Table E2-1. Summary of laboratories and methods used to generate the surface-water, pore-water and whole-sediment chemistry data for the Calcasieu Estuary Remedial Investigation (RI).

Sample Matrix	Phase	Laboratory	Analyte Group	Analytical Method
Surface Water	**Phase I**	Contract Laboratory Program	Metals	CLP-METALS; SW7470A
			PAHs	CLP-SVOC
			PCBs	CLP-PPCB
			Pesticides	CLP-PPCB
			Semivolatiles	CLP-SVOC; CLP-VOC
			Volatiles	CLP-VOC
		Olin	Conventionals	E130.2; E160.1; E160.2; E300; E310.1; E350.3; E351.3; E405.1; E410.4; SW9060
			Diesel Range Organics	SW8015B
			Herbicides	SW8151A
			Metals	E6020; SW6010B; SW7470A
			PAHs	SW8260B; SW8270C
			PCBs	SW8082
			Pesticides	SW8081A
			Semivolatiles	SW8260B; SW8270C
			Volatiles	SW8260B
		Quanterra - Severn Trent	Conventionals	E130.2; E160.1; E160.2; E310.1; E350.1; E351.2; E353.2; E405.1; E410.4; EPA300.0A; SW9060
			Dioxins/Furans	SW8290
			Herbicides	SW8151A
			Metals	SW6010B; SW6020; SW7470A; SW9012
Pore Water	**Phase II**	AATS	PAHs	8270C-SIM, SW8270C
			PCB - Aroclors	SW8081A; SW8082
			Pesticides	SW8081A
			Semivolatiles	8270C-SIM; SW8270C
		CERC	Conventionals	E130.2; E310.1; E350.2; SW9045C
			Metals	Total Recoverable Metals

Table E2-1. Summary of laboratories and methods used to generate the surface-water, pore-water and whole-sediment chemistry data for the Calcasieu Estuary Remedial Investigation (RI).

Sample Matrix	Phase	Laboratory	Analyte Group	Analytical Method
Pore Water Phase II (cont.)		GERG - Texas A&M	PAHs	GCMS
			PCB Congeners	GCECD
			Pesticides	GCECD
			Semivolatiles	GCECD
		MERC	Conventionals	EPA 0015; EPA 9060
Whole Sediment	**Phase I**	Contract Laboratory Program	Conventionals	CLP-%MoistSVOC
			Metals	CLP-Metals
			PAHs	CLP-SVOC
			PCBs	CLP-PPCB
			Pesticides	CLP-PPCB
			Semivolatiles	CLP-SVOC; CLP-VOC
			Volatiles	CLP-VOC
		Olin	Conventionals	ASD 2216-90; SW9045C; SW9060
			Diesel Range Organics	SW8015B
			Herbicides	SW8151A
			Metals	E6020; SW6010B; SW7471A
			PAHs	SW8260B; SW8270C
			PCBs	SW8082
			Pesticides	SW8081A
			Semivolatiles	SW8260B; SW8270C
			Volatiles	SW8260B
		Quanterra - Severn Trent	Conventionals	ASTM D 2216-9; SW9045C; SW9060; SW9081
			Diesel Range Organics	SW8015B; VPH
			Dioxins/Furans	SW8290
			Herbicides	SW8151A

Table E2-1. Summary of laboratories and methods used to generate the surface-water, pore-water and whole-sediment chemistry data for the Calcasieu Estuary Remedial Investigation (RI).

Sample Matrix	Phase	Laboratory	Analyte Group	Analytical Method
Whole Sediment Phase I (cont.)			Metals	SW6020
			PAHs	HOU-SVOC; SW8270C
			Semivolatiles	HOU-SVOC; SW8270C
Whole Sediment	**Phase II**	AATS	Metals	SW6010B; SW7471A
			PAHs	SW8270C
			PCBs	SW8082
			Pesticides	SW8081A
			Semivolatiles	SW8270C
		ALTA	Dioxins/Furans	SW8290
			PCBs	SW1668
		CERC	AVS/SEM	AVS/SEM
			Conventionals	EPA 9060
			Metals	ICP-MS
		EPA Region 6	Metals	200.7; 200.9; SW7471A
			PAHs	SW8270C
			PCBs	SW8082
			Pesticides	SW8081A
			Semivolatiles	SW8270C
		Texas A&M	Mercury; Methyl mercury	SW7470A; SW7471B; USGS 005

PAHs = polycyclic aromatic hydrocarbons; PCBs = polychlorinated biphenyls; AVS = acid volatile sulfides; SEM = simultaneously extracted metals; PCDDs = polychlorinated dibenzo-*p* -dioxins; PCDFs = polychlorinated dibenzofurans; GERG = Geochemical and Environmental Research Group; CERC = Columbia Environmental Research Center; EPA = Environmental Protection Agency; AATS = American Analytical and Technical Services Inc.; MERC = Marine Environmental Research Center; ALTA = ALTA Laboratories.

Table E2-2. Summary of the candidate sediment quality guidelines for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Candidate Sediment Quality Guidelines											
	T_{20}[1]	T_{50}[2]	ERL[3]	ERM[4]	TEC[5]	PEC[6]	TEL[7]	PEL[8]	TTC-HA[9]	Benthic - AET[10]	Amphipod - AET[10]	Oyster - AET[10]
Metals (mg/kg DW)												
Chromium	49	141	81	370	43.4	111	52.3	160	NG	NG	NG	NG
Copper	32	94	34	270	31.6	149	18.7	108	NG	310	810	390
Lead	30	94	46.7	218	35.8	128	30.2	112	NG	300	660	660
Mercury	0.14	0.48	0.15	0.71	0.18	1.06	0.13	0.7	4.1	0.88	2.1	0.59
Methyl mercury	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Nickel	15	47	20.9	51.6	22.7	48.6	15.9	42.8	NG	49	>120[11]	39
Zinc	94	245	150	410	121	459	124	271	NG	260	870	1600
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)												
1,1'-Biphenyl	17	73	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1-Methylnaphthalene	21	94	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1-Methylphenanthrene	18	112	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
2,6-Dimethylnaphthalene	25	133	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
2-Methylnaphthalene	21	128	70	670	NG	NG	20.2	201	NG	670	670	670
Acenaphthene	19	116	16	500	NG	NG	6.71	88.9	NG	500	630	500
Acenaphthylene	14	140	44	640	NG	NG	5.87	128	NG	640	560	>560
Anthracene	34	290	85.3	1100	57.2	845	46.9	245	NG	1300	1900	960
Fluorene	19	114	19	540	77.4	536	21.2	144	NG	640	540	540
Naphthalene	30	217	160	2100	176	561	34.6	391	NG	2100	2100	2100
Phenanthrene	68	455	240	1500	204	1170	86.7	544	NG	3200	5400	1500
Total LMW-PAHs	NG	NG	552	3160	NG	NG	312	1442	NG	6100	5200	5200
Benz(a)anthracene	61	466	261	1600	108	1050	74.8	693	NG	4500	1600	1600
Benzo(a)pyrene	69	520	430	1600	150	1450	88.8	763	NG	6800	2400	1600
Benzo(b)fluoranthene	130	1107	NG	NG	NG	NG	NG	NG	NG	8000[12]	3700[12]	3600[12]

Table E2-2. Summary of the candidate sediment quality guidelines for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Candidate Sediment Quality Guidelines											
	T_{20}[1]	T_{50}[2]	ERL[3]	ERM[4]	TEC[5]	PEC[6]	TEL[7]	PEL[8]	TTC-HA[9]	Benthic - AET[10]	Amphipod - AET[10]	Oyster - AET[10]
PAHs (µg/kg DW; cont.)												
Benzo(g,h,i)perylene	67	497	NG	NG	NG	NG	NG	NG	NG	5400	740	720
Benzo(k)fluoranthene	70	537	NG	NG	NG	NG	NG	NG	NG	8000[12]	3700[12]	3600[12]
Benzofluoranthenes	NG	NG	NG	NG	NG	NG	NG	NG	NG	8000	3700	3600
Chrysene	82	650	384	2800	166	1290	108	846	NG	6700	2800	2800
Dibenz(a,h)anthracene	19	113	63.4	260	33.0	NG	6.22	135	NG	1200	260	230
Fluoranthene	119	1034	600	5100	423	2230	113	1494	NG	6300	3900	2500
Indeno(1,2,3-cd)pyrene	68	488	NG	NG	NG	NG	NG	NG	NG	>5200	690	690
Perylene	74	453	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Pyrene	125	932	665	2600	195	1520	153	1398	NG	>7300	4300	3300
Total HMW-PAHs	NG	NG	1700	9600	NG	NG	655	6676	NG	>51000	18000	17000
Total PAHs	NG	NG	4022	44792	1610	22800	1684	16770	NG	57100[13]	23200[13]	22200[13]
PCBs (µg/kg DW)												
Aroclor-1016	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Aroclor-1221	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Aroclor-1232	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Aroclor-1242	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Aroclor-1248	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Aroclor-1254	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Aroclor-1260	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total PCBs	32	468	22.7	180	59.8	676	21.6	189	NG	1100	2500	1100
Organochlorine Pesticides (µg/kg DW)												
Aldrin	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Dieldrin	0.83	2.9	0.02	8	1.90	61.8	0.72	4.3	NG	NG	NG	NG

Table E2-2. Summary of the candidate sediment quality guidelines for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Candidate Sediment Quality Guidelines											
	T_{20}[1]	T_{50}[2]	ERL[3]	ERM[4]	TEC[5]	PEC[6]	TEL[7]	PEL[8]	TTC-HA[9]	Benthic - AET[10]	Amphipod - AET[10]	Oyster - AET[10]
Phthalates (µg/kg DW)												
Bis(2-ethylhexyl)phthalate	NG	NG	NG	NG	NG	NG	182	2647	NG	1900	>3100	1900
Benzylbutylphthalate	NG	NG	NG	NG	NG	NG	NG	NG	NG	470	>470	>470
Diethylphthalate	NG	NG	NG	NG	NG	NG	NG	NG	NG	97	>73	>73
Dimethylphthalate	NG	NG	NG	NG	NG	NG	NG	NG	NG	160	160	160
Di-n-butylphthalate	NG	NG	NG	NG	NG	NG	NG	NG	NG	>5100	>5100	1400
Di-n-octylphthalate	NG	NG	NG	NG	NG	NG	NG	NG	NG	>69000	>590	>420
Chlorinated Benzenes (µg/kg DW)												
Hexachloro-1,3-butadiene	NG	NG	NG	NG	NG	NG	NG	NG	650	270	290	270
Hexachlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	61000	230	130	230
1,2,3,4-Tetrachlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3-Trichlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,4,5-Tetrachlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,4-Trichlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	64	51	64
1,2-Dichlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	50	>350	50
1,3-Dichlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	>170	>170	>170
1,4-Dichlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	120	260	120
Pentachlorobenzene	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Chlorinated Ethanes (µg/kg DW)												
1,1,1-Trichloroethane	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2-Dichloroethane	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
PCDDs and PCDFs (ng/kg DW)												
1,2,3,4,6,7,8-HpCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,4,7,8-HxCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG

Table E2-2. Summary of the candidate sediment quality guidelines for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Candidate Sediment Quality Guidelines											
	T_{20}[1]	T_{50}[2]	ERL[3]	ERM[4]	TEC[5]	PEC[6]	TEL[7]	PEL[8]	TTC-HA[9]	Benthic - AET[10]	Amphipod - AET[10]	Oyster - AET[10]
PCDDs and PCDFs (ng/kg DW; cont.)												
1,2,3,6,7,8-HxCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,7,8,9-HxCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,7,8-PeCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
2,3,7,8-TCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
OCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total TCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total HpCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total HxCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total PeCDD	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,4,6,7,8-HpCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,4,7,8,9-HpCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,4,7,8-HxCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,6,7,8-HxCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,7,8,9-HxCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
1,2,3,7,8-PeCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
2,3,4,6,7,8-HxCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
2,3,4,7,8-PeCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
2,3,7,8-TCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
OCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total TCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total HpCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total HxCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Total PeCDF	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Toxic Equivalency Quotient (TEQ)	NG	NG	NG	NG	NG	NG	0.85[14]	21.5[15]	NG	NG	NG	NG

Table E2-2. Summary of the candidate sediment quality guidelines for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Candidate Sediment Quality Guidelines											
	T_{20} [1]	T_{50} [2]	ERL [3]	ERM [4]	TEC [5]	PEC [6]	TEL [7]	PEL [8]	TTC-HA [9]	Benthic - AET [10]	Amphipod - AET [10]	Oyster - AET [10]
Other COPCs (µg/kg DW)												
Acetone (µg/kg DW)	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
Carbon disulfide (µg/kg DW)	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG

NG = no guideline available; DW = dry weight; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans.

