:00 AM
Sample Description Surface water
Location จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานขึ้นไป 500 เมตร
Date Analysis Commenced Oct 18, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.2	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.0	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	28.1	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	58	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	21	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

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Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0009
Lot ID: 22106005
Date Received : Oct 18, 2022
Date Reported : Oct 26, 2022
Report Number : 2415256-1

Page 4 of 4

Sample Number	22106005-5						
Sampled Date	Oct 18, 2022 11:20 AM						
Sample Description	Surface water						
Location	จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานลงไป 500 เมตร						
Date Analysis Commenced	Oct 18, 2022						
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.2	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	26.8	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	60	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	17	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042
Lot ID: 22117438
Date Received : Nov 14, 2022
Date Reported : Nov 22, 2022
Report Number : 2443096-1

Page 1 of 5

Sample Number 22117438-1
Sampled Date Nov 14, 2022 11:50 AM
Sample Description Surface water
Location จุดที่ 1 : บริเวณคลองขุมพลเหนือจุดระบายน้ำทิ้งขึ้นไป 500 เมตร
Date Analysis Commenced Nov 14, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	2.2	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.3	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.7	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	74	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	9	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

D. Chamon.

Dej Changchon
Senior Manager

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042
Lot ID: 22117438
Date Received : Nov 14, 2022
Date Reported : Nov 22, 2022
Report Number : 2443096-1

Page 2 of 5

Sample Number 22117438-2
Sampled Date Nov 14, 2022 11:25 AM
Sample Description Surface water
Location จุดที่ 2 : บริเวณคลองขุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝ่ายทยายศร)
Date Analysis Commenced Nov 14, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.0	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.8	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	91	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	15	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

Dej Changchon
Senior Manager

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042
Lot ID: 22117438
Date Received : Nov 14, 2022
Date Reported : Nov 22, 2022
Report Number : 2443096-1

Page 3 of 5

Sample Number 22117438-3
Sampled Date Nov 14, 2022 11:57 AM
Sample Description Surface water
Location จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน
Date Analysis Commenced Nov 14, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	<0.10	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	7.0	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.0	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.4	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	61	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	25	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

D. Chamon.

Dej Changchon
Senior Manager

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042
Lot ID: 22117438
Date Received : Nov 14, 2022
Date Reported : Nov 22, 2022
Report Number : 2443096-1

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Sample Number 22117438-4
Sampled Date Nov 14, 2022 12:10 PM
Sample Description Surface water
Location จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานขึ้นไป 500 เมตร
Date Analysis Commenced Nov 14, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	<0.10	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.9	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	7.0	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.8	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	49	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	37	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

D. Chamon.

Dej Changchon
Senior Manager

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

TESTING
No.0042
Lot ID: 22117438
Date Received : Nov 14, 2022
Date Reported : Nov 22, 2022
Report Number : 2443096-1

Page 5 of 5

Sample Number 22117438-5
Sampled Date Nov 14, 2022 12:27 PM
Sample Description Surface water
Location จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับแควหนุมานลงไป 500 เมตร
Date Analysis Commenced Nov 14, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	APHA (2017), 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	<0.10	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.9	≥2	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C		-	-	6.8	5.0-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	29.6	Not Change from natural condition	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	52	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	33	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampled By : Paramet Sattayakun

Remark :

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Approved by

Dej Changchon
Senior Manager

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Analysis / Test Report

TESTING

No.0042

Lot ID: 22135592

Date Received : Dec 15, 2022

Date Reported : Dec 23, 2022

Report Number : 2484873-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 1 of 10

Sample Number	22135592-1						
Sampled Date	Dec 15, 2022 11:00 AM						
Sample Description	Surface water						
Location	จุดที่ 1 : บริเวณคลองขุมพลเหนือจุดระบายน้ำทั้งขึ้นไป 500 เมตร						
Date Analysis Commenced	Dec 15, 2022						
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In - house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	4.5	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	In-house method : STM 02-004 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	6.8	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	24.8	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	70	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042

Lot ID: 22135592
Date Received : Dec 15, 2022
Date Reported : Dec 23, 2022
Report Number : 2484873-1

Page 3 of 10

Sample Number	22135592-2						
Sampled Date	Dec 15, 2022 11:10 AM						
Sample Description	Surface water						
Location	จุดที่ 2 : บริเวณคลองขุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝ่ายทยายศร)						
Date Analysis Commenced	Dec 15, 2022						
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In - house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	5.1	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	In-house method : STM 02-004 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	6.8	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	24.9	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	65	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	17	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

TESTING
No.0042

Lot ID: 22135592
Date Received : Dec 15, 2022
Date Reported : Dec 23, 2022
Report Number : 2484873-1

Page 5 of 10

Sample Number	22135592-3						
Sampled Date	Dec 15, 2022 11:35 AM						
Sample Description	Surface water						
Location	จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน						
Date Analysis Commenced	Dec 15, 2022						
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In - house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.7	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	In-house method : STM 02-004 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	26.9	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	66	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	31	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 22135592

Date Received : Dec 15, 2022

Date Reported : Dec 23, 2022

Report Number : 2484873-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 7 of 10

Sample Number	22135592-4						
Sampled Date	Dec 15, 2022 11:20 AM						
Sample Description	Surface water						
Location	จุดที่ 4 : บริเวณแนวทวนน้ำเหนือจุดบรรจบระหว่างคลองชุมพลกับแนวทวนน้ำขึ้นไป 500 เมตร						
Date Analysis Commenced	Dec 15, 2022						
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In - house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	7.0	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	In-house method : STM 02-004 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C		-	-	6.9	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	27.0	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	69	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	31	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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Analysis / Test Report

TESTING

No.0042

Lot ID: 22135592

Date Received : Dec 15, 2022

Date Reported : Dec 23, 2022

Report Number : 2484873-1

Client : Gulf NC Co., Ltd.

