



QUALITY CONTROL - ACCURACY

Job Number : EV200671 Rev.1
Customer : PT. EnviroSolutions & Consulting
Project Name : Sediment Analysis
Customer Ref : 8478.r2/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	PLANKTON***						
1	Phytoplankton	APHA 10200F-2017	Cell/m ³	-	-	-	-
2	Zooplankton	SNI 06-3963-1985	Ind/m ³	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

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Job Number : EV200809
Customer Ref : 7967.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring for Inpex Project

Number of samples : 8

Date received : 26-Mar-2020
Date reported : 28-Apr-2020

Approved Signature for:



for Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV200809
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200809-1	MWB-7	Seawater	21-Mar-20	10:00	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 09.523"	E : 131° 15' 34.002"
2	EV200809-2	MWB-9	Seawater	21-Mar-20	10:56	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 25.708"	E : 131° 15' 15.267"
3	EV200809-3	MWB-10	Seawater	21-Mar-20	11:26	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 45.922"	E : 131° 14' 55.210"
4	EV200809-4	MWB-6	Seawater	21-Mar-20	14:40	26-Mar-20	Baskoro, Fauz, Husni	S : 07° 59' 46.585"	E : 131° 16' 02.110"
5	EV200809-5	MWB-7	Sediment	21-Mar-20	10:00	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 09.523"	E : 131° 15' 34.002"
6	EV200809-6	MWB-9	Sediment	21-Mar-20	10:56	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 25.708"	E : 131° 15' 15.267"
7	EV200809-7	MWB-10	Sediment	21-Mar-20	11:26	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 45.922"	E : 131° 14' 55.210"
8	EV200809-8	MWB-6	Sediment	21-Mar-20	14:40	26-Mar-20	Baskoro, Fauz, Husni	S : 07° 59' 46.585"	E : 131° 16' 02.110"

Notes:

- NA = Not Analysed
ND= Not Detected
IS = Insufficient Sample
** = Non Accredited Test
*** = Subcontracted Test
1) = Field Measurement
2) = Field Measurement by Customer
3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
4) = Total PAHs defined as 16 PAH compounds (list available upon request)
5) = Total PCBs defined as 20 PCB congeners (list available upon request)
SNR= Sample Not Received



Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r6/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-1	EV200809-2
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
Physical Tests				
1	Brightness ¹⁾	m	11	14
2	Floating Matter ¹⁾	-	None	None
3	Oil Film ¹⁾	-	None	None
4	pH ¹⁾	S.U.	7.21	7.70
5	Salinity ¹⁾	g/L	33.7	32.9
6	Temperature ¹⁾	°C	30.0	29.8
7	Total Suspended Solids, TSS	mg/L	2	3
8	Turbidity	NTU	1.0	2.2
Anions				
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.009	<0.005
3	Total Phosphorus as PO ₄	mg/L	0.056	0.064
Dissolved Metals				
1	Arsenic, As	mg/L	0.0017	0.0012
2	Cadmium, Cd	mg/L	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005
Microbiology				
1	Total Coliforms ¹⁾⁺⁺	CFU/100ml	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND



Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-1	EV200809-2
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	4	3
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ⁽¹⁾	mg/L	5.38	5.58
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	1.6	1.2
8	Total Phenols	mg/L	<0.001	<0.001
Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁽¹⁾	mg/L	<0.0001	<0.0001
BTEX				
1	Benzene	mg/L	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001
4	Xylenes Total	mg/L	<0.003	<0.003

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpax Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-3	EV200809-4
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
Physical Tests				
1	Brightness ⁽¹⁾	m	14	7
2	Floating Matter ⁽¹⁾	-	None	None
3	Oil Film ⁽¹⁾	-	None	None
4	pH ⁽¹⁾	S.U.	8.05	7.52
5	Salinity ⁽¹⁾	g/L	33.0	32.3
6	Temperature ⁽¹⁾	°C	31.2	29.7
7	Total Suspended Solids, TSS	mg/L	4	4
8	Turbidity	NTU	3.2	3.0
Anions				
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	<0.005	0.035
3	Total Phosphorus as PO ₄	mg/L	0.068	0.061
Dissolved Metals				
1	Arsenic, As	mg/L	0.0019	0.0014
2	Cadmium, Cd	mg/L	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005
Microbiology				
1	Total Coliforms ^{(1)**}	CFU/100ml	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND



Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-3	EV200809-4
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	3	4
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ¹¹	mg/L	5.09	5.25
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	1.2	1.4
8	Total Phenols	mg/L	<0.001	<0.001
Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ¹¹	mg/L	<0.0001	<0.0001
BTEX				
1	Benzene	mg/L	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001
4	Xylenes Total	mg/L	<0.003	<0.003

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-5	EV200809-6
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Total Metals			
1	Antimony, Sb	mg/dry kg	<0.1	<0.1
2	Arsenic, As	mg/dry kg	2.6	2.1
3	Cadmium, Cd	mg/dry kg	0.12	0.11
4	Chromium, Cr	mg/dry kg	17.8	11.1
5	Copper, Cu	mg/dry kg	9.2	4.0
6	Lead, Pb	mg/dry kg	3.5	2.8
7	Mercury, Hg	mg/dry kg	0.023	0.014
8	Nickel, Ni	mg/dry kg	12.3	6.2
9	Silver, Ag	mg/dry kg	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	22	13

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200809
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-7	EV200809-8
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Total Metals			
1	Antimony, Sb	mg/dry kg	<0.1	<0.1
2	Arsenic, As	mg/dry kg	2.1	2.8
3	Cadmium, Cd	mg/dry kg	0.11	0.13
4	Chromium, Cr	mg/dry kg	8.3	24.0
5	Copper, Cu	mg/dry kg	2.5	16.5
6	Lead, Pb	mg/dry kg	2.2	5.6
7	Mercury, Hg	mg/dry kg	0.014	0.030
8	Nickel, Ni	mg/dry kg	4.3	17.3
9	Silver, Ag	mg/dry kg	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	9	33

Note: Refer to QA/QC -- Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200809-4	EV200809-4 Duplicate	
Physical Tests					
1	Brightness ¹⁾	m	7	-	-
2	Floating Matter ¹⁾	-	None	-	-
3	Oil Film ¹⁾	-	None	-	-
4	pH ¹⁾	S.U.	7.62	-	-
5	Salinity ¹⁾	g/L	32.3	-	-
6	Temperature ¹⁾	°C	29.7	-	-
7	Total Suspended Solids, TSS	mg/L	4	4	0.0%
8	Turbidity	NTU	3.0	3.1	4.0%
Anions					
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
2	Sulphide as H ₂ S	mg/L	<0.002	-	-
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.035	0.035	0.0%
3	Total Phosphorus as PO ₄	mg/L	0.061	0.059	2.2%
Dissolved Metals					
1	Arsenic, As	mg/L	0.0014	0.0013	7.4%
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	-
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
4	Copper, Cu	mg/L	<0.001	<0.001	-
5	Lead, Pb	mg/L	<0.001	<0.001	-
6	Mercury, Hg	mg/L	<0.00005	<0.00005	-
7	Nickel, Ni	mg/L	<0.001	<0.001	-
8	Zinc, Zn	mg/L	<0.005	<0.005	-
Microbiology					
1	Total Coliforms ¹⁾⁺⁺	CFU/100ml	ND	-	-
2	Faecal Coliforms	CFU/100ml	ND	-	-



QUALITY CONTROL - PRECISION

Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IJS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200809-4	EV200809-4 Duplicate	
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	4	4	0.0%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	-
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	-
4	Dissolved Oxygen, DO ¹¹	mg/L	5.25	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Organic Carbon, TOC	mg/L	1.4	1.5	6.8%
8	Total Phenols	mg/L	<0.001	<0.001	-
	Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴³	mg/L	<0.0001	-	-
	BTEX				
1	Benzene	mg/L	<0.001	-	-
2	Toluene	mg/L	<0.001	-	-
3	Ethyl Benzene	mg/L	<0.001	-	-
4	Xylenes Total	mg/L	<0.003	-	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - PRECISION

Job Number : EV200809
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200809-8	EV200809-8 Duplicate	
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	-
2	Arsenic, As	mg/dry kg	2.8	3.0	6.8%
3	Cadmium, Cd	mg/dry kg	0.13	0.13	0.0%
4	Chromium, Cr	mg/dry kg	24.0	24.1	0.4%
5	Copper, Cu	mg/dry kg	16.5	15.0	9.5%
6	Lead, Pb	mg/dry kg	5.6	5.8	0.0%
7	Mercury, Hg	mg/dry kg	0.030	0.034	12.5%
8	Nickel, Ni	mg/dry kg	17.3	17.2	0.6%
9	Silver, Ag	mg/dry kg	<0.02	<0.02	-
10	Zinc, Zn	mg/dry kg	33	33	0.0%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	pH ⁽¹⁾	APHA 4500-H+ B	S.U.	-	-	-	-
2	Salinity ⁽¹⁾	APHA 2520 B	g/L	0.1	-	-	-
3	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	32	29	91%
4	Turbidity	APHA 2130 B	NTU	0.5	14.8	15.3	104%
	Anions						
1	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.155	0.152	98%
2	Sulphide as H ₂ S	APHA 4500-S2 G	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH3 D	mg/L	0.02	17.2	17.6	103%
2	Nitrate, NO ₃ -N	APHA 4500 NO3E & APHA 4500 NO2B	mg/L	0.005	21.1	19.8	94%
3	Total Phosphorus as PO ₄	APHA 4500P E	mg/L	0.005	25.46	24.8	98%
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.099	90%
2	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.369	0.358	92%
3	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.0132	0.013	101%
4	Copper, Cu	APHA 3125 B	mg/L	0.001	0.476	0.503	106%
5	Lead, Pb	APHA 3125 B	mg/L	0.001	0.786	0.808	103%
6	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0139	105%
7	Nickel, Ni	APHA 3125 B	mg/L	0.001	1.13	1.21	107%
8	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.609	0.575	94%
	Microbiology						
1	Total Coliforms	APHA 9222B	CFU/100ml	1	-	-	-



QUALITY CONTROL - ACCURACY

Job Number : EV200809
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	144	98%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	90	99%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	0.1	0.1	98%
4	Oil & Grease	APHA 5520 B	mg/L	1	40	40	100%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.22	98%
6	Total Organic Carbon, TOC	APHA 5310 C	mg/L	0.5	58.5	57.1	98%
7	Total Phenols	USEPA 9065	mg/L	0.001	4.95	4.79	97%
	Organics Tests						
1	Polycyclic Aromatic Hydrocarbons, PAHs	USEPA 8270C	mg/L	0.0001	0.0160	0.0155	97%
	BTEX						
1	Benzene	USEPA 8260B	mg/L	0.001	0.014	0.014	100%
2	Toluene	USEPA 8260B	mg/L	0.001	0.007	0.007	97%
3	Ethyl Benzene	USEPA 8260B	mg/L	0.001	0.006	0.007	98%
4	Xylenes Total	USEPA 8260B	mg/L	0.003	0.036	0.037	98%
	Total Metals						
1	Antimony, Sb	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	-	-	-
2	Arsenic, As	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	221	207	94%
3	Cadmium, Cd	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	126	118	93%
4	Chromium, Cr	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	74.7	77.9	104%
5	Copper, Cu	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	83.3	87.2	105%
6	Lead, Pb	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	79.9	83.4	104%
7	Mercury, Hg	USEPA 3050B/USEPA245.7	mg/dry kg	0.001	13.8	12.4	90%



QUALITY CONTROL - ACCURACY

Job Number : EV200809
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
8	Nickel, Ni	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	178	188	106%
9	Silver, Ag	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	59.6	64.5	108%
10	Zinc, Zn	USEPA 3050B/APHA 3125B	mg/dry kg	1	338	362	104%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200809-A
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring for Inpex Project

Number of samples : 4

Date received : 26-Mar-2020

Date reported : 28-Apr-2020

Approved Signature for:



for Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200809-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200809-1	MWB-7	Seawater	21-Mar-20	10:00	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 09.523" E : 131° 15' 34.002"
2	EV200809-2	MWB-9	Seawater	21-Mar-20	10:56	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 25.708" E : 131° 15' 15.267"
3	EV200809-3	MWB-10	Seawater	21-Mar-20	11:26	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 45.922" E : 131° 14' 55.210"
4	EV200809-4	MWB-6	Seawater	21-Mar-20	14:40	26-Mar-20	Baskoro, Fauz, Husni	S : 07° 59' 46.585" E : 131° 16' 02.110"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 DCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV200809-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-1	EV200809-2
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
	PLANKTON***			
	1. PHYTOPLANKTON			
	BACILLARIOPHYCEAE			
1	<i>Bacillaria sp.</i>	Cell/m ³	-	38,000
2	<i>Fragilaria sp.</i>	Cell/m ³	-	4,000
3	<i>Gyrodinium sp.</i>	Cell/m ³	-	2,000
4	<i>Navicula sp.</i>	Cell/m ³	4,000	2,000
5	<i>Nitzschia sp.</i>	Cell/m ³	1,645,000	1,333,000
6	<i>Pleurosigma sp.</i>	Cell/m ³	2,000	-
7	<i>Thalassionema sp.</i>	Cell/m ³	12,000	18,000
8	<i>Thalassiothrix sp.</i>	Cell/m ³	150,000	114,000
	COSCINODISCOMPHYCEAE			
1	<i>Coscinodiscus sp.</i>	Cell/m ³	20,000	10,000
2	<i>Guinardia sp.</i>	Cell/m ³	24,000	6,000
3	<i>Rhizosolenia sp.</i>	Cell/m ³	831,000	206,000
4	<i>Triceratium sp.</i>	Cell/m ³	-	-
	CYANOPHYCEAE			
1	<i>Trichodesmium sp.</i>	Cell/m ³	22,000	13,000
	DINOPHYCEAE			
1	<i>Ceratium sp.</i>	Cell/m ³	10,000	8,000
2	<i>Dinophysis sp.</i>	Cell/m ³	2,000	4,000
3	<i>Ornithocercus sp.</i>	Cell/m ³	-	1,000
4	<i>Peridinium sp.</i>	Cell/m ³	4,000	5,000
5	<i>Phaeocystis sp.</i>	Cell/m ³	-	1,000
6	<i>Pyrocystis sp.</i>	Cell/m ³	2,000	1,000



Job Number : EV200809-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r6/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-1	EV200809-2
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
MEDIOPHYCEAE				
1	<i>Bacteriastrium</i> sp.	Cell/m ³	194,000	98,000
2	<i>Biddulphia</i> sp.	Cell/m ³	5,000	8,000
3	<i>Ceratolus</i> sp.	Cell/m ³	66,000	11,000
4	<i>Chaetoceros</i> sp.	Cell/m ³	2,739,000	1,423,000
5	<i>Eucampia</i> sp.	Cell/m ³	8,000	4,000
6	<i>Hemiaulus</i> sp.	Cell/m ³	77,000	30,000
7	<i>Leptocylindrus</i> sp.	Cell/m ³	61,000	40,000
8	<i>Thalassiosira</i> sp.	Cell/m ³	10,000	6,000
NOCTILUCOPHYCEAE				
1	<i>Noctiluca</i> sp.	Cell/m ³	7,000	3,000
Total Taxa (s)			22	26
Abundance			5,995,000	3,388,000
Diversity Index			1.49	1.45
Equitability Index			0.48	0.45
Dominance Index			0.31	0.34
2. ZOOPLANKTON				
ACANTHARIA				
1	<i>Acanthometron</i> sp.	Ind/m ³	4,000	3,000
APPENDICULARIA				
1	<i>Oikopleura</i> sp.	Ind/m ³	20,000	12,000
COPEPODA				
1	<i>Acanthocyclops</i> sp.	Ind/m ³	-	-
2	<i>Acartia</i> sp.	Ind/m ³	64,000	41,000
3	<i>Balanus</i> sp.	Ind/m ³	-	-
4	<i>Calanus</i> sp.	Ind/m ³	45,000	28,000
5	<i>Corycaeus</i> sp.	Ind/m ³	6,000	7,000
6	<i>Euchaeta</i> sp.	Ind/m ³	17,000	6,000
7	<i>Euterpina</i> sp.	Ind/m ³	2,000	1,000
8	<i>Macrosetella</i> sp.	Ind/m ³	1,000	1,000
9	<i>Microsetella</i> sp.	Ind/m ³	1,000	1,000
10	<i>Oithona</i> sp.	Ind/m ³	62,000	42,000



Job Number : EV200809-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpox Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-1	EV200809-2
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
11	<i>Oncaea sp.</i>	Ind/m ³	-	1,000
12	<i>Sapphirina sp.</i>	Ind/m ³	1,000	-
13	<i>Tamora sp.</i>	Ind/m ³	67,000	35,000
GLOBOTHALAMEA				
1	<i>Globigerina sp.</i>	Ind/m ³	3,000	2,000
2	<i>Globorotala sp.</i>	Ind/m ³	-	6,000
OLIGOTRICHEA				
1	<i>Codonellopsis sp.</i>	Ind/m ³	1,000	-
2	<i>Eulimnoides sp.</i>	Ind/m ³	5,000	2,000
3	<i>Favosites sp.</i>	Ind/m ³	-	1,000
4	<i>Parafavosites sp.</i>	Ind/m ³	2,000	-
5	<i>Tritonopsis sp.</i>	Ind/m ³	-	3,000
POLYCYSTINA				
1	<i>Pterocanium sp.</i>	Ind/m ³	-	-
SAGITTOIDEA				
1	<i>Sagitta sp.</i>	Ind/m ³	1,000	1,000
Total Taxa (s)			17	18
Abundance		Ind/m ³	302,000	193,000
Diversity Index			2.02	2.15
Equitability Index			0.71	0.74
Dominance Index			0.17	0.15

