

## Appendix C

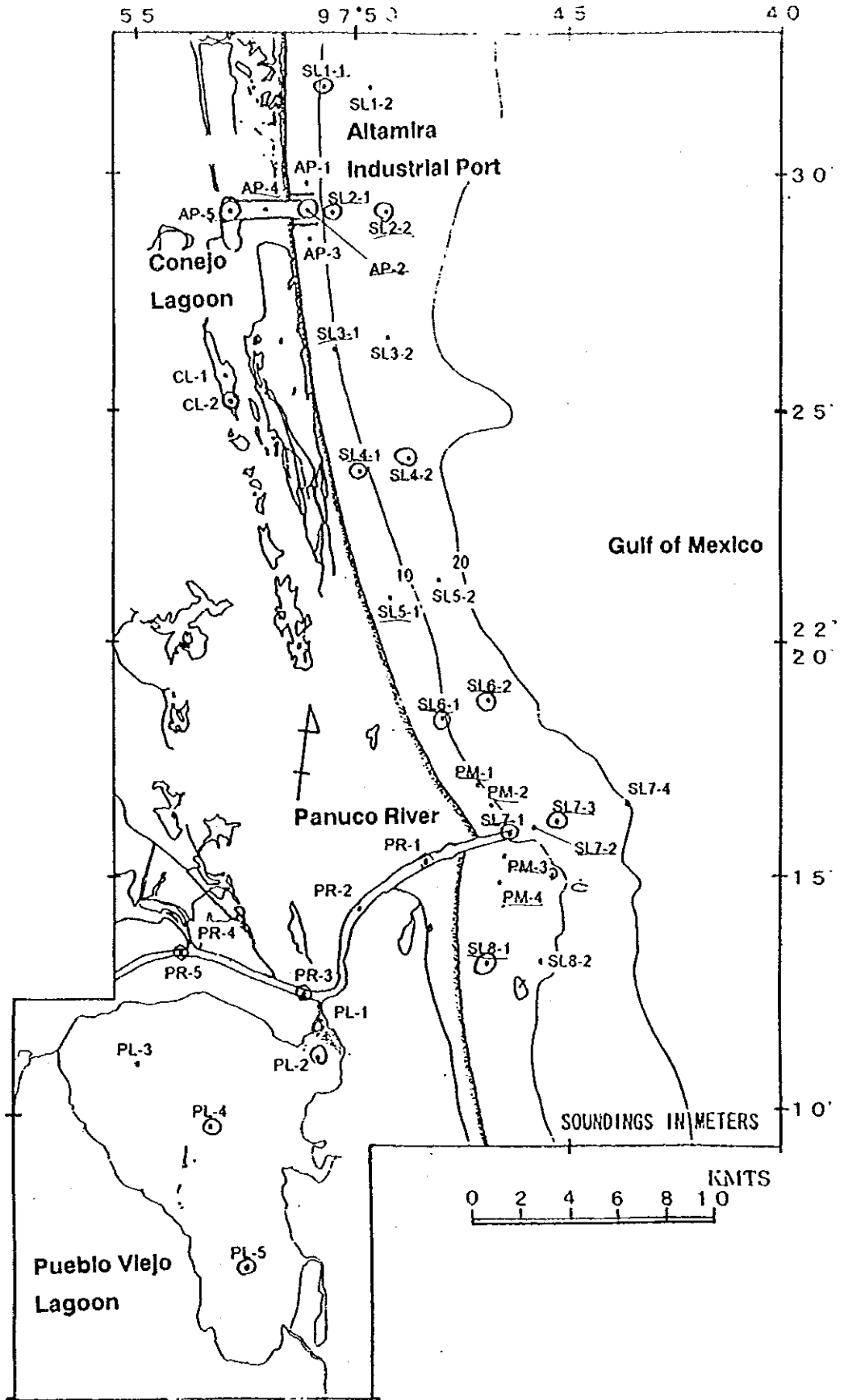


Figure C.1 Location of Monitoring Points for Water Quality Survey

Table C.1(1) Sampling Location for Monitoring Survey

Station	GPS Name	Latitude (N)	Longitude (W)	Sample		
				Water Quality		Sediment
				Basic parameter	Toxic Parameter	
<b>Panuco River</b>						
PR - 1	PR1	22° 15.20'	97° 48.36'	⊙	○	○
PR - 2	PR2	22° 14.15'	97° 49.90'	○		
PR - 3	PR3	22° 12.40'	97° 51.08'	⊙	○	○
PR - 4	PR4	22° 13.61'	97° 53.84'	○		
PR - 5	PR5	22° 13.35'	97° 53.98'	⊙	○	○
<b>Pueblo Viejo Lagoon</b>						
PL - 1	PL1	22° 12.14'	97° 50.79'	○		○
PL - 2	PL2	22° 11.20'	97° 50.79'	○	○	○
PL - 3	PL3	22° 11.15'	97° 55.00'	○		
PL - 4	PL4	22° 09.61'	97° 53.30'	○	○	○
PL - 5	PL5	22° 06.75'	97° 52.50'	○	○	○
<b>El Conejo Lagoon</b>						
CL - 1	CL1	22° 25.50'	97° 53.05'	○	○	○
CL - 2	CL2	22° 25.08'	97° 52.80'	○		
<b>Altamira Industrial Port</b>						
AP - 1	AP1	22° 29.82'	97° 51.10'	○		
AP - 2	AP2	22° 29.19'	97° 51.10'	⊙	○	○
AP - 3	AP3	22° 28.54'	97° 51.10'	○		
AP - 4	AP4	22° 29.19'	97° 52.11'	⊙		
AP - 5	AP5	22° 29.19'	97° 53.11'	⊙	○	○
<b>Coastal Area</b>						
SL1 - 1	SL11	22° 31.88'	97° 50.95'	⊙	○	○
SL1 - 2	SL12	22° 31.88'	97° 49.70'	○		
SL2 - 1	SL21	22° 29.19'	97° 50.55'	⊙	○	○
SL2 - 2	SL22	22° 29.19'	97° 49.29'	⊙	○	○
SL3 - 1	SL31	22° 26.28'	97° 50.51'	⊙		
SL3 - 2	SL32	22° 26.60'	97° 49.30'	○		
SL4 - 1	SL41	22° 23.64'	97° 49.85'	⊙	○	○
SL4 - 2	SL42	22° 23.95'	97° 48.69'	⊙	○	
SL5 - 1	SL51	22° 20.99'	97° 49.07'	⊙		
SL5 - 2	SL52	22° 21.28'	97° 47.95'	○		
SL6 - 1	SL61	22° 18.35'	97° 47.91'	⊙	○	○
SL6 - 2	SL62	22° 18.80'	97° 46.81'	⊙	○	○
SL7 - 1	SL71	22° 15.92'	97° 46.25'	⊙	○	○
SL7 - 2	SL72	22° 16.04'	97° 45.80'	⊙		
SL7 - 3	SL73	22° 16.16'	97° 45.20'	⊙	○	○
SL7 - 4	SL74	22° 16.55'	97° 43.50'	○		
SL8 - 1	SL81	22° 13.03'	97° 46.85'	⊙	○	○
SL8 - 2	SL82	22° 13.13'	97° 45.60'	○		
PM - 1	PM1	22° 16.99'	97° 47.05'	⊙	○	○
PM - 2	PM2	22° 16.50'	97° 46.80'	⊙		
PM - 3	PM3	22° 15.38'	97° 46.50'	⊙		
PM - 4	PM4	22° 14.87'	97° 46.60'	⊙	○	○
SLA - 1	SLA1	22° 16.40'	97° 46.09'	△		
SLA - 2	SLA2	22° 16.85'	97° 45.80'	△		
SLA - 3	SLA3	22° 18.23'	97° 44.71'	△		
SLB - 1	SLB1	22° 15.52'	97° 45.90'	△		
SLB - 2	SLB2	22° 15.20'	97° 45.41'	△		
SLB - 3	SLB3	22° 14.28'	97° 43.95'	△		

⊙ : 2 layers sampling point  
 ○ : 1 layer sampling point  
 △ : For only measurement using STD

