

ภาคผนวก 3ฉ

ผลตรวจวัดคุณภาพน้ำผิวดิน

ANALYSIS REPORT

Customer Name : การท่าเรือแห่งประเทศไทย
Address : เลขที่ 444 ถนนท่าเรือ แขวงคลองเตย เขตคลองเตย กรุงเทพมหานคร 10110
Project Name : โครงการพัฒนาท่าเรือแหลมฉบังระยะที่ 3 (ส่วนที่ 1 ถึง 4)
Project Location : จังหวัดชลบุรี
Sampling Point : สถานีที่ 1 : คลองบางละมุง
GPS. Coordinate : UTM (WGS84) 47P 0707804 E, 1443967 N
Type of Sample : Surface Water Sampling **Analysis No.** : WW2747/2565
Sampling Method : Grab **Received Date** : June 1, 2022
Sampling Date : May 31, 2022 **Analytical Date** : June 1-29, 2022
Sampling Time : 14:01 **Report Date** : June 30, 2022
Sampling By : Mr.Assada Chaiyawong
Analyzed By : Environment Research & Technology Co., Ltd.
Physical Properties : ขุ่น มีสีเหลืองอ่อน, มีตะกอน, มีกลิ่น

Parameter	Unit	Method of Analysis ^{1/}	Result	Standard ^{2/}
Temperature	°C	Certified Thermometer	33.2	n ¹
pH	-	Electrometric Method (pH Meter)	8.6	5.0-9.0
Dissolved Oxygen	mg/l	Membrane Electrode Method	5.2	<2.0
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	6.4	4.0
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	13,000	-
Fecal Coliform Bacteria	MPN/100 ml	Most Probable Number Method	7,900	-
Nitrate-Nitrogen ^{1/}	mg/l	Cadmium Reduction Method, Colorimetric Method	0.35	5.0
Ammonia-Nitrogen ^{3/}	mg/l	Flow Injection Analysis Method	6.42	0.5
Cadmium	mg/l	Nitric Acid Digestion, Inductively Coupled Plasma Method	<0.002	0.05 ^{3/}
Lead	mg/l	Nitric Acid Digestion, Electrothermal Atomic Absorption Spectrometric Method	0.007	0.05
Total Mercury	mg/l	Cold-Vapor Atomic Absorption Spectrometric Method	<0.0005	0.002
Arsenic	mg/l	Nitric Acid-Hydrochloric Acid Digestion, Continuous Hydride Generation/ Atomic Absorption Spectrometric Method	0.0007	0.01
Salinity	ppt	Electrical Conductivity Method	0.4	-
Transparency	m	Visual Method	0.4	-
Oil & Grease	mg/l	Liquid-Liquid Partition, Gravimetric Method	1.7	-
Phosphate-Phosphorus	mg/l	Colorimetric Method	1.0	-
Total Dissolved Solids	mg/l	Dried at 180°C, Gravimetric Method	436	-
Total Suspended Solids	mg/l	Dried at 103-105°C, Gravimetric Method	16	-

Remark : ^{1/} Standard Method for Examination of Water and Wastewater, 23rd Edition, 2017.


^{2/} Notification of the National Environment Board, No.8, B.E.2537 (1994), issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.111 Part 16, dated February 24, B.E.2537 (1994). (Standard Value of Surface Water for Class 4).

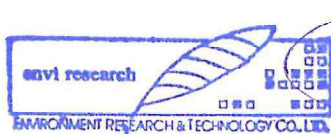
^{3/} when water hardness more than 100 mg/l as CaCO₃ (Hardness as CaCO₃ is 107 mg/l)

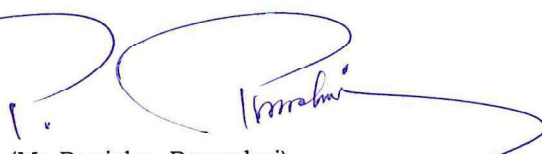
^{1/} Analyzed Sample by Test Tech Co., Ltd.