418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location: GNC

Page 9 of 10

Sample Number	22135592-5						
Sampled Date	Dec 15, 2022 11:52 AM						
Sample Description	Surface water						
Location	จุดที่ 5 : บริเวณแนวถนนทางแยกบริเวณระหว่างคลองชุมพลกับแนวถนนลงไป 500 เมตร						
Date Analysis Commenced	Dec 15, 2022						
Condition of Sample	Contained in one amber glass bottle, three plastic bottles and one BOD bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C) *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In - house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	7.2	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
Oil & Grease *	mg/L	-	3	<3	No Standard	In-house method : STM 02-004 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	26.5	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	66	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	30	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n': Change from Natural condition not more than 3 degree C

Sampling By : Paramet Sattayakun ทะเบียนเลขที่ ว-323-จ-9476

Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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ภาคผนวก ค-6

นิเวศวิทยาในน้ำ



สถานีวิจัยประมงศรีราชา
101/12 หมู่ 9 ต. บางพระ
อ. ศรีราชา จ. ชลบุรี 20110
โทร./โทรสาร. (038) 311379

Client : Gulf NC Co., Ltd.

Address : 418 Moo 1 Nontree, Kabin Buri, Prachinburi, Thailand, 25110

Project Name : Monitoring EIA

Project Location : GNC

รายงานผลการวิเคราะห์แพลงก์ตอนพืช

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Division Cyanophyta					
Class Cyanophyceae					
Order Nostocales					
Family Oscillatoriaceae					
1. <i>Oscillatoria</i> sp.	-	-	46	40	-
2. <i>Oscillatoria tenuis</i>	26	25	-	-	-
Family Nostocaceae					
3. <i>Raphidiopsis</i> sp.	-	-	-	-	133
Family Rivulariaceae					
4. <i>Calothrix</i> sp.	-	-	34	-	-

ตาราง ผลการวิเคราะห์แฟลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

ชนิดแฟลงก์ตอนพืช	ปริมาณแฟลงก์ตอนพืช (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Division Chlorophyta					
Class Chlorophyceae					
Order Volvocales					
Family Volvocaceae					
5. <i>Eudorina elegans</i>	26	-	57	13	30
6. <i>Gonium sociale</i>	-	-	-	-	104
Order Chlorococcales					
Family Hydrodictyaceae					
7. <i>Pediastrum duplex</i>	-	-	239	331	414
8. <i>Pediastrum simplex</i>	-	151	34	-	-
9. <i>Pediastrum tetras</i>	-	25	11	-	-
Family Coelastraceae					
10. <i>Coelastrum microporum</i>	-	-	-	13	59
Family Oocystaceae					
11. <i>Ankistrodesmus falcatus</i>	102	-	23	27	74
12. <i>Dictyosphaerium pulchellum</i>	-	-	-	27	30
13. <i>Kirchneriella lunaris</i>	13	-	-	53	-
14. <i>Oocystis elliptica</i>	-	-	103	27	237
15. <i>Quadrigula closterioides</i>	-	-	-	80	-
16. <i>Tetraedron gracile</i>	-	-	-	13	118
17. <i>Tetraedron</i> sp.	-	-	-	27	-
18. <i>Tetraedron trigonum</i>	40	-	11	-	-
Family Scenedesmaceae					
19. <i>Crucigenia apiculata</i>	-	-	593	636	651
20. <i>Micractinium pusillum</i>	-	-	185	172	-
21. <i>Scenedesmus acuminatus</i>	-	-	-	27	-
22. <i>Scenedesmus armatus</i>	-	-	-	66	59

ตาราง ผลการวิเคราะห์แฟลกก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

ชนิดแฟลกก์ตอนพืช	ปริมาณแฟลกก์ตอนพืช (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
23. <i>Scenedesmus dimorphus</i>	-	-	285	689	888
24. <i>Scenedesmus opoliensis</i>	-	-	251	318	474
25. <i>Scenedesmus</i> sp.	-	-	34	265	44
Order Zygematales					
Family Zygnemataceae					
26. <i>Spirogyra</i> sp.	264	75	-	-	-
27. <i>Spirogyra weberi</i>	370	100	34	-	-
Family Desmidiaceae					
28. <i>Closterium acerosum</i>	-	38	11	-	15
29. <i>Closterium calosporum</i>	26	-	-	-	-
30. <i>Closterium ehrenbergii</i>	-	-	-	-	74
31. <i>Closterium gracile</i>	53	-	-	-	30
32. <i>Closterium kuetzingii</i>	26	13	-	13	-
33. <i>Closterium lineatum</i>	66	63	-	-	-
34. <i>Closterium porrectum</i>	13	-	-	-	-
35. <i>Closterium ralfsii</i>	-	13	23	66	-
36. <i>Closterium</i> sp.	-	-	-	66	-
37. <i>Closterium tumidum</i>	-	-	-	27	15
38. <i>Cosmarium</i> sp.	-	-	-	66	118
39. <i>Desmidium coarctatum</i>	79	-	-	-	-
40. <i>Euastrum spinulosum</i>	66	-	-	13	-
41. <i>Pleurotaenium eugeneum</i>	26	-	-	-	-
42. <i>Staurastrum freemanii</i>	-	-	91	27	118
43. <i>Staurastrum gracile</i>	-	-	-	106	74
44. <i>Staurastrum limneticum</i>	-	-	23	-	-
45. <i>Staurastrum</i> sp.	79	-	57	93	133
46. <i>Xanthidium antilopaeum</i>	53	-	-	-	-