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200809-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpax Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-3	EV200809-4
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
	PLANKTON***			
	1. PHYTOPLANKTON			
	BACILLARIOPHYCEAE			
1	<i>Bacillaria</i> sp.	Cell/m ³	13,000	16,000
2	<i>Fragilaria</i> sp.	Cell/m ³	-	-
3	<i>Cyrosigma</i> sp.	Cell/m ³	2,000	-
4	<i>Navicula</i> sp.	Cell/m ³	16,000	-
5	<i>Nitzschia</i> sp.	Cell/m ³	1,471,000	288,000
6	<i>Pleurosigma</i> sp.	Cell/m ³	-	-
7	<i>Thalassionema</i> sp.	Cell/m ³	14,000	29,000
8	<i>Thalassiothrix</i> sp.	Cell/m ³	-	56,000
	COSCINODISCOPHYCEAE			
1	<i>Coscinodiscus</i> sp.	Cell/m ³	31,000	3,000
2	<i>Gomardella</i> sp.	Cell/m ³	13,000	7,000
3	<i>Rhizosolenia</i> sp.	Cell/m ³	315,000	93,000
4	<i>Triceratium</i> sp.	Cell/m ³	40,000	1,000
	CYANOPHYCEAE			
1	<i>Trichodesmium</i> sp.	Cell/m ³	207,000	20,000
	DINOPHYCEAE			
1	<i>Ceratium</i> sp.	Cell/m ³	-	14,000
2	<i>Dinophysis</i> sp.	Cell/m ³	10,000	9,000
3	<i>Orthocercus</i> sp.	Cell/m ³	1,000	1,000
4	<i>Peridinium</i> sp.	Cell/m ³	38,000	9,000
5	<i>Phaeocystis</i> sp.	Cell/m ³	1,000	-
6	<i>Pyrocystis</i> sp.	Cell/m ³	-	-



Job Number : EV200809-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8IIUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-3	EV200809-4
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
MEDIOPHYCEAE				
1	<i>Bacterastrum</i> sp.	Cell/m ³	159,000	34,000
2	<i>Bractulphia</i> sp.	Cell/m ³	15,000	-
3	<i>Ceratium</i> sp.	Cell/m ³	54,000	6,000
4	<i>Chaetoceros</i> sp.	Cell/m ³	972,000	467,000
5	<i>Eucampia</i> sp.	Cell/m ³	8,000	16,000
6	<i>Hemiaulus</i> sp.	Cell/m ³	29,000	5,000
7	<i>Leptocythidrus</i> sp.	Cell/m ³	62,000	18,000
8	<i>Thalassiosira</i> sp.	Cell/m ³	100,000	-
NOCTILUCOPHYCEAE				
1	<i>Noctiluca</i> sp.	Cell/m ³	11,000	5,000
Total Taxa (s)			23	20
Abundance		Cell/m ³	3,582,000	1,097,000
Diversity Index			1.81	1.82
Equitability Index			0.58	0.61
Dominance Index			0.26	0.26
2. ZOOPLANKTON				
ACANTHARIA				
1	<i>Acanthamoeba</i> sp.	Ind/m ³	-	-
APPENDICULARIA				
1	<i>Oikopleura</i> sp.	Ind/m ³	12,000	-
COPEPODA				
1	<i>Acartia</i> sp.	Ind/m ³	1,000	-
2	<i>Acartia</i> sp.	Ind/m ³	107,000	21,000
3	<i>Balanus</i> sp.	Ind/m ³	3,000	1,000
4	<i>Calanus</i> sp.	Ind/m ³	60,000	5,000
5	<i>Corycaeus</i> sp.	Ind/m ³	5,000	1,000
6	<i>Euchaeta</i> sp.	Ind/m ³	13,000	2,000
7	<i>Euterpina</i> sp.	Ind/m ³	4,000	-
8	<i>Macrosetella</i> sp.	Ind/m ³	-	2,000
9	<i>Microsetella</i> sp.	Ind/m ³	2,000	1,000
10	<i>Oithona</i> sp.	Ind/m ³	66,000	6,000



Job Number : EV200809-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7967.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-3	EV200809-4
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
11	<i>Oncaea sp.</i>	Ind/m ³	2,000	1,000
12	<i>Sapphirina sp.</i>	Ind/m ³	1,000	-
13	<i>Temora sp.</i>	Ind/m ³	89,000	19,000
GLOBOTHALAMEA				
1	<i>Globigerina sp.</i>	Ind/m ³	2,000	-
2	<i>Globorotalia sp.</i>	Ind/m ³	5,000	3,000
OLIGOTRICHEA				
1	<i>Codonellopsis sp.</i>	Ind/m ³	-	3,000
2	<i>Eutirinus sp.</i>	Ind/m ³	2,000	-
3	<i>Favella sp.</i>	Ind/m ³	1,000	-
4	<i>Parafavella sp.</i>	Ind/m ³	5,000	-
5	<i>Tintinnopsis sp.</i>	Ind/m ³	1,000	-
POLYCYSTINA				
1	<i>Pterocanium sp.</i>	Ind/m ³	1,000	-
SAGITTOIDEA				
1	<i>Sagitta sp.</i>	Ind/m ³	2,000	2,000
Total Taxa (s)			21	13
Abundance		Ind/m ³	374,000	67,000
Diversity Index			1.96	1.97
Equitability Index			0.65	0.77
Dominance Index			0.19	0.20

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV200809-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	PLANKTON***						
1	Phytoplankton	APHA 10200 F:2012	Cells/m ³	-	-	-	-
2	Zooplankton	SNI 06-3863-1995	Ind/m ³	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-T

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200809-B
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring for Inpex Project

Number of samples : 4

Date received : 26-Mar-2020
Date reported : 28-Apr-2020

Approved Signature for:



for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

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DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200809-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200809-5	MWB-7	Sediment	21-Mar-20	10:00	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 09.523"	E : 131° 15' 34.002"
2	EV200809-6	MWB-9	Sediment	21-Mar-20	10:56	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 25.708"	E : 131° 15' 15.267"
3	EV200809-7	MWB-10	Sediment	21-Mar-20	11:26	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 45.922"	E : 131° 14' 55.210"
4	EV200809-8	MWB-6	Sediment	21-Mar-20	14:40	26-Mar-20	Baskoro, Fauz, Husni	S : 07° 59' 46.585"	E : 131° 16' 02.110"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 DCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV200809-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-5	EV200809-6
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	BENTHOS^{***}			
	BIVALVIA			
1	<i>Donax sp.</i>	Ind/m ²	16	-
2	<i>Dosinia sp.</i>	Ind/m ²	-	-
	CRUSTACEA			
1	<i>Gammarus sp.</i>	Ind/m ²	-	16
2	<i>Portunus sp.</i>	Ind/m ²	16	-
	ENOPLA			
1	<i>Amphiporus sp.</i>	Ind/m ²	-	16
2	<i>Lineus sp.</i>	Ind/m ²	-	-
	GASTROPODA			
1	<i>Cavolinia sp.</i>	Ind/m ²	16	-
	POLYCHAETA			
1	<i>Arenicola sp.</i>	Ind/m ²	16	-
2	<i>Aricidea sp.</i>	Ind/m ²	16	-
3	<i>Capitella sp.</i>	Ind/m ²	-	-
4	<i>Eunice sp.</i>	Ind/m ²	16	-
5	<i>Clymenella sp.</i>	Ind/m ²	-	48
6	<i>Maldane sp.</i>	Ind/m ²	-	-
7	<i>Marphysa sp.</i>	Ind/m ²	-	-
8	<i>Nephtys sp.</i>	Ind/m ²	16	-
9	<i>Nereis sp.</i>	Ind/m ²	32	-
10	<i>Notomastus sp.</i>	Ind/m ²	16	-



Job Number : EV200609-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r6/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200609-5	EV200609-6
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
11	<i>Oribia</i> sp.	Ind/m ²	-	16
12	<i>Owenia</i> sp.	Ind/m ²	-	-
13	<i>Rhodine</i> sp.	Ind/m ²	-	-
14	<i>Sternaspis</i> sp.	Ind/m ²	-	-
Total Taxa (s)			9	4
Abundance		Ind/m ²	160	96
Diversity Index			3.12	1.79
Equitability Index			0.98	0.90
Dominance Index			0.12	0.33

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200809-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-7	EV200809-8
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	BENTHOS***			
	BIVALVIA			
1	<i>Donax sp.</i>	Ind/m ²	-	-
2	<i>Dosinia sp.</i>	Ind/m ²	10	-
	CRUSTACEA			
1	<i>Gammarus sp.</i>	Ind/m ²	-	-
2	<i>Portunus sp.</i>	Ind/m ²	-	-
	ENOPLA			
1	<i>Amphiporus sp.</i>	Ind/m ²	-	-
2	<i>Lineus sp.</i>	Ind/m ²	16	-
	GASTROPODA			
1	<i>Cakofina sp.</i>	Ind/m ²	-	-
	POLYCHAETA			
1	<i>Arenicola sp.</i>	Ind/m ²	-	-
2	<i>Aricidea sp.</i>	Ind/m ²	-	-
3	<i>Capitella sp.</i>	Ind/m ²	48	-
4	<i>Eunice sp.</i>	Ind/m ²	-	-
5	<i>Clymenella sp.</i>	Ind/m ²	32	16
6	<i>Maldane sp.</i>	Ind/m ²	32	-
7	<i>Marephysa sp.</i>	Ind/m ²	16	16
8	<i>Nephtys sp.</i>	Ind/m ²	-	-
9	<i>Nereis sp.</i>	Ind/m ²	16	-
10	<i>Notomastus sp.</i>	Ind/m ²	16	64



Job Number : EV200809-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IU5-EV/IV/2020

Laboratory Sample I.D :			EV200809-7	EV200809-8
Customer Sample I.D :			MWB-10	MWB-6
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
11	<i>Orbinia</i> sp.	Ind/m ²	16	-
12	<i>Owenia</i> sp.	Ind/m ²	16	-
13	<i>Rhodine</i> sp.	Ind/m ²	16	-
14	<i>Sternaspis</i> sp.	Ind/m ²	16	-
Total Taxa (s)			12	3
Abundance		Ind/m ²	256	96
Diversity Index			3.45	1.25
Equitability Index			0.96	0.79
Dominance Index			0.10	0.50

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV200809-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
1	BENTHOS***	SNI 03-3401-1994	Ind/m ³	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200809-C
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring for Inpex Project

Number of samples : 4

Date received : 26-Mar-2020
Date reported : 28-Apr-2020

Approved Signature for:


for

Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200809-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200809-5	MWB-7	Sediment	21-Mar-20	10:00	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 09.523" E : 131° 15' 34.002"
2	EV200809-6	MWB-9	Sediment	21-Mar-20	10:56	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 25.708" E : 131° 15' 15.267"
3	EV200809-7	MWB-10	Sediment	21-Mar-20	11:26	26-Mar-20	Baskoro, Fauz, Husni	S : 08° 00' 45.922" E : 131° 14' 55.210"
4	EV200809-8	MWB-6	Sediment	21-Mar-20	14:48	26-Mar-20	Baskoro, Fauz, Husni	S : 07° 59' 46.585" E : 131° 16' 02.110"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV200809-C
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-5	EV200809-6
Customer Sample I.D :			MWB-7	MWB-9
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Grainsize (9 Fractions) **			
1	Sand: 1-2 mm	%	0.1	9.5
2	Sand: 0.5-1 mm	%	0.8	15.6
3	Sand: 0.2-0.5 mm	%	3.6	19.3
4	Sand: 0.1-0.2 mm	%	12.1	13.6
5	Sand: 50 µm-0.1 mm	%	13.2	7.8
6	Silt: 20 - 50 µm	%	20.6	9.2
7	Silt: 2 - 20 µm	%	39.6	9.9
8	Clay: 0.2 - 2 µm	%	5.3	9.4
9	Clay: < 0.2 µm	%	4.7	5.7

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200809-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200809-7	EV200809-8
Customer Sample I.D :			MWB-10	MWB-8
Date Sampled :			21-Mar-20	21-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Grainsize (9 Fractions) **			
1	Sand: 1-2 mm	%	11.7	0.2
2	Sand: 0.5-1 mm	%	24.0	0.2
3	Sand: 0.2-0.5 mm	%	23.6	0.6
4	Sand: 0.1-0.2 mm	%	14.7	2.6
5	Sand: 50 µm-0.1 mm	%	7.4	4.7
6	Silt: 20 - 50 µm	%	3.1	15.3
7	Silt: 2 - 20 µm	%	4.3	62.6
8	Clay: 0.2 - 2 µm	%	6.5	7.0
9	Clay: < 0.2 µm	%	4.7	6.8

Note: Refer to QA/QC -- Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV200809-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring for Inpex Project
Customer Ref : 7987.r6/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200809-8	EV200809-8 Duplicate	
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	0.2	0.2	0.0%
2	Sand: 0.5-1 mm	%	0.2	0.2	0.0%
3	Sand: 0.2-0.5 mm	%	0.6	0.6	0.0%
4	Sand: 0.1-0.2 mm	%	2.6	2.8	5.6%
5	Sand: 50 µm-0.1 mm	%	4.7	5.1	9.2%
6	Silt: 20 - 50 µm	%	15.3	13.4	13.3%
7	Silt: 2 - 20 µm	%	62.6	63.6	1.9%
8	Clay: 0.2 - 2 µm	%	7.0	7.1	1.4%
9	Clay: < 0.2 µm	%	6.8	6.8	0.0%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)

R



QUALITY CONTROL - ACCURACY

Job Number : EV200809-C
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring for Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Grainsize (9 Fractions) **						
1	Sand: 1-2 mm	INHOUSE METHOD	%	0.1	-	-	-
2	Sand: 0.5-1 mm	INHOUSE METHOD	%	0.1	-	-	-
3	Sand: 0.2-0.5 mm	INHOUSE METHOD	%	0.1	-	-	-
4	Sand: 0.1-0.2 mm	INHOUSE METHOD	%	0.1	-	-	-
5	Sand: 50 µm-0.1 mm	INHOUSE METHOD	%	0.1	-	-	-
6	Silt: 20 - 50 µm	INHOUSE METHOD	%	0.1	-	-	-
7	Silt: 2 - 20 µm	INHOUSE METHOD	%	0.1	-	-	-
8	Clay: 0.2 - 2 µm	INHOUSE METHOD	%	0.1	-	-	-
9	Clay: < 0.2 µm	INHOUSE METHOD	%	0.1	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
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JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200810
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Ambient and Noise Analysis

Number of samples : 9

Date received : 26-Mar-2020
Date reported : 15-Apr-2020

Approved Signature for:


for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

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DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200810-1	AQ-9	Ambient Air	10-Mar-20	10:00	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 22.2" E : 131° 17' 44.1"
2	EV200810-2	AQ-8	Ambient Air	11-Mar-20	12:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 55' 14.5" E : 131° 17' 09.5"
3	EV200810-3	AQ-1	Ambient Air	12-Mar-20	14:30	26-Mar-20	Baskoro, Fauz & Husni	S : 08° 00' 15.0" E : 131° 13' 50.8"
4	EV200810-4	AQ-2	Ambient Air	13-Mar-20	15:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 59' 57.9" E : 131° 14' 18.0"
5	EV200810-5	AQ-3	Ambient Air	14-Mar-20	16:00	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 54.6" E : 131° 15' 01.5"
6	EV200810-6	AQ-4	Ambient Air	16-Mar-20	09:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 44.6" E : 131° 13' 47.8"
7	EV200810-7	AQ-5	Ambient Air	17-Mar-20	10:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 17.9" E : 131° 13' 44.1"
8	EV200810-8	AQ-6	Ambient Air	18-Mar-20	12:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 57' 48.4" E : 131° 13' 33.5"
9	EV200810-9	AQ-7	Ambient Air	19-Mar-20	13:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 57' 36.5" E : 131° 15' 17.2"

Notes:

- NA = Not Analysed
- ND= Not Detected
- IS = Insufficient Sample
- ** = Non Accredited Test
- *** = Subcontracted Test
- 1) = Field Measurement
- 2) = Field Measurement by Customer
- 3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
- 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
- 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
- SNR= Sample Not Received



Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-1	EV200810-2
Customer Sample I.D :				AQ-9	AQ-8
Date Sampled :				10-Mar-20	11-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
Ambient Sampling Condition					
1	Temperature	°C	-	23.2 - 35.5	21.1 - 33.7
2	Duration of Sampling	Hours	-	24	24
3	Pressure	mm-Hg	-	751.2 - 754.0	754.0 - 757.3
4	Humidity	%	-	67.4 - 100.0	72.6 - 100.0
5	Wind Speed	m/s	-	<0.5 - 0.9	<0.5 - 2.6
6	Dominant Wind Direction from	-	-	East	West
7	Weather	-	-	Cloudy - Rainy - Clear	Cloudy - Rainy
Ambient Air Tests					
1	Carbon Monoxide, CO** (24 Hours)	µg/Nm ³	10000	<100	<100
2	Mercury, Hg (24 Hours)	µg/Nm ³	-	0.003	<0.001
3	Hydrogen Sulphide, H ₂ S (1 Hours)	µg/Nm ³	-	<20	<20
4	Nitrogen Dioxide, NO ₂ (24 Hours)	µg/Nm ³	150	<5	<5
5	Oxidant, O ₃ (1 Hour)	µg/Nm ³	235	<20	<20
6	Sulfur Dioxide, SO ₂ (24 Hours)	µg/Nm ³	365	<20	<20
7	Particulates <2.5µm, PM _{2.5} (24 Hours)	µg/Nm ³	65	2.4	5.1
8	Particulates <10µm, PM ₁₀ (24 Hours)	µg/Nm ³	150	10.3	6.9
9	Total Hydrocarbons, HC** (3 Hours)	µg/Nm ³	160	<50	<50
10	Total Suspended Particulates, TSP (24 Hours)	µg/Nm ³	230	13.7	16.7
BTEX in Air Quality					
1	Benzene	mg/Nm ³	-	<0.1	<0.1
2	Toluene	mg/Nm ³	-	<0.25	<0.25
3	Ethyl Benzene	mg/Nm ³	-	<0.1	<0.1
4	Xylenes Total	mg/Nm ³	-	<0.1	<0.1