[1]Logistic model point estimate of T_{20} concentrations (concentration at which 20% of samples are predicted to be toxic; Field *et al.* 2002).

[2]Logistic model point estimate of T_{50} concentrations (concentration at which 50% of samples are predicted to be toxic; Field *et al.* 2002).

[3]Effects range low (Long and Morgan 1990; Long *et al.* 1995).

[4]Effects range median (Long and Morgan 1990; Long *et al*. 1995).

[5]Consensus-based threshold effect concentration (MacDonald *et al.* 2000b).

[6]Consensus-based probable effect concentration (MacDonald *et al.* 2000b).

[7]Threshold effect level (MacDonald *et al.* 1996).

[8]Probable effect level (MacDonald *et al.* 1996).

[9]Toxicity threshold concentration for *Hyalella azteca* or *Leptocheirus plumulosus*; mg/kg 1% organic carbon (McLaren/Hart Environmental Engineering 1997a; 1997b).

[10]Apparent effect threshold (Barrick *et al*. 1988).

[11]"<" indicates that a defined AET could not be established because there were no "effects" stations with chemical concentrations above the highest concentration among "no effects" stations.

[12]AET for benzofluoranthenes was adopted as the AET for both benzo(b)fluoranthene and benzo(k)fluoranthene (Barrick *et al*. 1988).

[13]Calculated as the sum of the AETs for LMW-PAHs and HMW-PAHs.

[14]Interim marine sediment quality guideline (CCME 1999, updated 2001).

[15]Probable effects level (CCME 1999, updated 2001).

Table E2-3. Selected toxicity thresholds for whole sediment for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks	Type	Source
Metals (mg/kg DW)			
Chromium	141	T_{50}	Field *et al.* 2002
Copper	94	T_{50}	Field *et al.* 2002
Lead	94	T_{50}	Field *et al.* 2002
Mercury	0.48	T_{50}	Field *et al.* 2002
Methyl mercury	NG		
Nickel	47	T_{50}	Field *et al.* 2002
Zinc	245	T_{50}	Field *et al.* 2002
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)			
1,1'-Biphenyl	73	T_{50}	Field *et al.* 2002
1-Methylnaphthalene	94	T_{50}	Field *et al.* 2002
1-Methylphenanthrene	112	T_{50}	Field *et al.* 2002
2,6-Dimethylnaphthalene	133	T_{50}	Field *et al.* 2002
2-Methylnaphthalene	128	T_{50}	Field *et al.* 2002
Acenaphthene	116	T_{50}	Field *et al.* 2002
Acenaphthylene	140	T_{50}	Field *et al.* 2002
Anthracene	290	T_{50}	Field *et al.* 2002
Fluorene	114	T_{50}	Field *et al.* 2002
Naphthalene	217	T_{50}	Field *et al.* 2002
Phenanthrene	455	T_{50}	Field *et al.* 2002
Total LMW-PAHs	3160	ERM	Long and Morgan 1990; Long *et al.* 1995
Benz(a)anthracene	466	T_{50}	Field *et al.* 2002
Benzo(a)pyrene	520	T_{50}	Field *et al.* 2002
Benzo(b)fluoranthene	1107	T_{50}	Field *et al.* 2002
Benzo(g,h,i)perylene	497	T_{50}	Field *et al.* 2002
Benzo(k)fluoranthene	537	T_{50}	Field *et al.* 2002
Benzofluoranthenes	3600	AET - Oysters	Barrick *et al.* 1988
Chrysene	650	T_{50}	Field *et al.* 2002
Dibenz(a,h)anthracene	113	T_{50}	Field *et al.* 2002
Fluoranthene	1034	T_{50}	Field *et al.* 2002
Indeno(1,2,3-cd)pyrene	488	T_{50}	Field *et al.* 2002
Perylene	453	T_{50}	Field *et al.* 2002
Pyrene	932	T_{50}	Field *et al.* 2002
Total HMW-PAHs	9600	ERM	Long and Morgan 1990; Long *et al.* 1995
Total PAHs	44792	ERM	Long and Morgan 1990; Long *et al.* 1995

Table E2-3. Selected toxicity thresholds for whole sediment for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks	Type	Source
PCB Aroclors (µg/kg DW)			
Aroclor-1016	NG		
Aroclor-1221	NG		
Aroclor-1232	NG		
Aroclor-1242	NG		
Aroclor-1248	NG		
Aroclor-1254	NG		
Aroclor-1260	NG		
Total PCBs	468	T_{50}	Field *et al.* 2002
Organochlorine Pesticides (µg/kg DW)			
Aldrin	0.44	AET - Benthos	Barrick *et al.* 1988
Dieldrin	2.9	T_{50}	Field *et al.* 2002
Phthalates (µg/kg DW)			
Bis(2-ethylhexyl)phthalate	2647	PEL	MacDonald *et al.* 1996
Benzylbutylphthalate	900	AET - Benthos	Barrick *et al.* 1988
Diethylphthalate	200	AET - Benthos	Barrick *et al.* 1988
Dimethylphthalate	160	AET - Oysters	Barrick *et al.* 1988
Di-n-butylphthalate	1400	AET - Oysters	Barrick *et al.* 1988
Di-n-octylphthalate	6200	AET - Benthos	Barrick *et al.* 1988
Chlorinated Benzenes (µg/kg DW)			
Hexachloro-1,3-butadiene	11	AET - Benthos	Barrick *et al.* 1988
Hexachlorobenzene	22	AET - Benthos	Barrick *et al.* 1988
1,2,3,4-Tetrachlorobenzene	NG		
1,2,3-Trichlorobenzene	NG		
1,2,4,5-Tetrachlorobenzene	NG		
1,2,4-Trichlorobenzene	51	AET - Amphipods	Barrick *et al.* 1988
1,2-Dichlorobenzene	50	AET - Benthos	Barrick *et al.* 1988
1,3-Dichlorobenzene	>170[1]	AET - Benthos	Barrick *et al.* 1988
1,4-Dichlorobenzene	110	AET - Benthos	Barrick *et al.* 1988
Pentachlorobenzene	NG		
Chlorinated Ethanes (µg/kg DW)			
1,1,1-Trichloroethane	170	SQAL	USEPA 1997b
1,2-Dichloroethane	NG		
PCDDs and PCDFs (ng/kg DW)			
OCDD	NG		
Total TCDD	NG		

Table E2-3. Selected toxicity thresholds for whole sediment for evaluating the effects of chemicals of potential concern on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks	Type	Source
PCDDs and PCDFs (ng/kg DW; cont.)			
Total PeCDD	NG		
Total HxCDD	NG		
Total HpCDD	NG		
1,2,3,4,6,7,8-HpCDD	NG		
1,2,3,4,7,8-HxCDD	NG		
1,2,3,6,7,8-HxCDD	NG		
1,2,3,7,8-PeCDD	NG		
1,2,3,7,8,9-HxCDD	NG		
2,3,7,8-TCDD	NG		
OCDF	NG		
Total TCDF	NG		
Total PeCDF	NG		
Total HxCDF	NG		
Total HpCDF	NG		
1,2,3,4,6,7,8-HpCDF	NG		
1,2,3,4,7,8-HxCDF	NG		
1,2,3,4,7,8,9-HpCDF	NG		
1,2,3,6,7,8-HxCDF	NG		
1,2,3,7,8-PeCDF	NG		
1,2,3,7,8,9-HxCDF	NG		
2,3,4,6,7,8-HxCDF	NG		
2,3,4,7,8-PeCDF	NG		
2,3,7,8-TCDF	NG		
Total Toxic Equivalents (TEQs)	21.5	PEL	CCME 1999
Other COPCs (µg/kg DW)			
Acetone	NG		
Carbon disulfide	NG		

ERM = effects range median; AET = apparent effect threshold; PEL = probable effect level; SQAL = sediment quality advisory level; NG = no guideline available; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; PCDFs = polychlorinated dibenzofurans; T_{50} = concentration at which 50% of samples are predicted to be toxic.

[1]">" indicates that a defined AET could not be established because there were no "effects" stations with chemical concentrations above the highest concentration among "no effects" station.

Table E2-4a. Summary of the benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks	Type	Source
Conventionals (mg/L)			
Hydrogen sulfide	0.002	CCC - marine	USEPA 1999a
Total ammonia (temperature and pH dependent)	See Table E2-4b	CCC	USEPA 1999b
Metals (µg/L)			
Chromium	103	CC - marine	LDEQ 2000
Copper	3.63	CC - marine	LDEQ 2000
Lead	8.08	CC - marine	LDEQ 2000
Mercury	0.94	CCC - marine	USEPA 1999a
Methyl mercury	0.0028	Tier II SCV - freshwater	Suter and Tsao 1996
Nickel	8.2	CC - marine	LDEQ 2000
Zinc	81	CCC - marine	USEPA 1999a
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)			
1,1'-Biphenyl	14	Tier II SCV - freshwater	Suter and Tsao 1996
1-Methylnaphthalene	2.1	Tier II SCV - freshwater	Suter and Tsao 1996
1-Methylphenanthrene	NG		
2,6-Dimethylnaphthalene	NG		
2-Methylnaphthalene	4.2	ACGV - marine	NYSDEC 1998
Acenaphthene	40	Ecotox Threshold	USEPA 1996b
Acenaphthylene	NG		
Anthracene	0.73	Tier II SCV - freshwater	Suter and Tsao 1996
Fluorene	3.9	Tier II SCV - freshwater	Suter and Tsao 1996
Naphthalene	16	ACGV - marine	NYSDEC 1998
Phenanthrene	8.3	Ecotox Threshold	USEPA 1996b
Benz(a)anthracene	0.027	Tier II SCV - freshwater	Suter and Tsao 1996
Benzo(a)pyrene	0.014	Tier II SCV - freshwater	Suter and Tsao 1996
Benzo(b)fluoranthene	60	AC - marine divided by 5	NHDES 1996
Benzo(g,h,i)perylene	60	AC - marine divided by 5	NHDES 1996
Benzo(k)fluoranthene	60	AC - marine divided by 5	NHDES 1996
Chrysene	60	AC - marine divided by 5	NHDES 1996
Dibenz(a,h)anthracene	60	AC - marine divided by 5	NHDES 1996
Fluoranthene	11	Ecotox Threshold	USEPA 1996b
Indeno(1,2,3-cd)pyrene	60	AC - marine divided by 5	NHDES 1996
Perylene	NG		
Pyrene	60	AC - marine divided by 5	NHDES 1996
PCBs (µg/L)			
Aroclor-1016	0.03	CC - marine	NHDES 1996
Aroclor-1221	0.28	Tier II SCV - freshwater	Suter and Tsao 1996