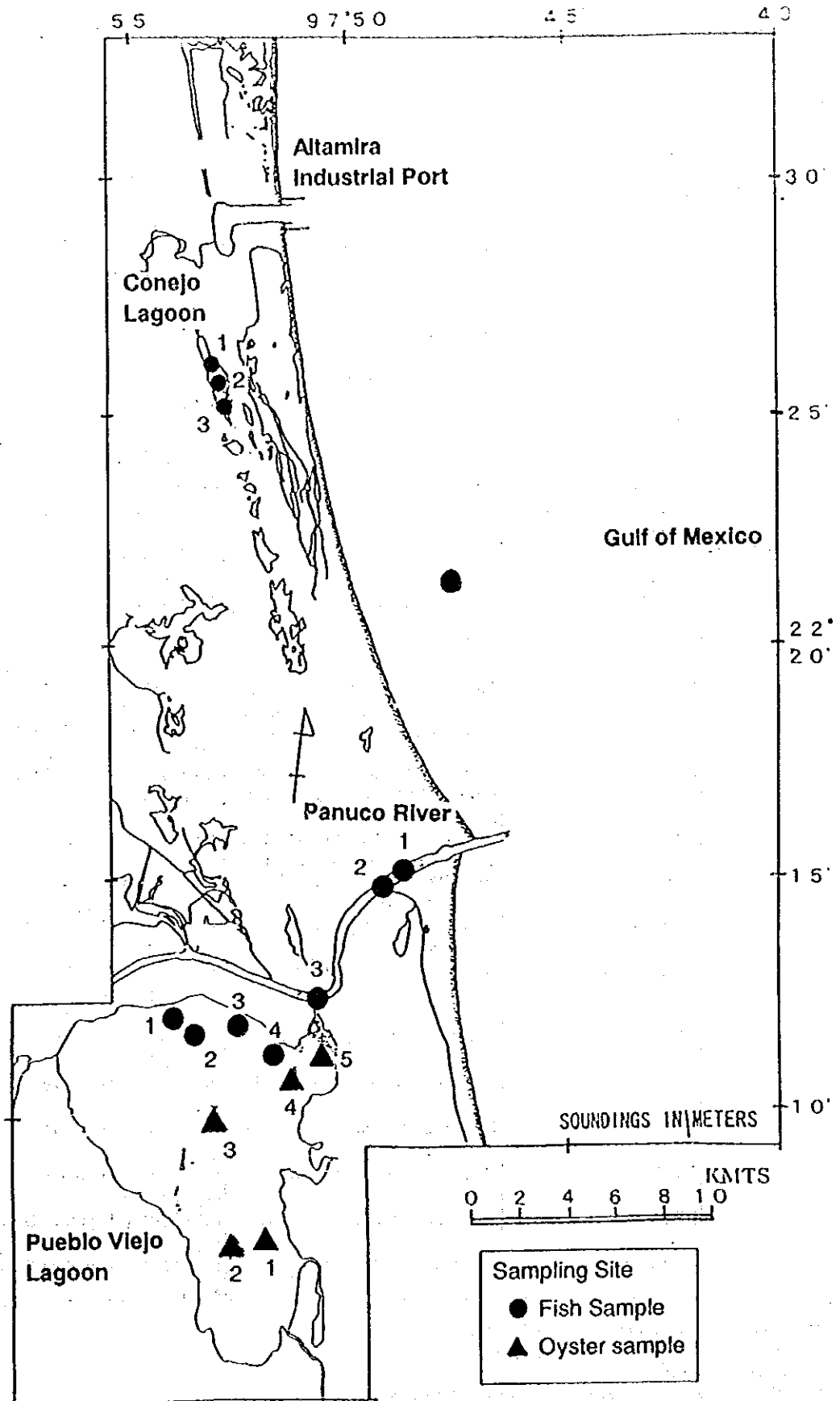


Figure C.2 Sampling Site for Biological Accumulation Analysis

**Table C.2 Monitoring Parameters and Analytical Methods for Water Quality**

	Parameter	Method	Reference
Basic Parameter	Transparency	Secchi disc on boat	
	Water temperature	STD on boat	
	Salinity	STD on boat	
	pH	Glass-electrode method	JIS K 0102 12, EPA 150.1
	DO	Winkler-sodium azide	PHSA I-3, JIS K 0102 32.1
	COD	Alkaline-iodine method	JIS K 0102 19
	TOC	Non purgeable organic carbon method	JIS K 0102 22, EPA 415.1
	SS	Gravimetric method	By TOC Analyzer JIS K 0102 14
	NH4-N	Indophenol blue absorptiometry	PHSA II-9
	NO2-N	Naphthylethlen diamine absorptiometry	PHSA II-7, JIS K 0102 43.1, EPA 354.1
	NO3-N	Cd-Cu column reduction method	PHSA II-6, JIS K 0102 43.2, EPA 353.3
	T-N	Cd-Cu column reduction method	JIS K 0102 45.4
	PO4-P	Molybdenum blue absorptiometry	JIS K 0102 46.1, PHSA -2
	T-P	Molybdenum blue absorptiometry	JIS K 0102 46.3
	Chlorophyll-a	Spectrophotometric	PHSA IV-3-1
	Total coliform, Fecal coliform	Membrane filter method	SMEWW 922A, 922D
	Toxic Parameter	Hexane extracts	Liquid-liquid extraction,
Phenols		4-aminoanlipyrine absorptiometry	JIS K 0102 28.1.2,
Cyanide		4-pyridine carboxylic acid - pyrazolone absorptiometry	JIS K 0102 38
Cr		Diphenylcarbazide	JIS K 0102 65.1.1
Cr <sup>6+</sup>		Diphenylcarbazide	JIS K 0102 65.2.1, EPA 7196A
Cd		Atomic absorption spectrometry	JIS K 0102 55, EPA 7131A
Pb		Atomic absorption spectrometry	JIS K 0102 54, EPA 7421
Cu		Atomic absorption spectrometry	JIS K 0102 52, EPA 7211
Zn		Atomic absorption spectrometry	JIS K 0102 53, EPA 7521
Ni		Atomic absorption spectrometry	JIS K 0102 59, EPA 7951
As		Atomic absorption spectrometry using hydride system	JIS K 0102 61.2, EPA 7062
T-Hg		Atomic absorption spectrometry using vapor reduction system	JIS K 0102 66.1, EPA 7470A
Alkyl-mercury		Gas chromatography with ECD	JIS K 0102 66.2
Organo phosphorus		Gas chromatography with FID	Notification No.46 <sup>(1)</sup>
Trichloroethylene		Gas chromatography with ECD	JIS K 0125 5.5, EPA 8021B
Tetrachloroethylene		Gas chromatography with ECD	JIS K 0125 5.5, EPA 8021B
Carbon tetrachloride		Gas chromatography with ECD	JIS K 0125 5.5, EPA 8021B
PCB		Gas chromatography with ECD	EPA 8082, JIS K 0093(Pretreatment)
HCB		Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>
Aldrin		Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>
Endrin		Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>
Dieldrin		Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>
DDT		Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>
Chlordane	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	

Notes:

STD : Salinity, Temperature, Depth Measuring System

PHSA : A Practical Handbook on Seawater Analysis

JIS : Japan Industrial Standard

SMEWW : Standard Method for Examination of Water and Wastewater

EPA : Environmental Protection Agency

(1) Notification No. 46, 1971 of the Japanese Environmental Agency

(2) Tentative Survey Manual of External Factor Endocrine Disturbance Chemical Substance

TOC was analyzed in dry season.

**Table C.3 Monitoring Parameters and Analytic Methods for Sediment**

	Parameter	Method	Reference	
Content Test Basic Parameter	Particle Size	Separation method with sieve		
	ORP	Glass-electrode method on boat		
	Ignition Loss	Gravimetric Method at 600	HBSS 4	
	COD	Alkaline-iodine method	MAGWP 5.6	
	TOC	Dry decomposition - non purgeable organic carbon method	By TOC Analyzer	
Toxic Parameter	Sulfide	Heating Distillation Method	MAGWP 5.11	
	Hexane extracts	Liquid-liquid extraction, Gravimetric method	EPA 9071A (Use hexane), MAGWP 5.11	
	Cyanide	4-pyridine carboxylic acid - pyrazolone absorptiometry	HBSS II.14	
	Cr	Acid digestion, Diphenylcarbazide absorptiometry	HBSS II.12.1, EPA 3050B, 3051, 3052 (Pretreatment)	
	Cd	Acid digestion, Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS II.6, EPA 7131A	
	Pb	Acid digestion, Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS II.7, EPA 7421	
	Cu	Acid digestion, Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS II.8, EPA 7211	
	Zn	Acid digestion, Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS II.9, EPA 7951	
	As	Acid digestion, Atomic absorption spectrometry using hydride system	EPA 3050B (Digestion), HBSS II.13	
	T-Hg	Atomic absorption spectrometry using vapor reduction system	HBSS II.5, EPA 7471A	
	Alkyl-mercury	Gas chromatography with ECD	JIS K 0102 66.2, Notification No.127 <sup>(3)</sup>	
	Organophosphorus	Gas chromatography with FID	Notification No.46 <sup>(1)</sup>	
	Trichloroethylene	Gas chromatography with ECD	JJIS K 0125 5.5, EPA 8021B, Notification No.46 <sup>(1)</sup>	
	Tetrachloroethylene	Gas chromatography with ECD	JJIS K 0125 5.5, EPA 8021B, Notification No.46 <sup>(1)</sup>	
	Carbon tetrachloride	Gas chromatography with ECD	JJIS K 0125 5.5, EPA 8021B, Notification No.46 <sup>(1)</sup>	
	PCB	Gas chromatography with ECD	JIS K 0093, EPA 8082, Notification No.127 <sup>(3)</sup>	
	HCB	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	
	Aldrin	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	
	Endrin	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	
	Dieldrin	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	
	DDT	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	
	Chlordane	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>	
	Elution Test	Hexane extracts	Liquid-liquid extraction, Gravimetric method	JIS K 0102 24
		Cyanide	4-pyridine carboxylic acid - pyrazolone absorptiometry	JIS K 0102 38
		Cr <sup>6+</sup>	Diphenylcarbazide absorptiometry	JIS K 0102 65.2.1, EPA
Cd		Atomic absorption spectrometry	JIS K 0102 55, EPA 7131A	
Pb		Atomic absorption spectrometry	JIS K 0102 54, EPA 7421	
Cu		Atomic absorption spectrometry	JIS K 0102 52, EPA 7211	
Zn		Atomic absorption spectrometry	JIS K 0102 53, EPA 7521	
As		Atomic absorption spectrometry using hydride system	JIS K 0102 61.2, EPA 7062	
T-Hg		Atomic absorption spectrometry using vapor reduction system	JIS K 0102 66.1, EPA 7470A	
Alkyl-mercury		Gas chromatography with ECD	JIS K 0102 66.2	
Organophosphorus		Gas chromatography with FID	Notification No.46 <sup>(1)</sup>	
PCB		Gas chromatography with ECD	EPA 8082, JIS K 0093 (Pretreatment)	

Notes:

HBSS : The Handbook of Bottom Sediment Survey, Japanese Standard

JIS : Japan Industrial Standard

EPA : Environmental Protection Agency

MAGWP : The Method of Analysis Guideline of Water Pollution

(1) Notification No. 46, 1971 of the Japanese Environmental Agency

(2) Tentative Survey Manual of External Factor Endocrine Disturbance Chemical Substance

(3) Notification No. 127 issued by Water Quality Control Section, Water Protection Department, Environmental Agency

TOC was analyzed in dry season.

**Table C.4 Analytical Method for Biological Accumulation Test**

	Parameter	Method	Reference
Toxic Parameter	Cd	Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS .6, EPA 7131A
	Pb	Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS .7, EPA 7421
	Cu	Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS .8, EPA 7211
	Zn	Atomic absorption spectrometry	EPA 3050B (Digestion), HBSS .9, EPA 7951
	T-Hg	Atomic absorption spectrometry using vapor	HBSS .5, EPA 7471A
	PCB	Gas chromatography with ECD	JIS K 0093, EPA 8082, Notification No.127 <sup>(2)</sup>
	HCB	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(1)</sup>
	Aldrin	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(1)</sup>
	Endrin	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(2)</sup>
	Dieldrin	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(1)</sup>
	DDT	Gas chromatography with ECD	EPA 8081A, Tentative Survey Manual <sup>(1)</sup>

Note:

JIS : Japan Industrial Standard

EPA : Environmental Protection Agency

(2) "Tentative Survey Manual of External Factor Endocrine Disturbance Chemical Substance"

(3) Notification No.127 issued by Water Quality Control Section, Water Protection Department, EPA