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
 Regulatory Limit Based on PPRd No.41/1999



Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r5/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-3	EV200810-4
Customer Sample I.D :				AQ-1	AQ-2
Date Sampled :				12-Mar-20	13-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
Ambient Sampling Condition					
1	Temperature	°C	-	25.1 - 33.6	25.8 - 34.8
2	Duration of Sampling	Hours	-	24	24
3	Pressure	mmHg	-	754.3 - 757.4	752.8 - 756.3
4	Humidity	%	-	50.7 - 83.7	71.4 - 100.0
5	Wind Speed	m/s	-	<0.5 - 1.4	<0.5
6	Dominant Wind Direction from	-	-	South	ND
7	Weather	-	-	Clear - Cloudy - Rainy	Clear - Cloudy
Ambient Air Tests					
1	Carbon Monoxide, CO** (24 Hours)	µg/Nm ³	10000	<100	<100
2	Mercury, Hg (24 Hours)	µg/Nm ³	-	<0.001	<0.001
3	Hydrogen Sulphide, H ₂ S (1 Hours)	µg/Nm ³	-	<20	<20
4	Nitrogen Dioxide, NO ₂ (24 Hours)	µg/Nm ³	150	<5	<5
5	Oxidant, O ₃ (1 Hour)	µg/Nm ³	235	<20	<20
6	Sulfur Dioxide, SO ₂ (24 Hours)	µg/Nm ³	365	<20	<20
7	Particulates <2.5µm, PM _{2.5} (24 Hours)	µg/Nm ³	65	2.6	0.9
8	Particulates <10µm, PM ₁₀ (24 Hours)	µg/Nm ³	150	8.9	5.0
9	Total Hydrocarbons, HC** (3 Hours)	µg/Nm ³	180	<50	<50
10	Total Suspended Particulates, TSP (24 Hours)	µg/Nm ³	230	18.1	17.1
BTEX in Air Quality					
1	Benzene	mg/Nm ³	-	<0.1	<0.1
2	Toluene	mg/Nm ³	-	<0.25	<0.25
3	Ethyl Benzene	mg/Nm ³	-	<0.1	<0.1
4	Xylenes Total	mg/Nm ³	-	<0.1	<0.1

Note: Refer to QA/QC - Accuracy page for list of analytical methods used.
 Regulatory Limit Based on PPRI No.41/1999.



Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :				EV200810-5	EV200810-6
Customer Sample I.D :				AQ-3	AQ-4
Date Sampled :				14-Mar-20	16-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
Ambient Sampling Condition					
1	Temperature	°C	-	23.8 - 33.5	22.3 - 36.4
2	Duration of Sampling	Hours	-	24	24
3	Pressure	mmHg	-	745.5 - 755.8	752.8 - 756.1
4	Humidity	%	-	54.3 - 100.0	58.5 - 100.0
5	Wind Speed	m/s	-	<0.5 - 0.7	<0.5 - 2.6
6	Dominant Wind Direction from	-	-	East	South
7	Weather	-	-	Clear	Clear
Ambient Air Tests					
1	Carbon Monoxide, CO** (24 Hours)	µg/Nm ³	10000	<100	<100
2	Mercury, Hg (24 Hours)	µg/Nm ³	-	<0.001	<0.001
3	Hydrogen Sulphide, H ₂ S (1 Hour)	µg/Nm ³	-	<20	<20
4	Nitrogen Dioxide, NO ₂ (24 Hours)	µg/Nm ³	150	<5	<5
5	Oxidant, O ₃ (1 Hour)	µg/Nm ³	235	<20	<20
6	Sulfur Dioxide, SO ₂ (24 Hours)	µg/Nm ³	365	<20	<20
7	Particulates <2.5µm, PM _{2.5} (24 Hours)	µg/Nm ³	65	5.3	12.0
8	Particulates <10µm, PM ₁₀ (24 Hours)	µg/Nm ³	150	12.1	21.8
9	Total Hydrocarbons, HC** (3 Hours)	µg/Nm ³	160	<50	<50
10	Total Suspended Particulates, TSP (24 Hours)	µg/Nm ³	230	21.3	25.5
BTEX in Air Quality					
1	Benzene	mg/Nm ³	-	<0.1	<0.1
2	Toluene	mg/Nm ³	-	<0.25	<0.25
3	Ethyl Benzene	mg/Nm ³	-	<0.1	<0.1
4	Xylenes Total	mg/Nm ³	-	<0.1	<0.1

Note: Refer to QA/QC - Accuracy page for list of analytical methods used
 Regulatory Limit Based on PPRI No.41/1999



Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-7	EV200810-8
Customer Sample I.D :				AQ-5	AQ-6
Date Sampled :				17-Mar-20	18-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
Ambient Sampling Condition					
1	Temperature	°C	-	24.8 - 33.0	24.1 - 34.0
2	Duration of Sampling	Hours	-	24	24
3	Pressure	mmHg	-	752.8 - 755.1	752.7 - 754.4
4	Humidity	%	-	68.1 - 100.0	55.3 - 100.0
5	Wind Speed	m/s	-	<0.5	<0.5 - 1.9
6	Dominant Wind Direction from	-	-	ND	East
7	Weather	-	-	Clear	Clear
Ambient Air Tests					
1	Carbon Monoxide, CO** (24 Hours)	µg/Nm ³	10000	<100	<100
2	Mercury, Hg (24 Hours)	µg/Nm ³	-	<0.001	<0.001
3	Hydrogen Sulphide, H ₂ S (1 Hour)	µg/Nm ³	-	<20	<20
4	Nitrogen Dioxide, NO ₂ (24 Hours)	µg/Nm ³	150	<5	<5
5	Oxidant, O ₃ (1 Hour)	µg/Nm ³	235	<20	<20
6	Sulfur Dioxide, SO ₂ (24 Hours)	µg/Nm ³	365	<20	<20
7	Particulates <2.5µm, PM _{2.5} (24 Hours)	µg/Nm ³	65	1.2	12.2
8	Particulates <10µm, PM ₁₀ (24 Hours)	µg/Nm ³	150	2.5	30.8
9	Total Hydrocarbons, HC** (3 Hours)	µg/Nm ³	160	<50	<50
10	Total Suspended Particulates, TSP (24 Hours)	µg/Nm ³	230	13.1	33.8
BTEX in Air Quality					
1	Benzene	mg/Nm ³	-	<0.1	<0.1
2	Toluene	mg/Nm ³	-	<0.25	<0.25
3	Ethyl Benzene	mg/Nm ³	-	<0.1	<0.1
4	Xylenes Total	mg/Nm ³	-	<0.1	<0.1

Note: Refer to QA/QC - Accuracy page for list of analytical methods used
 Regulatory Limit Based on PPR No.41/1999



Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/RUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-9
Customer Sample I.D :				AQ-7
Date Sampled :				19-Mar-20
Sample Matrix :				Ambient Air
No.	Test Description	Units	Regulatory Limit	Results
Ambient Sampling Condition				
1	Temperature	°C	-	20.7 - 34.9
2	Duration of Sampling	Hours	-	24
3	Pressure	mmHg	-	753.2 - 756.3
4	Humidity	%	-	70.2 - 100.0
5	Wind Speed	m/s	-	<0.5 - 1.0
6	Dominant Wind Direction from	-	-	East
7	Weather	-	-	Clear - Cloudy - Rainy
Ambient Air Tests				
1	Carbon Monoxide, CO** (24 Hours)	µg/Nm ³	10000	<100
2	Mercury, Hg (24 Hours)	µg/Nm ³	-	<0.001
3	Hydrogen Sulphide, H ₂ S (1 Hours)	µg/Nm ³	-	<20
4	Nitrogen Dioxide, NO ₂ (24 Hours)	µg/Nm ³	150	<5
5	Oxidant, O ₃ (1 Hour)	µg/Nm ³	235	<20
6	Sulfur Dioxide, SO ₂ (24 Hours)	µg/Nm ³	365	<20
7	Particulates <2.5µm, PM _{2.5} (24 Hours)	µg/Nm ³	65	2.1
8	Particulates <10µm, PM ₁₀ (24 Hours)	µg/Nm ³	150	16.3
9	Total Hydrocarbons, HC** (3 Hours)	µg/Nm ³	160	<50
10	Total Suspended Particulates, TSP (24 Hours)	µg/Nm ³	230	28.0
BTEX in Air Quality				
1	Benzene	mg/Nm ³	-	<0.1
2	Toluene	mg/Nm ³	-	<0.25
3	Ethyl Benzene	mg/Nm ³	-	<0.1
4	Xylenes Total	mg/Nm ³	-	<0.1

Note: Refer to QA/QC - Accuracy page for list of analytical methods used
 Regulatory Limit Based on PPRI No.41/1999



QUALITY CONTROL - PRECISION

Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200810-9	EV200810-9 Duplicate	
	Ambient Sampling Condition				
1	Temperature	°C	20.7 - 34.0	-	-
2	Duration of Sampling	Hours	24	-	-
3	Pressure	mmHg	753.2 - 756.3	-	-
4	Humidity	%	70.2 - 100.0	-	-
5	Wind Speed	m/s	1.4 - 1.5	-	-
6	Dominant Wind Direction from	-	East	-	-
7	Weather	-	Clear - Cloudy - Rainy	-	-
	Ambient Air Tests				
1	Carbon Monoxide, CO** (24 Hours)	µg/Nm ³	<100	-	-
2	Mercury, Hg (24 Hours)	µg/Nm ³	<0.001	<0.001	-
3	Hydrogen Sulphide, H ₂ S (1 Hours)	µg/Nm ³	<20	<20	-
4	Nitrogen Dioxide, NO ₂ (24 Hours)	µg/Nm ³	<5	<5	-
5	Oxidant, O ₃ (1 Hour)	µg/Nm ³	<20	<20	-
6	Sulfur Dioxide, SO ₂ (24 Hours)	µg/Nm ³	<20	<20	-
7	Particulates <2.5µm, PM _{2.5} (24 Hours)	µg/Nm ³	2.1	-	-
8	Particulates <10µm, PM ₁₀ (24 Hours)	µg/Nm ³	16.3	-	-
9	Total Hydrocarbons, HC** (3 Hours)	µg/Nm ³	<50	<50	-
10	Total Suspended Particulates, TSP (24 Hours)	µg/Nm ³	28.0	-	-
	BTEX in Air Quality				
1	Benzene	mg/Nm ³	<0.1	-	-
2	Toluene	mg/Nm ³	<0.25	-	-
3	Ethyl Benzene	mg/Nm ³	<0.1	-	-
4	Xylenes Total	mg/Nm ³	<0.1	-	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200810
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Ambient Air Tests						
1	Carbon Monoxide, CO** (24 Hours)	NIOSH Method 6604	µg/Nm ³	100	-	-	-
2	Mercury, Hg (24 Hours)	EPA Method IO-2.1-1999	µg/Nm ³	0.001	-	-	-
3	Nitrogen Dioxide, NO ₂ (24 Hours)	SNI 19-7119.2-2017	µg/Nm ³	5	-	-	-
4	Oxidant, O ₃ (1 Hour)	SNI 19-7119.6-2017	µg/Nm ³	20	-	-	-
5	Sulfur Dioxide, SO ₂ (24 Hours)	SNI 19-7119.7-2017	µg/Nm ³	20	-	-	-
6	Total Hydrocarbons, HC** (3 Hours)	MASA Method 133	µg/Nm ³	50	-	-	-
7	Total Suspended Particulates, TSP (24 Hours)	SNI 19-7119.3-2017	µg/Nm ³	0.1	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting: exceeds the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200810-A
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Ambient and Noise Analysis

Number of samples : 9

Date received : 26-Mar-2020
Date reported : 15-Apr-2020

Approved Signature for:

for 

Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV200810-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ambient and Noise Analysis
 Customer Ref : 7987.r8/IUS-EV/II/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200810-1	AQ-9	Ambient Air	10-Mar-20	10:00	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 59' 22.2" E : 131° 17' 44.1"
2	EV200810-2	AQ-8	Ambient Air	11-Mar-20	12:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 55' 14.5" E : 131° 17' 09.5"
3	EV200810-3	AQ-1	Ambient Air	12-Mar-20	14:30	26-Mar-20	Baskoro, Fauz & Husni	S : 08° 00' 15.0" E : 131° 13' 50.6"
4	EV200810-4	AQ-2	Ambient Air	13-Mar-20	15:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 59' 57.9" E : 131° 14' 18.0"
5	EV200810-5	AQ-3	Ambient Air	14-Mar-20	16:00	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 54.8" E : 131° 15' 01.5"
6	EV200810-6	AQ-4	Ambient Air	16-Mar-20	09:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 44.6" E : 131° 13' 47.8"
7	EV200810-7	AQ-5	Ambient Air	17-Mar-20	10:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 58' 17.9" E : 131° 13' 44.1"
8	EV200810-8	AQ-6	Ambient Air	18-Mar-20	12:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 57' 48.4" E : 131° 13' 33.5"
9	EV200810-9	AQ-7	Ambient Air	19-Mar-20	13:30	26-Mar-20	Baskoro, Fauz & Husni	S : 07° 57' 35.5" E : 131° 15' 17.2"

Notes:

- NA = Not Analysed
 ND = Not Detected
 IS = Insufficient Sample
 ** = Non Accredited Test
 *** = Subcontracted Test
 1) = Field Measurement
 2) = Field Measurement by Customer
 3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
 SNR = Sample Not Received



Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-1	EV200810-2
Customer Sample I.D :				AQ-9	AQ-8
Date Sampled :				10-Mar-20	11-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
	Noise Tests (24 Hours)				
1	Noise, L_{eq} (Day-Night)	dBA	55	54.3	55.0

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
Regulatory Limit Based on KEMENLH No.45/1996 attachment 1 point. A (perumahan dan permukiman)



Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-3	EV200810-4
Customer Sample I.D :				AQ-1	AQ-2
Date Sampled :				12-Mar-20	13-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
	Noise Tests (24 Hours)				
1	Noise, L_{eq} (Day-Night)	dB(A)	55	57.0	39.2

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
Regulatory Limit Based on KEPMENLH No.48/1996 attachment I point. A (perumahan dan pemukiman)



Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-5	EV200810-6
Customer Sample I.D :				AQ-3	AQ-4
Date Sampled :				14-Mar-20	16-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
	Noise Tests (24 Hours)				
1	Noise, L_{eq} (Day-Night)	dBA	55	36.7	45.9

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
Regulatory Limit Based on KEPMENLH No.48/1996 attachment 1 point, A (perumahan dan pemukiman)



Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7967.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-7	EV200810-8
Customer Sample I.D :				AQ-5	AQ-6
Date Sampled :				17-Mar-20	18-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
	Noise Tests (24 Hours)				
1	Noise, L_{eq} (Day-Night)	dBA	55	48.6	35.4

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
Regulatory Limit Based on KEMENLH No.48/1996 attachment I point A (perumahan dan pemukiman)



Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-9
Customer Sample I.D :				AQ-7
Date Sampled :				19-Mar-20
Sample Matrix :				Ambient Air
No.	Test Description	Units	Regulatory Limit	Results
	Noise Tests (24 Hours)			
1	Noise, L_{eq} (Day-Night)	dB(A)	55	57.0

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
Regulatory Limit Based on KEPMENLH No.48/1996 attachment I point. A (perumahan dan pemukiman)



Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :				EV200810-3	EV200810-8
Customer Sample I.D :				AQ-1	AQ-4
Date Sampled :				12-Mar-20	16-Mar-20
Sample Matrix :				Ambient Air	Ambient Air
No.	Test Description	Units	Regulatory Limit	Results	Results
	Noise Tests (48 Hours)		Residential		
1	Day time Noise (07:22), Leq	dBA	55	53.7	46.8
2	Night time Noise (22:07), Leq	dBA	45	48.1	36.0
3	Background Noise, L90	dBA	-	30.1	33.7

Note: Refer to QA/QC – Accuracy page for list of analytical methods used
Regulatory Limit based on WHO community Noise and Pannorakes and ACOH Tahun 2017



WEATHER CONDITION

Location: AQ-1

No	Date & Time	Temp (°C)	Humidity (%)	Wind Speed (m/s)	Wind Direction
1	13/03/2020 12.10	30.67	77.00	1.33	WSW
2	13/03/2020 13.00	28.50	81.00	1.77	WSW
3	13/03/2020 14.00	28.08	81.83	1.32	WSW
4	13/03/2020 15.00	27.45	86.00	-	W
5	13/03/2020 16.00	27.30	86.50	0.27	WSW
6	13/03/2020 17.00	27.10	87.67	0.20	NW
7	13/03/2020 18.00	27.23	86.50	0.13	WSW
8	13/03/2020 19.00	26.93	87.83	0.07	NNW
9	13/03/2020 20.00	26.55	89.50	-	NNW
10	13/03/2020 21.00	26.22	91.00	-	NNW
11	13/03/2020 22.00	25.90	91.67	-	NNW
12	13/03/2020 23.00	25.92	91.17	0.07	NNW
13	14/03/2020 00.00	26.02	90.50	-	NNW
14	14/03/2020 1.00	25.93	90.83	-	NNW
15	14/03/2020 2.00	26.18	90.00	-	WSW
16	14/03/2020 3.00	26.37	90.83	0.07	NNW
17	14/03/2020 4.00	27.38	88.83	0.50	WSW
18	14/03/2020 5.00	28.40	84.67	0.82	WSW
19	14/03/2020 6.00	29.18	81.17	0.73	WSW
20	14/03/2020 7.00	30.35	77.33	0.80	WSW
21	14/03/2020 8.00	31.27	73.33	0.90	WSW
22	14/03/2020 9.00	31.48	72.00	1.38	WSW
23	14/03/2020 10.00	31.78	72.33	1.55	WSW
24	14/03/2020 11.00	31.73	70.67	2.07	WSW
25	14/03/2020 12.00	31.55	70.33	2.00	WSW
26	14/03/2020 13.00	31.37	68.33	1.93	WSW
27	14/03/2020 14.00	30.78	70.17	1.78	WSW
28	14/03/2020 15.00	30.08	73.67	1.48	WSW
29	14/03/2020 16.00	29.40	75.50	0.90	WSW