^{3/} Analyzed Sample by United Analyst and Engineering Consultant Co.,Ltd.

n¹ - naturally but changing not more than 3°C


(Ms.Raiwin Posit)
Laboratory Reviewer




(Ms.Panicha Promchai)
Laboratory Supervisor

ANALYSIS REPORT

Customer Name : การท่าเรือแห่งประเทศไทย
Address : เลขที่ 444 ถนนท่าเรือ แขวงคลองเตย เขตคลองเตย กรุงเทพมหานคร 10110
Project Name : โครงการพัฒนาท่าเรือแหลมฉบังระยะที่ 3 (ส่วนที่ 1 ถึง 4)
Project Location : จังหวัดชลบุรี
Sampling Point : สถานีที่ 2 : คลองระบายน้ำแหลมฉบัง
GPS. Coordinate : UTM (WGS84) 47P 0708964 E, 1442864 N
Type of Sample : Surface Water Sampling **Analysis No.** : WW2748/2565
Sampling Method : Grab **Received Date** : June 1, 2022
Sampling Date : May 31, 2022 **Analytical Date** : June 1-29, 2022
Sampling Time : 13:46 **Report Date** : June 30, 2022
Sampling By : Mr.Assada Chaiyawong
Analyzed By : Environment Research & Technology Co., Ltd.
Physical Properties : ใส่ มีสีเหลืองอ่อน, มีตะกอน, มีกลิ่น

Parameter	Unit	Method of Analysis ^{1/}	Result	Standard ^{2/}
Temperature	°C	Certified Thermometer	33.3	n'
pH	-	Electrometric Method (pH Meter)	7.9	5.0-9.0
Dissolved Oxygen	mg/l	Membrane Electrode Method	5.6	<2.0
Biochemical Oxygen Demand	mg/l	5-Day BOD Test, Membrane Electrode Method	4.7	4.0
Total Coliform Bacteria	MPN/100 ml	Most Probable Number Method	7,900	-
Fecal Coliform Bacteria	MPN/100 ml	Most Probable Number Method	4,900	-
Nitrate-Nitrogen ^{3/}	mg/l	Cadmium Reduction Method, Colorimetric Method	0.83	5.0
Ammonia-Nitrogen ^{3/}	mg/l	Flow Injection Analysis Method	6.60	0.5
Cadmium	mg/l	Nitric Acid Digestion, Inductively Coupled Plasma Method	<0.002	0.05 ^{3/}
Lead	mg/l	Nitric Acid Digestion, Electrothermal Atomic Absorption Spectrometric Method	<0.001	0.05
Total Mercury	mg/l	Cold-Vapor Atomic Absorption Spectrometric Method	<0.0005	0.002
Arsenic	mg/l	Nitric Acid-Hydrochloric Acid Digestion, Continuous Hydride Generation/ Atomic Absorption Spectrometric Method	0.0006	0.01
Salinity	ppt	Electrical Conductivity Method	0.4	-
Transparency	m	Visual Method	0.4	-
Oil & Grease	mg/l	Liquid-Liquid Partition, Gravimetric Method	<1.0	-
Phosphate-Phosphorus	mg/l	Colorimetric Method	18	-
Total Dissolved Solids	mg/l	Dried at 180°C, Gravimetric Method	378	-
Total Suspended Solids	mg/l	Dried at 103-105°C, Gravimetric Method	15	-

Remark : ^{1/} Standard Method for Examination of Water and Wastewater, 23rd Edition, 2017.


^{2/} Notification of the National Environment Board, No.8, B.E.2537 (1994), issued under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No.111 Part 16, dated February 24, B.E.2537 (1994). (Standard Value of Surface Water for Class 4).


^{3/} when water hardness more than 100 mg/l as CaCO₃ (Hardness as CaCO₃ is 113 mg/l)

^{4/} Analyzed Sample by Test Tech Co., Ltd.

^{5/} Analyzed Sample by United Analyst and Engineering Consultant Co.,Ltd.

n' = naturally but changing not more than 3°C


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