**Table C.5(1) Result of Water Quality Analysis in Dry Season [Basic Parameters]**

Point No.	Sampling Depth (m)	Depth (m)	Transparency (m)	Forel Color No	Water Temperature (°C)	Salinity	pH	DO (mg/l)	COD mg/l	SS (mg/l)
PR-1	0.5	10	0.5	17	23.9	12.56	8.2	9.2	2.7	27
	9.0				22.7	33.83	8.0	5.9	0.8	16
PR-2	0.5	12	0.7	17	23.7	14.09	8.3	10	4.1	15
	8.5				22.7	33.91	8.1	5.2	1.0	11
PR-3	0.5	9.5	0.7	16	24.2	6.27	8.5	13	7.2	21
	8.5				22.7	33.91	8.1	5.2	1.0	11
PR-4	0.5	7.2	0.6	16	24.4	7.21	8.5	13	3.9	11
PR-5	0.5	9.0	0.8	18	25.1	3.06	8.6	15	7.8	25
	8.0				22.8	33.31	8.0	4.2	1.0	13
PL-1	0.5	5.8	0.6	18	24.4	13.85	8.3	7.7	3.0	25
PL-2	0.5	1.3	0.1	20	24.1	17.16	8.1	7.5	2.4	130
PL-3	0.5	1.0	0.3		25.6	18.82	8.2	7.2	1.0	63
PL-4	0.5	1.2	0.2	19	25.6	18.00	8.2	7.6	2.3	68
PL-5	0.5	1.1	0.4	20	26.4	16.40	8.3	11	2.2	71
AP-1	0.5	3.0	1.6	7	23.3	35.96	8.1	6.6	0.2	3
AP-2	0.5	14	6.0	6	23.7	35.64	8.1	7.1	0.5	6
	10				22.5	36.05	8.1	6.4	0.5	9
AP-3	0.5	7.2	2.1	6	24.0	35.59	8.1	6.8	0.5	3
AP-4	0.5	13	5.0	6	23.5	35.53	8.1	6.9	0.5	5
	10				22.6	36.06	8.1	7.5	1.1	8
AP-5	0.5	13	1.5	6	23.5	35.47	8.2	7.2	0.3	5
	10				22.9	35.59	8.2	6.4	1.3	2
CL-1	0.5	2.3	0.7	16	25.9	1.23	8.1	5.8	8.2	13
CL-2	0.5	0.7	0.5	17	26.0	1.24	8.0	3.1	8.7	22
SL1-1	0.5	11	1.5	9	23.7	36.14	8.1	6.5	0.9	6
	10				22.9	36.22	8.1	6.2	1.2	5
SL1-2	0.5	15	2.5	9	23.7	36.10	8.2	7.0	1.0	5
SL2-1	0.5	13	1.5	10	23.7	36.15	8.2	6.7	1.1	4
	10				23.0	36.22	8.2	5.9	0.8	9
SL2-2	0.5	18	2.6	8	23.8	36.14	8.2	6.5	0.8	3
	10				22.7	36.30	8.3	6.3	1.3	4
SL3-1	0.5	9.5	2.0	10	23.5	36.18	8.2	6.6	2.4	4
	8.5				22.8	36.29	8.2	6.1	1.4	14
SL3-2	0.5	20	2.5	8	23.5	36.02	8.2	6.4	1.4	3
SL4-1	0.5	13	2.0	13	23.2	36.21	8.2	6.9	0.7	8
	10				22.8	36.29	8.2	6.4	0.6	7
SL4-2	0.5	17	2.7	8	24.1	36.04	8.2	6.9	0.9	45
	10				22.8	36.29	8.2	5.9	0.8	26
SL5-1	0.5	8.0	2.0	8	23.4	36.10	8.2	6.6	1.5	6
	7.0				22.7	36.28	8.2	5.7	0.6	4
SL5-2	0.5	20	2.5	8	24.0	36.08	8.2	6.6	1.8	5
SL6-1	0.5	11	2.7	10	23.4	36.02	8.2	6.5	1.1	5
	10				22.7	36.28	8.2	6.0	1.5	4
SL6-2	0.5	20	1.7	10	24.7	35.72	8.2	6.7	0.9	7
	10				22.8	36.27	8.2	5.9	0.7	10
SL7-1	0.5	15	1.0	16	24.9	33.41	8.2	6.6	1.6	20
	10				24.3	36.08	8.2	6.1	0.8	14
SL7-2	0.5	14	1.0	14	25.2	33.11	8.2	7.1	1.5	22
	10				24.1	36.25	8.2	6.7	1.3	11
SL7-3	0.5	14	2.1	10	24.2	36.25	8.2	6.5	0.9	4
	10				23.9	36.27	8.3	6.8	0.7	10
SL7-4	0.5	25	4.0	6	24.0	36.27	8.3	6.6	0.8	1
SL8-1	0.5	6.8	1.5	10	24.5	36.27	8.3	6.7	1.6	7
	5.8				24.3	36.26	8.2	6.5	1.1	7
SL8-2	0.5	12	2.0	8	24.1	36.27	8.2	4.8	0.4	14
PM-1	0.5	12	2.0	10	23.4	36.11	8.2	6.2	0.8	6
	10				22.6	36.30	8.2	6.0	1.3	8
PM-2	0.5	9.0	1.1	13	23.6	36.17	8.2	6.3	1.3	12
	8.0				22.7	36.29	8.2	6.0	1.2	14
PM-3	0.5	5.4	1.1	16	24.7	36.22	8.2	6.8	1.4	18
	4.4				24.6	36.21	8.2	6.8	0.8	27
PM-4	0.5	6.0	1.2	15	24.5	36.23	8.2	6.7	0.9	50
	5.0				24.4	36.23	8.2	6.5	1.0	29

Note:

Sampling Dates:

March 1, 1999 at PR-1 to PR-5, PL-1 to PL-5

March 2, 1999 at AP-1 to AP-5, CL-1 to CL-2

March 8, 1999 at SL6-1 to SL8-2, PM-1 to PM-4

March 9, 1999 at SL1-1 to SL5-2



**Table C.5(2) Result of Water Quality Analysis In Dry Season [Basic Parameters]**

Point No.	Sampling Depth (m)	NH <sub>4</sub> -N (mg/l)	NO <sub>2</sub> -N (mg/l)	NO <sub>3</sub> -N (mg/l)	Total Nitrogen (mg/l)	PO <sub>4</sub> -P (mg/l)	Total Phosphorus (mg/l)	Chlorophyll-a (g/l)	Total Coliform (Col./100 ml)	Fecal Coliform (Col./100 m)
PR-1	0.5	<0.01	0.01	0.16	0.72	0.07	0.12	42	2.3×10 <sup>3</sup>	4.7×10 <sup>2</sup>
	9.0	0.06	0.01	0.03	0.41	0.01	0.17	16		
PR-2	0.5	0.02	0.02	0.18	0.65	0.07	0.23	38	4.9×10 <sup>3</sup>	4.0×10 <sup>3</sup>
PR-3	0.5	0.02	0.02	0.16	0.56	0.07	0.25	49	5.8×10 <sup>2</sup>	5.7×10 <sup>1</sup>
	8.5	0.04	0.02	0.05	0.39	0.02	0.21	5.0		
PR-4	0.5	0.01	0.01	0.21	0.60	0.06	0.15	46	1.8×10 <sup>2</sup>	4.2×10 <sup>1</sup>
PR-5	0.5	0.04	0.01	0.17	0.57	0.08	0.23	73	3.0×10 <sup>0</sup>	3.0×10 <sup>0</sup>
	8.0	0.04	0.01	0.09	0.37	0.10	0.12	12		
PL-1	0.5	0.04	0.01	0.13	0.65	0.07	0.11	22	1.6×10 <sup>4</sup>	1.6×10 <sup>4</sup>
PL-2	0.5	0.03	0.01	0.14	0.42	0.06	0.10	13	2.3×10 <sup>3</sup>	8.3×10 <sup>2</sup>
PL-3	0.5	0.03	<0.01	0.01	0.27	0.07	0.12	15	7.0×10 <sup>0</sup>	ND
PL-4	0.5	<0.01	<0.01	<0.01	0.65	0.06	0.08	11	9.8×10 <sup>2</sup>	9.8×10 <sup>2</sup>
PL-5	0.5	<0.01	<0.01	<0.01	0.65	0.05	0.08	3.2	6.0×10 <sup>0</sup>	2.0×10 <sup>0</sup>
AP-1	0.5	<0.01	<0.01	0.01	0.13	0.02	0.04	2.7	1.5×10 <sup>1</sup>	1.0×10 <sup>0</sup>
AP-2	0.5	<0.01	<0.01	0.01	0.16	0.02	0.15	0.2	4.0×10 <sup>0</sup>	ND
	10	<0.01	<0.01	<0.01	0.09	0.01	0.05	2.2		
AP-3	0.5	<0.01	<0.01	<0.01	0.13	0.01	0.09	1.2	8.0×10 <sup>0</sup>	1.0×10 <sup>0</sup>
AP-4	0.5	<0.01	<0.01	<0.01	0.09	0.01	0.08	2.9	1.4×10 <sup>1</sup>	1.0×10 <sup>0</sup>
	10	<0.01	<0.01	<0.01	0.12	0.01	0.05	0.6		
AP-5	0.5	<0.01	<0.01	<0.01	0.20	0.03	0.10	0.7	1.1×10 <sup>1</sup>	5.0×10 <sup>0</sup>
	10	<0.01	<0.01	<0.01	0.18	0.01	0.03	2.7		
CL-1	0.5	0.02	<0.01	<0.01	1.4	0.07	0.12	38	3.8×10 <sup>1</sup>	2.9×10 <sup>1</sup>
CL-2	0.5	0.02	<0.01	<0.01	1.6	0.15	0.17	62	1.8×10 <sup>2</sup>	3.2×10 <sup>1</sup>
SL1-1	0.5	<0.01	<0.01	0.05	0.09	0.05	0.08	0.1	ND	ND
	10	<0.01	<0.01	0.02	0.17	0.06	0.11	2.0		
SL1-2	0.5	<0.01	<0.01	0.02	0.02	0.02	0.09	0.7	ND	ND
SL2-1	0.5	0.01	<0.01	0.02	0.14	0.05	0.07	1.8	ND	ND
	10	0.01	<0.01	0.03	0.08	0.04	0.10	1.4		
SL2-2	0.5	<0.01	<0.01	0.04	0.24	0.04	0.04	1.9	ND	ND
	10	0.01	<0.01	0.03	0.23	0.04	0.08			
SL3-1	0.5	0.01	<0.01	0.02	0.28	0.03	0.12	1.6	ND	ND
	8.5	0.01	<0.01	0.02	0.20	0.05	0.09	1.2		
SL3-2	0.5	<0.01	<0.01	0.02	0.02	0.08	0.15	2.1	ND	ND
SL4-1	0.5	0.01	<0.01	0.02	0.13	0.02	0.07	2.1	ND	ND
	10	<0.01	<0.01	0.02	0.15	0.03	0.11	4.0		
SL4-2	0.5	<0.01	<0.01	0.02	0.11	0.04	0.11	0.6	ND	ND
	10	0.01	<0.01	0.02	0.16	0.05	0.11	0.1		
SL5-1	0.5	0.01	<0.01	0.02	0.13	0.04	0.06	2.3	ND	ND
	7.0	<0.01	<0.01	0.03	0.13	0.04	0.09	1.8		
SL5-2	0.5	0.02	<0.01	0.03	0.14	0.04	0.05	0.9	1.4×10 <sup>1</sup>	9.0×10 <sup>0</sup>
SL6-1	0.5	<0.01	<0.01	0.03	0.18	0.03	0.07	1.4	5.0×10 <sup>0</sup>	ND
	10	0.01	<0.01	0.04	0.21	0.03	0.06	0.2		
SL6-2	0.5	<0.01	<0.01	0.02	0.12	0.04	0.07	1.0	1.0×10 <sup>0</sup>	ND
	10	<0.01	<0.01	0.03	0.18	0.03	0.08	0.7		
SL7-1	0.5	<0.01	<0.01	0.01	0.35	0.05	0.10	0.5	9.1×10 <sup>1</sup>	6.7×10 <sup>1</sup>
	10	0.01	<0.01	0.02	0.32	0.03	0.07	1.8		
SL7-2	0.5	<0.01	<0.01	0.03	0.36	0.10	0.13	2.4	1.4×10 <sup>1</sup>	8.0×10 <sup>0</sup>
	10	<0.01	<0.01	0.01	0.01	0.02	0.04	0.6		
SL7-3	0.5	<0.01	<0.01	0.01	0.01	0.04	0.04	0.3	ND	ND
	10	<0.01	<0.01	0.01	0.15	0.04	0.08	0.5		
SL7-4	0.5	<0.01	<0.01	0.01	0.12	0.03	0.05	0.5	ND	ND
SL8-1	0.5	<0.01	<0.01	0.01	0.20	0.03	0.04	0.6	ND	ND
	5.8	<0.01	<0.01	0.03	0.04	0.07	0.10	0.6		
SL8-2	0.5	0.01	<0.01	0.01	0.05	0.03	0.12	0.5	ND	ND
PM-1	0.5	0.01	<0.01	0.02	0.13	0.03	0.04	2.8	3.0×10 <sup>0</sup>	ND
	10	0.02	<0.01	0.03	0.05	0.04	0.04	1.0		
PM-2	0.5	0.01	<0.01	0.02	0.11	0.04	0.20	3.7	1.6×10 <sup>1</sup>	ND
	8.0	0.01	<0.01	0.04	0.10	0.04	0.13	2.9		
PM-3	0.5	<0.01	<0.01	0.03	0.19	0.03	0.04	1.4		
	4.4	<0.01	<0.01	0.01	0.14	0.03	0.04	2.0		
PM-4	0.5	0.01	<0.01	0.11	0.30	0.04	0.06	3.7	ND	ND
	5.0	0.02	<0.01	<0.01	0.15	0.04	0.08	4.4		