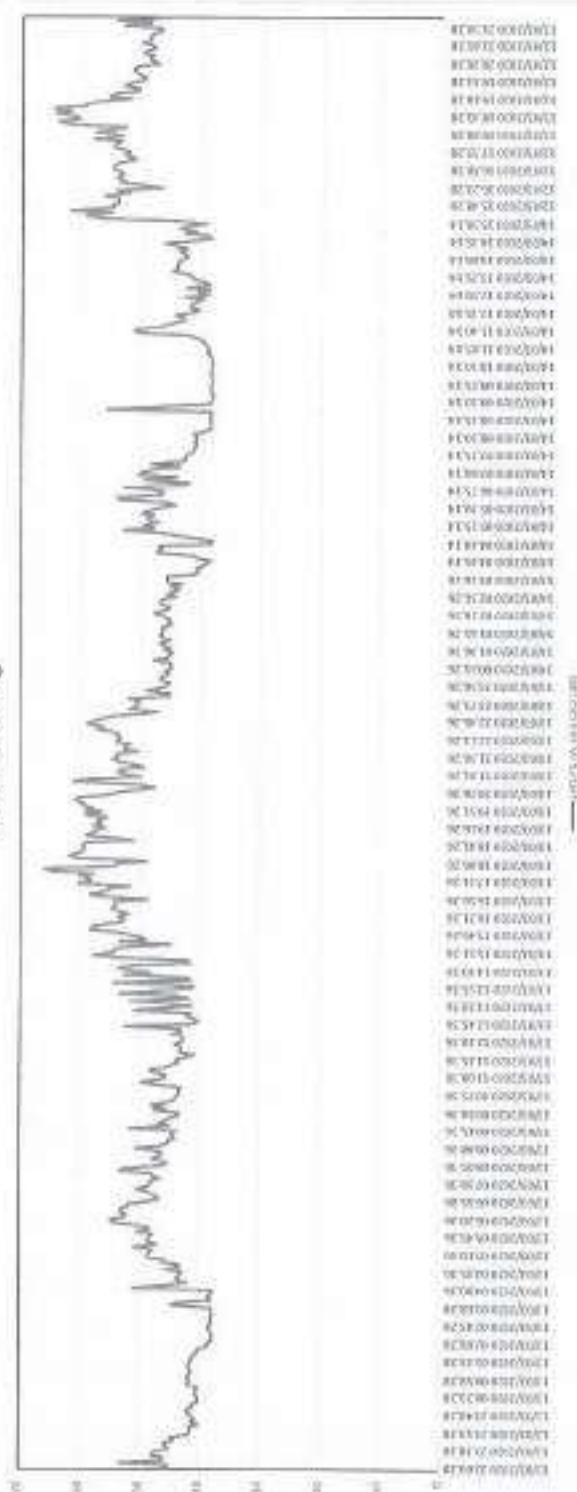
WEATHER CONDITION

Location : AQ-4

No	Date & Time	Temp (°C)	Humidity (%)	Wind Speed (m/s)	Wind Direction
1	16/03/2020 10.00.26	30.32	73.83	1.47	SE
2	16/03/2020 11.00.26	31.87	68.17	1.72	SE
3	16/03/2020 12.00.26	29.73	76.5	2.62	SSE
4	16/03/2020 13.00.26	29.95	74.17	0.93	SE
5	16/03/2020 14.00.26	30.3	74.67	0.42	ESE
6	16/03/2020 15.00.26	28.88	78.17	0.57	NE
7	16/03/2020 16.00.26	27.17	82.83	0.20	NE
8	16/03/2020 17.00.26	28.05	81.67	0.07	NW
9	16/03/2020 18.00.26	27.05	86.33	-	NW
10	16/03/2020 19.00.26	25.9	87.5	0.13	NW
11	16/03/2020 20.00.26	25.1	89.67	-	WNW
12	16/03/2020 21.00.26	24.3	92.33	-	WNW
13	16/03/2020 22.00.40	23.75	93	-	WNW
14	16/03/2020 23.00.40	23.35	94	-	WNW
15	17/03/2020 00.00.40	23.2	94.17	-	WNW
16	17/03/2020 01.00.40	23.13	94.83	-	WNW
17	17/03/2020 02.00.40	22.95	95	-	WNW
18	17/03/2020 03.00.40	22.75	95	-	WNW
19	17/03/2020 04.00.40	22.8	95	-	WNW
20	17/03/2020 05.00.40	23.03	95	-	WNW
21	17/03/2020 06.00.40	23.32	95.17	-	WNW
22	17/03/2020 07.00.40	24.02	96	-	WNW
23	17/03/2020 08.00.40	27.92	86.17	0.20	WNW
24	17/03/2020 09.00.40	30.58	75.5	0.33	WNW
25	17/03/2020 10.00.40	31.38	73.17	0.33	WNW
26	17/03/2020 11.01.04	32.08	71.5	0.65	SSE
27	17/03/2020 12.01.04	32.6	70.33	0.48	SSE
28	17/03/2020 13.01.04	32	70.33	0.90	SE
29	17/03/2020 14.01.04	30.92	72	0.88	SE
30	17/03/2020 15.01.04	30.25	74.33	0.57	SSE
31	17/03/2020 16.03.54	30.25	73.33	0.48	SSE
32	17/03/2020 17.03.54	28.88	76.83	0.20	SE
33	17/03/2020 18.00.04	26.78	84.33	-	WNW
34	17/03/2020 19.00.04	25.27	88.83	-	WNW
35	17/03/2020 20.00.04	24.7	91.67	-	WNW
36	17/03/2020 21.00.04	24.15	92.83	-	WNW
37	17/03/2020 22.00.04	23.72	94	-	WNW
38	17/03/2020 23.00.04	23.4	94	-	WNW
39	18/03/2020 00.00.04	23.17	94.5	-	WNW
40	18/03/2020 01.00.04	23.02	95	-	WNW
41	18/03/2020 02.00.04	22.98	95	-	WNW
42	18/03/2020 03.00.04	22.97	95	-	WNW
43	18/03/2020 04.00.04	22.73	95	-	WNW
44	18/03/2020 05.00.04	22.8	95.5	-	WNW
45	18/03/2020 06.00.04	22.88	95.5	-	WNW
46	18/03/2020 07.00.04	24.8	96	-	WNW
47	18/03/2020 08.00.04	29.12	79.83	0.73	SE
48	18/03/2020 09.00.04	30.47	72.67	1.23	SE

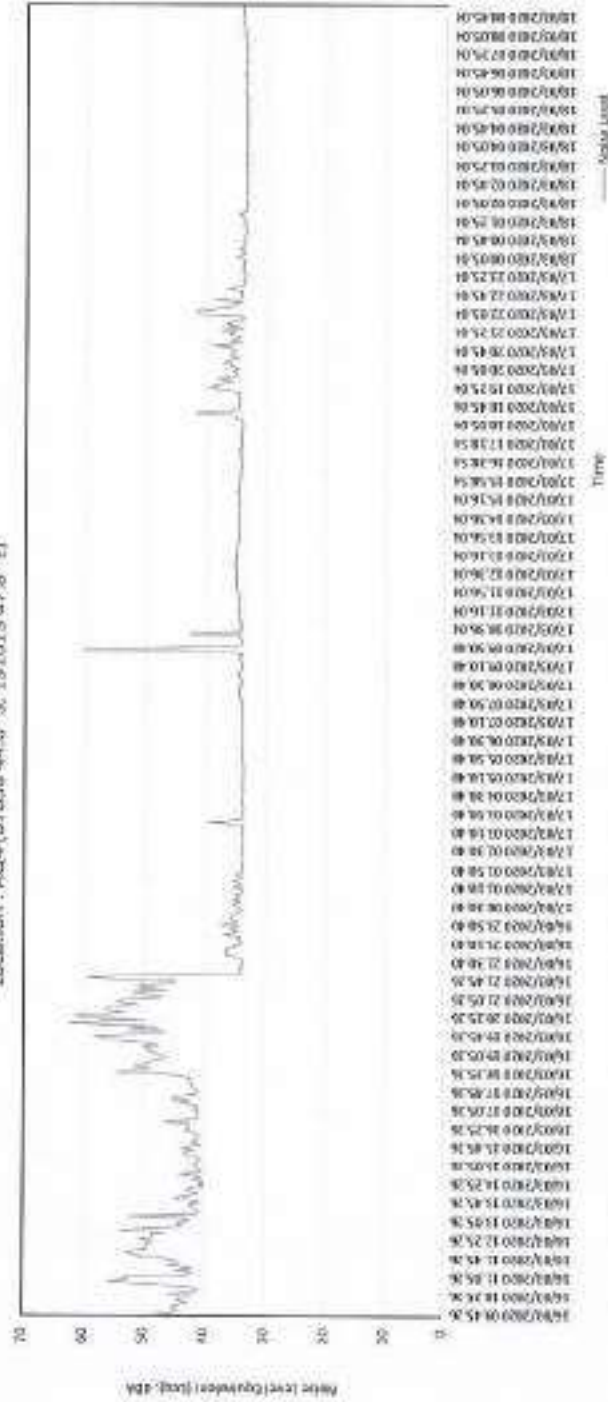


48 Hours Noise Level Equivalent (Leq)
Location : AQ-1 (08°00'15.0" S; 131°13'50.6" E)
Desa Iermatang





48 Hours Noise Level Equivalent (Leq)
Location : AQ14 (D7o58'44.5" S, 131o13'47.8" E)





QUALITY CONTROL - PRECISION

Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200810-8	EV200810-9 Duplicate	
	Noise Tests (24 Hours)				
1	Noise, L_{10} (Day-Night)	dBA	57.0	-	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are $< 10 \times$ DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200810-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Ambient and Noise Analysis
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Ambient Air Tests						
1	Noise, L_{DN} (Day-Night)	SNI 8427:2017	dBA	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200815
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 16

Date received : 26-Mar-2020
Date reported : 29-Apr-2020

Approved Signature for:

for 

Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200815-1	MWB-1	Seawater	24-Mar-20	10:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 21.197" E : 131° 17' 02.818"
2	EV200815-2	MWB-2	Seawater	24-Mar-20	10:15	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 57' 46.496" E : 131° 17' 07.326"
3	EV200815-3	MWB-3	Seawater	24-Mar-20	10:45	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 58' 24.397" E : 131° 17' 20.978"
4	EV200815-4	MWB-4	Seawater	24-Mar-20	11:50	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 27.504" E : 131° 16' 59.817"
5	EV200815-5	MWB-5	Seawater	24-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 07.586" E : 131° 16' 26.095"
6	EV200815-6	MWB-8	Seawater	24-Mar-20	16:15	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 43.034" E : 131° 15' 42.835"
7	EV200815-7	MWB-11	Seawater	24-Mar-20	15:45	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 02.130" E : 131° 14' 32.307"
8	EV200815-8	MWB-12	Seawater	24-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 45.420" E : 131° 16' 26.638"
9	EV200815-9	MWB-1	Sediment	24-Mar-20	10:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 21.197" E : 131° 17' 02.818"
10	EV200815-10	MWB-2	Sediment	24-Mar-20	10:15	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 57' 46.496" E : 131° 17' 07.326"
11	EV200815-11	MWB-3	Sediment	24-Mar-20	10:45	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 58' 24.397" E : 131° 17' 20.978"
12	EV200815-12	MWB-4	Sediment	24-Mar-20	11:50	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 27.504" E : 131° 16' 59.817"
13	EV200815-13	MWB-5	Sediment	24-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 07.586" E : 131° 16' 26.095"
14	EV200815-14	MWB-8	Sediment	24-Mar-20	16:15	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 43.034" E : 131° 15' 42.835"
15	EV200815-15	MWB-11	Sediment	24-Mar-20	15:45	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 02.130" E : 131° 14' 32.307"
16	EV200815-16	MWB-12	Sediment	24-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 45.420" E : 131° 16' 26.638"

Notes:

- NA = Not Analysed
- ND = Not Detected
- IS = Insufficient Sample
- ** = Non Accredited Test
- *** = Subcontracted Test
- 1) = Field Measurement
- 2) = Field Measurement by Customer
- 3) = Total Pesticides defined as 30 DCP compounds (list available upon request)
- 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
- 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
- SNR = Sample Not Received



Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-1	EV200815-2	EV200815-3
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Brightness ⁽¹⁾	m	3	3	3
2	Floating Matter ⁽¹⁾	-	None	None	None
3	Oil Film ⁽¹⁾	-	None	None	None
4	pH ⁽¹⁾	S.U.	8.14	8.19	8.36
5	Salinity ⁽¹⁾	g/L	31.2	32.1	32.6
6	Temperature ⁽¹⁾	°C	31.2	31.2	30.9
7	Total Suspended Solids, TSS	mg/L	7	3	5
8	Turbidity	NTU	6.3	1.9	4.6
Anions					
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.009	<0.005	0.025
3	Total Phosphorus as PO ₄	mg/L	0.306	0.030	0.031
Dissolved Metals					
1	Arsenic, As	mg/L	0.0008	<0.0005	0.0014
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005	<0.005
Microbiology					
1	Total Coliforms ^{(1)(*)}	CFU/100ml	ND	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND	ND



Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-1	EV200815-2	EV200815-3
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	6	5	6
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁾	mg/L	5.22	5.85	5.41
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	2.1	1.8	2.0
8	Total Phenols	mg/L	<0.001	<0.001	<0.001
Organics Tests					
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ¹⁾	mg/L	<0.0001	<0.0001	<0.0001
BTEX					
1	Benzene	mg/L	<0.001	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001	<0.001
4	Xylenes Total	mg/L	<0.003	<0.003	<0.003

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-4	EV200815-5	EV200815-6
Customer Sample I.D :			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Brightness ⁽¹⁾	m	5	7	12
2	Floating Matter ⁽¹⁾	-	None	None	None
3	Oil Film ⁽¹⁾	-	None	None	None
4	pH ⁽¹⁾	S.U	8.28	8.32	8.28
5	Salinity ⁽¹⁾	g/L	32.3	32.6	32.6
6	Temperature ⁽¹⁾	°C	31.2	31.2	30.3
7	Total Suspended Solids, TSS	mg/L	3	3	2
8	Turbidity	NTU	2.3	2.1	1.9
Anions					
1	Cyanide (Total), CN	mg/L	<0.005	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	<0.005	<0.005	<0.005
3	Total Phosphorus as PO ₄	mg/L	0.033	<0.005	<0.005
Dissolved Metals					
1	Arsenic, As	mg/L	0.0025	0.0022	0.0022
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005	<0.005
Microbiology					
1	Total Coliforms ⁽¹⁾	CFU/100ml	ND	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND	ND



Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-4	EV200815-5	EV200815-6
Customer Sample I.D :			MWB-4	MWB-5	MWB-6
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	5	4	4
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO (%)	mg/L	5.19	5.20	5.10
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	1.8	1.4	1.4
8	Total Phenols	mg/L	<0.001	<0.001	<0.001
Organics Tests					
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁽¹⁾	mg/L	<0.0001	<0.0001	<0.0001
BTEX					
1	Benzene	mg/L	<0.001	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001	<0.001
4	Xylenes Total	mg/L	<0.003	<0.003	<0.003

Note: Refer to QM/QC – Accuracy page for list of analytical methods used



Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-7	EV200815-8
Customer Sample I.D :			MWB-11	MWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
Physical Tests				
1	Brightness ¹⁾	m	14	7
2	Floating Matter ¹⁾	-	None	None
3	Oil Film ¹⁾	-	None	None
4	pH ¹⁾	S.U.	8.28	8.18
5	Salinity ¹⁾	g/L	32.8	32.3
6	Temperature ¹⁾	°C	30.5	31.5
7	Total Suspended Solids, TSS	mg/L	3	5
8	Turbidity	NTU	2.4	3.4
Anions				
1	Cyanide (Total), CN	mg/L	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.013	0.006
3	Total Phosphorus as PO ₄	mg/L	<0.005	<0.005
Dissolved Metals				
1	Arsenic, As	mg/L	0.0018	0.0015
2	Cadmium, Cd	mg/L	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005
Microbiology				
1	Total Coliforms ^{1)(a)}	CFU/100ml	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND



Job Number : EV200815
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-7	EV200815-8
Customer Sample ID :			MWB-11	MWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	3	5
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁾	mg/L	5.06	5.41
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	1.1	1.8
8	Total Phenols	mg/L	<0.001	<0.001
Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴⁾	mg/L	<0.0001	<0.0001
BTEX				
1	Benzene	mg/L	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001
4	Xylenes Total	mg/L	<0.003	<0.003