Table E2-4a. Summary of the benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on the benthic invertebrate community.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks	Type	Source
PCBs (µg/L; cont.)			
Aroclor-1232	0.58	Tier II SCV - freshwater	Suter and Tsao 1996
Aroclor-1242	0.53	Tier II SCV - freshwater	Suter and Tsao 1996
Aroclor-1248	0.081	Tier II SCV - freshwater	Suter and Tsao 1996
Aroclor-1254	0.033	Tier II SCV - freshwater	Suter and Tsao 1996
Aroclor-1260	94	Tier II SCV - freshwater	Suter and Tsao 1996
Total PCBs	0.14	Tier II SCV - freshwater	Suter and Tsao 1996
Organochlorine Pesticides (µg/L)			
Aldrin	0.26	CMC divided by 5	USEPA 1999a
Dieldrin	0.11	Ecotox Threshold	USEPA 1996b
Phthalates (µg/L)			
Bis(2-ethylhexyl)phthalate	3.0	Tier II SCV - freshwater	Suter and Tsao 1996
Chlorinated Benzenes (µg/L)			
Hexachloro-1,3-butadiene	0.32	CC - marine	LDEQ 2000
Hexachlorobenzene	129	CC - marine	NHDES 1996[1]
1,2,3,4-Tetrachlorobenzene	NG		
1,2,3-Trichlorobenzene	5	ACSV - marine	NYSDEC 1998[1]
1,2,4,5-Tetrachlorobenzene	129	CC - marine	NHDES 1996[1]
1,2,4-Trichlorobenzene	5	ACSV - marine	NYSDEC 1998[1]
1,2-Dichlorobenzene	5	ACSV - marine	NYSDEC 1998[1]
1,3-Dichlorobenzene	5	ACSV - marine	NYSDEC 1998[1]
1,4-Dichlorobenzene	5	ACSV - marine	NYSDEC 1998[1]
Pentachlorobenzene	129	CC - marine	NHDES 1996[1]
Chlorinated Ethanes (µg/L)			
1,1,1-Trichloroethane	1560	CC - marine	LDEQ 2000
1,2-Dichloroethane	5650	CC - marine	LDEQ 2000
Other COPCs (µg/L)			
Acetone	1500	Tier II SCV - freshwater	Suter and Tsao 1996
Carbon disulfide	0.92	Tier II SCV - freshwater	Suter and Tsao 1996

ACGV = Aquatic Chronic Guidance Value; ACSV = Aquatic Chronic Standard Value; SCV = Secondary Chronic Value; CCC = Criteria Continuous Concentration; CMC = Criteria Maximum Concentration; CC = Chronic Criteria; AC = Aquatic Criterion; NG = no guideline available; PCBs = polychlorinated biphenyls.

[1]Benchmarks apply to the total for the whole class of compounds (i.e., chlorinated benzenes).

Table E2-4b. Temperature and pH-dependent values of the chronic criterion for fish early life stages present (from USEPA 1999b).

	Temperature C									
pH	**0**	**14**	**16**	**18**	**20**	**22**	**24**	**26**	**28**	**30**
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.11	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

N = total ammonia nitrogen; C = degrees Celsius.

Criterion units are mg N/L.

Table E2-5. Classifications for assessing risks to benthic invertebrate communities.

Species/Category	Endpoint Measured	Test Duration	Reference Envelope[1]		Low Risk Threshold		Indeterminate Risk Threshold		High Risk Threshold	
			Observed	Predicted	% Response	mean PEC-Q	% Response	mean PEC-Q	% Response	mean PEC-Q
Ampelisca abdita										
Observed Incidence of Toxicity	S	10-d	0%	NA	<20%	NA	20 to 50%	NA	>50%	NA
Predicted Incidence of Toxicity	S	10-d	Q=0.111[2]	54.2%	<63.4%	<0.201	63.4 to 77.1%	0.201-0.458	>77.1%	>0.458
Observed Magnitude of Toxicity	S	10-d	61.7%	NA	>55.5%	NA	49.4 to 55.5%	NA	<49.4%	NA
Predicted Magnitude of Toxicity	S	10-d	Q=0.189[3]	44.4%	>40.0%	<0.230	35.5 to 40.0%	0.230-0.280	<35.5%	>0.280
Hyalella azteca										
Observed Incidence of Toxicity	S	28-d	0%	NA	<20%	NA	20 to 50%	NA	>50%	NA
Predicted Incidence of Toxicity	S	28-d	Q=0.111[2]	19.8%	<35.8%	<0.188	35.8 to 59.9%	0.188-0.427	>59.9%	>0.427
Observed Magnitude of Toxicity	S	28-d	81.5%	NA	>73.4%	NA	65.2 to 73.4%	NA	<65.2%	NA
Predicted Magnitude of Toxicity	S	28-d	Q=0.189[3]	80.5%	>72.5%	<0.333	64.4 to 72.5%	0.333-0.560	<64.4%	>0.560
Community Structure										
Observed Incidence of Toxicity	5 metrics	LT	36%	NA	<48.8%	NA	48.8 to 68.0%	NA	>68.0%	NA

Table E2-5. Classifications for assessing risks to benthic invertebrate communities.

Species/Category	Endpoint Measured	Test Duration	Reference Envelope[1]		Low Risk Threshold		Indeterminate Risk Threshold		High Risk Threshold	
			Observed	Predicted	% Response	mean PEC-Q	% Response	mean PEC-Q	% Response	mean PEC-Q
Arbacia punctulata										
Observed Incidence of Toxicity	F or D	60-m/48-h	0%	NA	<20%	NA	20 to 50%	NA	>50%	NA
Observed Magnitude of Toxicity	F	60-m	17.3%	NA	>13.8	NA	8.65 to 13.8%	NA	<8.65%	NA
Predicted Incidence of Toxicity (conventionals only)	NA	NA	NA	21%	<36.8%	NA	36.8 to 60.5%	NA	>60.5%	NA
Predicted Incidence of Toxicity (metals only)	NA	NA	NA	100%	100%	NA	NA	NA	NA	NA
Predicted Incidence of Toxicity (organics only)	NA	NA	NA	0%	<20%	NA	20 to 50%	NA	>50%	NA

S = survival; F or D = fertilization or development; F = fertilization; d = day; h = hour; m = minute; Q = mean PEC-Q; NA = not applicable; LT = long term.

[1]Observed predicted incidence of toxicity for selected reference samples.

[2]Average mean PEC-Q for selected reference samples, calculated using $\log_e$ transformed data.

[3]Upper 95% prediction limit for selected reference samples, calculated using $\log_e$ transformed data.

Table E2-6. Summary of the whole-sediment chemistry for Upper Calcasieu River - Mainstem (UCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	41	41	0	4.60	5.90	7.20	9.90	14.60	23.80	28.30	10.76	0.80	10.56	1.9	76.4
Copper	49	44	5	2.50	3.23	5.20	12.20	23.30	29.78	40.80	11.02	1.22	10.58	0.95	46.7
Lead	49	48	1	8.00	8.40	9.50	16.50	26.50	39.24	49.48	17.21	0.98	16.94	1.9	113
Mercury	49	9	40	0.03	0.03	0.04	0.06	0.07	0.10	0.12	0.06	0.03	0.06	0.0235	0.19
Methyl mercury	8	2	6	0.0004	0.0004	0.0004	0.0004	0.0007	0.001	0.001	0.0006	0.0004	0.0005	0.00034	0.00128
Nickel	49	47	2	2.89	3.30	4.40	6.77	10.30	13.94	14.44	6.84	0.63	6.70	1.7	22.3
Zinc	49	23	26	6.67	8.30	12.45	26.70	43.20	74.39	82.60	25.50	1.23	25.13	4.95	222
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	4	0	4	26.72	26.94	27.62	29.46	31.49	32.39	32.69	29.52	0.10	29.52	26.5	33
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	8	1	7	17.18	17.88	22.14	28.90	33.46	50.93	74.92	30.79	0.77	30.66	16.5	110
Acenaphthene	9	2	7	17.09	17.69	23.50	31.50	36.50	43.97	54.70	29.88	0.52	29.80	16.5	68
Acenaphthylene	9	1	8	17.09	17.69	18.50	26.50	32.50	44.72	66.95	28.71	0.70	28.60	16.5	100
Anthracene	10	4	6	18.22	18.45	24.22	34.44	67.05	77.66	118.32	41.29	1.05	41.07	18	180
Fluorene	9	1	8	17.09	17.69	18.50	26.50	32.50	41.36	53.07	27.47	0.54	27.40	16.5	68
Naphthalene	8	1	7	17.18	17.88	22.14	28.90	33.46	38.23	40.36	27.28	0.37	27.23	16.5	42.6
Phenanthrene	16	10	6	35.46	47.26	71.55	179.26	226.24	256.67	328.32	134.04	1.22	133.68	32.5	590
Total LMW-PAHs[5]	42	10	32	220.46	251.36	436.24	634.98	889.83	1037.98	1058.99	573.47	0.73	573.29	139	1231
Benz(a)anthracene	18	12	6	60.49	68.94	99.12	188.39	223.74	251.64	291.23	150.12	0.85	149.89	36.5	420
Benzo(a)pyrene	22	11	11	67.34	70.74	127.05	212.49	235.00	260.00	260.00	164.05	0.76	163.84	36.5	330
Benzo(b)fluoranthene	42	13	29	89.74	116.42	217.46	282.40	370.00	483.48	500.00	265.11	0.68	264.94	67	550

Table E2-6. Summary of the whole-sediment chemistry for Upper Calcasieu River - Mainstem (UCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	19	7	12	25.28	30.43	49.20	130.00	215.00	230.99	235.00	96.77	1.37	96.29	16.5	235
Benzo(k)fluoranthene	24	9	15	27.33	33.65	65.18	212.49	235.00	263.49	265.00	125.07	1.33	124.59	23.5	300
Chrysene	29	12	17	80.12	101.53	208.00	235.00	275.00	332.40	388.80	210.83	0.72	210.63	36.5	530
Dibenz(a,h)anthracene	8	3	5	24.51	25.56	30.17	34.44	42.80	57.31	60.37	36.61	0.39	36.57	23.5	63.6
Fluoranthene	41	19	22	59.00	89.00	170.00	275.00	420.00	500.00	500.00	248.70	1.03	248.38	49	990
Indeno(1,2,3-cd)pyrene	18	9	9	35.87	53.40	70.31	136.50	215.00	231.49	235.00	118.64	0.93	118.39	32.5	235
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	37	20	17	61.75	89.97	202.00	275.00	370.00	436.99	495.91	238.05	0.95	237.76	45	810
Total HMW-PAHs[6]	47	22	25	650.61	744.00	1027.97	1475.00	1850.00	2409.97	2500.00	1388.20	0.60	1388.07	346.7	3080
Total PAHs[7]	47	22	25	845.09	962.04	1815.70	2200.00	2493.19	2826.15	2972.71	1976.07	0.49	1975.98	602.2	4311
PCB Aroclors (µg/kg DW)															
Aroclor-1016	45	0	45	8.00	10.55	23.00	28.50	42.00	55.00	60.00	28.35	0.75	28.14	6.5	65
Aroclor-1221	27	0	27	7.29	8.00	42.75	48.00	55.00	60.00	63.46	34.87	1.10	34.44	6.5	65
Aroclor-1232	45	0	45	8.00	10.55	23.00	28.50	42.00	55.00	60.00	28.35	0.75	28.14	6.5	65
Aroclor-1242	45	0	45	8.00	10.55	23.00	28.50	42.00	55.00	60.00	28.35	0.75	28.14	6.5	65
Aroclor-1248	45	0	45	8.00	10.55	23.00	28.50	42.00	55.00	60.00	28.35	0.75	28.14	6.5	65
Aroclor-1254	45	1	44	8.00	10.55	23.00	28.00	42.00	55.00	60.00	28.33	0.75	28.12	6.5	65
Aroclor-1260	45	0	45	8.00	10.55	23.00	28.50	42.00	55.00	60.00	28.35	0.75	28.14	6.5	65
Total PCBs[8]	6	1	5	46.35	47.22	50.66	56.00	58.61	117.98	165.86	67.90	0.83	67.78	45.5	233
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-6. Summary of the whole-sediment chemistry for Upper Calcasieu River - Mainstem (UCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-6. Summary of the whole-sediment chemistry for Upper Calcasieu River - Mainstem (UCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	47	6	41	38.06	59.60	227.49	290.00	454.75	600.00	684.61	263.97	1.26	263.41	26.5	850
Benzylbutylphthalate	5	2	3	26.79	27.09	28.00	31.00	55.00	66.79	71.25	39.58	0.58	39.50	26.5	76
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	5	0	5	26.79	27.09	28.00	31.00	33.00	33.00	33.00	30.19	0.10	30.18	26.5	33
Di-n-butylphthalate	45	1	44	33.00	38.54	225.00	275.00	435.00	529.43	600.00	234.86	1.44	234.17	26.5	700
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	33	0	33	6.30	6.50	7.00	8.50	12.00	13.40	13.70	8.93	0.28	8.90	6	14.5
1,2-Dichlorobenzene	36	0	36	6.37	6.50	7.00	8.75	12.62	14.25	16.62	9.43	0.34	9.38	6	17
1,3-Dichlorobenzene	41	0	41	6.50	6.50	7.50	9.00	13.50	18.50	20.00	10.39	0.44	10.32	6	26
1,4-Dichlorobenzene	41	0	41	6.50	6.50	7.50	9.00	13.50	18.50	20.00	10.39	0.44	10.32	6	26
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	41	0	41	6.50	6.50	7.50	9.00	13.50	18.50	20.00	10.39	0.44	10.32	6	26
1,2-Dichloroethane	41	0	41	6.50	6.50	7.50	9.00	13.50	18.50	20.00	10.39	0.44	10.32	6	26