ตาราง ผลการวิเคราะห์แฟลกellate (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

ชนิดแฟลกellate	ปริมาณแฟลกellate (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Class Euglenophyceae					
Order Euglenales					
Family Euglenaceae					
47. <i>Euglena acus</i>	224	301	103	-	74
48. <i>Euglena oxyuris</i>	79	50	23	53	-
49. <i>Euglena viridis</i>	185	63	-	13	-
50. <i>Lepocinclis ovum</i>	145	314	228	119	178
51. <i>Phacus angulatus</i>	102	-	-	-	-
52. <i>Phacus hamatus</i>	53	38	-	-	-
53. <i>Phacus longicauda</i>	119	-	46	-	-
54. <i>Phacus platalea</i>	-	63	11	-	-
55. <i>Phacus ranula</i>	-	75	125	-	-
56. <i>Phacus</i> sp.	40	-	-	-	-
57. <i>Phacus tortus</i>	40	75	11	80	133
58. <i>Strombomonas australica</i>	26	-	-	-	15
59. <i>Strombomonas fluviatilis</i>	92	50	-	13	192
60. <i>Strombomonas gibberosa</i>	-	-	-	53	163
61. <i>Strombomonas girardiana</i>	40	38	148	66	296
62. <i>Trachelomonas conica</i>	-	25	-	-	-
63. <i>Trachelomonas crebea</i>	102	63	46	-	178
64. <i>Trachelomonas daugerdiana</i>	66	201	-	-	-
65. <i>Trachelomonas hispida</i>	422	351	91	13	178
66. <i>Trachelomonas mirabilis</i>	-	-	-	-	30
67. <i>Trachelomonas superba</i>	53	50	-	-	30

ตาราง ผลการวิเคราะห์แฟลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

ชนิดแฟลงก์ตอนพืช	ปริมาณแฟลงก์ตอนพืช (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Division Chromophyta					
Class Bacillariophyceae					
Order Biddulphiales					
Suborder Coscinodiscineae					
Family Aulacoseiraceae					
68. <i>Aulacoseira baicalensis</i>	-	63	57	40	192
69. <i>Aulacoseira granulata</i>	-	13	-	27	-
Order Bacillariales					
Suborder Fragilariineae					
Family Fragilariaceae					
70. <i>Fragilaria capucina</i>	211	75	103	-	-
71. <i>Synedra acus</i>	-	88	-	-	44
72. <i>Synedra rumpens</i>	13	-	-	40	-
73. <i>Synedra ulna</i>	383	163	91	-	74
Suborder Bacillariineae					
Family Eunotiaceae					
74. <i>Eunotia lineolata</i>	119	50	-	27	-
75. <i>Eunotia pectinalis</i>	66	138	46	-	74
Family Cymbellaceae					
76. <i>Gomphonema parvulum</i>	739	163	-	27	44
Family Naviculaceae					
77. <i>Gyrosigma attenuatum</i>	-	-	-	-	15
78. <i>Navicula cuspidata</i>	-	13	-	-	-
79. <i>Navicula lanceolata</i>	-	88	23	27	-
80. <i>Pinnularia gibba</i>	40	13	-	13	-
Family Bacillariaceae					
81. <i>Nitzschia reversa</i>	13	-	-	-	15

ตาราง ผลการวิเคราะห์แพลงก์ตอนพืช (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

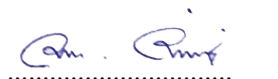
ชนิดแพลงก์ตอนพืช	ปริมาณแพลงก์ตอนพืช (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
82. <i>Nitzschia</i> sp.	-	-	-	-	30
Family Surirellaceae					
83. <i>Surirella elegans</i>	-	-	34	66	118
84. <i>Surirella linearis</i>	-	-	80	53	133
85. <i>Surirella robusta</i>	-	-	34	-	30
86. <i>Surirella tenera</i>	-	-	137	225	207
Class Crysophyceae					
Order Synurales					
Family Mallomonadaceae					
87. <i>Mallomonas acaroides</i>	-	-	-	-	30
88. <i>Mallomonas caudata</i>	-	-	-	-	44
89. <i>Mallomonas litomesa</i>	-	-	23	66	163
90. <i>Mallomonas</i> sp.	-	-	46	-	-
Class Dinophyceae					
Order Peridiniales					
Family Peridiniaceae					
91. <i>Peridinium gatunense</i>	-	-	23	-	-
92. <i>Peridinium</i> sp.	26	-	-	-	-
ชนิดแพลงก์ตอนพืช	42	35	42	46	48
ปริมาณแพลงก์ตอนพืช	4,726	3,127	3,674	4,322	6,572
ดัชนีความหลากหลายแพลงก์ตอนพืช	3.2100	3.1874	3.2400	3.1358	3.3728
ดัชนีความสม่ำเสมอแพลงก์ตอนพืช	0.8588	0.8965	0.8669	0.8190	0.8713

- Sample Location :**
1. สถานี 22106014-1 : จุดที่ 1 : บริเวณคลองชุมพลเหนือจุดระบายน้ำทิ้งขึ้นไป 500 เมตร
 2. สถานี 22106014-2 : จุดที่ 2 : บริเวณคลองชุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝายทดขยายศร)
 3. สถานี 22106014-3 : จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน
 4. สถานี 22106014-4 : จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับ
แควหนุมานขึ้นไป 500 เมตร
 5. สถานี 22106014-5 : จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับ
แควหนุมานลงไป 500 เมตร

Condition of Sample : contained in one plastic bottle, sample containers comply to pretreatment-preservation standards (APHA, USEPA)



(นางสาวกนกวรรณ ขาวดอน)
ผู้วิเคราะห์



(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา

101/12 หมู่ 9 ต. บางพระ

อ. ศรีราชา จ. ชลบุรี 20110

โทร./โทรสาร. (038) 311379

Client : Gulf NC Co., Ltd.