Note: Refer to DA/QC – Accuracy page for list of analytical methods used



Job Number : EV200815
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r3/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-9	EV200815-10	EV200815-11
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	<0.1
2	Arsenic, As	mg/dry kg	8.7	6.6	6.8
3	Cadmium, Cd	mg/dry kg	0.17	0.17	0.16
4	Chromium, Cr	mg/dry kg	30.5	30.7	30.5
5	Copper, Cu	mg/dry kg	38.3	33.5	26.0
6	Lead, Pb	mg/dry kg	11.9	11.3	10.0
7	Mercury, Hg	mg/dry kg	0.068	0.059	0.049
8	Nickel, Ni	mg/dry kg	25.7	24.1	22.5
9	Silver, Ag	mg/dry kg	<0.02	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	56	54	50

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



Job Number : EV200815
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-12	EV200815-13	EV200815-14
Customer Sample I.D :			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	<0.1
2	Arsenic, As	mg/dry kg	1.7	3.6	2.1
3	Cadmium, Cd	mg/dry kg	0.05	0.10	0.14
4	Chromium, Cr	mg/dry kg	6.8	24.0	23.1
5	Copper, Cu	mg/dry kg	3.3	16.2	12.5
6	Lead, Pb	mg/dry kg	2.9	6.4	4.5
7	Mercury, Hg	mg/dry kg	0.017	0.030	0.034
8	Nickel, Ni	mg/dry kg	4.5	17.6	15.8
9	Silver, Ag	mg/dry kg	<0.02	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	10	35	29

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



Job Number : EV200815
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-15	EV200815-16
Customer Sample I.D :			MWB-11	NWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Total Metals			
1	Antimony, Sb	mg/dry kg	<0.1	<0.1
2	Arsenic, As	mg/dry kg	2.0	1.4
3	Cadmium, Cd	mg/dry kg	0.15	0.12
4	Chromium, Cr	mg/dry kg	15.2	3.7
5	Copper, Cu	mg/dry kg	6.6	0.8
6	Lead, Pb	mg/dry kg	2.9	1.1
7	Mercury, Hg	mg/dry kg	0.026	0.015
8	Nickel, Ni	mg/dry kg	9.4	1.2
9	Silver, Ag	mg/dry kg	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	18	2

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200815-8	EV200815-8 Duplicate	
	Physical Tests				
1	Brightness ¹⁾	m	7	-	-
2	Floating Matter ¹⁾	-	None	-	-
3	Oil Film ¹⁾	-	None	-	-
4	pH ⁽¹⁾	S.U.	8.18	-	-
5	Salinity ¹⁾	g/L	32.3	-	-
6	Temperature ¹⁾	°C	31.6	-	-
7	Total Suspended Solids, TSS	mg/L	5	5	0.0%
8	Turbidity	NTU	3.4	3.4	0.0%
	Anions				
1	Cyanide (Total), CN	mg/L	<0.005	<0.005	-
2	Sulphide as H ₂ S	mg/L	<0.002	-	-
	Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.006	0.006	0.0%
3	Total Phosphorus as PO ₄	mg/L	<0.005	<0.005	-
	Dissolved Metals				
1	Arsenic, As	mg/L	0.0015	0.0017	11.2%
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	-
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
4	Copper, Cu	mg/L	<0.001	<0.001	-
5	Lead, Pb	mg/L	<0.001	<0.001	-
6	Mercury, Hg	mg/L	<0.00005	<0.00005	-
7	Nickel, Ni	mg/L	<0.001	<0.001	-
8	Zinc, Zn	mg/L	<0.005	<0.005	-
	Microbiology				
1	Total Coliforms ^{1)/m}	CFU/100ml	ND	-	-
2	Faecal Coliforms	CFU/100ml	ND	-	-



QUALITY CONTROL - PRECISION

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200815-8	EV200815-8 Duplicate	
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	5	5	0.0%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	-
3	Chlorine (Free), Cl ₂	mg/L	<0.01	-	-
4	Dissolved Oxygen, DO ¹¹	mg/L	5.41	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/l	<0.01	<0.01	-
7	Total Organic Carbon, TOC	mg/L	1.8	1.7	5.7%
8	Total Phenols	mg/L	<0.001	<0.001	-
	Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴⁾	mg/L	<0.0001	-	-
	BTEX				
1	Benzene	mg/L	<0.001	-	-
2	Toluene	mg/L	<0.001	-	-
3	Ethyl Benzene	mg/L	<0.001	-	-
4	Xylenes Total	mg/L	<0.003	-	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - PRECISION

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200815-16	EV200815-16 Duplicate	
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	-
2	Arsenic, As	mg/dry kg	1.4	1.4	0.0%
3	Cadmium, Cd	mg/dry kg	0.12	0.12	0.0%
4	Chromium, Cr	mg/dry kg	3.7	3.7	0.0%
5	Copper, Cu	mg/dry kg	0.8	0.8	0.0%
6	Lead, Pb	mg/dry kg	1.1	1.2	8.7%
7	Mercury, Hg	mg/dry kg	0.015	0.013	14.3%
8	Nickel, Ni	mg/dry kg	1.2	1.2	0.0%
9	Silver, Ag	mg/dry kg	<0.02	<0.02	-
10	Zinc, Zn	mg/dry kg	2	2	0.0%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	pH ⁽¹⁾	APHA 4500-H ⁺ B	S.U.	-	-	-	-
2	Salinity ⁽¹⁾	APHA 2520 B	g/L	0.1	-	-	-
3	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	32	29	91%
4	Turbidity	APHA 2130 B	NTU	0.5	14.8	15.3	104%
	Anions						
1	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.155	0.152	98%
2	Sulphide as H ₂ S	APHA 4500-S ₂ G	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH ₃ D	mg/L	0.02	17.2	17.6	103%
2	Nitrate, NO ₃ -N	APHA 4500 NO ₃ E & APHA 4500 NO ₂ B	mg/L	0.005	21.1	19.8	94%
3	Total Phosphorus as PO ₄	APHA 4500P E	mg/L	0.005	25.46	24.5	96%
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.0990	90%
2	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.389	0.358	92%
3	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.0132	0.013	101%
4	Copper, Cu	APHA 3125 B	mg/L	0.001	0.478	0.503	106%
5	Lead, Pb	APHA 3125 B	mg/L	0.001	0.786	0.808	103%
6	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0139	105%
7	Nickel, Ni	APHA 3125 B	mg/L	0.001	1.13	1.21	107%
8	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.909	0.575	94%
	Microbiology						
1	Total Coliforms	APHA 9222B	CFU/100ml	1	-	-	-



QUALITY CONTROL - ACCURACY

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	144	98%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	80	99%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	0.1	0.1	98%
4	Oil & Grease	APHA 5520 B	mg/L	1	40	40	100%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.22	98%
6	Total Organic Carbon, TOC	APHA 5310 C	mg/L	0.5	58.5	57.1	98%
7	Total Phenols	USEPA 9055	mg/L	0.001	4.95	4.79	97%
	Organics Tests						
1	Polycyclic Aromatic Hydrocarbons, PAHs	USEPA 8270C	mg/L	0.0001	0.0160	0.0155	97%
	BTEX						
1	Benzene	USEPA 8260B	mg/L	0.001	0.014	0.014	100%
2	Toluene	USEPA 8260B	mg/L	0.001	0.007	0.007	97%
3	Ethyl Benzene	USEPA 8260B	mg/L	0.001	0.008	0.007	98%
4	Xylenes Total	USEPA 8260B	mg/L	0.003	0.038	0.037	98%



QUALITY CONTROL - ACCURACY

Job Number : EV200815
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Total Metals						
1	Antimony, Sb	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	-	-	-
2	Arsenic, As	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	221	207	94%
3	Cadmium, Cd	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	126	118	93%
4	Chromium, Cr	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	74.7	77.9	104%
5	Copper, Cu	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	83.3	87.2	105%
6	Lead, Pb	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	79.9	83.4	104%
7	Mercury, Hg	USEPA 3050B/USEPA245.7	mg/dry kg	0.001	13.8	12.4	90%
8	Nickel, Ni	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	178	188	106%
9	Silver, Ag	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	59.6	64.5	108%
10	Zinc, Zn	USEPA 3050B/APHA 3125B	mg/dry kg	1	336	352	104%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200815-A
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 8

Date received : 26-Mar-2020

Date reported : 29-Apr-2020

Approved Signature for:



for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200815-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200815-1	MWB-1	Seawater	24-Mar-20	10:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 21.197" E : 131° 17' 02.816"
2	EV200815-2	MWB-2	Seawater	24-Mar-20	10:15	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 57' 46.496" E : 131° 17' 07.326"
3	EV200815-3	MWB-3	Seawater	24-Mar-20	10:45	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 58' 24.397" E : 131° 17' 20.978"
4	EV200815-4	MWB-4	Seawater	24-Mar-20	11:50	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 27.504" E : 131° 16' 59.817"
5	EV200815-5	MWB-5	Seawater	24-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 07.586" E : 131° 16' 26.095"
6	EV200815-6	MWB-6	Seawater	24-Mar-20	16:15	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 43.034" E : 131° 15' 42.835"
7	EV200815-7	MWB-11	Seawater	24-Mar-20	15:45	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 02.130" E : 131° 14' 32.307"
8	EV200815-8	MWB-12	Seawater	24-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 45.420" E : 131° 16' 26.838"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-1	EV200815-2	EV200815-3
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
PLANKTON***					
1. PHYTOPLANKTON					
BACILLARIOPHYCEAE					
1	<i>Bacillaria sp.</i>	Cell/m ³	-	10,000	6,000
2	<i>Nanicle sp.</i>	Cell/m ³	5,000	-	-
3	<i>Nitzschia sp.</i>	Cell/m ³	74,000	37,000	102,000
4	<i>Pleurosigma sp.</i>	Cell/m ³	2,000	-	2,000
5	<i>Synedra sp.</i>	Cell/m ³	-	-	1,000
6	<i>Thalassionema sp.</i>	Cell/m ³	35,000	12,000	49,000
7	<i>Thalassiothrix sp.</i>	Cell/m ³	112,000	38,000	107,000
COSCIODISCOPHYCEAE					
1	<i>Coscinodiscus sp.</i>	Cell/m ³	12,000	5,000	8,000
2	<i>Guinardia sp.</i>	Cell/m ³	4,000	-	-
3	<i>Rhizosolenia sp.</i>	Cell/m ³	129,000	42,000	168,000
4	<i>Triceratium sp.</i>	Cell/m ³	1,000	-	-
CYANOPHYCEAE					
1	<i>Trichodesmium sp.</i>	Cell/m ³	8,000	3,000	10,000
DINOPHYCEAE					
1	<i>Ceratium sp.</i>	Cell/m ³	248,000	108,000	254,000
2	<i>Ceratocorys sp.</i>	Cell/m ³	-	-	-
3	<i>Dinophysis sp.</i>	Cell/m ³	67,000	24,000	80,000
4	<i>Omithocercus sp.</i>	Cell/m ³	1,000	2,000	3,000
5	<i>Penninaria sp.</i>	Cell/m ³	9,000	4,000	15,000
6	<i>Phaeocystis sp.</i>	Cell/m ³	-	-	-
MEDIOPHYCEAE					
1	<i>Bacteriastrium sp.</i>	Cell/m ³	27,000	12,000	62,000
2	<i>Biddulphia sp.</i>	Cell/m ³	2,000	-	-
3	<i>Cerataulina sp.</i>	Cell/m ³	7,000	4,000	5,000
4	<i>Chaetoceros sp.</i>	Cell/m ³	304,000	161,000	481,000
5	<i>Dityum sp.</i>	Cell/m ³	2,000	-	-
6	<i>Eucampia sp.</i>	Cell/m ³	-	-	4,000
7	<i>Hemiaulus sp.</i>	Cell/m ³	6,000	19,000	26,000
8	<i>Leptocylindrus sp.</i>	Cell/m ³	-	-	-



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-1	EV200815-2	EV200815-3
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
NOCTILUCOPHYCEAE					
1	<i>Noctiluca sp.</i>	Cell/m ³	-	-	3,000
Total Taxa (s)					
Abundance		Cell/m ³	1,055,000	502,000	1,386,000
Diversity Index			2.05	2.00	2.04
Equitability Index			0.68	0.74	0.69
Dominance Index			0.18	0.20	0.19
2: ZOOPLANKTON					
ACANTHARIA					
1	<i>Acanthometron sp.</i>	Ind/m ³	1,000	-	-
APPENDICULARIA					
1	<i>Oikopleura sp.</i>	Ind/m ³	-	-	-
COPEPODA					
1	<i>Acartia sp.</i>	Ind/m ³	22,000	21,000	34,000
2	<i>Calanus sp.</i>	Ind/m ³	11,000	1,000	-
3	<i>Corycaeus sp.</i>	Ind/m ³	-	-	1,000
4	<i>Euchaeta sp.</i>	Ind/m ³	-	1,000	-
5	<i>Eutima sp.</i>	Ind/m ³	-	-	-
6	<i>Microsetella sp.</i>	Ind/m ³	-	-	-
7	<i>Oithona sp.</i>	Ind/m ³	8,000	1,000	5,000
8	<i>Oncaea sp.</i>	Ind/m ³	1,000	1,000	-
9	<i>Sapphira sp.</i>	Ind/m ³	-	-	-
10	<i>Tomora sp.</i>	Ind/m ³	32,000	15,000	44,000
GLOBOTHALAMEA					
1	<i>Globigerina sp.</i>	Ind/m ³	3,000	2,000	4,000
2	<i>Globorotalia sp.</i>	Ind/m ³	6,000	8,000	5,000



Job Number : EV200815-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-1	EV200815-2	EV200815-3
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
OLIGOTRICHEA					
1	<i>Codonopsis sp.</i>	Ind/m ³	-	-	1,000
2	<i>Eutimnus sp.</i>	Ind/m ³	1,000	1,000	-
3	<i>Leprotinus sp.</i>	Ind/m ³	-	1,000	1,000
4	<i>Parafreda sp.</i>	Ind/m ³	-	-	1,000
5	<i>Tinimopsis sp.</i>	Ind/m ³	6,000	5,000	3,000
POLYCYSTINA					
1	<i>Pterocanium sp.</i>	Ind/m ³	1,000	-	-
SAGITTOIDEA					
1	<i>Sagitta sp.</i>	Ind/m ³	1,000	-	-
Total Taxa (s)			12	11	10
Abundance		Ind/m ³	93,000	57,000	99,000
Diversity Index			1.68	1.75	1.45
Equitability Index			0.78	0.73	0.63
Dominance Index			0.21	0.24	0.32

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-4	EV200815-5	EV200815-6
Customer Sample I.D :			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
PLANKTON**					
1. PHYTOPLANKTON					
BACILLARIOPHYCEAE					
1	<i>Bacillaria</i> sp.	Cell/m ³	10,000	-	-
2	<i>Navicula</i> sp.	Cell/m ³	2,000	4,000	-
3	<i>Nitzschia</i> sp.	Cell/m ³	69,000	52,000	41,000
4	<i>Pleurosigma</i> sp.	Cell/m ³	-	-	-
5	<i>Surirella</i> sp.	Cell/m ³	1,000	-	-
6	<i>Thalassionema</i> sp.	Cell/m ³	20,000	-	27,000
7	<i>Thalassiothrix</i> sp.	Cell/m ³	52,000	33,000	58,000
COSCINODISCOPHYCEAE					
1	<i>Coscinodiscus</i> sp.	Cell/m ³	9,000	20,000	26,000
2	<i>Guanaria</i> sp.	Cell/m ³	-	1,000	-
3	<i>Rhizosolenia</i> sp.	Cell/m ³	40,000	40,000	131,000
4	<i>Tricarulum</i> sp.	Cell/m ³	1,000	-	-
CYANOPHYCEAE					
1	<i>Trichodesmium</i> sp.	Cell/m ³	6,000	26,000	29,000
DINOPHYCEAE					
1	<i>Ceratium</i> sp.	Cell/m ³	55,000	35,000	63,000
2	<i>Ceratocorys</i> sp.	Cell/m ³	-	-	-
3	<i>Dinophysis</i> sp.	Cell/m ³	56,000	28,000	22,000
4	<i>Ornithocercus</i> sp.	Cell/m ³	-	-	5,000
5	<i>Penninert</i> sp.	Cell/m ³	4,000	8,000	18,000
6	<i>Phaeocystis</i> sp.	Cell/m ³	-	-	2,000
MEDIOPHYCEAE					
1	<i>Bacteriastrium</i> sp.	Cell/m ³	48,000	20,000	27,000
2	<i>Biddulphia</i> sp.	Cell/m ³	-	-	-
3	<i>Cerataulina</i> sp.	Cell/m ³	-	-	6,000
4	<i>Chaetoceros</i> sp.	Cell/m ³	99,000	87,000	517,000
5	<i>Ditylum</i> sp.	Cell/m ³	-	-	-
6	<i>Eucampia</i> sp.	Cell/m ³	-	-	-
7	<i>Hemiallus</i> sp.	Cell/m ³	10,000	3,000	6,000
8	<i>Leptocylindrus</i> sp.	Cell/m ³	5,000	6,000	-