Note:

Sampling Dates:

March 1, 1999 at PR-1 to PR-5, PL-1 to PL-5

March 2, 1999 at AP-1 to AP-5, CL-1 to CL-2

March 8, 1999 at SL6-1 to SL8-2, PM-1 to PM-4

March 9, 1999 at SL1-1 to SL5-2

**Table C.6 Result of Water Quality Analysis In Dry Season [Toxic Parameters]**

Point No.	Sampling Depth (m)	Hexane Extract (mg/l)	Phenols (mg/l)	Cyanide (mg/l)	Cr (mg/l)	Cr <sup>6+</sup> (mg/l)	Cd (mg/l)	Pb (mg/l)	Cu (mg/l)	Zn (mg/l)	Ni (mg/l)	As (mg/l)	Hg (mg/l)
PR-1	0.5	1.2	<0.001	<0.006	<0.01	<0.01	<0.002	0.01	<0.005	0.033	<0.005	0.002	<0.001
PR-2	0.5	1.5	-	-	-	-	-	-	-	-	-	-	-
PR-3	0.5	1.4	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.019	<0.005	0.004	<0.001
PR-4	0.5	1.7	-	-	-	-	-	-	-	-	-	-	-
PR-5	0.5	1.9	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.023	<0.005	0.004	<0.001
PL-2	0.5	1.3	<0.001	<0.006	0.02	<0.01	<0.002	<0.01	<0.005	0.049	<0.005	0.004	<0.001
PL-4	0.5	1.7	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.050	<0.005	0.002	<0.001
PL-5	0.5	1.9	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.037	<0.005	0.001	<0.001
AP-2	0.5	1.7	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.041	<0.005	<0.001	<0.001
AP-4	0.5	2.0	-	-	-	-	-	-	-	-	-	-	-
AP-5	0.5	1.5	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.045	<0.005	0.002	<0.001
CL-1	0.5	2.8	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.023	<0.005	<0.001	<0.001
SL1-1	0.5	1.0	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.004	0.006	<0.001	<0.001
SL2-1	0.5	0.7	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.010	0.005	<0.001	<0.001
SL2-2	0.5	2.2	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.006	<0.005	<0.001	<0.001
SL3-1	0.5	1.4	-	-	-	-	-	-	-	-	-	-	-
SL4-1	0.5	1.2	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.011	<0.005	<0.001	<0.001
SL4-2	0.5	1.2	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.010	<0.005	<0.001	<0.001
SL6-1	0.5	1.7	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.004	<0.005	<0.001	<0.001
SL6-2	0.5	1.0	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.002	<0.005	<0.001	<0.001
SL7-1	0.5	1.1	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.016	<0.005	<0.001	<0.001
SL7-3	0.5	0.9	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.002	<0.005	<0.001	<0.001
SL8-1	0.5	0.7	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.002	0.005	<0.001	<0.001
PM-1	0.5	0.6	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.004	0.007	<0.001	<0.001
PM-4	0.5	1.2	<0.001	<0.006	<0.01	<0.01	<0.002	<0.01	<0.005	0.007	<0.005	<0.001	<0.001

Point No.	Sampling Depth (m)	Alkyl-Hg (mg/l)	Organophosphorous (mg/l)	Trichloroethylene (mg/l)	Tetrachloroethylene (mg/l)	Carbon Tetrachloride (mg/l)	PCB (mg/l)	HCB (mg/l)	Aldrin (mg/l)	Endrin (mg/l)	Dieldrin (mg/l)	DDT (mg/l)	Chlordane (mg/l)
PR-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-2	0.5	-	-	-	-	-	-	-	-	-	-	-	-
PR-3	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-4	0.5	-	-	-	-	-	-	-	-	-	-	-	-
PR-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-4	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-4	0.5	-	-	-	-	-	-	-	-	-	-	-	-
AP-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CL-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL1-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL3-1	0.5	-	-	-	-	-	-	-	-	-	-	-	-
SL4-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL4-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-3	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL8-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-4	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Note

Sampling Dates:

March 1, 1999 at PR-1 to PR-5, PL-2, PL-4, PL-5

March 2, 1999 at AP-2, AP-4, AP-5, CL-1

March 8, 1999 at SL6-1, SL6-2, SL7-1, SL7-3, SL8-1, PM-1, PM-4

March 9, 1999 at SL1-1, SL2-1, SL2-2, SL3-1, SL4-1, SL4-2

ND means "Not Detected".

**Table C.7(1) Result of Water Quality Analysis in Rainy Season [Basic Parameters]**

Point No.	Sampling Depth(m)	Depth (m)	Transpare ncy (m)	Foret Color No	Water Temperat ure ( )	Salinity	pH	DO (mg/l)	COD mg/ l)	TOC (mg/l)	SS (mg/l)
PR-1	0.5	9.1	0.3	20	27.3	<2	7.6	5.2	3.6	6.5	280
	8.1				27.2		7.8	5.1	4.1	5.9	370
PR-2	0.5	5.5	0.3	18	26.9	<2	7.7	5.2	3.6	3.2	210
PR-3	0.5	13	0.4	20	26.8	<2	7.6	5.5	3.9	2.5	310
	10				26.7		7.8	5.2	5.4	4.2	560
PR-4	0.5	6.9	0.3	17	29.2	<2	7.6	4.9	4.4	7.5	43
PR-5	0.5	9.1		19			7.6	5.5	4.4	6.5	380
(Uncollected)											
PL-1	0.5	5.4	0.3	18	27.1	<2	7.0	5.8	1.8	2.3	130
PL-2	0.5	1.1	0.5	12	27.7	<2	7.0	5.9	1.3	2.2	30
PL-3	0.5	1.0	0.6	17	28.9	10.60	8.0	6.0	4.3	6.8	21
PL-4	0.5	1.3	0.5	17	28.7	8.36	8.3	6.0	5.2	7.6	55
PL-5	0.5	1.3	0.7	19	28.7	6.96	8.0	6.4	6.8	10	13
AP-1	0.5	4.1	2.6	8	27.9	31.97	8.2	6.8	3.4	1.6	5
AP-2	0.5	8.5	2.5	9	28.4	29.75	8.2	7.4	1.0	2.3	4
	7.5				24.7	34.45	8.0	4.0	1.0	1.7	10
AP-3	0.5	4.7	1.0	9	27.3	32.51	8.2	6.3		1.7	11
AP-4	0.5	11	1.3	9	27.0	32.85	8.2	8.2	1.6	2.5	10
	10				22.7	36.12	7.9	3.6	0.9	1.2	13
AP-5	0.5	13	1.1	21	26.5	32.12	8.2	6.9	4.8	5.1	12
	10				22.7	36.09	7.9	3.3	2.6	1.3	10
CL-1	0.5	2.1	0.4	12	29.3	0.92	7.3	3.1	8.2	12	24
CL-2	0.5	1.2	0.4		29.6	0.86	7.2	<0.5	8.9	13	20
MA-1	0.3	0.2	0.2	15	32.5	13.31	9.0	12	10	32	100
MA-2	1.0	0.5	0.3	16	31.1	12.25	9.0	10	10	35	37
MA-3	0.5	0.2	0.3	14	31.3	12.80	8.9	4.4	10	33	30
SL1-1	0.5	9.1	3.1	8	27.8	32.12	8.1	7.0	0.8	2.8	1
	8.1				24.2	35.13	8.0	4.7	2.1	2.3	5
SL1-2	0.5	15	4.0	6	27.8	32.38	8.2	8.3	2.2	2.5	2
SL2-1	0.5	11	4.0	8	28.0	32.37	8.2	7.2	1.9	2.5	2
	10				22.5	36.30	7.9	3.8	3.0	2.5	6
SL2-2	0.5	18	3.8	6	27.6	32.47	8.2	7.1	1.5	2.2	3
	10				22.9	36.29	8.0	6.0	0.9	1.8	1
SL3-1	0.5	9.4	3.5	8	27.0	33.05	8.2	6.0	1.7	2.8	3
	8.4				23.2	36.08	7.3	3.2	1.8	2.6	22
SL3-2	0.5	17	4.0	7	27.0	32.76	8.2	7.0	1.4	2.5	2
SL4-1	0.5	9.6	3.6	8	27.2	32.16	8.2	6.9	2.0	2.5	2
	8.6				23.3	35.98	8.0	4.9	1.7	2.3	3
SL4-2	0.5	17	4.6	7	27.0	33.01	8.2	7.0	2.5	2.3	1
	10				23.4	36.27	8.1	6.0	1.1	1.7	1
SL5-1	0.5	9.3	2.8	8	27.5	32.65	8.2	9.0	1.3	3.3	3
	8.3				23.0	36.17	8.1	7.2	1.7	3.0	5
SL5-2	0.5	17	3.0	6	27.7	33.15	8.2	8.6	1.6	3.1	3
SL6-1	0.5	12	2.1	17	27.8	32.57	8.3	9.2	1.9	3.2	5
	10				22.8	36.25	8.1	5.6	1.1	2.5	5
SL6-2	0.5	20	2.3	16	27.1	33.40	8.1	8.5	3.8	2.8	4
	10				22.7	36.27	8.0	5.6	1.0	2.3	3
SL7-1	0.5	14	1.0	17	26.4	19.77	8.1	6.8	2.9	3.5	19
	10				22.7	36.31	8.0	5.6	1.7	2.3	3
SL7-2	0.5	15	1.5	14	25.8	33.01	8.1	6.9	3.0	3.4	15
	10				22.6	36.31	8.1	5.9	0.7	2.2	3
SL7-3	0.5	14	1.0	16	26.2	32.10	8.2	7.5	2.3	3.5	16
	10				22.7	36.26	8.1	6.5	1.7	2.4	3
SL7-4	0.5	21	1.5	17	26.5	35.53	8.2	8.6	1.7	3.2	9
SL8-1	0.5	5.7	1.2	17	26.8	34.69	8.3	8.7	2.0	3.4	13
	4.7				26.1	35.25	8.1	6.6	1.5	2.3	3
SL8-2	0.5	9.7	1.3	15	26.8	34.94	8.2	8.1	2.0	3.1	11
PM-1	0.5	14	1.9	14	27.3	31.72	8.2	8.9	2.1	3.0	5
	10				22.9	36.24	8.1	5.8	2.6	2.4	6
PM-2	0.5	12	2.5	17	26.9	31.63	8.3	8.8	3.8	2.6	5
	10				22.9	36.17	8.1	6.0	1.2	2.4	5
PM-3	0.5	5.8	1.0	18	26.7	30.99	8.0	6.3	1.8	3.2	22
	4.8				26.0	34.79	8.0	6.0	0.8	2.2	7
PM-4	0.5	4.1	0.9	17	27.3	26.45	8.1	8.4	2.7	3.1	31
	3.1				26.5	35.05	8.2	6.7	2.4	3.3	13