Table E2-6. Summary of the whole-sediment chemistry for Upper Calcasieu River - Mainstem (UCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	11	11	0	24.30	31.00	73.70	130.00	601.50	900.00	994.99	163.69	2.93	162.59	19	1100
1,2,3,4,7,8-HxCDD	11	0	11	0.23	0.24	0.42	0.60	0.97	3.85	5.23	1.00	0.81	0.78	0.23	7
1,2,3,6,7,8-HxCDD	11	5	6	0.47	0.65	1.03	1.90	18.34	24.00	24.98	4.47	2.34	3.48	0.31	26
1,2,3,7,8,9-HxCDD	11	7	4	0.52	0.55	1.14	8.20	46.24	130.00	157.18	10.32	5.03	7.99	0.5	190
1,2,3,7,8-PeCDD	11	0	11	0.29	0.30	0.51	0.75	1.00	3.60	3.82	0.99	0.59	0.83	0.28	4.05
2,3,7,8-TCDD	11	0	11	0.17	0.17	0.30	0.48	0.50	1.50	1.74	0.55	0.35	0.46	0.165	2
OCDD	11	11	0	517.60	570.00	1876.18	2600.00	7897.47	8200.00	11090.58	3038.60	2.05	3037.83	470	15000
Total TCDD	11	9	2	0.41	0.47	1.44	7.40	15.88	29.00	29.98	5.97	2.22	4.74	0.345	31
Total HpCDD	11	11	0	69.21	84.00	212.15	330.00	1045.00	1300.00	1442.23	373.73	2.03	373.00	57	1600
Total HxCDD	11	11	0	12.67	16.00	31.40	71.00	304.96	560.00	574.80	90.81	3.03	89.63	10	590
Total PeCDD	11	6	5	0.45	0.55	1.05	4.60	16.15	83.00	88.33	6.34	3.64	4.84	0.35	94
1,2,3,4,6,7,8-HpCDF	11	7	4	0.63	1.20	1.50	11.00	31.50	53.00	61.79	9.16	3.20	7.23	0.21	72
1,2,3,4,7,8,9-HpCDF	11	1	10	0.21	0.22	0.28	0.50	1.33	3.85	6.17	1.00	1.01	0.70	0.195	9.6
1,2,3,4,7,8-HxCDF	11	2	9	0.24	0.25	0.25	0.60	2.97	11.00	16.32	1.66	1.83	1.04	0.235	24
1,2,3,6,7,8-HxCDF	11	1	10	0.16	0.18	0.23	0.43	1.93	3.25	4.68	0.96	0.92	0.64	0.135	6.6
1,2,3,7,8,9-HxCDF	11	0	11	0.18	0.19	0.23	0.41	0.74	1.85	2.83	0.66	0.58	0.50	0.17	4.15
1,2,3,7,8-PeCDF	11	1	10	0.21	0.22	0.29	0.45	1.10	2.05	3.91	0.84	0.78	0.62	0.2	6.9
2,3,4,6,7,8-HxCDF	11	1	10	0.15	0.16	0.22	0.36	1.10	1.60	2.46	0.67	0.55	0.50	0.15	3.6
2,3,4,7,8-PeCDF	11	1	10	0.20	0.21	0.29	0.43	1.16	2.05	2.98	0.77	0.61	0.59	0.185	4.2
2,3,7,8-TCDF	11	4	7	0.15	0.17	0.32	0.36	2.45	2.80	5.23	1.05	1.03	0.69	0.135	9.2
OCDF	11	8	3	0.48	0.55	4.58	23.00	38.38	240.00	289.85	17.19	5.11	13.92	0.405	350
Total TCDF	11	9	2	0.50	0.80	1.76	15.00	20.79	39.00	39.99	8.46	2.66	6.68	0.25	41
Total HpCDF	11	8	3	0.79	1.55	3.11	23.00	64.95	90.00	123.74	16.66	4.21	13.52	0.25	170

Table E2-6. Summary of the whole-sediment chemistry for Upper Calcasieu River - Mainstem (UCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	11	6	5	0.32	0.37	0.81	9.50	26.28	54.00	63.65	6.83	3.77	4.84	0.26	75
Total PeCDF	11	5	6	0.32	0.36	0.41	1.40	15.31	33.00	33.00	3.87	2.88	2.61	0.285	33
Total Toxic Equivalents (TEQs)[9]	11	11	0	0.97	0.99	1.87	3.65	7.36	13.33	14.13	4.08	1.10	3.74	0.957	15.0
Other COPCs (µg/kg DW)															
Acetone	41	14	27	6.50	7.00	9.00	16.00	26.00	49.00	55.00	17.39	1.14	17.13	6	200
Carbon disulfide	41	8	33	6.00	6.00	7.00	8.50	13.50	23.00	26.00	10.37	0.56	10.27	6	29
Mean PEC-Q	49	NA	NA	0.07	0.08	0.14	0.15	0.18	0.23	0.243	0.16	0.04	0.15	0.0596	0.3

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-7. Summary of the whole-sediment chemistry for Clooney Island Loop (CIL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	20	20	0	4.68	5.78	7.82	10.60	17.90	89.78	265.40	16.22	2.46	15.65	2.8	454
Copper	26	26	0	4.12	5.02	7.30	11.30	43.62	71.99	144.28	18.42	2.20	17.78	3.2	379
Lead	26	26	0	6.70	7.25	11.25	13.79	21.80	38.25	39.00	16.12	0.81	15.94	5.2	67.8
Mercury	26	13	13	0.03	0.04	0.05	0.07	0.27	0.67	0.78	0.21	0.30	0.12	0.0302	2.37
Methyl mercury	6	3	3	0.0003	0.0003	0.0004	0.0007	0.0009	0.003	0.004	0.001	0.002	0.0008	0.000245	0.00488
Nickel	26	25	1	3.32	4.31	6.05	9.33	12.97	31.65	36.75	9.94	1.00	9.70	2.4	54.6
Zinc	25	11	14	5.77	6.17	9.50	30.40	66.80	391.37	561.37	34.94	3.33	33.87	5.5	868
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	5	0	5	27.48	27.97	29.50	33.50	34.50	35.10	35.30	31.84	0.12	31.83	27	35.5
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	11	3	8	10.02	12.50	18.78	29.50	44.50	46.50	53.44	27.05	0.81	26.85	8	61.4
Acenaphthene	12	5	7	5.91	8.56	17.34	39.36	107.89	157.88	205.86	39.64	2.36	38.69	4	280
Acenaphthylene	12	2	10	4.78	5.72	11.20	31.91	44.99	66.86	92.24	24.45	1.72	23.83	4	130
Anthracene	17	10	7	21.06	28.31	36.50	47.50	151.00	262.06	342.57	71.32	1.83	70.70	8	590
Fluorene	12	3	9	5.91	8.37	16.44	38.12	44.99	105.09	133.44	30.59	1.70	29.96	4	160
Naphthalene	11	4	7	9.04	10.20	18.85	34.50	45.49	47.10	61.11	28.78	1.00	28.49	8	79.2
Phenanthrene	20	13	7	27.69	33.97	55.69	128.00	243.31	467.89	1046.90	129.72	2.55	128.64	8	2500
Total LMW-PAHs[5]	28	14	14	128.81	186.46	303.47	543.34	765.88	1043.37	1398.40	490.79	1.26	490.34	56	3030
Benz(a)anthracene	20	14	6	27.69	42.72	95.42	152.32	239.41	534.15	576.18	140.87	1.88	139.87	8	640
Benzo(a)pyrene	22	14	8	30.12	44.50	87.61	142.48	247.46	382.02	432.46	132.43	1.63	131.58	8	480
Benzo(b)fluoranthene	28	13	15	34.08	44.50	151.70	250.00	371.10	503.81	598.60	199.28	1.68	198.19	8	690

Table E2-7. Summary of the whole-sediment chemistry for Clooney Island Loop (CIL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	17	11	6	22.89	37.77	49.00	75.00	145.00	205.87	235.38	76.14	1.35	75.61	8	338
Benzo(k)fluoranthene	21	13	8	29.50	42.10	47.80	180.00	250.00	310.00	320.00	123.09	1.76	122.22	8	640
Chrysene	23	14	9	30.74	44.50	138.35	220.00	346.77	529.00	776.37	185.66	2.04	184.43	8	1300
Dibenz(a,h)anthracene	12	5	7	12.57	18.75	28.85	39.19	53.60	98.02	120.04	39.61	1.13	39.29	8	150
Fluoranthene	28	16	12	34.08	44.50	135.94	253.50	483.52	897.99	1519.84	249.26	2.65	247.67	8	5200
Indeno(1,2,3-cd)pyrene	17	10	7	22.89	37.77	46.50	72.00	145.00	207.72	232.37	74.04	1.35	73.53	8	317
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	27	16	11	33.39	44.50	166.43	330.00	392.49	1057.95	1772.25	258.22	2.72	256.53	8	3600
Total HMW-PAHs[6]	29	16	13	208.66	267.00	859.00	1259.00	1975.00	3305.91	5002.47	1167.86	1.87	1166.76	48	10970
Total PAHs[7]	29	16	13	437.81	534.00	1254.10	1935.00	2720.00	4117.53	6366.24	1703.67	1.53	1702.96	104	14000
PCB Aroclors (µg/kg DW)															
Aroclor-1016	22	0	22	8.52	9.10	22.22	34.25	39.25	48.35	49.92	26.93	0.81	26.70	7	55
Aroclor-1221	11	0	11	7.72	8.50	9.49	44.00	50.00	55.00	59.79	24.56	1.36	24.15	7	65
Aroclor-1232	22	0	22	8.52	9.10	22.22	34.25	39.25	48.35	49.92	26.93	0.81	26.70	7	55
Aroclor-1242	22	0	22	8.52	9.10	22.22	34.25	39.25	48.35	49.92	26.93	0.81	26.70	7	55
Aroclor-1248	22	0	22	8.52	9.10	22.22	34.25	39.25	48.35	49.92	26.93	0.81	26.70	7	55
Aroclor-1254	22	6	16	9.05	10.46	24.75	37.00	58.31	220.39	499.24	45.97	2.23	45.35	8.5	930
Aroclor-1260	22	2	20	8.52	9.10	22.22	34.25	44.28	49.85	74.43	29.52	1.09	29.21	7	190
Total PCBs[8]	12	10	2	0.49	1.47	62.11	252.70	453.98	745.37	937.03	113.81	8.43	92.66	0.23612	1230
PCB Congeners (µg/kg DW)															
PCB 105	5	5	0	0.03	0.04	0.07	3.30	11.70	23.82	30.03	3.71	3.85	1.18	0.0206	37.8
PCB 108	5	5	0	0.01	0.01	0.01	1.03	2.96	4.73	5.49	1.27	1.38	0.28	0.00683	6.34