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpax Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-4	EV200815-5	EV200815-6
Customer Sample I.D :			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
NOCTILUCOPHYCEAE					
1	<i>Noctiluca</i> sp.	Cell/m ³	2,000	-	1,000
Total Taxa (s)					
			18	14	16
Abundance					
		Cell/m ³	519,000	363,000	979,000
Diversity Index					
			2.32	2.27	1.75
Equitability Index					
			0.80	0.86	0.63
Dominance Index					
			0.12	0.13	0.31
2. ZOOPLANKTON					
ACANTHARIA					
1	<i>Acanthometron</i> sp.	Ind/m ³	-	-	1,000
APPENDICULARIA					
1	<i>Oikopleura</i> sp.	Ind/m ³	-	-	1,000
COPEPODA					
1	<i>Acartia</i> sp.	Ind/m ³	25,000	66,000	48,000
2	<i>Calanus</i> sp.	Ind/m ³	13,000	32,000	43,000
3	<i>Corycaeus</i> sp.	Ind/m ³	-	-	2,000
4	<i>Euchaeta</i> sp.	Ind/m ³	-	3,000	1,000
5	<i>Euterpina</i> sp.	Ind/m ³	-	-	1,000
6	<i>Microsetella</i> sp.	Ind/m ³	-	-	3,000
7	<i>Oithona</i> sp.	Ind/m ³	2,000	18,000	22,000
8	<i>Oncaea</i> sp.	Ind/m ³	3,000	2,000	6,000
9	<i>Sapphirina</i> sp.	Ind/m ³	-	2,000	-
10	<i>Temora</i> sp.	Ind/m ³	17,000	53,000	49,000
GLOBOTHALAMEA					
1	<i>Globigerina</i> sp.	Ind/m ³	5,000	2,000	2,000
2	<i>Globorotalia</i> sp.	Ind/m ³	4,000	7,000	10,000



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-4	EV200815-5	EV200815-6
Customer Sample I.D :			MWB-4	MWB-5	MWB-6
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
OLIGOTRICHEA					
1	<i>Codonellopsis</i> sp.	Ind/m ³	-	2,000	3,000
2	<i>Eutimnion</i> sp.	Ind/m ³	-	-	1,000
3	<i>Leprotinnus</i> sp.	Ind/m ³	-	-	-
4	<i>Parafavosites</i> sp.	Ind/m ³	-	-	-
5	<i>Tarionopsis</i> sp.	Ind/m ³	-	-	1,000
POLYCYSTINA					
1	<i>Pterocanium</i> sp.	Ind/m ³	-	1,000	-
SAGITTOIDEA					
1	<i>Sagitta</i> sp.	Ind/m ³	-	3,000	3,000
Total Taxa (s)			7	12	17
Abundance		Ind/m ³	69,000	191,000	197,000
Diversity Index			1.62	1.71	1.97
Equitability Index			0.63	0.69	0.70
Dominance Index			0.24	0.24	0.19

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-7	EV200815-8
Customer Sample I.D :			MWB-11	MWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
PLANKTON***				
1. PHYTOPLANKTON				
BACILLARIOPHYCEAE				
1	<i>Bacillaria sp.</i>	Cell/m ³	-	-
2	<i>Nannula sp.</i>	Cell/m ³	-	2,000
3	<i>Nitzschia sp.</i>	Cell/m ³	81,000	123,000
4	<i>Pleurosigma sp.</i>	Cell/m ³	-	-
5	<i>Surirella sp.</i>	Cell/m ³	-	-
6	<i>Thalassionema sp.</i>	Cell/m ³	-	-
7	<i>Thalassiothrix sp.</i>	Cell/m ³	28,000	36,000
COSCINODISCOPHYCEAE				
1	<i>Coscinodiscus sp.</i>	Cell/m ³	-	5,000
2	<i>Guanardia sp.</i>	Cell/m ³	-	2,000
3	<i>Rhizosolenia sp.</i>	Cell/m ³	87,000	79,000
4	<i>Triceratium sp.</i>	Cell/m ³	-	1,000
CYANOPHYCEAE				
1	<i>Trichodesmium sp.</i>	Cell/m ³	4,000	12,000
DINOPHYCEAE				
1	<i>Ceratium sp.</i>	Cell/m ³	22,000	29,000
2	<i>Ceratocorys sp.</i>	Cell/m ³	-	1,000
3	<i>Oenophrys sp.</i>	Cell/m ³	13,000	8,000
4	<i>Oenithocercus sp.</i>	Cell/m ³	4,000	3,000
5	<i>Pardinium sp.</i>	Cell/m ³	-	6,000
6	<i>Phaeocroma sp.</i>	Cell/m ³	-	-
MEDIOPHYCEAE				
1	<i>Bacteriastrum sp.</i>	Cell/m ³	20,000	18,000
2	<i>Biddulphia sp.</i>	Cell/m ³	-	-
3	<i>Ceratodina sp.</i>	Cell/m ³	4,000	8,000
4	<i>Chaetoceros sp.</i>	Cell/m ³	188,000	256,000
5	<i>Dityum sp.</i>	Cell/m ³	-	-
6	<i>Eucampia sp.</i>	Cell/m ³	-	4,000
7	<i>Hemidulus sp.</i>	Cell/m ³	4,000	10,000
8	<i>Leptocylindrus sp.</i>	Cell/m ³	6,000	-



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-7	EV200815-8
Customer Sample I.D :			MWB-11	MWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
NOCTILUCOPHYCEAE				
1	<i>Noctiluca</i> sp.	Cell/m ³	2,000	-
Total Taxa (s)				
			13	18
Abundance		Cell/m ³	463,000	603,000
Diversity Index			1.78	1.84
Equitability Index			0.69	0.64
Dominance Index			0.24	0.25
2. ZOOPLANKTON				
ACANTHARIA				
1	<i>Acanthometron</i> sp.	Ind/m ³	-	-
APPENDICULARIA				
1	<i>Oikopleura</i> sp.	Ind/m ³	1,000	6,000
COPEPODA				
1	<i>Acartia</i> sp.	Ind/m ³	27,000	22,000
2	<i>Gammarus</i> sp.	Ind/m ³	11,000	4,000
3	<i>Corycaeus</i> sp.	Ind/m ³	1,000	-
4	<i>Euchaeta</i> sp.	Ind/m ³	4,000	1,000
5	<i>Euterpina</i> sp.	Ind/m ³	1,000	1,000
6	<i>Microsetella</i> sp.	Ind/m ³	1,000	-
7	<i>Oithona</i> sp.	Ind/m ³	9,000	7,000
8	<i>Oncaea</i> sp.	Ind/m ³	-	1,000
9	<i>Sapphirina</i> sp.	Ind/m ³	1,000	-
10	<i>Temora</i> sp.	Ind/m ³	23,000	32,000
GLOBOTHALAMEA				
1	<i>Globigerina</i> sp.	Ind/m ³	-	-
2	<i>Globorotalia</i> sp.	Ind/m ³	4,000	4,000



Job Number : EV200815-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-7	EV200815-8
Customer Sample I.D :			MWB-11	MWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Seawater	Seawater
No.	Test Description	Units	Results	Results
OLIGOTRICHEA				
1	<i>Codonellopsis</i> sp.	Ind/m ³	-	-
2	<i>Eutimnion</i> sp.	Ind/m ³	-	1,000
3	<i>Lepidodermis</i> sp.	Ind/m ³	-	-
4	<i>Parafavosites</i> sp.	Ind/m ³	-	-
5	<i>Tritonopsis</i> sp.	Ind/m ³	-	-
POLYCYSTINA				
1	<i>Pterocanium</i> sp.	Ind/m ³	-	-
SAGITTOIDEA				
1	<i>Sagitta</i> sp.	Ind/m ³	-	-
Total Taxa (s)			11	10
Abundance		Ind/m ³	83,000	79,000
Diversity Index			1.79	1.66
Equitability Index			0.75	0.72
Dominance Index			0.22	0.26

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV200815-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	PLANKTON***						
1	Phytoplankton	APHA 10200 F-2012	Cell/m ³	-	-	-	-
2	Zooplankton	SNI 06-3963-1995	Ind/m ³	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
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Jakarta,
INDONESIA

Job Number : EV200815-B
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 8

Date received : 26-Mar-2020

Date reported : 29-Apr-2020

Approved Signature for:



for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200815-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200815-9	MWB-1	Sediment	24-Mar-20	10:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 21.197"	E : 131° 17' 02.818"
2	EV200815-10	MWB-2	Sediment	24-Mar-20	10:15	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 57' 46.496"	E : 131° 17' 07.326"
3	EV200815-11	MWB-3	Sediment	24-Mar-20	10:45	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 58' 24.397"	E : 131° 17' 20.978"
4	EV200815-12	MWB-4	Sediment	24-Mar-20	11:50	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 27.504"	E : 131° 16' 59.817"
5	EV200815-13	MWB-5	Sediment	24-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 07.585"	E : 131° 16' 26.095"
6	EV200815-14	MWB-8	Sediment	24-Mar-20	16:15	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 43.034"	E : 131° 15' 42.635"
7	EV200815-15	MWB-11	Sediment	24-Mar-20	15:45	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 02.130"	E : 131° 14' 32.307"
8	EV200815-16	NWB-12	Sediment	24-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 45.420"	E : 131° 16' 26.638"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV200815-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-9	EV200815-10	EV200815-11
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	BENTHOS***				
	BIVALVIA				
1	<i>Anadara</i> sp.	Ind/m ²	-	-	-
	CRUSTACEA				
1	<i>Cleistostrona</i> sp.	Ind/m ²	-	-	16
2	<i>Gammarus</i> sp.	Ind/m ²	-	-	-
3	<i>Homarus</i> sp.	Ind/m ²	-	-	-
4	<i>Schizophris</i> sp.	Ind/m ²	-	-	-
	POLYCHAETA				
1	<i>Arenicola</i> sp.	Ind/m ²	16	16	32
2	<i>Aricidea</i> sp.	Ind/m ²	-	16	-
3	<i>Capitella</i> sp.	Ind/m ²	-	-	16
4	<i>Clymenella</i> sp.	Ind/m ²	-	-	-
5	<i>Cossura</i> sp.	Ind/m ²	16	32	-
6	<i>Eunice</i> sp.	Ind/m ²	-	-	-
7	<i>Orbonereis</i> sp.	Ind/m ²	-	-	32
8	<i>Maldane</i> sp.	Ind/m ²	-	-	16
9	<i>Marpysa</i> sp.	Ind/m ²	-	-	-
10	<i>Mysidex</i> sp.	Ind/m ²	-	-	-
11	<i>Nephtys</i> sp.	Ind/m ²	-	16	16
12	<i>Nereis</i> sp.	Ind/m ²	-	16	-
13	<i>Notomastus</i> sp.	Ind/m ²	-	-	-
14	<i>Orbinia</i> sp.	Ind/m ²	-	-	-
15	<i>Owenia</i> sp.	Ind/m ²	-	-	-
16	<i>Phyllodoce</i> sp.	Ind/m ²	-	-	16
17	<i>Rhodine</i> sp.	Ind/m ²	-	-	-
18	<i>Terebellides</i> sp.	Ind/m ²	-	-	-



Job Number : EV200815-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-9	EV200815-10	EV200815-11
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	SIPUNCULA				
1	<i>Golfingia</i> sp.	Ind/m ²	-	-	-
	Total Taxa (s)		2	5	7
	Abundance	Ind/m ²	32	95	144
	Diversity Index		1.00	2.25	2.73
	Equitability Index		1.00	0.97	0.97
	Dominance Index		0.50	0.22	0.16

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200815-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D.:			EV200815-12	EV200815-13	EV200815-14
Customer Sample I.D.:			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	BENTHOS**				
	BIVALVIA				
1	<i>Anadara sp.</i>	Ind/m ²	-	-	16
	CRUSTACEA				
1	<i>Cleustostoma sp.</i>	Ind/m ²	-	-	-
2	<i>Gammarus sp.</i>	Ind/m ²	-	-	16
3	<i>Homarus sp.</i>	Ind/m ²	-	16	-
4	<i>Schizophrys sp.</i>	Ind/m ²	-	-	-
	POLYCHAETA				
1	<i>Arenicola sp.</i>	Ind/m ²	-	-	-
2	<i>Aricidea sp.</i>	Ind/m ²	48	-	-
3	<i>Capitella sp.</i>	Ind/m ²	16	-	-
4	<i>Clymenella sp.</i>	Ind/m ²	16	-	-
5	<i>Costura sp.</i>	Ind/m ²	-	-	32
6	<i>Eunice sp.</i>	Ind/m ²	-	-	-
7	<i>Orfonereis sp.</i>	Ind/m ²	-	-	16
8	<i>Maldana sp.</i>	Ind/m ²	-	32	16
9	<i>Morphyra sp.</i>	Ind/m ²	-	-	-
10	<i>Mystides sp.</i>	Ind/m ²	16	16	16
11	<i>Nephtys sp.</i>	Ind/m ²	-	-	16
12	<i>Nereis sp.</i>	Ind/m ²	16	16	-
13	<i>Notomastus sp.</i>	Ind/m ²	-	48	16
14	<i>Orbinia sp.</i>	Ind/m ²	16	-	-
15	<i>Owenia sp.</i>	Ind/m ²	-	-	16
16	<i>Phyllodoce sp.</i>	Ind/m ²	-	16	-
17	<i>Rhodine sp.</i>	Ind/m ²	16	-	16
18	<i>Terebellides sp.</i>	Ind/m ²	-	16	-



Job Number : EV200815-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200815-12	EV200815-13	EV200815-14
Customer Sample I.D :			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	SIPUNCULA				
1	Golfingia sp.	Ind/m ²	-	-	-
	Total Taxa (s)		7	7	10
	Abundance	Ind/m ²	144	160	176
	Diversity Index		2.64	2.65	3.28
	Equitability Index		0.94	0.94	0.99
	Dominance Index		0.19	0.18	0.11

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200815-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-15	EV200815-16
Customer Sample I.D :			MWB-11	NWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	BENTHOS***			
	BIIVALVIA			
1	<i>Anadara sp.</i>	Ind/m ²	-	-
	CRUSTACEA			
1	<i>Cleustostoma sp.</i>	Ind/m ²	-	-
2	<i>Gammarus sp.</i>	Ind/m ²	-	-
3	<i>Homarus sp.</i>	Ind/m ²	-	-
4	<i>Schizophris sp.</i>	Ind/m ²	-	16
	POLYCHAETA			
1	<i>Arenicola sp.</i>	Ind/m ²	-	-
2	<i>Aricidea sp.</i>	Ind/m ²	-	-
3	<i>Capitella sp.</i>	Ind/m ²	-	-
4	<i>Clymenella sp.</i>	Ind/m ²	-	-
5	<i>Cossura sp.</i>	Ind/m ²	-	-
6	<i>Eunice sp.</i>	Ind/m ²	16	-
7	<i>Dibrionella sp.</i>	Ind/m ²	-	-
8	<i>Maldane sp.</i>	Ind/m ²	16	-
9	<i>Marphysa sp.</i>	Ind/m ²	48	-
10	<i>Mystides sp.</i>	Ind/m ²	16	-
11	<i>Nephtys sp.</i>	Ind/m ²	-	-
12	<i>Nereis sp.</i>	Ind/m ²	48	-
13	<i>Nelusetus sp.</i>	Ind/m ²	-	-
14	<i>Orbinia sp.</i>	Ind/m ²	-	-
15	<i>Owenia sp.</i>	Ind/m ²	-	-
16	<i>Phyllodoce sp.</i>	Ind/m ²	-	-
17	<i>Rhodina sp.</i>	Ind/m ²	16	16
18	<i>Terabellides sp.</i>	Ind/m ²	-	-



Job Number : EV200815-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-15	EV200815-16
Customer Sample I.D :			MWB-11	NWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	SIPUNCULA			
1	Golfingia sp.	Ind/m ²	16	-
	Total Taxa (s)		7	2
	Abundance	Ind/m ²	176	32
	Diversity Index		2.59	1.00
	Equitability Index		0.92	1.00
	Dominance Index		0.19	0.50

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV200815-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
1	BENTHOS***	SNI 03-3401-1994	Ind/m ²	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
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Jakarta,
INDONESIA

Job Number : EV200815-C
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 8

Date received : 26-Mar-2020

Date reported : 06-May-2020

Approved Signature for:


Reginald C. de Wit
Manager Environmental Services

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DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200815-C
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200815-9	MWB-1	Sediment	24-Mar-20	10:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 21.197" E : 131° 17' 02.818"
2	EV200815-10	MWB-2	Sediment	24-Mar-20	10:15	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 57' 46.496" E : 131° 17' 07.326"
3	EV200815-11	MWB-3	Sediment	24-Mar-20	10:45	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 58' 24.397" E : 131° 17' 20.978"
4	EV200815-12	MWB-4	Sediment	24-Mar-20	11:50	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 27.504" E : 131° 16' 59.817"
5	EV200815-13	MWB-5	Sediment	24-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 07.586" E : 131° 16' 26.095"
6	EV200815-14	MWB-8	Sediment	24-Mar-20	16:15	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 43.034" E : 131° 15' 42.835"
7	EV200815-15	MWB-11	Sediment	24-Mar-20	15:45	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 02.130" E : 131° 14' 32.307"
8	EV200815-16	MWB-12	Sediment	24-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 45.420" E : 131° 16' 26.638"

Notes:

NA = Not Analysed

ND= Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR= Sample Not Received



Job Number : EV200815-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-9	EV200815-10	EV200815-11
Customer Sample I.D :			MWB-1	MWB-2	MWB-3
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	<0.1	<0.1	<0.1
2	Sand: 0.5-1 mm	%	0.2	0.2	0.3
3	Sand: 0.2-0.5 mm	%	0.2	0.4	0.4
4	Sand: 0.1-0.2 mm	%	0.6	0.5	1.6
5	Sand: 50 µm-0.1 mm	%	0.3	0.4	1.2
6	Silt: 20 - 50 µm	%	6.3	1.8	8.1
7	Silt: 2 - 20 µm	%	62.6	83.7	75.2
8	Clay: 0.2 - 2 µm	%	5.2	6.7	6.9
9	Clay: < 0.2 µm	%	4.6	6.3	6.3