**Note**

Bottom sample at PR-5 could not be taken because of strong flow.

Sampling Dates:

July 19, 1999 at SL6-1 to SL8-2, PM-1 to PM-4

July 20, 1999 at SL1-1 to SL5-2

July 21, 1999 at PR-1 to PR-5, PL-1 to PL-5, AP-1 to AP-5

July 22, 1999 at CL-1 to CL-2

**Table C.7(2) Result of Water Quality Analysis in Rainy Season [Basic Parameters]**

Point No.	Sampling Depth(m)	NH <sub>4</sub> -N (mg/l)	NO <sub>2</sub> -N (mg/l)	NO <sub>3</sub> -N (mg/l)	Total Nitrogen (mg/l)	PO <sub>4</sub> -P (mg/l)	Total Phosphorus (mg/l)	Chlorophyll-a (g/l)	Total Coliform (Col/100 ml)	Fecal Coliform (Col/100 ml)
PR-1	0.5	0.007	0.01	0.84	1.2	0.10	0.10	5.8	3.6510 <sup>3</sup>	2.9510 <sup>3</sup>
	8.1	0.020	0.011	0.34	0.54	0.12	0.13	5.1		
PR-2	0.5	<0.007	0.007	0.49	0.64	0.10	0.11	4.5	2.7510 <sup>3</sup>	2.1510 <sup>3</sup>
PR-3	0.5	<0.007	0.007	0.44	0.88	0.11	0.11	4.7	3.0510 <sup>3</sup>	1.8510 <sup>3</sup>
	10	0.008	0.006	0.93	1.1	0.11	0.30	7.0		
PR-4	0.5	0.020	0.007	0.19	0.37	0.060	0.086	18	2.4510 <sup>3</sup>	1.2510 <sup>3</sup>
PR-5	0.5	0.010	0.007	0.35	1.1	0.13	0.17	4.8	3.5510 <sup>3</sup>	2.4510 <sup>3</sup>
PL-1	0.5	<0.007	0.007	0.61	0.68	0.091	0.10	2.7	1.7510 <sup>3</sup>	1.3510 <sup>3</sup>
PL-2	0.5	<0.007	0.006	0.48	0.51	0.10	0.11	3.7	1.3510 <sup>3</sup>	5.5510 <sup>2</sup>
PL-3	0.5	0.020	<0.002	0.01	0.51	0.044	0.067	12	1.4510 <sup>3</sup>	1.1510 <sup>3</sup>
PL-4	0.5	0.030	0.005	0.04	0.55	0.048	0.053	16	1.8510 <sup>3</sup>	7.0510 <sup>2</sup>
PL-5	0.5	<0.007	0.006	0.01	0.35	0.062	0.072	13	5.8510 <sup>2</sup>	1.8510 <sup>3</sup>
AP-1	0.5	<0.007	<0.002	0.01	0.34	0.005	0.038	1.1	ND	ND
AP-2	0.5	<0.007	<0.002	0.02	0.36	0.010	0.048	3.4	8.0510 <sup>3</sup>	2.0510 <sup>3</sup>
	7.5	0.010	0.002	0.01	0.17	0.013	0.030	6.7		
AP-3	0.5	<0.007	0.001	0.01	0.32	0.007	0.022	1.8	3.0510 <sup>3</sup>	1.0510 <sup>3</sup>
AP-4	0.5	<0.007	0.002	0.01	0.42	0.026	0.037	4.7	6.0510 <sup>3</sup>	2.0510 <sup>3</sup>
	10	0.030	0.004	0.02	0.41	0.003	0.010	1.4		
AP-5	0.5	0.010	0.003	0.01	0.54	0.12	0.13	6.8	1.3510 <sup>3</sup>	1.1510 <sup>3</sup>
	10	0.040	0.007	0.02	0.37	0.017	0.030	1.3		
CL-1	0.5	<0.007	<0.002	0.01	0.77	0.067	0.20	90	6.1510 <sup>3</sup>	1.8510 <sup>3</sup>
CL-2	0.5	0.010	0.007	0.02	1.3	0.12	0.51	103	2.0510 <sup>3</sup>	ND
MA-1	0.3	0.010	0.004	0.03	1.2	0.03	0.19	120	ND	ND
MA-2	1.0	0.007	0.004	0.08	0.1	0.04	0.36	160	ND	ND
MA-3	0.5	0.007	0.015	0.04	1.1	0.04	0.35	140	ND	ND
SL1-1	0.5	<0.007	<0.002	0.02	0.19	<0.003	0.024	0.5	1.0510 <sup>3</sup>	ND
	8.1	<0.007	0.002	0.03	0.36	<0.003	0.034	2.6		
SL1-2	0.5	<0.007	<0.002	0.01	0.32	0.004	0.042	0.8		
SL2-1	0.5	<0.007	<0.002	0.01	0.32	0.007	0.033	0.5	ND	ND
	10	0.009	0.002	0.01	0.38	0.007	0.053	6.0		
SL2-2	0.5	<0.007	<0.002	0.01	0.18	<0.003	0.011	1.1	ND	ND
	10	<0.007	<0.002	0.01	0.22	0.005	0.029	0.8		
SL3-1	0.5	<0.007	0.001	0.01	0.29	0.004	0.025	0.8	ND	ND
	8.4	<0.007	<0.002	0.01	0.37	<0.003	0.037	6.1		
SL3-2	0.5	<0.007	<0.002	0.01	0.24	<0.003	0.027	1.3	ND	ND
SL4-1	0.5	<0.007	<0.002	0.02	0.24	<0.003	0.030	1.4	1.0510 <sup>3</sup>	ND
	8.6	<0.007	<0.002	0.01	0.33	<0.003	0.040	5.5		
SL4-2	0.5	<0.007	<0.002	0.01	0.29	0.009	0.023	2.5	1.0510 <sup>3</sup>	ND
	10	<0.007	<0.002	0.01	0.20	0.009	0.030	0.6		
SL5-1	0.5	<0.007	0.002	0.02	0.27	<0.003	0.050	3.2	1.0510 <sup>3</sup>	ND
	8.3	<0.007	<0.002	0.01	0.04	<0.003	0.055	7.3		
SL5-2	0.5	<0.007	<0.002	0.08	0.27	<0.003	0.041	3.0	3.0510 <sup>3</sup>	ND
SL6-1	0.5	<0.007	<0.002	0.03	0.35	<0.003	0.065	4.3	1.0510 <sup>3</sup>	ND
	10	<0.007	<0.002	0.04	0.15	<0.003	0.055	6.0		
SL6-2	0.5	<0.007	<0.002	0.01	0.34	<0.003	0.042	5.5	ND	ND
	10	<0.007	<0.002	0.02	0.22	<0.003	0.046	1.6		
SL7-1	0.5	0.030	0.003	0.13	0.13	0.008	0.085	6.5	3.8510 <sup>3</sup>	3.0510 <sup>3</sup>
	10	<0.007	<0.002	0.02	0.24	<0.003	0.056	1.5		
SL7-2	0.5	0.030	0.003	0.26	0.37	0.020	0.076	7.5	4.8510 <sup>3</sup>	4.1510 <sup>3</sup>
	10	<0.007	<0.002	0.02	0.21	<0.003	0.034	1.2		
SL7-3	0.5	<0.007	<0.002	0.15	0.57	0.007	0.080	9.0	3.2510 <sup>3</sup>	2.0510 <sup>3</sup>
	10	<0.007	<0.002	0.02	0.28	<0.003	0.081	0.7		
SL7-4	0.5	<0.007	0.002	0.09	0.43	0.005	0.070	8.5	3.6510 <sup>3</sup>	2.8510 <sup>3</sup>
SL8-1	0.5	0.010	0.003	0.08	0.22	0.006	0.092	17	2.0510 <sup>3</sup>	1.0510 <sup>3</sup>
	4.7	<0.007	<0.002	0.02	0.16	<0.003	0.026	4.0		
SL8-2	0.5	<0.007	0.003	0.13	0.15	0.004	0.024	13	1.1510 <sup>3</sup>	7.0510 <sup>2</sup>
PM-1	0.5	<0.007	<0.002	0.01	0.33	<0.003	0.028	4.6	5.0510 <sup>3</sup>	ND
	10	<0.007	<0.002	0.01	0.36	<0.003	0.007	8.5		
PM-2	0.5	<0.007	<0.002	0.01	0.39	<0.003	0.18	4.1	3.0510 <sup>3</sup>	3.0510 <sup>3</sup>
	10	<0.007	<0.002	0.01	0.18	<0.003	0.047	8.4		
PM-3	0.5	<0.007	0.003	0.14	0.53	0.022	0.024	21	2.6510 <sup>3</sup>	2.1510 <sup>3</sup>
	4.8	<0.007	0.012	0.02	0.24	<0.003	0.010	6.2		
PM-4	0.5	<0.007	0.003	0.04	0.58	0.013	0.081	20	2.0510 <sup>3</sup>	ND
	3.1	<0.007	0.002	0.08	0.36	0.011	0.065	17		

Note

Sampling Dates:

July 19, 1999 at SL6-1 to SL8-2, PM-1 to PM-4

July 20, 1999 at SL1-1 to SL5-2

July 21, 1999 at PR-1 to PR-5, PL-1 to PL-5, AP-1 to AP-5

July 22, 1999 at CL-1 to CL-2

**Table C.8 Result of Water Quality Analysis in Rainy Season [Toxic Parameters]**

Point No.	Sampling Depth (m)	Hexane Extract (mg/l)	Phenols (mg/l)	Cyanide (mg/l)	Cr (mg/l)	Cr <sup>6+</sup> (mg/l)	Cd (mg/l)	Pb (mg/l)	Cu (mg/l)	Zn (mg/l)	Ni (mg/l)	As (mg/l)	Hg (mg/l)
PR-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0014	0.0056	0.0017	0.0034	<0.02	<0.0003
PR-3	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0046	0.0058	0.0017	0.0050	<0.02	<0.0003
PR-5	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0049	0.0034	0.0021	0.0010	<0.02	<0.0003
PL-2	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0016	0.0043	0.0012	0.0002	<0.02	<0.0003
PL-4	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0006	0.0036	<0.0005	0.0003	<0.02	<0.0003
PL-5	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0003	0.0035	<0.0005	0.0003	<0.02	<0.0003
AP-2	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0004	0.0044	<0.0005	0.0001	<0.02	<0.0003
AP-5	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0004	0.0025	0.0018	0.0002	<0.02	<0.0003
CL-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0006	0.0002	0.0013	0.0011	<0.02	<0.0003
MA-2	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0003	<0.0002	<0.0005	0.0004	<0.02	<0.0003
SL1-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0005	0.0021	<0.0005	0.0008	<0.02	<0.0003
SL2-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0004	0.0031	0.0011	0.0002	<0.02	<0.0003
SL2-2	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0003	0.0031	0.0008	0.0003	<0.02	<0.0003
SL4-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0003	0.0006	0.0013	0.0010	<0.02	<0.0003
SL4-2	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0003	0.0003	0.0010	0.0004	<0.02	<0.0003
SL6-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0002	<0.0002	0.0009	0.0018	<0.02	<0.0003
SL6-2	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0004	<0.0002	0.0011	0.0007	<0.02	<0.0003
SL7-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0013	<0.0002	0.0016	0.0020	<0.02	<0.0003
SL7-3	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0005	<0.0002	0.0017	0.0016	<0.02	<0.0003
SL8-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0005	<0.0002	<0.0005	0.0007	<0.02	<0.0003
PM-1	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0003	<0.0002	<0.0005	0.0005	<0.02	<0.0003
PM-4	0.5	<0.5	<0.001	<0.01	<0.003	<0.003	<0.0005	0.0011	<0.0002	0.0020	0.0011	<0.02	<0.0003

Point No.	Sampling Depth (m)	Alkyl-Hg (mg/l)	Organo Phosphorous (mg/l)	Trichloroethylene (mg/l)	Tetrachloroethylene (mg/l)	Carbon Tetrachloride (mg/l)	PCB (mg/l)	HCB (mg/l)	Aldrin (mg/l)	Endrin (mg/l)	Dieldrin (mg/l)	DDT (mg/l)	Chlordane (mg/l)
PR-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-2	0.5	-	-	-	-	-	-	-	-	-	-	-	-
PR-3	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-4	0.5	-	-	-	-	-	-	-	-	-	-	-	-
PR-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-4	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.0008	ND	ND	ND
PL-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-4	0.5	-	-	-	-	-	-	-	-	-	-	-	-
AP-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CL-1	0.5	ND	ND	ND	ND	ND	ND	ND	0.002	ND	ND	ND	ND
MA-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL1-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL3-1	0.5	-	-	-	-	-	-	-	-	-	-	-	-
SL4-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL4-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-3	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL8-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-1	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-4	0.5	ND	ND	ND	ND	ND	ND	ND	0.001	ND	ND	ND	ND

Note

Sampling Dates:

July 19, 1999 at SL6-1, SL6-2, SL7-1, SL7-3, SL8-1, PM-1, PM-4

July 20, 1999 at SL1-1, SL2-1, SL2-2, SL3-1, SL4-1, SL4-2

July 21, 1999 at PR-1 to PR-5, PL-2, PL-4, PL-5, AP-2, AP-4, AP-5

July 22, 1999 at CL-1

ND means "Not Detected".

**Table C.9(1) Result of Sediment Analysis In Dry Season [Basic Parameters]**

Point No.	Condition of Sediment	Odor	Particle Size: 75-425 $\mu$ m (%)	Particle Size: Under 75 $\mu$ m (%)	Sediment Temperature	ORP (mV)	Ignition Loss (%)	COD (mg/g)
PR-1	Mud	No	9	91	23.1	-139	14	18
PR-3	Mud	No	13	87	23.1	-146	15	17
PR-5	Mud	No	10	90	23.0	-150	19	22
PL-2	Mud	No	11	87	23.6	-125	15	12
PL-4	Mud	No	5	94	23.8	-114	14	14
PL-5	Mud	No	4	95	23.8	-118	22	12
AP-2	Sand	No	86	13	26.5	-132	6.9	1.2
AP-5	Mud	No	28	65	26.5	-137	13	7.9
CL-1	Mud	No	77	22	-	-97	7.8	28
SL1-1	(uncollected)							
SL2-1	Sand	No	28	69	23.8	79	1.4	0.5
SL2-2	Sand	No	96	2	24.8	78	1.9	0.8
SL4-1	Sand	No	88	1	24.0	110	1.5	0.6
SL4-2	(uncollected)							
SL6-1	Sand	No	99	1	22.5	119	1.5	0.8
SL6-2	(uncollected)							
SL7-1	Muddy sand	No	-	-	24.0	-171	2.8	3.0
SL7-3	Mud	Sulfide smell	24	76	24.2	-218	11	15
SL8-1	Sand	No	100	0	24.4	169	2.2	0.5
PM-1	Sand	No	100	0	24.6	111	1.5	0.5
PM-4	Sand	No	100	0	24.3	147	1.6	<0.5

Note

Sampling Date

March 1, 1999 at PR-1, PR-3, PR-5, PL-2, PL-4, PL-5

March 2, 1999 at AP-2, AP-5, CL-1

March 8, 1999 at SL6-1, SL6-2, SL7-1, SL7-3, SL8-1, PM-1, PM-4

March 9, 1999 at SL1-1, SL2-1, SL2-2, SL4-1

**Table C.9(1) Result of Sediment Analysis In Rainy Season [Basic Parameters]**

Point No.	Condition of Sediment	Odor	Particle Size: 75-425 $\mu$ m (%)	Particle Size: Under 75 $\mu$ m (%)	Sediment Temperature	ORP (mV)	Ignition Loss (%)	COD (mg/g)	TOC (mg/g)
PR-1	Mud	No	1	99	27.0	-186	14	25	13
PR-3	Mud	No	17	82	30.0	-321	21	19	13
PR-5	Sand	No	92	8	29.0	-115	1.7	1.0	0.9
PL-2	Mud	No	9	91	28.0	-298	10	17	9.0
PL-4	Mud	No	11	85	29.0	-231	12	11	6.6
PL-5	Mud	No	6	94	28.5	-286	12	8.7	7.2
AP-2	Mud	Sulfide smell	9	91	23.0	-236	16	18	9.3
AP-5	Mud	No	28	67	24.0	-189	12	6.8	2.6
CL-1	Mud	No	39	57	28.7	-371	28	160	84
SL1-1	Sand	No	95	3	25.5	-5	1.6	0.7	1.3
SL2-1	Sand	No	94	5	25.0	-181	1.9	<0.5	1.3
SL2-2	Sand	No	93	2	26.5	-195	2.0	1.0	1.3
SL4-1	Sand	No	96	4	24.5	131	1.5	0.8	1.3
SL4-2	(uncollected)								
SL6-1	Sand	No	99	1	24.5	105	2.5	1.2	1.3
SL6-2	Sandy Mud	No	53	43	23.0	111	7.3	7.2	2.6
SL7-1	Mud	No	1	99	22.5	-189	15	20	13
SL7-3	Mud	Sulfide smell	20	79	24.0	-227	13	17	10
SL8-1	Sand	No	94	2	25.5	-111	2.4	0.6	1.0
PM-1	Sand	No	96	3	24.0	102	1.5	0.6	2.6
PM-4	Sand	No	91	5	27.0	111	1.7	0.5	2.6

Note

Sampling Date

July 19, 1999 at SL6-1, SL6-2, SL7-1, SL7-3, SL8-1, PM-1, PM-4

July 20, 1999 at SL1-1, SL2-1, SL2-2, SL4-1

July 21, 1999 at PR-1, PR-3, PR-5, PL-2, PL-4, PL-5, AP-2, AP-5

July 22, 1999 at CL-1

**Table C.10(1) Result of Sediment Analysis in Dry Season [Toxic Parameters]**

**Sediment - Content Test**

Point No.	Hexane Extract (mg/kg)	Cyanide (mg/kg)	Cr (mg/kg)	Cd (mg/kg)	Pb (mg/kg)	Cu (mg/kg)	Zn (mg/kg)	As (mg/kg)	Hg (mg/kg)	Alkyl-Hg (mg/kg)
PR-1	650	<0.12	30	<1	27	24	110	8.2	0.78	ND
PR-3	1400	<0.12	25	<1	34	26	150	9.0	1.0	ND
PR-5	1100	<0.12	25	<1	27	21	120	5.8	0.69	ND
PL-2	570	<0.12	26	<1	34	22	120	8.4	1.8	ND
PL-4	970	<0.12	25	<1	34	16	78	4.3	0.95	ND
PL-5	440	<0.12	25	<1	27	11	78	3.4	0.29	ND
CL-1	1100	<0.12	5.2	<1	<10	2.9	25	1.2	0.04	ND
AP-2	410	<0.12	14	<1	<10	2.7	17	3.7	<0.03	ND
AP-5	130	<0.12	25	<1	10	8.8	37	3.2	<0.03	ND
SL1-1	-	-	-	-	-	-	-	-	-	-
SL2-1	72	<0.12	2.9	<1	<10	<2.5	9.1	2.3	<0.03	ND
SL2-2	400	<0.12	5.5	<1	<10	<2.5	12	2.2	<0.03	ND
SL4-1	82	<0.12	8.4	<1	<10	<2.5	11	1.7	0.04	ND
SL4-2	-	-	-	-	-	-	-	-	-	-
SL6-1	140	<0.12	4.0	<1	<10	<2.5	11	2.3	0.03	ND
SL6-2	-	-	-	-	-	-	-	-	-	-
SL7-1	72	<0.12	6.0	<1	<10	4.1	30	4.3	0.10	ND
SL7-3	220	<0.12	11	<1	13	17	65	3.3	0.76	ND
SL8-1	240	<0.12	7.8	<1	<10	4.8	41	2.0	0.19	ND
PM-1	290	<0.12	<2.5	<1	<10	<2.5	10	2.3	<0.03	ND
PM-4	210	<0.12	<2.5	<1	<10	2.5	26	3.0	0.12	ND