Address : 418 Moo 1 Nontree, Kabin Buri, Prachinburi, Thailand, 25110

Project Name : Monitoring EIA

Project Location : GNC

รายงานผลการวิเคราะห์แพลงก์ตอนสัตว์

ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

ชนิดแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Phylum Protozoa					
Subphylum Plasmodroma					
Class Sarcodina					
Subclass Rhizopoda					
Order Testacida					
Family Arcellidae					
1. <i>Arcella</i> sp.	26	-	-	-	-
2. <i>Arcella vulgaris</i>	-	-	-	53	30
Family Euglyphidae					
3. <i>Euglypha acanthophora</i>	-	13	11	-	30
4. <i>Euglypha rotunda</i>	13	-	-	-	-
5. <i>Euglypha</i> sp.	-	-	11	13	-

ตาราง ผลการวิเคราะห์แฟลกellate (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

ชนิดแฟลกellate	ปริมาณแฟลกellate (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Subphylum Ciliophora					
Class Ciliata					
Subclass Holotricha					
Order Gymnostomatida					
6. <i>Coleps</i> sp.	-	13	-	-	-
Subclass Peritricha					
Order Peritrichida					
7. <i>Vorticella</i> sp.	13	-	11	-	-
Phylum Rotifera					
Class Monogononta					
Order Ploima					
Family Brachionidae					
8. <i>Brachionus plicatilis</i>	-	13	-	-	-
9. <i>Brachionus</i> sp.	13	-	-	-	-
10. <i>Coleurella obtusa</i>	13	-	-	-	-
Family Lecanidae					
11. <i>Lecane bulla</i>	-	-	11	-	-
Family Notommatidae					
12. <i>Cephalodella forficula</i>	-	13	-	-	-
Family Tricocercidae					
13. <i>Trichocerca pusilla</i>	-	13	-	-	-
Family Asplanchnidae					
14. <i>Asplanchna priodonta</i>	-	-	-	-	15
Family Synchaetidae					
15. <i>Polyarthra vulgaris</i>	13	-	-	-	-

ตาราง ผลการวิเคราะห์แพลงก์ตอนสัตว์ (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

(ต่อ)

ชนิดแพลงก์ตอนสัตว์	ปริมาณแพลงก์ตอนสัตว์ (หน่วยต่อลิตร)				
	22106014-1	22106014-2	22106014-3	22106014-4	22106014-5
Phylum Arthropoda					
Class Crustacea					
Subclass Copepoda					
16. Copepod nauplius	26	13	-	-	-
ชนิดแพลงก์ตอนสัตว์	7	6	4	2	3
ปริมาณแพลงก์ตอนสัตว์	117	78	44	66	75
ดัชนีความหลากหลายแพลงก์ตอนสัตว์	1.8892	1.7918	1.3863	0.4962	1.0549
ดัชนีความสม่ำเสมอแพลงก์ตอนสัตว์	0.9709	1.0000	1.0000	0.7159	0.9602

Sample Location :

1. สถานี 22106014-1 : จุดที่ 1 : บริเวณคลองชุมพลเหนือจุดระบายน้ำทิ้งขึ้นไป 500 เมตร
2. สถานี 22106014-2 : จุดที่ 2 : บริเวณคลองชุมพล ณ จุดระบายน้ำทิ้ง (บริเวณฝ่ายทศบาล)
3. สถานี 22106014-3 : จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน
4. สถานี 22106014-4 : จุดที่ 4 : บริเวณแควหนุมานเหนือจุดบรรจบระหว่างคลองชุมพลกับ
แควหนุมานขึ้นไป 500 เมตร
5. สถานี 22106014-5 : จุดที่ 5 : บริเวณแควหนุมานท้ายจุดบรรจบระหว่างคลองชุมพลกับ
แควหนุมานลงไป 500 เมตร

Condition of Sample : contained in one plastic bottle, sample containers comply to pretreatment-preservation standards (APHA, USEPA)



(นางสาวกนกวรรณ ขาวค่อน)

ผู้วิเคราะห์



(นายอลงกต อินทชาติ)

หัวหน้าสถานีวิจัยประมงศรีราชา



สถานีวิจัยประมงศรีราชา
101/12 หมู่ 9 ต. บางพระ
อ. ศรีราชา จ. ชลบุรี 20110
โทร./โทรสาร. (038) 311379

Client : Gulf NC Co., Ltd.