Table E2-7. Summary of the whole-sediment chemistry for Clooney Island Loop (CIL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	5	3	2	0.001	0.002	0.002	0.15	0.74	1.69	2.11	0.48	0.72	0.06	0.00112	2.59
PCB 118	5	5	0	0.08	0.10	0.19	9.97	32.10	60.72	74.97	7.42	6.34	3.12	0.0537	92.5
PCB 126	5	4	1	0.004	0.01	0.01	0.08	0.25	0.43	0.50	0.17	0.21	0.05	0.00249	0.577
PCB 127	5	1	4	0.002	0.002	0.002	0.002	0.002	0.01	0.01	0.004	0.004	0.003	0.00249	0.0119
PCB 15	5	5	0	0.07	0.09	0.13	0.17	1.29	1.83	2.04	0.60	0.66	0.33	0.0587	2.26
PCB 156	5	5	0	0.01	0.02	0.04	1.32	6.70	9.98	11.35	2.04	2.27	0.52	0.00912	12.9
PCB 157	5	4	1	0.01	0.01	0.02	0.29	1.03	1.97	2.37	0.59	0.76	0.13	0.00249	2.83
PCB 162	5	5	0	0.02	0.03	0.05	1.99	8.70	16.16	19.75	2.78	3.08	0.80	0.0163	24.1
PCB 167	5	5	0	0.01	0.01	0.01	0.61	2.27	3.68	4.28	1.00	1.17	0.22	0.0054	4.95
PCB 169	5	3	2	0.003	0.003	0.003	0.01	0.04	0.04	0.04	0.02	0.02	0.01	0.00249	0.0419
PCB 189	5	4	1	0.004	0.01	0.01	0.21	0.86	1.07	1.15	0.38	0.44	0.09	0.00249	1.23
PCB 37	5	4	1	0.01	0.02	0.04	0.12	1.47	1.62	1.67	0.51	0.64	0.15	0.0078	1.72
PCB 58	5	3	2	0.002	0.002	0.002	0.07	0.23	0.54	0.65	0.19	0.27	0.04	0.00249	0.779
PCB 60	5	3	2	0.01	0.01	0.01	0.51	5.75	6.65	6.98	1.44	1.83	0.29	0.00705	7.32
PCB 61/70	5	3	2	0.02	0.02	0.03	3.04	19.10	36.01	44.36	4.43	4.98	1.07	0.0137	54.6
PCB 66	5	3	2	0.02	0.02	0.03	2.55	15.10	15.98	16.29	3.02	3.07	0.74	0.0121	16.6
PCB 77	5	4	1	0.01	0.01	0.02	0.27	1.37	1.99	2.24	0.61	0.74	0.14	0.003035	2.5
PCB 79	5	3	2	0.002	0.002	0.002	0.29	0.50	0.61	0.65	0.27	0.26	0.06	0.00249	0.688
PCB 80	5	0	5	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.002	0.000745	0.0025
PCB 81	5	3	2	0.002	0.002	0.002	0.16	0.37	0.94	1.17	0.31	0.45	0.06	0.00249	1.44
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-7. Summary of the whole-sediment chemistry for Clooney Island Loop (CIL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	25	10	15	33.08	35.90	64.00	250.00	470.00	1386.40	9487.04	257.92	5.44	256.35	29.5	75000
Benzylbutylphthalate	2	0	2	27.12	27.24	27.61	28.22	28.85	29.24	29.37	28.22	0.06	28.22	27	29.5
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	5	0	5	27.48	27.97	29.50	33.50	34.50	35.10	35.30	31.84	0.12	31.83	27	35.5
Di-n-butylphthalate	28	1	27	30.84	34.20	43.73	252.49	365.00	466.49	473.24	145.70	1.97	144.96	27	550
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	16	0	16	6.74	7.00	8.96	11.00	12.12	14.25	14.50	10.31	0.28	10.28	6	14.5
1,2-Dichlorobenzene	16	0	16	6.74	7.00	8.96	11.00	12.12	14.25	14.50	10.31	0.28	10.28	6	14.5
1,3-Dichlorobenzene	17	0	17	6.79	7.00	9.50	11.00	12.50	14.50	16.06	10.85	0.36	10.81	6	24
1,4-Dichlorobenzene	17	0	17	6.79	7.00	9.50	11.00	12.50	14.50	16.06	10.85	0.36	10.81	6	24
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	17	0	17	6.79	7.00	9.50	11.00	12.50	14.50	16.06	10.85	0.36	10.81	6	24
1,2-Dichloroethane	17	0	17	6.79	7.00	9.50	11.00	12.50	14.50	16.06	10.85	0.36	10.81	6	24

Table E2-7. Summary of the whole-sediment chemistry for Clooney Island Loop (CIL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	7	7	0	66.58	77.20	107.54	133.00	801.15	1441.49	2113.98	291.67	3.32	290.74	57.4	3100
1,2,3,4,7,8-HxCDD	7	5	2	0.63	0.66	0.83	1.13	6.49	8.92	9.25	2.53	1.31	2.11	0.6	9.6
1,2,3,6,7,8-HxCDD	7	6	1	1.58	1.82	2.35	2.85	28.98	46.58	57.53	8.41	3.06	7.44	1.35	71
1,2,3,7,8,9-HxCDD	7	7	0	2.79	3.52	5.26	6.50	12.88	21.21	27.66	8.44	1.21	8.12	2.18	36
1,2,3,7,8-PeCDD	7	3	4	0.26	0.27	0.46	1.00	3.37	4.04	4.50	1.50	0.91	1.15	0.253	5
2,3,7,8-TCDD	7	3	4	0.09	0.09	0.11	0.47	0.71	0.95	1.07	0.44	0.32	0.31	0.0855	1.2
OCDD	7	7	0	1182.52	1481.25	3411.89	6010.00	10529.01	17949.38	25064.54	5925.45	2.26	5924.66	944	35000
Total TCDD	7	6	1	1.20	3.32	9.90	10.70	12.35	15.20	16.08	8.06	1.56	6.15	0.123	17
Total HpCDD	7	7	0	200.20	220.20	259.81	290.00	2080.63	3494.38	4910.37	726.95	3.15	726.11	182	6900
Total HxCDD	7	7	0	55.77	57.91	65.57	73.00	505.24	798.33	804.64	166.72	2.40	166.10	53.7	811
Total PeCDD	7	7	0	3.82	5.33	8.46	11.00	53.82	63.08	68.23	17.98	2.18	17.22	2.67	73.8
1,2,3,4,6,7,8-HpCDF	7	4	3	0.31	0.32	0.69	8.72	156.46	258.20	259.10	14.68	10.40	9.34	0.2975	260
1,2,3,4,7,8,9-HpCDF	7	3	4	0.42	0.43	0.48	0.62	18.37	29.49	32.41	3.90	3.53	2.54	0.4	35.6
1,2,3,4,7,8-HxCDF	7	3	4	0.16	0.19	0.30	0.49	20.74	34.51	45.19	4.03	4.60	2.05	0.143	59.1
1,2,3,6,7,8-HxCDF	7	3	4	0.16	0.18	0.29	0.48	8.31	15.01	20.21	2.53	2.71	1.39	0.1405	27.1
1,2,3,7,8,9-HxCDF	7	2	5	0.26	0.30	0.45	0.55	1.53	4.90	6.92	1.22	1.21	0.88	0.226	9.64
1,2,3,7,8-PeCDF	7	3	4	0.40	0.41	0.44	0.65	4.74	8.37	12.10	2.12	1.75	1.53	0.3955	17.3
2,3,4,6,7,8-HxCDF	7	3	4	0.19	0.22	0.34	0.55	7.20	11.57	15.51	2.35	2.28	1.41	0.171	20.7
2,3,4,7,8-PeCDF	7	3	4	0.40	0.40	0.42	0.65	5.00	9.61	12.97	2.15	1.81	1.53	0.3945	17.4
2,3,7,8-TCDF	7	4	3	0.15	0.15	0.29	0.90	8.02	14.08	16.15	2.44	2.32	1.39	0.1365	18.5
OCDF	7	6	1	1.88	2.17	3.04	25.90	606.14	1198.14	1295.15	47.09	14.94	41.11	1.62	1400
Total TCDF	7	7	0	3.02	3.37	11.50	79.90	156.76	188.24	193.06	41.03	4.38	38.54	2.7	198
Total HpCDF	7	4	3	0.38	0.39	0.74	25.60	441.29	785.87	929.78	29.34	18.85	19.13	0.367	1100

Table E2-7. Summary of the whole-sediment chemistry for Clooney Island Loop (CIL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	7	4	3	0.19	0.22	0.39	9.07	183.76	315.74	376.12	15.62	13.22	8.49	0.1675	448
Total PeCDF	7	4	3	0.40	0.40	0.52	4.31	47.49	114.77	187.83	9.32	7.74	6.10	0.395	307
Total Toxic Equivalents (TEQs)[9]	7	7	0	1.99	2.05	2.33	2.74	26.03	31.05	33.33	7.52	2.27	6.83	1.93	35.8
Other COPCs (µg/kg DW)															
Acetone	17	7	10	7.00	7.87	10.00	21.50	69.00	143.92	151.95	26.58	1.99	26.01	7	160
Carbon disulfide	17	5	12	6.79	7.00	7.50	10.50	12.00	17.77	28.58	11.29	0.66	11.18	6	57
Mean PEC-Q	32	NA	NA	0.05	0.05	0.09	0.18	0.22	0.44	0.571	0.20	0.13	0.16	0.034	0.645