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



Job Number : EV200815-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200815-12	EV200815-13	EV200815-14
Customer Sample I.D :			MWB-4	MWB-5	MWB-8
Date Sampled :			24-Mar-20	24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	8.5	<0.1	0.1
2	Sand: 0.5-1 mm	%	16.7	0.2	0.2
3	Sand: 0.2-0.5 mm	%	21.6	0.5	0.4
4	Sand: 0.1-0.2 mm	%	18.5	2.3	3.3
5	Sand: 50 µm-0.1 mm	%	5.4	6.4	6.6
6	Silt: 20 - 50 µm	%	6.5	16.2	14.9
7	Silt: 2 - 20 µm	%	9.1	63.4	63.2
8	Clay: 0.2 - 2 µm	%	7.7	6.6	5.7
9	Clay: < 0.2 µm	%	6.0	5.4	5.6

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200815-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200815-15	EV200815-16
Customer Sample I.D :			MWB-11	NWB-12
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Grainsize (9 Fractions) **			
1	Sand: 1-2 mm	%	0.9	11.8
2	Sand: 0.5-1 mm	%	3.2	25.4
3	Sand: 0.2-0.5 mm	%	10.6	29.8
4	Sand: 0.1-0.2 mm	%	25.4	10.0
5	Sand: 50 µm-0.1 mm	%	9.8	1.8
6	Silt: 20 - 50 µm	%	9.1	0.9
7	Silt: 2 - 20 µm	%	17.9	5.5
8	Clay: 0.2 - 2 µm	%	16.8	7.9
9	Clay: < 0.2 µm	%	6.3	6.9

Note: Refer to QA/QC – Accuracy page for list of analytical methods used

R



QUALITY CONTROL - PRECISION

Job Number : EV200815-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200815-16	EV200815-16 Duplicate	
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	11.8	10.2	14.6%
2	Sand: 0.5-1 mm	%	25.4	22.7	10.9%
3	Sand: 0.2-0.5 mm	%	29.8	31.8	6.7%
4	Sand: 0.1-0.2 mm	%	10.0	11.0	8.9%
5	Sand: 50 µm-0.1 mm	%	1.8	1.8	0.0%
6	Silt: 20 - 50 µm	%	0.9	0.8	16.5%
7	Silt: 2 - 20 µm	%	5.5	5.7	4.4%
8	Clay: 0.2 - 2 µm	%	7.9	8.4	6.1%
9	Clay: < 0.2 µm	%	6.9	7.5	8.9%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200815-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Grainsize (9 Fractions) **						
1	Sand: 1-2 mm	INHOUSE METHOD	%	0.1	-	-	-
2	Sand: 0.5-1 mm	INHOUSE METHOD	%	0.1	-	-	-
3	Sand: 0.2-0.5 mm	INHOUSE METHOD	%	0.1	-	-	-
4	Sand: 0.1-0.2 mm	INHOUSE METHOD	%	0.1	-	-	-
5	Sand: 50 µm-0.1 mm	INHOUSE METHOD	%	0.1	-	-	-
6	Silt: 20 - 50 µm	INHOUSE METHOD	%	0.1	-	-	-
7	Silt: 2 - 20 µm	INHOUSE METHOD	%	0.1	-	-	-
8	Clay: 0.2 - 2 µm	INHOUSE METHOD	%	0.1	-	-	-
9	Clay: < 0.2 µm	INHOUSE METHOD	%	0.1	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
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Jakarta,
INDONESIA

Job Number : EV200816
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 14

Date received : 26-Mar-2020
Date reported : 29-Apr-2020

Approved Signature for:



Reginald C. de Wit
Manager Environmental Services

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This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

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SAMPLE INFORMATION

Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV200816-1	MWB 13	Seawater	23-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 53.925" E : 131° 15' 58.731"
2	EV200816-2	MWB 14	Seawater	23-Mar-20	14:40	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 38.8" E : 131° 14' 08.8"
3	EV200816-3	MWB 15	Seawater	23-Mar-20	16:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 34.948" E : 131° 12' 31.603"
4	EV200816-4	MWB 16	Seawater	23-Mar-20	10:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 28.8" E : 131° 19' 59.7"
5	EV200816-5	MWB 17	Seawater	23-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 03' 36.9" E : 131° 14' 37.9"
6	EV200816-6	MWB 18	Seawater	23-Mar-20	11:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5" E : 131° 14' 38.3"
7	EV200816-7	MWB 18 Dup	Seawater	23-Mar-20	12:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5" E : 131° 14' 38.3"
8	EV200816-8	MWB 13	Sediment	23-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 53.925" E : 131° 15' 58.731"
9	EV200816-9	MWB 14	Sediment	23-Mar-20	14:40	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 38.8" E : 131° 14' 08.8"
10	EV200816-10	MWB 15	Sediment	23-Mar-20	16:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 34.948" E : 131° 12' 31.603"
11	EV200816-11	MWB 16	Sediment	23-Mar-20	10:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 28.8" E : 131° 19' 59.7"
12	EV200816-12	MWB 17	Sediment	23-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 03' 36.9" E : 131° 14' 37.9"
13	EV200816-13	MWB 18	Sediment	23-Mar-20	11:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5" E : 131° 14' 38.3"
14	EV200816-14	MWB-18 Dup	Sediment	23-Mar-20	12:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5" E : 131° 14' 38.3"

Notes:

- NA = Not Analysed
- ND= Not Detected
- IS = Insufficient Sample
- ** = Non Accredited Test
- *** = Subcontracted Test
- 1) = Field Measurement
- 2) = Field Measurement by Customer
- 3) = Total Pesticides defined as 38 OCP compounds (list available upon request)
- 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
- 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
- SNR= Sample Not Received



Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200816-1	EV200816-2	EV200816-3
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Brightness ⁽¹⁾	m	12	15	10
2	Floating Matter ⁽¹⁾	-	None	None	None
3	Oil Film ⁽²⁾	-	None	None	None
4	pH ⁽¹⁾	S.U.	8.38	8.23	8.38
5	Salinity ⁽¹⁾	g/L	32.5	32.4	32.7
6	Temperature ⁽¹⁾	°C	30.9	33.3	30.5
7	Total Suspended Solids, TSS	mg/L	3	5	3
8	Turbidity	NTU	2.1	4.8	2.8
Anions					
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.015	0.025	0.011
3	Total Phosphorus as PO ₄	mg/L	0.040	0.042	0.051
Dissolved Metals					
1	Arsenic, As	mg/L	0.0013	0.0013	0.0012
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005	<0.005
Microbiology					
1	Total Coliforms ⁽¹⁾⁺	CFU/100ml	ND	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND	ND



Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-1	EV200816-2	EV200816-3
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	4	5	3
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ⁽¹⁾	mg/L	5.37	5.16	5.21
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	1.5	1.7	1.1
8	Total Phenols	mg/L	<0.001	<0.001	<0.001
Organics Tests					
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁽¹⁾	mg/L	<0.0001	<0.0001	<0.0001
BTEX					
1	Benzene	mg/L	<0.001	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001	<0.001
4	Xylenes Total	mg/L	<0.003	<0.003	<0.003

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-4	EV200816-5	EV200816-6
Customer Sample I.D :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Brightness ¹⁾	m	16	13	14
2	Floating Matter ¹⁾	-	None	None	None
3	Oil Film ¹⁾	-	None	None	None
4	pH ¹⁾	S.U.	8.07	8.06	8.14
5	Salinity ¹⁾	g/L	32.9	31.9	32.7
6	Temperature ¹⁾	°C	30.2	33.0	31.0
7	Total Suspended Solids, TSS	mg/L	2	3	3
8	Turbidity	NTU	1.3	2.9	2.0
Anions					
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.008	0.022	0.040
3	Total Phosphorus as PO ₄	mg/L	0.048	0.049	0.045
Dissolved Metals					
1	Arsenic, As	mg/L	0.0014	0.0015	0.0012
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005	<0.005
Microbiology					
1	Total Coliforms ¹⁾⁽⁴⁾	CFU/100ml	ND	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND	ND



Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-4	EV200816-5	EV200816-6
Customer Sample I.D :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	3	4	4
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ¹¹	mg/L	5.32	5.04	5.19
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	1.3	1.6	1.5
8	Total Phenols	mg/L	<0.001	<0.001	<0.001
Organics Tests					
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴³	mg/L	<0.0001	<0.0001	<0.0001
BTEX					
1	Benzene	mg/L	<0.001	<0.001	<0.001
2	Toluene	mg/L	<0.001	<0.001	<0.001
3	Ethyl Benzene	mg/L	<0.001	<0.001	<0.001
4	Xylenes-Total	mg/L	<0.003	<0.003	<0.003

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-7
Customer Sample I.D :			MWB 1B Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Seawater
No.	Test Description	Units	Results
Physical Tests			
1	Brightness ¹¹	m	14
2	Floating Matter ¹¹	-	None
3	Oil Film ¹¹	-	None
4	pH ¹¹	S.U.	8.06
5	Salinity ¹¹	g/L	32.7
6	Temperature ¹¹	°C	31.0
7	Total Suspended Solids, TSS	mg/L	4
8	Turbidity	NTU	2.2
Anions			
1	Cyanide (Total), CN ⁻	mg/L	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002
Nutrients			
1	Total Ammonia, NH ₃ -N	mg/L	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.045
3	Total Phosphorus as PO ₄	mg/L	0.048
Dissolved Metals			
1	Arsenic, As	mg/L	0.0014
2	Cadmium, Cd	mg/L	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002
4	Copper, Cu	mg/L	<0.001
5	Lead, Pb	mg/L	<0.001
6	Mercury, Hg	mg/L	<0.00005
7	Nickel, Ni	mg/L	<0.001
8	Zinc, Zn	mg/L	<0.005
Microbiology			
1	Total Coliforms ^{11a}	CFU/100ml	ND
2	Faecal Coliforms	CFU/100ml	ND



Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-7
Customer Sample I.D :			MWB 18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Seawater
No.	Test Description	Units	Results
Miscellaneous			
1	Chemical Oxygen Demand, COD	mg/L	5
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01
4	Dissolved Oxygen, DO ¹⁾	mg/L	5.11
5	Oil & Grease	mg/L	<1
6	Surfactants, MBAS	mg/L	<0.01
7	Total Organic Carbon, TOC	mg/L	1.9
8	Total Phenols	mg/L	<0.001
Organics Tests			
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴⁾	mg/L	<0.0001
BTEX			
1	Benzene	mg/L	<0.001
2	Toluene	mg/L	<0.001
3	Ethyl Benzene	mg/L	<0.001
4	Xylenes Total	mg/L	<0.003

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200816
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-8	EV200816-9	EV200816-10
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	0.5
2	Arsenic, As	mg/dry kg	1.3	1.0	6.2
3	Cadmium, Cd	mg/dry kg	0.15	0.11	0.11
4	Chromium, Cr	mg/dry kg	15.8	11.0	10.7
5	Copper, Cu	mg/dry kg	7.0	4.4	1.3
6	Lead, Pb	mg/dry kg	2.5	1.8	2.3
7	Mercury, Hg	mg/dry kg	0.022	0.021	0.016
8	Nickel, Ni	mg/dry kg	10.1	6.3	2.8
9	Silver, Ag	mg/dry kg	1.10	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	17	12	4

Note: Refer to QA/QC -- Accuracy page for list of analytical methods used.



Job Number : EV200816
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D. :			EV200816-14
Customer Sample I.D. :			MWB-18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	Total Metals		
1	Arsimony, Sb	mg/dry kg	<0.1
2	Arsenic, As	mg/dry kg	1.2
3	Cadmium, Cd	mg/dry kg	0.13
4	Chromium, Cr	mg/dry kg	14.8
5	Copper, Cu	mg/dry kg	6.9
6	Lead, Pb	mg/dry kg	2.3
7	Mercury, Hg	mg/dry kg	0.021
8	Nickel, Ni	mg/dry kg	9.5
9	Silver, Ag	mg/dry kg	<0.02
10	Zinc, Zn	mg/dry kg	16

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



QUALITY CONTROL - PRECISION

Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200816-7	EV200816-7 Duplicate	
	Physical Tests				
1	Brightness ⁽¹⁾	m	14	-	-
2	Floating Matter ⁽¹⁾	-	None	-	-
3	Oil Film ⁽¹⁾	-	None	-	-
4	pH ⁽¹⁾	S.U.	8.06	-	-
5	Salinity ⁽¹⁾	g/L	32.7	-	-
6	Temperature ⁽¹⁾	°C	31.0	-	-
7	Total Suspended Solids, TSS	mg/L	4	4	0.0%
8	Turbidity	NTU	2.2	2.1	4.2%
	Anions				
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
2	Sulphide as H ₂ S	mg/L	<0.002	-	-
	Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.045	0.046	2.2%
3	Total Phosphorus as PO ₄	mg/L	0.045	0.047	1.3%
	Dissolved Metals				
1	Arsenic, As	mg/L	0.0014	0.0012	11.5%
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	-
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
4	Copper, Cu	mg/L	<0.001	<0.001	-
5	Lead, Pb	mg/L	<0.001	<0.001	-
6	Mercury, Hg	mg/L	<0.00005	<0.00005	-
7	Nickel, Ni	mg/L	<0.001	<0.001	-
8	Zinc, Zn	mg/L	<0.005	<0.005	-
	Microbiology				
1	Total Coliforms ^{(1)(*)}	CFU/100ml	ND	-	-
2	Faecal Coliforms	CFU/100ml	ND	-	-



QUALITY CONTROL - PRECISION

Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200816-7	EV200816-7 Duplicate	
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	5	5	0.0%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	-
3	Chlorine (Free), Cl ₂	mg/L	<0.01	-	-
4	Dissolved Oxygen, DO ¹¹	mg/L	5.11	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Organic Carbon, TOC	mg/L	1.9	2.0	5.1%
8	Total Phenols	mg/L	<0.001	<0.001	-
	Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴³	ng/L	<0.0001	-	-
	BTEX				
1	Benzene	mg/L	<0.001	-	-
2	Toluene	mg/L	<0.001	-	-
3	Ethyl Benzene	mg/L	<0.001	-	-
4	Xylenes Total	mg/L	<0.003	-	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x CL).



QUALITY CONTROL - PRECISION

Job Number : EV200816
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200816-14	EV200816-14 Duplicate	
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	-
2	Arsenic, As	mg/dry kg	1.2	1.2	0.0%
3	Cadmium, Cd	mg/dry kg	0.13	0.14	7.4%
4	Chromium, Cr	mg/dry kg	14.8	15.2	2.7%
5	Copper, Cu	mg/dry kg	6.9	6.5	6.0%
6	Lead, Pb	mg/dry kg	2.3	2.3	0.0%
7	Mercury, Hg	mg/dry kg	0.021	0.023	9.1%
8	Nickel, Ni	mg/dry kg	9.5	9.8	3.1%
9	Silver, Ag	mg/dry kg	<0.02	<0.02	-
10	Zinc, Zn	mg/dry kg	16	17	6.1%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	144	98%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	90	99%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	0.1	0.1	98%
4	Oil & Grease	APHA 5520 B	mg/L	1	40	40	100%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.22	98%
6	Total Organic Carbon, TOC	APHA 5310 C	mg/L	0.5	56.5	57.1	98%
7	Total Phenols	USEPA 9065	mg/L	0.001	4.95	4.79	97%
	Organics Tests						
1	Polycyclic Aromatic Hydrocarbons, PAHs	USEPA 8270C	mg/L	0.0001	0.0160	0.0155	97%
	BTEX						
1	Benzene	USEPA 8260B	mg/L	0.001	0.014	0.014	100%
2	Toluene	USEPA 8260B	mg/L	0.001	0.007	0.007	97%
3	Ethyl Benzene	USEPA 8260B	mg/L	0.001	0.008	0.007	88%
4	Xylenes Total	USEPA 8260B	mg/L	0.003	0.038	0.037	98%



QUALITY CONTROL - ACCURACY

Job Number : EV200816
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Total Metals						
1	Antimony, Sb	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	-	-	-
2	Arsenic, As	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	221	207	94%
3	Cadmium, Cd	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	126	118	93%
4	Chromium, Cr	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	74.7	77.9	104%
5	Copper, Cu	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	83.3	87.2	105%
6	Lead, Pb	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	79.9	83.4	104%
7	Mercury, Hg	USEPA 3050B/USEPA245.7	mg/dry kg	0.001	13.8	12.4	90%
8	Nickel, Ni	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	178	188	106%
9	Silver, Ag	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	59.6	64.5	108%
10	Zinc, Zn	USEPA 3050B/APHA 3125B	mg/dry kg	1	338	352	104%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200816-A
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 7

Date received : 26-Mar-2020
Date reported : 29-Apr-2020

Approved Signature for:



for Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200816-1	MWB 13	Seawater	23-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 53.925"	E : 131° 15' 58.731"
2	EV200816-2	MWB 14	Seawater	23-Mar-20	14:40	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 38.8"	E : 131° 14' 08.8"
3	EV200816-3	MWB 15	Seawater	23-Mar-20	16:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 34.948"	E : 131° 12' 31.603"
4	EV200816-4	MWB 16	Seawater	23-Mar-20	10:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 28.8"	E : 131° 19' 58.7"
5	EV200816-5	MWB 17	Seawater	23-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 03' 36.9"	E : 131° 14' 37.9"
6	EV200816-6	MWB 18	Seawater	23-Mar-20	11:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5"	E : 131° 14' 38.3"
7	EV200816-7	MWB 18 Dup	Seawater	23-Mar-20	12:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5"	E : 131° 14' 38.3"

Notes:

NA = Not Analyzed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR= Sample Not Received