**Sediment - Content Test**

Station	Organo Phosphorous (mg/kg)	Trichloro-ethylene (mg/kg)	Tetrachloro-ethylene (mg/kg)	Carbon Tetrachloride (mg/kg)	PCB (mg/kg)	HCB (mg/kg)	Aldrin (mg/kg)	Endrin (mg/kg)	Dieldrin (mg/kg)	DDT (mg/kg)	Chlordane (mg/kg)
PR-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CL-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL1-1	-	-	-	-	-	-	-	-	-	-	-
SL2-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL4-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL4-2	-	-	-	-	-	-	-	-	-	-	-
SL6-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-2	-	-	-	-	-	-	-	-	-	-	-
SL7-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL8-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Sediment - Elution Test**

Point No.	Hexane Extract (mg/kg)	Cyanide (mg/kg)	C <sup>2+</sup> (mg/kg)	Cd (mg/kg)	Pb (mg/kg)	Cu (mg/kg)	Zn (mg/kg)	As (mg/kg)	Hg (mg/kg)	Alkyl-Hg (mg/kg)	Organo Phosphorous (mg/kg)	PCB (mg/kg)
PR-1	<170	<0.2	<0.1	<0.1	<0.3	0.3	1.3	0.13	<0.04	ND	ND	ND
PR-3	<170	<0.2	<0.1	<0.1	<0.3	0.3	1.5	0.07	<0.04	ND	ND	ND
PR-5	<170	<0.2	<0.1	<0.1	1.0	0.7	5.7	0.27	<0.04	ND	ND	ND
PL-2	<170	<0.2	<0.1	<0.1	1.1	0.9	6.0	0.27	<0.04	ND	ND	ND
PL-4	<170	<0.2	<0.1	<0.1	<0.3	0.3	1.5	0.13	<0.04	ND	ND	ND
PL-5	<170	<0.2	<0.1	<0.1	1.7	0.6	5.7	0.01	<0.04	ND	ND	ND
CL-1	<170	<0.2	<0.1	<0.1	<0.3	0.2	1.5	0.03	<0.04	ND	ND	ND
AP-2	<170	<0.2	<0.1	<0.1	<0.3	0.3	1.4	0.13	<0.04	ND	ND	ND
AP-5	<170	<0.2	<0.1	<0.1	<0.3	0.2	1.3	0.03	<0.04	ND	ND	ND
SL1-1	-	-	-	-	-	-	-	-	-	-	-	-
SL2-1	<170	<0.2	<0.1	<0.1	<0.3	<0.2	<0.1	<0.03	<0.04	ND	ND	ND
SL2-2	<170	<0.2	<0.1	<0.1	<0.3	<0.2	0.1	<0.03	<0.04	ND	ND	ND
SL4-1	<170	<0.2	<0.1	<0.1	<0.3	<0.2	<0.1	<0.03	<0.04	ND	ND	ND
SL4-2	-	-	-	-	-	-	-	-	-	-	-	-
SL6-1	<170	<0.2	<0.1	<0.1	<0.3	<0.2	0.1	<0.03	<0.04	ND	ND	ND
SL6-2	-	-	-	-	-	-	-	-	-	-	-	-
SL7-1	<170	<0.2	<0.1	<0.1	<0.3	0.2	<0.1	0.03	<0.04	ND	ND	ND
SL7-3	<170	<0.2	<0.1	<0.1	<0.3	<0.2	0.1	0.03	<0.04	ND	ND	ND
SL8-1	<170	<0.2	<0.1	<0.1	<0.3	<0.2	<0.1	0.03	<0.04	ND	ND	ND
PM-1	<170	<0.2	<0.1	<0.1	<0.3	<0.2	0.2	0.07	<0.04	ND	ND	ND
PM-4	<170	<0.2	<0.1	<0.1	<0.3	<0.2	0.03	<0.04	ND	ND	ND	ND

Note

Sampling date

March 1, 1999 at PR-1, PR-3, PR-5, PL-2, PL-4, PL-5

March 2, 1999 at AP-2, AP-5, CL-1

March 8, 1999 at SL6-1, SL6-2, SL7-1, SL7-3, SL8-1, PM-1, PM-4

March 9, 1999 at SL1-1, SL2-1, SL2-2, SL4-1

ND means "Not Detected".

**Table C.10(2) Result of Sediment Analysis in Dry Season [Toxic Parameters]**

**Sediment - Content Test**

Point No.	Hexane Extract (mg/kg)	Cyanide (mg/kg)	Cr (mg/kg)	Cd (mg/kg)	Pb (mg/kg)	Cu (mg/kg)	Zn (mg/kg)	As (mg/kg)	Hg (mg/kg)	Alkyl-Hg (mg/kg)
PR-1	20	<0.1	58	0.57	5.1	8.9	89	21	0.82	<0.005
PR-3	23	<0.1	41	0.94	6.2	34	18	8	0.77	<0.005
PR-5	33	<0.1	15	0.07	1.6	1.7	21	6	0.14	<0.005
PL-2	16	<0.1	52	0.45	5.7	4.0	88	18	1.2	<0.005
PL-4	18	<0.1	40	1.1	4.0	18	62	17	0.74	<0.005
PL-5	6.2	<0.1	56	0.13	4.6	1.7	64	12	0.71	<0.005
AP-2	91	<0.1	57	0.27	6.4	15	67	26	0.17	<0.005
AP-5	9.3	<0.1	28	0.38	1.0	7.6	37	8	0.05	<0.005
CL-1	220	<0.1	28	0.53	3.0	24	93	14	1.0	<0.005
SL1-1	3.0	<0.1	5.1	0.01	0.68	0.4	9.5	6	0.09	<0.005
SL2-1	14	<0.1	5.9	0.02	1.1	6.5	12		0.06	<0.005
SL2-2	7.3	<0.1	7.2	0.01	0.81	3.8	13	6	<0.05	<0.005
SL4-1	5.9	<0.1	5.6	0.02	0.57	2.3	10	9	<0.05	<0.005
SL6-1	2.3	<0.1	6.1	0.01	0.39	1.9	12		<0.05	<0.005
SL6-2	14	<0.1	27	0.08	5.2	8.4	49	8	0.14	<0.005
SL7-1	15	<0.1	33	0.98	4.8	21	87	18	0.61	<0.005
SL7-3	3.7	<0.1	32	0.18	4.1	39	81	7	0.60	<0.005
SL8-1	120	<0.1	8.6	0.33	1.4	9.6	19	6	0.35	<0.005
PM-1	7.8	<0.1	2.6	0.05	0.73	0.2	6	11	0.13	<0.005
PM-4	70	<0.1	5.4	0.37	0.69	6.3	18	6	<0.05	<0.005

**Sediment - Content Test**

Point No.	Organo Phosphorous (mg/kg)	Trichloro-ethylene (mg/kg)	Tetrachloro-ethylene (mg/kg)	Carbon Tetrachloride (mg/kg)	PCB (mg/kg)	HCB (mg/kg)	Aldrin (mg/kg)	Endrin (mg/kg)	Dieldrin (mg/kg)	DDT (mg/kg)	Chlordane (mg/kg)
PR-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PR-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PL-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CL-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL1-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL2-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL4-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL4-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL6-2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL7-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SL8-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Sediment - Elution Test**

Point No.	Hexane Extract (mg/kg)	Cyanide (mg/kg)	Cr <sup>6+</sup> (mg/kg)	Cd (mg/kg)	Pb (mg/kg)	Cu (mg/kg)	Zn (mg/kg)	As (mg/kg)	Hg (mg/kg)	Alkyl-Hg (mg/kg)	Organo Phosphorous (mg/kg)	PCB (mg/kg)
PR-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	ND	ND	ND
PR-3	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
PR-5	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
PL-2	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
PL-4	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
PL-5	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
CL-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
AP-2	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
AP-5	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL1-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL2-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL2-2	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL4-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL4-2	-	-	-	-	-	-	-	-	-	-	-	-
SL6-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL6-2	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL7-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL7-3	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
SL8-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
PM-1	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND
PM-4	<170	<0.1	<0.1	<0.02	<0.03	<0.17	<0.03	<1	<0.03	<0.03	ND	ND