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-8. Summary of the whole-sediment chemistry for Contraband Bayou (CB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	3	3	0	11.73	12.17	13.59	16.30	19.03	20.88	21.53	16.03	0.37	15.99	11.3	22.2
Copper	9	9	0	6.13	7.75	9.28	20.90	40.70	51.47	52.62	18.33	1.25	17.99	4.81	53.8
Lead	9	9	0	9.79	11.22	13.80	22.30	30.00	47.75	51.43	21.90	0.81	21.73	8.53	55.4
Mercury	9	6	3	0.03	0.04	0.05	0.05	0.10	0.16	0.21	0.08	0.07	0.06	0.0149	0.252
Methyl mercury	6	1	5	0.0003	0.0003	0.0004	0.0004	0.0005	0.0007	0.0008	0.0005	0.0002	0.0005	0.000265	0.00086
Nickel	9	8	1	5.49	6.15	7.40	9.30	11.90	13.34	14.47	9.22	0.39	9.16	4.89	15.7
Zinc	9	7	2	13.42	15.56	18.50	44.70	81.70	85.75	92.19	41.89	1.19	41.55	11.55	99.1
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	2	0	2	29.55	29.60	29.75	30.00	30.25	30.40	30.45	30.00	0.02	30.00	29.5	30.5
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	6	0	6	6.95	9.54	17.62	20.35	25.94	29.85	31.39	18.08	0.84	17.84	5	33
Acenaphthene	6	2	4	18.74	20.07	23.94	27.20	31.50	89.71	147.16	36.77	1.54	36.51	17.5	241
Acenaphthylene	6	0	6	6.95	9.54	17.62	20.35	25.94	29.85	31.39	18.08	0.84	17.84	5	33
Anthracene	6	1	5	14.01	15.09	17.62	20.35	25.94	29.85	31.39	20.97	0.38	20.92	13	33
Fluorene	6	0	6	6.95	9.54	17.62	20.35	25.94	29.85	31.39	18.08	0.84	17.84	5	33
Naphthalene	6	0	6	6.95	9.54	17.62	20.35	25.94	29.85	31.39	18.08	0.84	17.84	5	33
Phenanthrene	6	3	3	17.52	17.55	18.82	27.57	40.46	77.47	103.44	33.64	1.14	33.43	17.5	138
Total LMW-PAHs[5]	9	3	6	93.46	111.94	161.00	300.00	435.00	674.16	748.04	276.06	1.16	275.76	78	830
Benz(a)anthracene	6	5	1	36.27	39.86	48.62	51.19	53.99	98.76	132.63	58.70	0.76	58.58	33	178
Benzo(a)pyrene	6	4	2	20.98	24.42	35.98	52.13	61.05	123.24	173.47	54.15	1.35	53.86	18	244
Benzo(b)fluoranthene	9	6	3	71.07	73.73	80.00	107.00	333.00	418.93	426.89	161.31	1.24	161.02	68.5	435

Table E2-8. Summary of the whole-sediment chemistry for Contraband Bayou (CB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	6	2	4	17.62	17.75	19.14	27.57	35.08	72.05	101.92	32.95	1.15	32.74	17.5	144
Benzo(k)fluoranthene	6	2	4	16.52	16.84	17.62	20.35	30.16	56.25	73.29	26.94	0.93	26.79	16.2	95.4
Chrysene	7	5	2	37.28	42.11	52.84	59.00	106.87	215.11	262.38	79.60	1.17	79.36	33	320
Dibenz(a,h)anthracene	6	1	5	17.35	17.40	17.62	20.35	25.94	29.85	31.39	21.97	0.29	21.94	17.3	33
Fluoranthene	9	7	2	82.80	86.23	120.00	155.00	280.00	340.27	384.74	172.11	0.80	171.95	79.5	435
Indeno(1,2,3-cd)pyrene	6	2	4	17.62	17.75	19.14	27.57	33.90	71.91	103.92	32.93	1.18	32.72	17.5	150
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	9	7	2	91.69	102.27	135.00	161.00	252.00	340.27	384.74	179.33	0.69	179.20	82.2	435
Total HMW-PAHs[6]	9	7	2	325.04	359.71	491.20	493.70	1525.00	1701.33	1923.65	756.30	1.07	756.06	293.7	2175
Total PAHs[7]	9	7	2	510.29	519.85	570.50	865.50	2240.00	2403.93	2504.85	1060.35	0.99	1060.14	500.9	2610
PCB Aroclors (µg/kg DW)															
Aroclor-1016	9	0	9	7.50	7.50	9.50	13.00	32.00	42.30	42.89	16.25	0.94	16.05	7.5	43.5
Aroclor-1221	7	0	7	7.50	7.50	8.45	12.00	13.73	26.67	41.73	13.60	1.03	13.42	7.5	65
Aroclor-1232	9	0	9	7.50	7.50	9.50	13.00	32.00	42.30	42.89	16.25	0.94	16.05	7.5	43.5
Aroclor-1242	9	0	9	7.50	7.50	9.50	13.00	32.00	42.30	42.89	16.25	0.94	16.05	7.5	43.5
Aroclor-1248	9	0	9	7.50	7.50	9.50	13.00	32.00	42.30	42.89	16.25	0.94	16.05	7.5	43.5
Aroclor-1254	9	1	8	7.50	7.50	12.00	14.50	42.00	61.90	124.65	23.54	1.95	23.08	7.5	250
Aroclor-1260	9	0	9	7.50	7.50	9.50	13.00	32.00	42.30	42.89	16.25	0.94	16.05	7.5	43.5
Total PCBs[8]	3	1	2	52.50	52.50	52.50	52.50	127.37	216.03	257.54	94.89	1.75	94.58	52.5	307
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-8. Summary of the whole-sediment chemistry for Contraband Bayou (CB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-8. Summary of the whole-sediment chemistry for Contraband Bayou (CB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	9	2	7	34.95	41.37	60.00	78.00	320.00	418.93	426.89	119.65	1.72	119.16	29.5	435
Benzylbutylphthalate	2	0	2	29.55	29.60	29.75	30.00	30.25	30.40	30.45	30.00	0.02	30.00	29.5	30.5
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	2	0	2	29.55	29.60	29.75	30.00	30.25	30.40	30.45	30.00	0.02	30.00	29.5	30.5
Di-n-butylphthalate	9	1	8	32.48	35.75	47.50	50.00	320.00	418.93	426.89	92.11	1.98	91.63	29.5	435
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13
1,2-Dichlorobenzene	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13
1,3-Dichlorobenzene	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13
1,4-Dichlorobenzene	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13
1,2-Dichloroethane	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13

Table E2-8. Summary of the whole-sediment chemistry for Contraband Bayou (CB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	1	1	0	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	NA	190.00	190	190
1,2,3,4,7,8-HxCDD	1	0	1	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	NA	1.10	1.1	1.1
1,2,3,6,7,8-HxCDD	1	1	0	8.60	8.60	8.60	8.60	8.60	8.60	8.60	8.60	NA	8.60	8.6	8.6
1,2,3,7,8,9-HxCDD	1	1	0	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	NA	11.00	11	11
1,2,3,7,8-PeCDD	1	0	1	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	NA	1.50	1.5	1.5
2,3,7,8-TCDD	1	0	1	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	NA	0.90	0.9	0.9
OCDD	1	1	0	2800.00	2800.00	2800.00	2800.00	2800.00	2800.00	2800.00	2800.00	NA	2800.00	2800	2800
Total TCDD	1	1	0	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	NA	8.80	8.8	8.8
Total HpCDD	1	1	0	520.00	520.00	520.00	520.00	520.00	520.00	520.00	520.00	NA	520.00	520	520
Total HxCDD	1	1	0	110.00	110.00	110.00	110.00	110.00	110.00	110.00	110.00	NA	110.00	110	110
Total PeCDD	1	1	0	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	NA	7.10	7.1	7.1
1,2,3,4,6,7,8-HpCDF	1	1	0	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	NA	21.00	21	21
1,2,3,4,7,8,9-HpCDF	1	0	1	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	NA	0.80	0.8	0.8
1,2,3,4,7,8-HxCDF	1	0	1	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	NA	1.25	1.25	1.25
1,2,3,6,7,8-HxCDF	1	0	1	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	NA	0.95	0.95	0.95
1,2,3,7,8,9-HxCDF	1	0	1	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	NA	0.90	0.9	0.9
1,2,3,7,8-PeCDF	1	0	1	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	NA	1.05	1.05	1.05
2,3,4,6,7,8-HxCDF	1	0	1	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	NA	0.80	0.8	0.8
2,3,4,7,8-PeCDF	1	0	1	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	NA	1.05	1.05	1.05
2,3,7,8-TCDF	1	0	1	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	NA	0.55	0.55	0.55
OCDF	1	1	0	48.00	48.00	48.00	48.00	48.00	48.00	48.00	48.00	NA	48.00	48	48
Total TCDF	1	1	0	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	NA	53.00	53	53
Total HpCDF	1	1	0	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	NA	56.00	56	56

Table E2-8. Summary of the whole-sediment chemistry for Contraband Bayou (CB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	1	1	0	21.00	21.00	21.00	21.00	21.00	21.00	21.00	21.00	NA	21.00	21	21
Total PeCDF	1	1	0	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	NA	16.00	16	16
Total Toxic Equivalents (TEQs)[9]	1	1	0	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	NA	4.83	4.83	4.83
Other COPCs (µg/kg DW)															
Acetone	3	0	3	10.27	10.54	11.41	13.00	13.00	13.00	13.00	11.92	0.15	11.91	10	13
Carbon disulfide	3	0	3	9.81	10.12	11.12	13.00	13.00	13.00	13.00	11.72	0.18	11.71	9.5	13
Mean PEC-Q	9	NA	NA	0.06	0.06	0.09	0.09	0.16	0.21	0.243	0.13	0.06	0.11	0.0516	0.28

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-9. Summary of the whole-sediment chemistry for Coon Island Loop (CI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	46	46	0	2.80	3.69	6.12	9.55	21.30	37.55	89.82	11.78	1.53	11.32	1.5	130
Copper	55	55	0	3.42	4.51	6.93	14.10	28.59	40.50	68.19	14.67	1.44	14.17	1.2	124
Lead	55	55	0	6.07	7.51	11.10	20.50	49.25	145.53	221.25	27.06	1.98	26.42	2.3	354
Mercury	55	40	15	0.01	0.01	0.01	0.07	0.11	0.17	0.22	0.08	0.06	0.05	0.009	0.27
Methyl mercury	9	2	7	0.0003	0.0003	0.0003	0.0004	0.0005	0.001	0.001	0.0006	0.0005	0.0005	0.00026	0.00147
Nickel	55	55	0	2.31	3.92	5.52	10.90	17.80	25.92	39.43	10.43	1.21	10.03	0.83	140
Zinc	55	55	0	14.24	17.51	24.05	33.40	44.45	72.47	100.65	34.34	0.73	34.19	10.4	161
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	7	2	5	25.65	25.80	26.25	31.50	98.47	512.04	783.96	68.20	3.59	67.46	25.5	1200
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	27	7	20	17.15	18.39	33.50	33.50	69.91	2339.49	2805.75	84.54	5.68	83.34	17	9660
Acenaphthene	33	1	32	17.30	20.24	26.00	26.00	43.50	50.00	50.00	33.87	1.22	33.71	17	2050
Acenaphthylene	33	1	32	17.30	20.62	29.50	29.50	43.50	60.00	60.00	35.42	0.69	35.31	17	308
Anthracene	54	5	49	17.82	18.00	18.00	36.00	55.00	90.00	617.05	47.93	2.26	47.48	17	9530
Fluorene	34	5	29	17.32	19.99	22.50	22.50	45.50	283.79	562.50	42.39	2.10	42.00	17	1820
Naphthalene	54	3	51	0.75	0.75	0.75	0.75	0.75	32.25	39.16	2.49	3.69	1.77	0.75	3810
Phenanthrene	54	8	46	19.64	20.00	20.00	55.59	60.00	581.81	3301.40	66.22	3.57	65.51	17	12700
Total LMW-PAHs[5]	55	8	47	144.85	150.25	150.25	285.75	285.75	1690.45	6970.19	335.79	2.31	335.38	119	39878
Benz(a)anthracene	54	10	44	16.50	16.50	17.12	49.50	70.98	1100.00	1658.91	65.90	4.56	64.99	16.5	109000
Benzo(a)pyrene	55	11	44	16.50	16.50	17.00	49.50	77.36	881.28	1300.00	63.32	3.99	62.50	16.5	83500
Benzo(b)fluoranthene	55	12	43	19.69	20.00	20.00	60.00	100.00	958.73	1229.16	80.02	4.05	79.14	17	82200