Address : 418 Moo 1, Nontree, Kabin Buri, Prachinburi, Thailand 25110

Project Name : Monitoring EIA

Project Location : GNC

รายงานผลการวิเคราะห์สัตว์หน้าดิน

ตาราง ผลการวิเคราะห์สัตว์หน้าดิน (เก็บตัวอย่างวันที่ 14 พฤศจิกายน 2565)

ชนิดสัตว์หน้าดิน	ปริมาณสัตว์หน้าดิน (ตัวต่อตารางเมตร)				
	22106013-1	22106013-2	22106013-3	22106013-4	22106013-5
Phylum Arthropoda Class Insecta Order Diptera Family Chironomidae <i>Chironomus</i> sp. (หนอนแดง)	-	45	-	30	-
ชนิดสัตว์หน้าดิน	-	1	-	1	-
ปริมาณสัตว์หน้าดิน	-	45	-	30	-
ค่าดัชนีความหลากหลายสัตว์หน้าดิน	-	0.0000	-	0.0000	-

Sample Location : 1. สถานี 22106013-1 : จุดที่ 1 : บริเวณคลองชุมพลเหนือจุดระบายน้ำทิ้งขึ้นไป 500 เมตร
2. สถานี 22106013-2 : จุดที่ 2 : บริเวณคลองชุมพล ณ จุดระบายน้ำทิ้ง
(บริเวณฝายทดน้ำ)

3. สถานี 22106013-3 : จุดที่ 3 : บริเวณจุดบรรจบระหว่างคลองชุมพลกับแควหนุมาน

4. สถานี 22106013-4 : จุดที่ 4 : บริเวณแนวหนุमानเหนือจุดบรรจบระหว่างคลองชุมพลกับ
แนวหนุमानขึ้นไป 500 เมตร
5. สถานี 22106013-5 : จุดที่ 5 : บริเวณแนวหนุमानท้ายจุดบรรจบระหว่างคลองชุมพลกับ
แนวหนุमानลงไป 500 เมตร

Condition of Sample : contained in one plastic zip bag

อรุณ ฤทธิกุล

(นายอรุณฤทธิ กัณฑ์วงศ์)
ผู้วิเคราะห์

อ. อธิ

(นายอลงกต อินทรชาติ)
หัวหน้าสถานีวิจัยประมงศรีราชา

ภาคผนวก ค-7

คุณภาพน้ำใต้ดิน



Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22106008

Date Received : Oct 18, 2022

Date Reported : Oct 26, 2022

Report Number : 2474100-1

Page 1 of 1

Sample Number	22106008-1
Sampled Date	Oct 17, 2022 2:28 PM
Sample Description	Ground water
Location	Down gradient well no.1
Date Analysis Commenced	Oct 19, 2022
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
pH at 25 degree C		-	-	7.8	6.5-9.2 (I)	Based on APHA (2017), 4500-H (B)	Rayong

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

(I): ในกรณีที่มีการปนเปื้อนของกรดหรือด่างให้เปรียบเทียบผลวิเคราะห์ค่าพีเอชจากจุดเก็บตัวอย่างบ่อน้ำที่ใช้ในการติดตามตรวจสอบการปนเปื้อนกับผลวิเคราะห์จากจุดเก็บตัวอย่างบ่อน้ำที่ใช้เป็นบ่ออ้างอิงบนทิศทางการไหลของน้ำใต้ดินในพื้นที่ โดยค่าพีเอชที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับ และไม่อยู่นอกช่วงค่าเกณฑ์อนุโลมสูงสุดของมาตรฐานคุณภาพน้ำบาดาลที่บริโภคคือ 6.5-9.2

Sampled By : Paramet Sattayakun

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ว-323-ค-9442

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

Lot ID: 22106008

Date Received : Oct 18, 2022

Date Reported : Oct 26, 2022

Report Number : 2474100-2

Page 1 of 1

Sample Number 22106008-1
Sampled Date Oct 17, 2022 2:28 PM
Sample Description Ground water
Location Down gradient well no.1
Date Analysis Commenced Oct 18, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2	<2	No Standard	APHA (2017), 5210 B	Rayong
Chlorite	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	0.1	4.6	No Standard	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
Temperature	Degree C	-	-	32.3	No Standard	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	380	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampled By : Paramet Sattayakun

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

Lot ID: 22106008

Date Received : Oct 18, 2022

Date Reported : Oct 26, 2022

Report Number : 2474101-1

Page 1 of 1

Sample Number	22106008-2						
Sampled Date	Oct 17, 2022 1:52 PM						
Sample Description	Ground water						
Location	Down gradient well no.2						
Date Analysis Commenced	Oct 19, 2022						
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
pH at 25 degree C		-	-	7.4	6.5-9.2 (I)	Based on APHA (2017), 4500-H (B)	Rayong

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

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Sampled By : Paramet Sattayakun

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

N. Banchongkit

Narumon Banchongkit
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ทะเบียนเลขที่ ว-323-จ-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

Lot ID: 22106008

Date Received : Oct 18, 2022

Date Reported : Oct 26, 2022

Report Number : 2474101-2

Page 1 of 1

Sample Number 22106008-2
Sampled Date Oct 17, 2022 1:52 PM
Sample Description Ground water
Location Down gradient well no.2
Date Analysis Commenced Oct 18, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2	<2	No Standard	APHA (2017), 5210 B	Rayong
Chlorite	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	0.1	4.4	No Standard	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
Temperature	Degree C	-	-	32.0	No Standard	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	424	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampled By : Paramet Sattayakun

Remark :

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22106008

Date Received : Oct 18, 2022

Date Reported : Oct 26, 2022

Report Number : 2474102-1

Page 1 of 1

Sample Number	22106008-3
Sampled Date	Oct 17, 2022 3:00 PM
Sample Description	Ground water
Location	Up gradient well
Date Analysis Commenced	Oct 19, 2022
Condition of Sample	Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
pH at 25 degree C		-	-	7.7	6.5-9.2 (I)	Based on APHA (2017), 4500-H (B)	Rayong