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-1	EV200816-2	EV200816-3
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
PLANKTON**					
1. PHYTOPLANKTON					
BACILLARIOPHYCEAE					
1	<i>Bacillaria sp.</i>	Cell/m ³	10,000	10,000	34,000
2	<i>Fragilaria sp.</i>	Cell/m ³	-	-	-
3	<i>Gyrodinium sp.</i>	Cell/m ³	-	-	3,000
4	<i>Navicula sp.</i>	Cell/m ³	-	4,000	2,000
5	<i>Nitzschia sp.</i>	Cell/m ³	383,000	89,000	622,000
6	<i>Pleurosigma sp.</i>	Cell/m ³	3,000	2,000	1,000
7	<i>Thalassionema sp.</i>	Cell/m ³	33,000	92,000	84,000
8	<i>Thalassiothrix sp.</i>	Cell/m ³	146,000	1,243,000	615,000
COSCONODISCOPHYCEAE					
1	<i>Coscinodiscus sp.</i>	Cell/m ³	-	25,000	18,000
2	<i>Guillardia sp.</i>	Cell/m ³	3,000	19,000	6,000
3	<i>Rhizosolenia sp.</i>	Cell/m ³	212,000	3,065,000	1,826,000
4	<i>Triceratium sp.</i>	Cell/m ³	-	-	1,000
CYANOPHYCEAE					
1	<i>Trichodesmium sp.</i>	Cell/m ³	24,000	37,000	15,000
DINOPHYCEAE					
1	<i>Ceratium sp.</i>	Cell/m ³	53,000	11,000	8,000
2	<i>Ceratocorys sp.</i>	Cell/m ³	-	-	-
3	<i>Dinophysis sp.</i>	Cell/m ³	15,000	9,000	15,000
4	<i>Ornithocercus sp.</i>	Cell/m ³	3,000	3,000	3,000
5	<i>Peridinium sp.</i>	Cell/m ³	13,000	7,000	32,000
6	<i>Prorocentrum sp.</i>	Cell/m ³	-	1,000	-
7	<i>Pyrocystis sp.</i>	Cell/m ³	-	3,000	2,000



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-1	EV200816-2	EV200816-3
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
MEDIOPHYCEAE					
1	<i>Bacteriastrium sp.</i>	Cell/m ³	85,000	471,000	204,000
2	<i>Biddulphia sp.</i>	Cell/m ³	9,000	8,000	-
3	<i>Ceratium sp.</i>	Cell/m ³	14,000	58,000	83,000
4	<i>Cryptoceros sp.</i>	Cell/m ³	857,000	3,157,000	2,407,000
5	<i>Ditylum sp.</i>	Cell/m ³	-	-	2,000
6	<i>Eucampia sp.</i>	Cell/m ³	-	-	4,000
7	<i>Homianus sp.</i>	Cell/m ³	17,000	14,000	9,000
8	<i>Leptocylindrus sp.</i>	Cell/m ³	10,000	-	12,000
9	<i>Thalassiosira sp.</i>	Cell/m ³	-	9,000	10,000
NOCTILUCOPHYCEAE					
1	<i>Noctiluca sp.</i>	Cell/m ³	4,000	-	5,000
Total Taxa (s)			18	22	26
Abundance		Cell/m ³	1,894,000	8,357,000	8,022,000
Diversity Index			1.77	1.44	1.61
Equitability Index			0.60	0.46	0.49
Dominance Index			0.27	0.30	0.27
2. ZOOPLANKTON					
ACANTHARIA					
1	<i>Acanthometron sp.</i>	Ind/m ³	-	2,000	-
APPENDICULARIA					
1	<i>Oikopleura sp.</i>	Ind/m ³	4,000	2,000	7,000
COPEPODA					
1	<i>Acartia sp.</i>	Ind/m ³	30,000	72,000	59,000
2	<i>Calanus sp.</i>	Ind/m ³	6,000	20,000	29,000
3	<i>Corycaeus sp.</i>	Ind/m ³	2,000	1,000	-
4	<i>Euchaeta sp.</i>	Ind/m ³	3,000	-	4,000
5	<i>Euterpina sp.</i>	Ind/m ³	-	6,000	1,000
6	<i>Macrosetella sp.</i>	Ind/m ³	-	-	-
7	<i>Microsetella sp.</i>	Ind/m ³	-	3,000	-
8	<i>Oithona sp.</i>	Ind/m ³	4,000	30,000	33,000
9	<i>Oncaea sp.</i>	Ind/m ³	4,000	3,000	2,000



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-1	EV200816-2	EV200816-3
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
10	<i>Sapphirina</i> sp.	Ind/m ³	-	-	-
11	<i>Temora</i> sp.	Ind/m ³	28,000	68,000	67,000
GLOBOTHALAMEA					
1	<i>Globigerina</i> sp.	Ind/m ³	1,000	2,000	3,000
2	<i>Globorotalia</i> sp.	Ind/m ³	9,000	6,000	11,000
OLIGOTRICHEA					
1	<i>Codonellopsis</i> sp.	Ind/m ³	1,000	1,000	-
2	<i>Eutimurus</i> sp.	Ind/m ³	1,000	4,000	3,000
3	<i>Favella</i> sp.	Ind/m ³	-	-	-
4	<i>Leprotinus</i> sp.	Ind/m ³	-	-	-
5	<i>Parafavella</i> sp.	Ind/m ³	-	1,000	-
6	<i>Tintinnopsis</i> sp.	Ind/m ³	1,000	-	1,000
7	<i>Undella</i> sp.		-	-	-
SAGITTOIDEA					
1	<i>Sagitta</i> sp.	Ind/m ³	-	1,000	2,000
Total Taxa (s)			13	18	13
Abundance		Ind/m ³	94,000	222,000	222,000
Diversity Index			1.91	1.82	1.84
Equitability Index			0.75	0.66	0.72
Dominance Index			0.21	0.23	0.21

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-4	EV200816-5	EV200816-6
Customer Sample I.D :			MWB-16	MWB-17	MWB-18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
	PLANKTON***				
	1. PHYTOPLANKTON				
	BACILLARIOPHYCEAE				
1	<i>Bacillaria</i> sp.	Cell/m ³	25,000	12,000	20,000
2	<i>Fragilaria</i> sp.	Cell/m ³	-	8,000	7,000
3	<i>Gyrodinium</i> sp.	Cell/m ³	-	-	-
4	<i>Navicula</i> sp.	Cell/m ³	-	4,000	4,000
5	<i>Nitzschia</i> sp.	Cell/m ³	403,000	1,065,000	1,167,000
6	<i>Planktoniopsis</i> sp.	Cell/m ³	-	-	-
7	<i>Thalassiosira</i> sp.	Cell/m ³	72,000	64,000	6,000
8	<i>Thalassiothrix</i> sp.	Cell/m ³	180,000	625,000	518,000
	COSCIINODISCOPHYCEAE				
1	<i>Coscinodiscus</i> sp.	Cell/m ³	29,000	21,000	18,000
2	<i>Guthriea</i> sp.	Cell/m ³	8,000	9,000	9,000
3	<i>Rhizosolenia</i> sp.	Cell/m ³	411,000	1,004,000	782,000
4	<i>Triceratium</i> sp.	Cell/m ³	1,000	-	-
	CYANOPHYCEAE				
1	<i>Trichodesmium</i> sp.	Cell/m ³	20,000	8,000	15,000
	DINOPHYCEAE				
1	<i>Ceratium</i> sp.	Cell/m ³	22,000	22,000	26,000
2	<i>Ceratocorys</i> sp.	Cell/m ³	-	1,000	-
3	<i>Dinophysis</i> sp.	Cell/m ³	8,000	7,000	12,000
4	<i>Ornithocercus</i> sp.	Cell/m ³	1,000	1,000	-
5	<i>Pontonidium</i> sp.	Cell/m ³	12,000	9,000	15,000
6	<i>Phaeocystis</i> sp.	Cell/m ³	-	2,000	-
7	<i>Prymnesia</i> sp.	Cell/m ³	-	1,000	-



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200816-4	EV200816-5	EV200816-6
Customer Sample I.D :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
MEDIOPHYCEAE					
1	<i>Bacteriostrium</i> sp.	Cell/m ³	155,000	210,000	304,000
2	<i>Biddulphia</i> sp.	Cell/m ³	4,000	18,000	-
3	<i>Ceratodina</i> sp.	Cell/m ³	55,000	139,000	58,000
4	<i>Chaetoceros</i> sp.	Cell/m ³	1,812,000	2,723,000	1,789,000
5	<i>Ditylum</i> sp.	Cell/m ³	1,000	1,000	1,000
6	<i>Eucampia</i> sp.	Cell/m ³	10,000	2,000	8,000
7	<i>Hemiaulus</i> sp.	Cell/m ³	43,000	15,000	27,000
8	<i>Leptocylindrus</i> sp.	Cell/m ³	-	14,000	6,000
9	<i>Thalassiosira</i> sp.	Cell/m ³	12,000	-	-
NOCTILUCOPHYCEAE					
1	<i>Noctiluca</i> sp.	Cell/m ³	3,000	2,000	7,000
Total Taxa (s)			22	26	21
Abundance		Cell/m ³	3,287,000	5,987,000	4,829,000
Diversity Index			1.61	1.62	1.71
Equitability Index			0.52	0.50	0.56
Dominance Index			0.34	0.28	0.24
2. ZOOPLANKTON					
ACANTHARIA					
1	<i>Acanthometra</i> sp.	Ind/m ³	-	2,000	2,000
APPENDICULARIA					
1	<i>Oikopleura</i> sp.	Ind/m ³	2,000	3,000	6,000
COPEPODA					
1	<i>Acartia</i> sp.	Ind/m ³	10,000	35,000	20,000
2	<i>Calanus</i> sp.	Ind/m ³	12,000	6,000	10,000
3	<i>Corycaeus</i> sp.	Ind/m ³	3,000	-	2,000
4	<i>Euchaeta</i> sp.	Ind/m ³	1,000	1,000	1,000
5	<i>Euterpina</i> sp.	Ind/m ³	-	3,000	-
6	<i>Macrosetella</i> sp.	Ind/m ³	-	1,000	-
7	<i>Micromsetella</i> sp.	Ind/m ³	1,000	-	1,000
8	<i>Oithona</i> sp.	Ind/m ³	8,000	23,000	6,000
9	<i>Oncaea</i> sp.	Ind/m ³	1,000	2,000	1,000



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-4	EV200816-5	EV200816-6
Customer Sample I.D :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
10	<i>Sapphirina</i> sp.	Ind/m ³	1,000	-	-
11	<i>Temora</i> sp.	Ind/m ³	9,000	44,000	35,000
GLOBOTHALAMEA					
1	<i>Globigerina</i> sp.	Ind/m ³	-	5,000	-
2	<i>Globorotalia</i> sp.	Ind/m ³	1,000	23,000	5,000
OLIGOTRICHEA					
1	<i>Codonellopsis</i> sp.	Ind/m ³	-	-	1,000
2	<i>Eufiminius</i> sp.	Ind/m ³	-	2,000	3,000
3	<i>Favella</i> sp.	Ind/m ³	2,000	-	-
4	<i>Leprotinus</i> sp.	Ind/m ³	-	-	-
5	<i>Parafavella</i> sp.	Ind/m ³	-	-	-
6	<i>Tintinnopsis</i> sp.	Ind/m ³	1,000	1,000	-
7	<i>Undella</i> sp.		-	-	1,000
SAGITTOIDEA					
1	<i>Sagitta</i> sp.	Ind/m ³	-	1,000	-
Total Taxa (s)			13	15	14
Abundance		Ind/m ³	52,000	152,000	94,000
Diversity Index			2.12	1.97	1.96
Equitability Index			0.83	0.73	0.74
Dominance Index			0.15	0.19	0.21

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample ID :			EV200816-7
Customer Sample ID :			MWB 18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Seawater
No.	Test Description	Units	Results
	PLANKTON***		
	1. PHYTOPLANKTON		
	BACILLARIOPHYCEAE		
1	<i>Bacillaria</i> sp.	Cell/m ³	6,000
2	<i>Fragilaria</i> sp.	Cell/m ³	70,000
3	<i>Gyrodinium</i> sp.	Cell/m ³	-
4	<i>Navicula</i> sp.	Cell/m ³	-
5	<i>Nitzschia</i> sp.	Cell/m ³	1,334,000
6	<i>Pleurosigma</i> sp.	Cell/m ³	3,000
7	<i>Thalassionema</i> sp.	Cell/m ³	88,000
8	<i>Thalassiothrix</i> sp.	Cell/m ³	272,000
	COSCINODISCOPHYCEAE		
1	<i>Coscinodiscus</i> sp.	Cell/m ³	24,000
2	<i>Guanodina</i> sp.	Cell/m ³	29,000
3	<i>Rhizosolenia</i> sp.	Cell/m ³	1,038,000
4	<i>Triceratium</i> sp.	Cell/m ³	1,000
	CYANOPHYCEAE		
1	<i>Trichodesmium</i> sp.	Cell/m ³	55,000
	DINOPHYCEAE		
1	<i>Gyrodinium</i> sp.	Cell/m ³	18,000
2	<i>Gyrodinium</i> sp.	Cell/m ³	-
3	<i>Dinophysis</i> sp.	Cell/m ³	29,000
4	<i>Ornithocercus</i> sp.	Cell/m ³	2,000
5	<i>Peridinium</i> sp.	Cell/m ³	15,000
6	<i>Phaeocystis</i> sp.	Cell/m ³	-
7	<i>Pyrrocystis</i> sp.	Cell/m ³	1,000



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-7
Customer Sample I.D :			MWB 18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Seawater
No.	Test Description	Units	Results
MEDIOPHYCEAE			
1	<i>Bacteriastrium</i> sp.	Cell/m ³	293,000
2	<i>Brakulphus</i> sp.	Cell/m ³	14,000
3	<i>Cerataulina</i> sp.	Cell/m ³	183,000
4	<i>Chaetoceros</i> sp.	Cell/m ³	2,091,000
5	<i>Ditylum</i> sp.	Cell/m ³	-
6	<i>Eucampia</i> sp.	Cell/m ³	-
7	<i>Hemiaulus</i> sp.	Cell/m ³	59,000
8	<i>Leptocylindrus</i> sp.	Cell/m ³	20,000
9	<i>Thalassiosira</i> sp.	Cell/m ³	-
NOCTILUCOPHYCEAE			
1	<i>Noctiluca</i> sp.	Cell/m ³	5,000
Total Taxa (s)			23
Abundance		Cell/m ³	5,630,000
Diversity Index			1.61
Equitability Index			0.58
Dominance Index			0.23
2. ZOOPLANKTON			
ACANTHARIA			
1	<i>Acanthometron</i> sp.	Ind/m ³	2,000
APPENDICULARIA			
1	<i>Oikopleura</i> sp.	Ind/m ³	34,000
COPEPODA			
1	<i>Acartia</i> sp.	Ind/m ³	33,000
2	<i>Calanus</i> sp.	Ind/m ³	16,000
3	<i>Corycaeus</i> sp.	Ind/m ³	3,000
4	<i>Euchaeta</i> sp.	Ind/m ³	4,000
5	<i>Euterpina</i> sp.	Ind/m ³	2,000
6	<i>Macrosetella</i> sp.	Ind/m ³	-
7	<i>Microsetella</i> sp.	Ind/m ³	1,000
8	<i>Oithona</i> sp.	Ind/m ³	20,000
9	<i>Oncaea</i> sp.	Ind/m ³	1,000



Job Number : EV200816-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-7
Customer Sample I.D :			MWB 16 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Seawater
No.	Test Description	Units	Results
10	<i>Sapphirina sp.</i>	Ind/m ³	-
11	<i>Temora sp.</i>	Ind/m ³	29,000
GLOBOTHALAMEA			
1	<i>Globigerina sp.</i>	Ind/m ³	4,000
2	<i>Glochocrotala sp.</i>	Ind/m ³	0,000
OLIGOTRICHEA			
1	<i>Codonellopsis sp.</i>	Ind/m ³	-
2	<i>Eutimimus sp.</i>	Ind/m ³	-
3	<i>Favella sp.</i>	Ind/m ³	-
4	<i>Leprotimimus sp.</i>	Ind/m ³	1,000
5	<i>Parafavella sp.</i>	Ind/m ³	1,000
6	<i>Tritonopsis sp.</i>	Ind/m ³	-
7	<i>Undella sp.</i>		-
SAGITTOIDEA			
1	<i>Sagitta sp.</i>	Ind/m ³	-
Total Taxa (s)			15
Abundance		Ind/m ³	160,000
Diversity Index			2.11
Equitability Index			0.78
Dominance Index			0.15

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV200816-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	PLANKTON**						
1	Phytoplankton	APHA 10200 F-2012	Cell/m ³	-	-	-	-
2	Zooplankton	SN/ 08-3963-1995	Ind/m ³	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.3-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200816-B
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 7

Date received : 26-Mar-2020
Date reported : 29-Apr-2020

Approved Signature for:


Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200816-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200816-8	MWB 13	Sediment	23-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 53.925"	E : 131° 15' 58.731"
2	EV200816-9	MWB 14	Sediment	23-Mar-20	14:40	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 38.8"	E : 131° 14' 08.8"
3	EV200816-10	MWB 15	Sediment	23-Mar-20	18:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 34.948"	E : 131° 12' 31.603"
4	EV200816-11	MWB 16	Sediment	23-Mar-20	10:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 28.8"	E : 131° 19' 59.7"
5	EV200816-12	MWB 17	Sediment	23-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 03' 36.9"	E : 131° 14' 37.9"
6	EV200816-13	MWB 18	Sediment	23-Mar-20	11:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5"	E : 131° 14' 38.3"
7	EV200816-14	MWB-18 Dup	Sediment	23-Mar-20	12:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5"	E : 131° 14' 38.3"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received