Table E2-9. Summary of the whole-sediment chemistry for Coon Island Loop (CI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	54	7	47	18.46	30.00	30.00	60.00	90.00	311.56	842.67	75.04	2.49	74.49	17	21200
Benzo(k)fluoranthene	55	5	50	16.50	16.50	16.75	35.50	49.50	130.22	394.36	43.79	2.03	43.38	16.5	9090
Chrysene	55	17	38	16.50	16.50	30.67	49.50	354.21	2259.47	2429.57	100.03	6.32	98.55	16.5	279000
Dibenz(a,h)anthracene	50	3	47	16.50	16.50	16.50	33.00	49.50	49.50	60.52	34.54	2.00	34.25	16.5	22500
Fluoranthene	55	9	46	16.50	16.50	16.75	43.80	49.50	693.70	1256.80	58.30	3.71	57.55	16.5	50100
Indeno(1,2,3-cd)pyrene	54	3	51	18.46	28.50	28.50	55.00	85.00	131.29	140.00	56.88	1.76	56.56	17	18300
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	55	17	38	16.50	16.50	25.08	49.50	248.99	2688.59	3458.80	100.55	6.50	99.02	16.5	189000
Total HMW-PAHs[6]	55	19	36	99.00	99.00	198.00	297.00	1086.35	7202.75	9712.84	508.99	4.74	507.86	99	733100
Total PAHs[7]	55	19	36	248.57	249.25	441.95	582.75	1582.46	9595.12	14356.92	935.78	3.70	934.98	221	772978
PCB Aroclors (µg/kg DW)															
Aroclor-1016	55	0	55	1.90	1.90	1.90	1.90	1.90	9.70	19.99	3.01	1.06	2.81	1.9	50
Aroclor-1221	54	0	54	1.90	1.90	1.90	1.90	1.90	8.00	13.47	2.88	0.99	2.70	1.9	50
Aroclor-1232	55	0	55	1.90	1.90	1.90	1.90	1.90	9.70	19.99	3.01	1.06	2.81	1.9	50
Aroclor-1242	55	0	55	1.90	1.90	1.90	1.90	1.90	9.70	19.99	3.01	1.06	2.81	1.9	50
Aroclor-1248	55	0	55	1.90	1.90	1.90	1.90	1.90	9.70	19.99	3.01	1.06	2.81	1.9	50
Aroclor-1254	55	9	46	1.90	1.90	1.90	1.90	11.25	70.60	120.00	6.02	2.87	5.26	1.9	210
Aroclor-1260	55	7	48	1.90	1.90	1.90	1.90	8.00	48.78	75.03	5.08	2.39	4.48	1.9	230
Total PCBs[8]	50	10	40	13.30	13.30	13.30	13.30	45.50	127.55	211.14	23.56	1.65	23.21	8.79302	449.5
PCB Congeners (µg/kg DW)															
PCB 105	2	2	0	1.42	1.49	1.69	2.06	2.49	2.78	2.88	2.06	0.45	2.01	1.36	2.98
PCB 108	2	2	0	0.29	0.30	0.32	0.36	0.40	0.43	0.44	0.36	0.09	0.36	0.284	0.446

Table E2-9. Summary of the whole-sediment chemistry for Coon Island Loop (CI).

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PCB Congeners (µg/kg DW; cont.)															
PCB 114	2	2	0	0.05	0.06	0.08	0.11	0.14	0.16	0.16	0.11	0.08	0.09	0.0449	0.171
PCB 118	2	2	0	3.58	3.73	4.23	5.17	6.28	7.04	7.31	5.17	0.60	5.10	3.43	7.59
PCB 126	2	2	0	0.03	0.03	0.04	0.05	0.06	0.06	0.06	0.05	0.03	0.04	0.0277	0.0657
PCB 127	2	1	1	0.003	0.004	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.00228	0.0161
PCB 15	2	2	0	0.07	0.11	0.23	0.47	0.76	0.96	1.03	0.47	0.65	0.19	0.0326	1.1
PCB 156	2	2	0	0.57	0.59	0.65	0.76	0.87	0.94	0.97	0.76	0.19	0.74	0.552	0.992
PCB 157	2	2	0	0.17	0.17	0.18	0.19	0.20	0.21	0.21	0.19	0.03	0.19	0.165	0.213
PCB 162	2	2	0	0.89	0.91	0.95	1.03	1.11	1.16	1.17	1.03	0.11	1.02	0.88	1.19
PCB 167	2	2	0	0.26	0.27	0.29	0.32	0.36	0.38	0.38	0.32	0.07	0.32	0.258	0.389
PCB 169	2	2	0	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.0071	0.023
PCB 189	2	2	0	0.04	0.04	0.05	0.06	0.07	0.08	0.08	0.06	0.03	0.06	0.037	0.0864
PCB 37	2	2	0	0.08	0.10	0.15	0.23	0.33	0.39	0.41	0.23	0.23	0.17	0.0645	0.429
PCB 58	2	2	0	0.01	0.01	0.02	0.03	0.05	0.06	0.06	0.03	0.04	0.02	0.00454	0.0612
PCB 60	2	2	0	0.18	0.22	0.32	0.53	0.76	0.92	0.97	0.53	0.50	0.39	0.149	1.03
PCB 61/70	2	2	0	0.86	0.98	1.38	2.23	3.40	4.29	4.62	2.23	1.38	1.93	0.75	4.98
PCB 66	2	2	0	0.50	0.58	0.86	1.42	2.17	2.72	2.92	1.42	1.13	1.15	0.42	3.14
PCB 77	2	2	0	0.18	0.19	0.20	0.22	0.25	0.26	0.26	0.22	0.05	0.22	0.178	0.269
PCB 79	2	2	0	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.05	0.02	0.05	0.04	0.0696
PCB 80	2	0	2	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.001	0.002	0.0009	0.0025
PCB 81	2	2	0	0.07	0.07	0.09	0.10	0.12	0.14	0.14	0.10	0.05	0.10	0.0675	0.143
Organochlorine Pesticides (µg/kg DW)															
Aldrin	31	0	31	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.00	0.06	0.06	0.06
Dieldrin	44	1	43	0.10	0.10	0.10	0.10	0.25	0.25	0.25	0.21	0.38	0.15	0.1	8

Table E2-9. Summary of the whole-sediment chemistry for Coon Island Loop (CI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	55	15	40	31.00	31.00	31.00	95.00	155.00	782.74	9270.64	121.20	4.73	120.26	26	77000
Benzylbutylphthalate	21	0	21	16.50	16.50	16.50	16.50	16.50	26.00	26.50	18.18	0.22	18.16	16.5	31.5
Diethylphthalate	17	0	17	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	0.00	18.50	18.5	18.5
Dimethylphthalate	29	0	29	17.00	17.00	17.00	17.00	33.00	33.50	33.50	21.91	0.35	21.87	17	33.5
Di-n-butylphthalate	55	1	54	16.50	16.50	16.50	33.00	49.50	80.00	114.06	37.45	1.14	37.21	16.5	475
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	44	0	44	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.00	0.70	0.7	0.7
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	44	0	44	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.25	0.25	0.25
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	46	0	46	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.38	0.59	0.29	0.25	14
1,2-Dichlorobenzene	46	0	46	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.38	0.59	0.29	0.25	14
1,3-Dichlorobenzene	46	0	46	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.39	0.59	0.31	0.26	14
1,4-Dichlorobenzene	46	0	46	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.38	0.59	0.29	0.25	14
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	46	0	46	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.74	0.51	0.68	0.6	14
1,2-Dichloroethane	46	0	46	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.64	0.53	0.57	0.5	14

Table E2-9. Summary of the whole-sediment chemistry for Coon Island Loop (CI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	7	7	0	15.82	35.26	104.88	120.00	144.23	250.49	350.40	100.31	2.49	98.74	6.8	490
1,2,3,4,7,8-HxCDD	7	2	5	0.69	0.74	0.82	0.95	1.70	2.13	2.35	1.24	0.33	1.18	0.65	2.59
1,2,3,6,7,8-HxCDD	7	3	4	0.83	1.04	1.42	2.00	5.52	13.46	19.48	3.47	1.70	3.00	0.65	28
1,2,3,7,8,9-HxCDD	7	6	1	1.30	2.21	4.40	7.40	7.65	12.57	17.79	5.95	1.28	5.41	0.65	25
1,2,3,7,8-PeCDD	7	2	5	0.84	0.87	1.14	1.50	1.89	2.05	2.10	1.46	0.24	1.42	0.821	2.15
2,3,7,8-TCDD	7	0	7	0.18	0.22	0.37	0.70	0.87	1.06	1.16	0.62	0.27	0.54	0.1465	1.25
OCDD	7	7	0	724.62	1166.46	2551.87	3200.00	3902.83	5505.46	6425.82	2709.75	1.41	2709.21	450	7500
Total TCDD	7	6	1	1.04	1.82	3.68	8.20	15.12	20.15	21.06	6.82	1.64	5.96	0.48	22
Total HpCDD	7	7	0	57.74	110.31	260.00	307.00	389.21	717.17	1002.08	280.12	2.11	279.13	30	1400
Total HxCDD	7	6	1	5.24	15.58	64.58	81.00	91.46	181.60	279.53	59.75	3.84	55.59	1.35	430
Total PeCDD	7	5	2	1.21	1.57	4.02	7.65	17.01	40.07	62.44	9.40	2.68	8.38	0.9	97
1,2,3,4,6,7,8-HpCDF	7	5	2	0.44	0.46	2.32	13.00	68.51	214.17	279.63	15.85	7.48	11.63	0.41	365
1,2,3,4,7,8,9-HpCDF	7	3	4	0.41	0.45	0.57	1.30	11.30	27.24	38.59	3.88	3.27	2.71	0.3745	54.5
1,2,3,4,7,8-HxCDF	7	4	3	0.60	0.60	0.80	2.90	19.71	45.39	58.88	5.79	3.81	4.39	0.6	76.3
1,2,3,6,7,8-HxCDF	7	3	4	0.56	0.57	0.60	1.00	5.02	16.99	25.00	2.77	2.43	2.07	0.55	36.6
1,2,3,7,8,9-HxCDF	7	1	6	0.27	0.44	0.70	0.80	1.30	4.11	7.87	1.41	1.35	1.02	0.1205	14.4
1,2,3,7,8-PeCDF	7	2	5	0.53	0.62	0.82	1.25	2.46	6.62	10.90	2.04	1.39	1.69	0.44	17.6
2,3,4,6,7,8-HxCDF	7	2	5	0.61	0.62	0.64	0.80	1.29	4.52	8.86	1.56	1.38	1.27	0.6	16.6
2,3,4,7,8-PeCDF	7	2	5	0.67	0.71	0.80	1.25	1.93	4.71	7.62	1.80	1.06	1.56	0.643	12
2,3,7,8-TCDF	7	5	2	0.42	0.47	0.80	2.00	6.98	8.49	8.80	2.65	1.34	2.12	0.365	9.11
OCDF	7	5	2	1.15	1.57	6.48	70.00	208.00	477.97	591.12	40.94	8.87	35.01	0.8	731
Total TCDF	7	6	1	3.16	11.68	58.87	63.40	86.13	131.63	158.16	45.31	4.00	37.93	0.365	190
Total HpCDF	7	5	2	0.54	0.59	4.06	24.00	118.85	376.10	482.14	25.22	9.09	19.26	0.5	618

Table E2-9. Summary of the whole-sediment chemistry for Coon Island Loop (CI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	7	4	3	0.70	0.70	1.57	8.62	50.61	176.32	250.95	12.96	6.94	10.15	0.7	357
Total PeCDF	7	4	3	0.79	0.84	1.52	7.58	33.21	75.33	125.31	10.29	4.99	8.32	0.75	208
Total Toxic Equivalents (TEQs)[9]	7	7	0	2.74	3.06	3.64	5.31	9.50	19.17	24.18	6.72	1.17	6.46	2.45	30.4
Other COPCs (µg/kg DW)															
Acetone	2	2	0	6.40	6.81	8.21	11.12	14.96	17.82	18.88	11.12	1.17	10.95	6	20
Carbon disulfide	2	0	2	8.23	8.47	9.23	10.62	12.20	13.25	13.62	10.62	0.44	10.58	8	14
Mean PEC-Q	56	NA	NA	0.03	0.03	0.05	0.06	0.13	0.34	0.576	0.18	0.53	0.09	0.0271	22.7