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

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Sampled By : Paramet Sattayakun

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

N. Banchongkit

Narumon Banchongkit
Supervisor
ทะเบียนเลขที่ ว-323-จ-9445

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location: GNC

Lot ID: 22106008

Date Received : Oct 18, 2022

Date Reported : Oct 26, 2022

Report Number : 2474102-2

Page 1 of 1

Sample Number 22106008-3
Sampled Date Oct 17, 2022 3:00 PM
Sample Description Ground water
Location Up gradient well
Date Analysis Commenced Oct 18, 2022
Condition of Sample Contained in one amber glass bottle, one BOD bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2	<2	No Standard	APHA (2017), 5210 B	Rayong
Chlorite	mg/L	0.05	0.1	Not Detected	No Standard	Based on US EPA, Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	0.1	4.2	No Standard	Based on APHA (2017), 4500-O(C)	Rayong
Oil & Grease	mg/L	-	3	<3	No Standard	Based on APHA (2017), 5520 B	Rayong
Temperature	Degree C	-	-	29.6	No Standard	Based on APHA (2017), 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	944	No Standard	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	20	No Standard	APHA (2017), 2540 D	Rayong

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampled By : Paramet Sattayakun

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

N. Banongkit

Narumon Banchongkit
Supervisor

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ภาคผนวก ค-8

ระดับเสียงในบริเวณการทำงาน



Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022
Date Reported : Sep 26, 2022
Report Number: 2442146-1

Page 1 of 1

Sample Number 2271044-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Cooling Tower
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:07 AM - 11:07 AM	82.3	83.4	82.2
11:07 AM - 12:07 PM	82.4	83.5	82.3
12:07 PM - 01:07 PM	82.5	83.1	82.3
01:07 PM - 02:07 PM	82.4	83.5	82.2
02:07 PM - 03:07 PM	82.4	83.0	82.2
03:07 PM - 04:07 PM	82.4	83.0	82.3
04:07 PM - 05:07 PM	82.5	83.2	82.3
05:07 PM - 06:07 PM	82.5	83.1	82.4

Leq Average 8 hrs. (dB(A))

82.4

Lmax (dB(A))

83.5

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Approved by

Supot S.

Supot Salamteh
Section Head

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022
Date Reported : Sep 26, 2022
Report Number: 2442147-1

Page 1 of 1

Sample Number 2271044-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Compressor
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	74.6	86.5	72.3
10:00 AM - 11:00 AM	73.2	77.2	71.7
11:00 AM - 12:00 PM	74.5	77.5	72.7
12:00 PM - 01:00 PM	75.6	79.2	73.4
01:00 PM - 02:00 PM	75.3	79.3	73.2
02:00 PM - 03:00 PM	74.4	77.8	72.8
03:00 PM - 04:00 PM	73.4	76.3	71.9
04:00 PM - 05:00 PM	74.3	77.5	72.2

Leq Average 8 hrs. (dB(A))

74.5

Lmax (dB(A))

86.5

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022
Date Reported : Sep 26, 2022
Report Number: 2442148-1

Page 1 of 1

Sample Number 2271044-3
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Boiler Feed Pump
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	81.4	82.3	81.1
11:00 AM - 12:00 PM	81.1	82.0	80.9
12:00 PM - 01:00 PM	81.0	81.7	80.9
01:00 PM - 02:00 PM	81.3	82.1	81.1
02:00 PM - 03:00 PM	81.6	82.2	81.5
03:00 PM - 04:00 PM	81.4	82.1	81.2
04:00 PM - 05:00 PM	81.3	82.0	81.1
05:00 PM - 06:00 PM	81.5	83.3	81.3

Leq Average 8 hrs. (dB(A))

81.3

Lmax (dB(A))

83.3

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022
Date Reported : Sep 26, 2022
Report Number: 2442149-1

Page 1 of 1

Sample Number 2271044-4
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Turbine Accessories System GT1
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:12 AM - 11:12 AM	74.0	76.2	73.6
11:12 AM - 12:12 PM	73.9	77.1	73.6
12:12 PM - 01:12 PM	73.9	77.0	73.7
01:12 PM - 02:12 PM	74.0	75.4	73.8
02:12 PM - 03:12 PM	74.5	75.9	74.2
03:12 PM - 04:12 PM	74.8	77.2	74.4
04:12 PM - 05:12 PM	75.1	87.6	74.4
05:12 PM - 06:12 PM	74.3	82.7	74.1

Leq Average 8 hrs. (dB(A))

74.3

Lmax (dB(A))

87.6

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022

Date Reported : Sep 26, 2022

Report Number: 2442150-1

Page 1 of 1

Sample Number 2271044-5
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Turbine Accessories System GT2
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	84.2	85.9	84.0
11:00 AM - 12:00 PM	84.1	84.6	84.0
12:00 PM - 01:00 PM	84.0	84.5	83.7
01:00 PM - 02:00 PM	83.6	84.1	83.5
02:00 PM - 03:00 PM	83.8	84.5	83.7
03:00 PM - 04:00 PM	83.8	84.4	83.7
04:00 PM - 05:00 PM	83.9	84.5	83.7
05:00 PM - 06:00 PM	84.1	84.7	84.0

Leq Average 8 hrs. (dB(A))

83.9

Lmax (dB(A))

85.9

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022
Date Reported : Sep 26, 2022
Report Number: 2442151-1