Note

Sampling date

July 19, 1999 at SL8-1, SL6-2, SL7-1, SL7-3, SL8-1, PM-1, PM-4

July 20, 1999 at SL1-1, SL2-1, SL2-2, SL4-1

July 21, 1999 at PR-1, PR-3, PR-5, PL-2, PL-4, PL-5, AP-2, AP-5

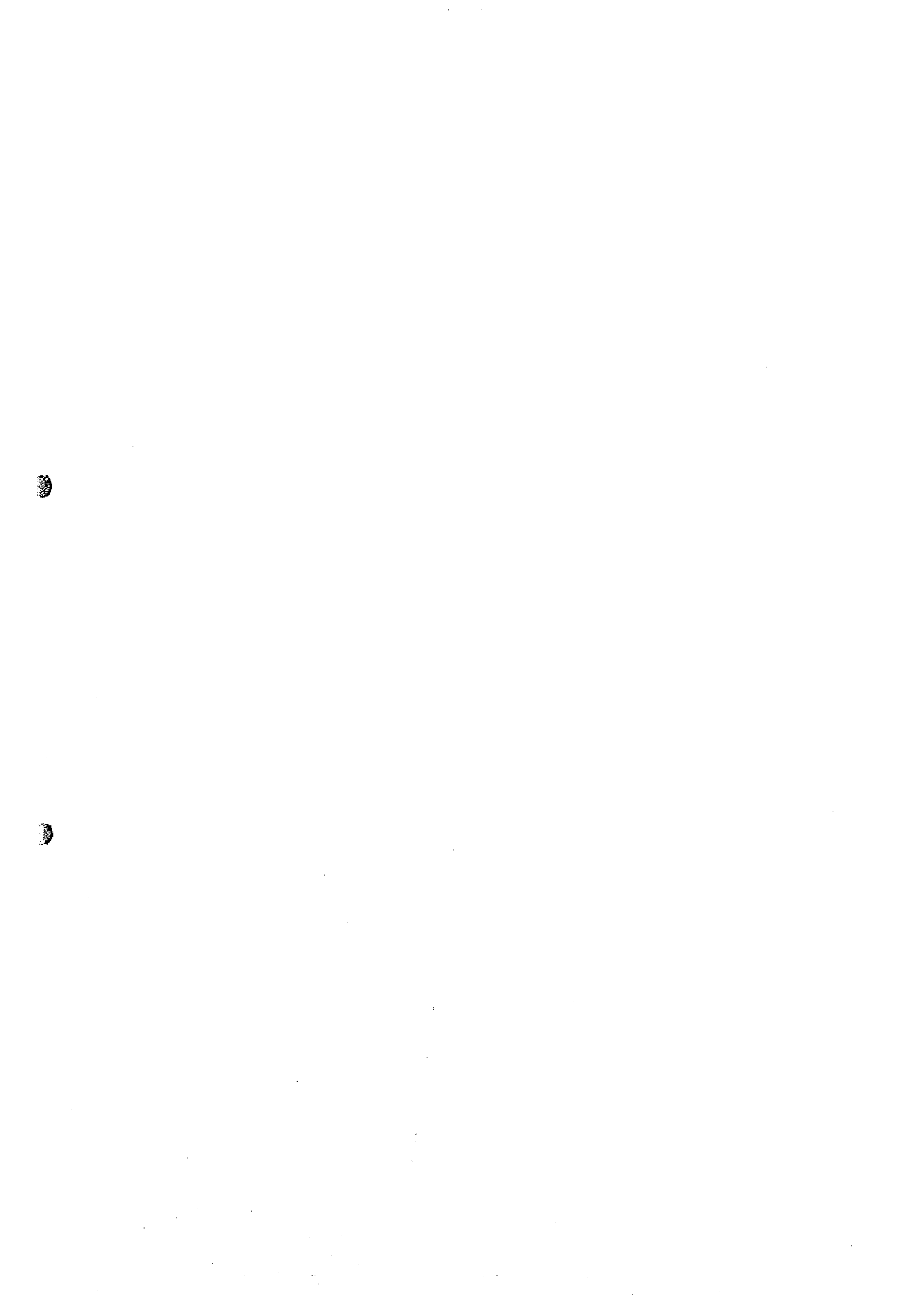
July 22, 1999 at CL-1

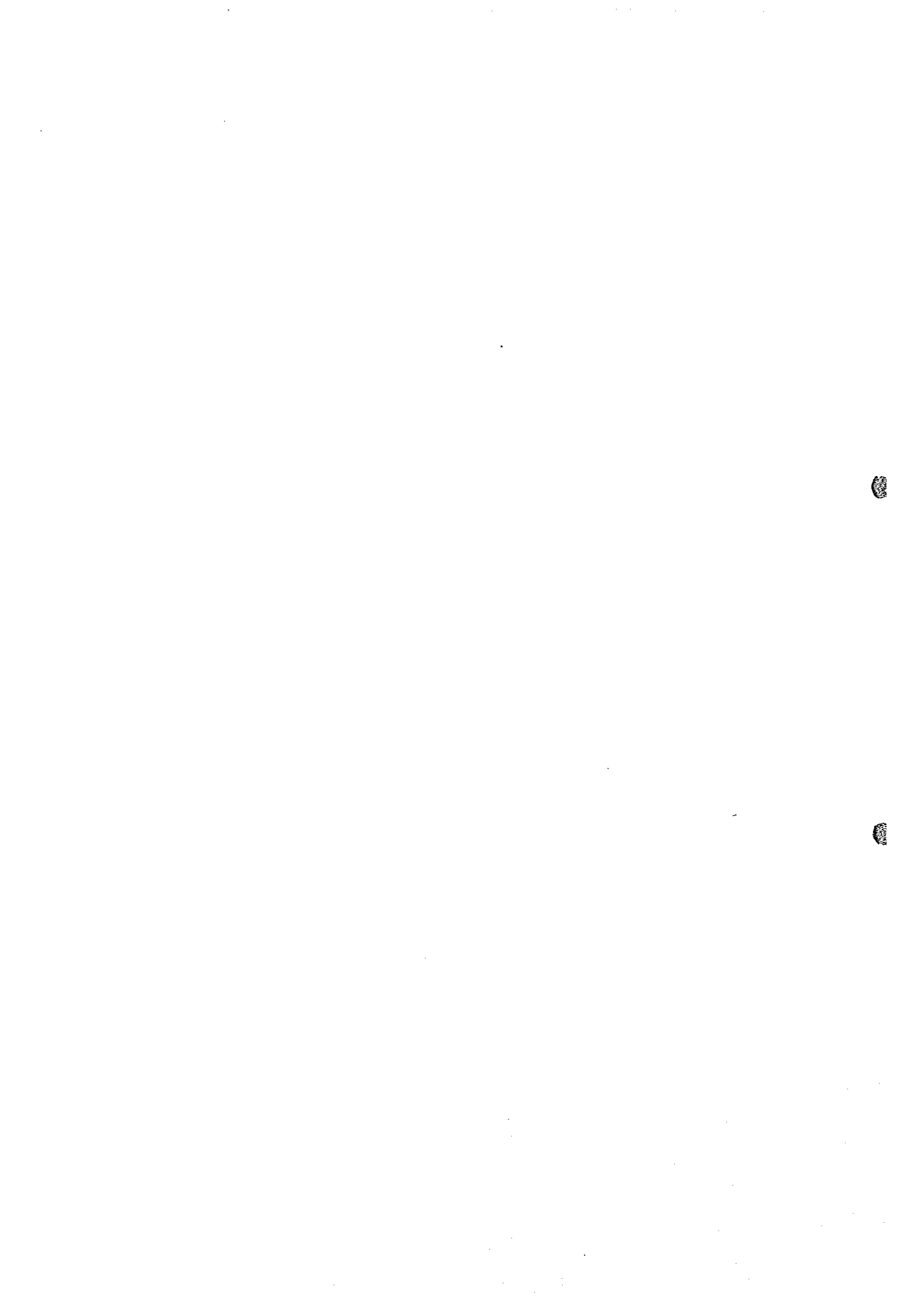
ND means "Not Detected".



Table C.11 Result of Biological Accumulation Test

No.	Sample Site	Species	Cd (mg/kg)	Pb (mg/kg)	Cu (mg/kg)	Zn (mg/kg)	Hg (mg/kg)	PCB (mg/kg)	HCB (mg/kg)	Aldrin (mg/kg)	Endrin (mg/kg)	Dieldrin (mg/kg)	DDT (mg/kg)
1	Coast South	RONCO	<0.2	<1.0	0.30	5.5	0.46	ND	ND	ND	ND	ND	ND
2	Coast South	TRUCHA	<0.2	<1.0	<0.25	6.3	0.43	ND	ND	ND	ND	ND	ND
3	Coast South	GURRUBATA	<0.2	<1.0	<0.25	9.2	0.66	ND	ND	ND	ND	ND	ND
4	Coast South	RONCO	<0.2	<1.0	0.37	3.5	0.97	ND	ND	ND	ND	ND	ND
5	Coast South	HUACHINANG	<0.2	<1.0	<0.25	2.0	<0.25	ND	ND	ND	ND	ND	ND
6	Pueblo Viejo Lagoon 1	LEBRANCHA	<0.2	<1.0	0.35	2.9	<0.25	ND	ND	ND	ND	ND	ND
7	Pueblo Viejo Lagoon 1	GURRUBATA	<0.2	<1.0	<0.25	8.0	1.7	ND	ND	ND	ND	ND	ND
8	Pueblo Viejo Lagoon 3	LEBRANCHA	<0.2	<1.0	0.38	11	<0.25	ND	ND	ND	ND	ND	ND
9	Pueblo Viejo Lagoon 4	LEBRANCHA	<0.2	<1.0	0.51	17	<0.25	ND	ND	ND	ND	ND	ND
10	Pueblo Viejo Lagoon 1	LEBRANCHA	<0.2	<1.0	0.38	2.0	<0.25	ND	ND	ND	ND	ND	ND
11	Pueblo Viejo Lagoon 1	LEBRANCHA	<0.2	<1.0	0.68	62	<0.25	ND	ND	ND	ND	ND	ND
12	Pueblo Viejo Lagoon 3	LEBRANCHA	<0.2	<1.0	0.56	5.2	<0.25	ND	ND	ND	ND	ND	ND
1	Pueblo Viejo Lagoon 4	LEBRANCHA	<0.2	<1.0	0.49	2.9	<0.25	ND	ND	ND	ND	ND	ND
2	Pueblo Viejo Lagoon 1	OYSTER	0.4	<1.0	9.8	55	<0.25	ND	ND	ND	ND	ND	ND
3	Pueblo Viejo Lagoon 2	OYSTER	<0.2	<1.0	3.2	17	0.26	ND	ND	ND	ND	ND	ND
4	Pueblo Viejo Lagoon 3	OYSTER	0.4	<1.0	23	140	<0.25	ND	ND	ND	ND	ND	ND
5	Pueblo Viejo Lagoon 4	OYSTER	0.2	<1.0	7.8	79	<0.25	ND	ND	ND	ND	ND	ND
6	Pueblo Viejo Lagoon 5	OYSTER	<0.2	<1.0	5.3	58	<0.25	ND	ND	ND	ND	ND	ND
7	Conejo Lagoon 1	TILAPIA	<0.2	<1.0	<0.25	4.6	<0.25	ND	ND	ND	ND	ND	ND
8	Conejo Lagoon 2	TILAPIA	<0.2	<1.0	<0.25	1.3	<0.25	ND	ND	ND	ND	ND	ND
9	Conejo Lagoon 3	TILAPIA	<0.2	<1.0	<0.25	3.6	<0.25	ND	ND	ND	ND	ND	ND
10	Conejo Lagoon 1	TILAPIA	<0.2	<1.0	<0.25	100	<0.25	ND	ND	ND	ND	ND	ND
11	Conejo Lagoon 2	TILAPIA	<0.2	<1.0	<0.25	1.3	<0.25	ND	ND	ND	ND	ND	ND
12	Conejo Lagoon 3	TILAPIA	<0.2	<1.0	<0.25	1.9	<0.25	ND	ND	ND	ND	ND	ND
1	Conejo Lagoon 2	BAGRE	<0.2	<1.0	<0.25	4.8	<0.25	ND	ND	ND	ND	ND	ND
2	Conejo Lagoon 3	BAGRE	<0.2	<1.0	<0.25	1.7	<0.25	ND	ND	ND	ND	ND	ND
3	Panuco River 1	LEBRANCHA	<0.2	<1.0	<0.25	0.90	<0.25	ND	ND	ND	ND	ND	ND
4	Panuco River 1	LEBRANCHA	<0.2	<1.0	<0.25	1.0	<0.25	ND	ND	ND	ND	ND	ND
5	Panuco River 1	LEBRANCHA	<0.2	<1.0	<0.25	0.56	<0.25	ND	ND	ND	ND	ND	ND
6	Panuco River 1	LEBRANCHA	<0.2	<1.0	<0.25	3.5	<0.25	ND	ND	ND	ND	ND	ND
7	Panuco River 2	LEBRANCHA	<0.2	<1.0	0.33	1.9	<0.25	ND	ND	ND	ND	ND	ND
8	Panuco River	GURRUBATA	<0.2	<1.0	<0.25	3.5	<0.25	ND	ND	ND	ND	ND	ND
9	Panuco River 3	GURRUBATA	<0.2	<1.0	<0.25	3.1	0.29	ND	ND	ND	ND	ND	ND
10	Panuco River 3	GURRUBATA	<0.2	<1.0	<0.25	5.2	0.90	ND	ND	ND	ND	ND	ND
11	Panuco River 3	GURRUBATA	<0.2	<1.0	<0.25	3.5	0.33	ND	ND	ND	ND	ND	ND
12	Panuco River 3	GURRUBATA	<0.2	<1.0	<0.25	100	0.39	ND	ND	ND	ND	ND	ND







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