Page 1 of 1

Sample Number 2271044-6
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Steam Turbine Generator
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:03 AM - 10:03 AM	84.0	96.3	77.8
10:03 AM - 11:03 AM	83.3	95.6	77.1
11:03 AM - 12:03 PM	85.1	95.7	83.0
12:03 PM - 01:03 PM	83.4	85.2	83.2
01:03 PM - 02:03 PM	83.6	84.6	83.4
02:03 PM - 03:03 PM	83.8	84.3	83.6
03:03 PM - 04:03 PM	83.8	84.3	83.7
04:03 PM - 05:03 PM	83.7	84.7	83.5

Leq Average 8 hrs. (dB(A))

83.9

Lmax (dB(A))

96.3

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271044

Date Received : Sep 21, 2022
Date Reported : Sep 26, 2022
Report Number: 2442152-1

Page 1 of 1

Sample Number 2271044-7
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Steam Turbine Lube Oil Skid
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:02 AM - 11:02 AM	71.6	74.6	71.3
11:02 AM - 12:02 PM	72.1	74.9	71.7
12:02 PM - 01:02 PM	72.0	76.6	71.7
01:02 PM - 02:02 PM	71.9	75.4	71.2
02:02 PM - 03:02 PM	71.4	73.5	71.2
03:02 PM - 04:02 PM	71.6	72.8	71.4
04:02 PM - 05:02 PM	71.6	73.5	71.4
05:02 PM - 06:02 PM	71.8	73.1	71.6

Leq Average 8 hrs. (dB(A))

71.8

Lmax (dB(A))

76.6

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022
Date Reported : Nov 24, 2022
Report Number: 2501139-1

Page 1 of 1

Sample Number 22117375-1
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Cooling Tower
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	82.5	84.0	82.4
10:00 AM - 11:00 AM	82.6	84.0	82.5
11:00 AM - 12:00 PM	82.5	83.9	82.4
12:00 PM - 01:00 PM	82.4	84.0	82.3
01:00 PM - 02:00 PM	82.3	83.8	82.2
02:00 PM - 03:00 PM	82.4	83.9	82.3
03:00 PM - 04:00 PM	82.6	83.9	82.6
04:00 PM - 05:00 PM	82.8	84.1	82.7

Leq Average 8 hrs. (dB(A)) 82.5
Lmax (dB(A)) 84.1
Standard (dB(A)) 90
Reference Method : ISO1996-1 and 1996-2
Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022
Date Reported : Nov 24, 2022
Report Number: 2501140-1

Page 1 of 1

Sample Number 22117375-2
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Compressor
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	67.5	71.7	66.6
10:00 AM - 11:00 AM	67.7	70.6	67.0
11:00 AM - 12:00 PM	78.1	103.0	67.0
12:00 PM - 01:00 PM	73.0	76.1	70.6
01:00 PM - 02:00 PM	72.0	74.9	70.3
02:00 PM - 03:00 PM	72.6	76.0	70.9
03:00 PM - 04:00 PM	72.2	74.9	70.8
04:00 PM - 05:00 PM	72.7	75.4	71.3

Leq Average 8 hrs. (dB(A))

73.2

Lmax (dB(A))

103.0

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022
Date Reported : Nov 24, 2022
Report Number: 2501141-1

Page 1 of 1

Sample Number 22117375-3
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Boiler Feed Pump
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	79.9	99.0	79.3
10:00 AM - 11:00 AM	80.2	81.2	79.9
11:00 AM - 12:00 PM	80.2	81.0	79.8
12:00 PM - 01:00 PM	81.9	83.7	81.3
01:00 PM - 02:00 PM	81.7	82.5	81.4
02:00 PM - 03:00 PM	81.9	82.8	81.6
03:00 PM - 04:00 PM	81.7	82.6	81.4
04:00 PM - 05:00 PM	81.6	83.6	81.4

Leq Average 8 hrs. (dB(A))

81.2

Lmax (dB(A))

99.0

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Supot Salamteh
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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110

P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022

Date Reported : Nov 24, 2022

Report Number: 2501142-1

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Sample Number 22117375-4
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Turbine Accessories System GT1
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	74.2	76.4	73.8
10:00 AM - 11:00 AM	73.4	76.6	73.1
11:00 AM - 12:00 PM	73.0	76.1	72.8
12:00 PM - 01:00 PM	72.8	74.2	72.6
01:00 PM - 02:00 PM	73.0	74.4	72.7
02:00 PM - 03:00 PM	73.4	75.8	73.0
03:00 PM - 04:00 PM	73.2	85.7	72.5
04:00 PM - 05:00 PM	73.3	81.7	73.1

Leq Average 8 hrs. (dB(A))

73.3

Lmax (dB(A))

85.7

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022

Date Reported : Nov 24, 2022

Report Number: 2501143-1

Page 1 of 1

Sample Number 22117375-5
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Gas Turbine Accessories System GT2
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	75.1	108.7	64.2
10:00 AM - 11:00 AM	65.2	69.8	64.4
11:00 AM - 12:00 PM	64.7	75.2	64.1
12:00 PM - 01:00 PM	84.7	87.6	80.2
01:00 PM - 02:00 PM	80.4	81.3	80.1
02:00 PM - 03:00 PM	80.7	81.8	80.3
03:00 PM - 04:00 PM	81.5	82.2	81.2
04:00 PM - 05:00 PM	81.7	82.4	81.4

Leq Average 8 hrs. (dB(A))

80.3

Lmax (dB(A))

108.7

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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P/O : สัญญาเลขที่ 4600001511

Project Name : Monitoring EIA

Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022

Date Reported : Nov 24, 2022

Report Number: 2501144-1

Page 1 of 1

Sample Number 22117375-6
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Steam Turbine Generator
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	74.0	76.0	72.6
10:00 AM - 11:00 AM	74.5	75.7	74.2
11:00 AM - 12:00 PM	74.9	79.1	74.6
12:00 PM - 01:00 PM	75.2	77.9	74.8
01:00 PM - 02:00 PM	75.1	77.1	74.8
02:00 PM - 03:00 PM	74.8	81.8	74.5
03:00 PM - 04:00 PM	74.9	76.1	74.6
04:00 PM - 05:00 PM	75.1	80.9	74.7

Leq Average 8 hrs. (dB(A))

74.8

Lmax (dB(A))

81.8

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117375

Date Received : Nov 18, 2022
Date Reported : Nov 24, 2022
Report Number: 2501145-1

Page 1 of 1

Sample Number 22117375-7
Parameter Noise (Leq 8 hrs.)
Location บริเวณ Steam Turbine Lube Oil Skid
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	72.7	100.5	70.8
10:00 AM - 11:00 AM	71.0	79.1	70.8
11:00 AM - 12:00 PM	71.3	73.1	71.1
12:00 PM - 01:00 PM	73.3	79.1	71.8
01:00 PM - 02:00 PM	72.2	82.1	71.8
02:00 PM - 03:00 PM	72.5	75.6	72.1
03:00 PM - 04:00 PM	72.6	81.3	72.3
04:00 PM - 05:00 PM	72.7	82.6	72.3

Leq Average 8 hrs. (dB(A))

72.3

Lmax (dB(A))

100.5

Standard (dB(A))

90

140

Reference Method : ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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ภาคผนวก ค-9

ระดับความร้อนในบริเวณการทำงาน



Analysis / Test Report

Client : Gulf NC Co., Ltd.
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P/O : สัญญาเลขที่4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271050

Date Received : Sep 21, 2022
Date Reported : Sep 23, 2022
Report Number: 2338643-1

Page 1 of 6

Sample Number 2271050-1
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Condenser Exhaust Unit	120	28.9	27.0	33.4	32.7
Average (WBGT)		28.9			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

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Assistant Manager

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271050

Date Received : Sep 21, 2022
Date Reported : Sep 23, 2022
Report Number: 2338643-1

Page 2 of 6

Sample Number 2271050-2
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณท่อส่งน้ำ	120	28.8	26.8	33.3	33.3
Average (WBGT)		28.8			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271050

Date Received : Sep 21, 2022
Date Reported : Sep 23, 2022
Report Number: 2338643-1

Page 3 of 6

Sample Number 2271050-3
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Generator Area 11	120	28.3	26.6	32.4	32.4
Average (WBGT)		28.3			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

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Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271050

Date Received : Sep 21, 2022
Date Reported : Sep 23, 2022
Report Number: 2338643-1

Page 4 of 6

Sample Number 2271050-4
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Gas Turbine Area 11	120	29.0	27.2	33.4	32.7
Average (WBGT)		29.0			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

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Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271050

Date Received : Sep 21, 2022
Date Reported : Sep 23, 2022
Report Number: 2338643-1

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Sample Number 2271050-5
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Generator Area 12	120	28.4	26.7	32.5	32.5
Average (WBGT)		28.4			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 2271050

Date Received : Sep 21, 2022
Date Reported : Sep 23, 2022
Report Number: 2338643-1

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Sample Number 2271050-6
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Sep 19, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Gas Turbine Area 12	120	29.1	27.4	33.2	32.6
Average (WBGT)		29.1			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117388
Date Received : Nov 18, 2022
Date Reported : Nov 22, 2022
Report Number: 2443024-1

Page 1 of 6

Sample Number 22117388-1
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Condenser Exhaust Unit	120	28.6	26.3	33.8	33.8
Average (WBGT)		28.6			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
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P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117388
Date Received : Nov 18, 2022
Date Reported : Nov 22, 2022
Report Number: 2443024-1

Page 2 of 6

Sample Number 22117388-2
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณท่อส่งน้ำ	120	29.3	26.6	35.8	35.2
Average (WBGT)		29.3			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

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Analysis / Test Report

Client : Gulf NC Co., Ltd.
418 Moo 1, Nontree, Kabin Buri, Prachinburi Thailand 25110
P/O : สัญญาเลขที่ 4600001511
Project Name : Monitoring EIA
Project Location : GNC

Lot ID: 22117388
Date Received : Nov 18, 2022
Date Reported : Nov 22, 2022
Report Number: 2443024-1

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Sample Number 22117388-3
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
Generator Area 11	120	29.5	26.7	36.1	35.4
Average (WBGT)		29.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Project Location : GNC

Lot ID: 22117388
Date Received : Nov 18, 2022
Date Reported : Nov 22, 2022
Report Number: 2443024-1

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Sample Number 22117388-4
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
Gas Turbine Area 11	120	29.0	26.5	35.0	34.6
Average (WBGT)		29.0			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

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Project Location : GNC

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Date Received : Nov 18, 2022
Date Reported : Nov 22, 2022
Report Number: 2443024-1

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Sample Number 22117388-5
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
Generator Area 12	120	29.5	27.1	35.1	34.9
Average (WBGT)		29.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

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Project Location : GNC

Lot ID: 22117388
Date Received : Nov 18, 2022
Date Reported : Nov 22, 2022
Report Number: 2443024-1

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Sample Number 22117388-6
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date Nov 17, 2022
Measurement by Norranon Tathongkham
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
Gas Turbine Area 12	120	29.0	26.5	34.9	34.5
Average (WBGT)		29.0			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

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