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-10. Summary of the whole-sediment chemistry for Upper Bayou d'Inde (UBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	43	43	0	8.95	12.36	18.05	31.60	56.55	66.91	132.75	32.50	1.16	32.18	7.1	248
Copper	48	48	0	11.73	12.51	18.55	33.95	50.02	72.53	85.63	32.10	0.88	31.87	8.5	113
Lead	48	48	0	12.53	15.52	30.10	35.65	40.00	46.61	49.49	32.93	0.62	32.80	11.3	218
Mercury	48	23	25	0.06	0.06	0.07	0.11	0.30	0.41	0.44	0.18	0.13	0.14	0.045	0.75
Methyl mercury	5	1	4	0.0003	0.0004	0.0004	0.0005	0.0005	0.0006	0.0006	0.0005	0.0001	0.0005	0.000325	0.00068
Nickel	48	48	0	6.07	6.70	11.54	14.15	17.72	20.40	23.13	13.60	0.52	13.49	4.6	53.8
Zinc	48	48	0	27.89	62.42	108.75	169.99	203.50	215.90	242.95	135.22	0.91	134.88	16.8	359
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	1	0	1	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	NA	33.00	33	33
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	10	1	9	4.50	4.50	8.67	42.13	53.71	57.49	70.13	23.69	1.89	22.97	4.5	85.5
Acenaphthene	11	3	8	4.50	4.50	13.76	45.50	52.44	55.00	105.09	29.35	2.06	28.50	4.5	200
Acenaphthylene	12	3	9	6.21	8.26	28.60	47.70	57.35	104.38	169.21	38.82	1.98	38.01	4.5	286
Anthracene	12	4	8	11.69	16.41	34.20	47.70	57.35	117.11	172.04	45.33	1.38	44.90	8	254
Fluorene	10	3	7	5.86	7.57	12.50	42.13	53.71	57.41	69.58	27.27	1.53	26.71	4.5	84.3
Naphthalene	11	1	10	4.50	4.50	9.39	45.50	55.00	65.00	97.50	27.33	2.06	26.51	4.5	146
Phenanthrene	13	6	7	26.18	29.07	42.20	50.00	65.00	279.74	419.56	67.59	1.51	67.28	25	570
Total LMW-PAHs[5]	32	8	24	98.24	176.08	330.00	484.77	622.49	748.99	807.76	425.08	0.90	424.78	73	1247.8
Benz(a)anthracene	13	8	5	44.40	45.64	47.00	55.00	125.00	406.30	542.96	87.49	1.45	87.19	42.8	563
Benzo(a)pyrene	13	7	6	42.78	46.37	51.10	55.00	125.00	270.89	348.41	84.86	1.17	84.62	39	436
Benzo(b)fluoranthene	31	7	24	52.44	55.00	111.64	370.00	450.00	550.00	550.00	245.90	1.37	245.39	45.5	843

Table E2-10. Summary of the whole-sediment chemistry for Upper Bayou d'Inde (UBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	12	5	7	38.13	39.45	45.04	52.44	68.19	119.36	180.63	63.12	0.77	63.00	37.1	283
Benzo(k)fluoranthene	12	5	7	20.17	20.85	34.51	47.70	57.35	117.11	173.26	49.82	1.05	49.60	19.9	258
Chrysene	16	9	7	48.84	52.44	56.72	83.21	193.21	504.92	830.85	122.61	1.63	122.23	45.5	900
Dibenz(a,h)anthracene	10	5	5	16.23	17.10	30.18	43.35	53.71	58.69	78.54	39.37	0.74	39.21	15.4	105
Fluoranthene	30	13	17	52.19	55.00	102.41	316.00	443.74	456.48	893.24	226.02	1.58	225.51	45.5	1600
Indeno(1,2,3-cd)pyrene	12	5	7	37.10	39.04	43.89	52.44	70.64	121.05	174.76	62.49	0.77	62.36	34.9	263
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	28	14	14	51.70	55.00	116.68	289.85	450.00	536.91	1187.82	224.15	1.66	223.63	45.5	1520
Total HMW-PAHs[6]	41	15	26	330.00	380.40	950.00	1760.00	2200.00	2400.00	2400.00	1330.21	1.13	1329.84	273	4943
Total PAHs[7]	41	16	25	514.30	600.00	950.00	2170.00	2640.00	2820.00	2905.00	1714.74	0.93	1714.48	496	6190.8
PCB Aroclors (µg/kg DW)															
Aroclor-1016	44	0	44	9.07	11.43	31.75	41.25	48.50	55.00	59.22	34.13	0.70	33.93	8	65
Aroclor-1221	17	0	17	8.79	9.00	11.00	60.00	65.00	65.00	65.00	32.41	1.40	31.93	8	65
Aroclor-1232	44	0	44	9.07	11.43	31.75	41.25	48.50	55.00	59.22	34.13	0.70	33.93	8	65
Aroclor-1242	44	0	44	9.07	11.43	31.75	41.25	48.50	55.00	59.22	34.13	0.70	33.93	8	65
Aroclor-1248	44	0	44	9.07	11.43	31.75	41.25	48.50	55.00	59.22	34.13	0.70	33.93	8	65
Aroclor-1254	45	21	24	13.41	29.40	40.00	55.00	74.00	218.19	738.25	74.90	3.83	74.17	9	38100
Aroclor-1260	45	2	43	9.10	11.58	32.00	41.50	48.50	57.95	65.00	35.95	0.82	35.72	8	190
Total PCBs[8]	23	21	2	67.15	129.42	291.69	364.00	489.70	1010.84	26754.12	474.78	3.65	473.94	63	38391
PCB Congeners (µg/kg DW)															
PCB 105	2	2	0	3.17	3.55	4.92	8.17	13.20	17.47	19.16	8.17	2.45	7.70	2.82	21
PCB 108	2	2	0	0.89	1.03	1.51	2.55	4.04	5.22	5.67	2.55	1.69	2.17	0.767	6.15

Table E2-10. Summary of the whole-sediment chemistry for Upper Bayou d'Inde (UBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	2	2	0	0.13	0.15	0.22	0.35	0.49	0.58	0.61	0.35	0.33	0.26	0.104	0.647
PCB 118	2	2	0	10.48	11.62	15.76	25.92	42.22	56.42	62.13	25.92	2.82	25.41	9.44	68.4
PCB 126	2	2	0	0.10	0.12	0.19	0.33	0.48	0.57	0.61	0.33	0.35	0.22	0.0729	0.642
PCB 127	2	0	2	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.002	0.002485	0.0025
PCB 15	2	2	0	0.39	0.46	0.69	1.16	1.76	2.20	2.36	1.16	1.00	0.91	0.327	2.53
PCB 156	2	2	0	1.35	1.51	2.09	3.35	5.14	6.54	7.08	3.35	1.64	3.02	1.19	7.65
PCB 157	2	2	0	0.42	0.48	0.68	1.08	1.57	1.91	2.04	1.08	0.82	0.89	0.362	2.17
PCB 162	2	2	0	3.13	3.44	4.51	6.91	10.36	13.11	14.16	6.91	1.78	6.59	2.84	15.3
PCB 167	2	2	0	0.80	0.89	1.21	1.86	2.70	3.32	3.55	1.86	1.08	1.63	0.705	3.79
PCB 169	2	1	1	0.004	0.01	0.01	0.02	0.03	0.03	0.03	0.02	0.02	0.01	0.002485	0.0357
PCB 189	2	2	0	0.15	0.17	0.22	0.31	0.40	0.47	0.49	0.31	0.23	0.26	0.132	0.509
PCB 37	2	2	0	0.16	0.19	0.27	0.42	0.60	0.71	0.75	0.42	0.38	0.32	0.132	0.791
PCB 58	2	2	0	0.04	0.06	0.12	0.23	0.35	0.43	0.45	0.23	0.30	0.11	0.0232	0.48
PCB 60	2	2	0	0.56	0.65	0.96	1.60	2.46	3.10	3.34	1.60	1.23	1.31	0.476	3.59
PCB 61/70	2	2	0	3.94	4.43	6.22	10.61	17.66	23.81	26.28	10.61	2.83	10.06	3.49	29
PCB 66	2	2	0	2.55	2.88	4.05	6.86	11.22	14.92	16.39	6.86	2.49	6.36	2.25	18
PCB 77	2	2	0	0.35	0.42	0.64	1.09	1.66	2.07	2.22	1.09	0.98	0.83	0.29	2.38
PCB 79	2	2	0	0.14	0.17	0.27	0.45	0.65	0.79	0.83	0.45	0.45	0.32	0.114	0.882
PCB 80	2	0	2	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.002	0.002485	0.0025
PCB 81	2	2	0	0.17	0.21	0.32	0.53	0.77	0.93	0.99	0.53	0.52	0.38	0.139	1.05
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-10. Summary of the whole-sediment chemistry for Upper Bayou d'Inde (UBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	41	35	6	80.00	110.00	150.00	220.00	380.00	830.00	860.00	240.42	1.18	240.07	33	1100
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	1	0	1	33.00	33.00	33.00	33.00	33.00	33.00	33.00	33.00	NA	33.00	33	33
Di-n-butylphthalate	37	3	34	37.00	42.21	55.00	375.00	455.00	600.00	700.00	201.33	2.01	200.53	33	700
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	24	0	24	9.07	9.50	10.74	12.50	13.00	13.50	13.92	11.76	0.15	11.75	8.5	14
1,2-Dichlorobenzene	28	0	28	9.17	9.50	11.00	12.75	13.50	16.00	16.32	12.35	0.19	12.33	8.5	17.5
1,3-Dichlorobenzene	37	2	35	6.99	9.30	12.00	13.00	17.50	20.39	21.00	13.00	0.48	12.88	3	22.5
1,4-Dichlorobenzene	37	2	35	6.99	9.30	12.00	13.00	17.50	20.39	21.00	13.00	0.48	12.88	3	22.5
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	37	0	37	9.40	9.50	12.00	13.00	17.50	20.39	21.00	13.92	0.28	13.88	8.5	22.5
1,2-Dichloroethane	37	0	37	9.40	9.50	12.00	13.00	17.50	20.39	21.00	13.92	0.28	13.88	8.5	22.5

Table E2-10. Summary of the whole-sediment chemistry for Upper Bayou d'Inde (UBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	10	10	0	118.71	143.76	170.77	284.96	381.78	474.44	1021.95	293.39	1.32	293.11	98	2200
1,2,3,4,7,8-HxCDD	10	3	7	1.06	1.17	1.42	2.00	2.31	7.86	24.61	3.09	1.93	2.72	0.95	73
1,2,3,6,7,8-HxCDD	10	9	1	3.83	4.77	9.58	13.49	16.00	28.51	63.50	14.11	1.58	13.71	3.05	140
1,2,3,7,8,9-HxCDD	10	9	1	3.91	4.55	6.04	8.78	11.00	15.19	30.17	9.55	1.04	9.34	3.35	59
1,2,3,7,8-PeCDD	10	2	8	0.59	0.64	1.06	1.49	2.12	4.02	4.09	1.65	0.51	1.53	0.55	4.17
2,3,7,8-TCDD	10	2	8	0.22	0.36	0.45	0.60	0.68	0.70	0.73	0.53	0.15	0.48	0.098	0.75
OCDD	10	10	0	2280.33	2736.76	3953.87	6244.92	8349.55	9389.69	14695.78	5962.11	1.00	5961.88	1900	23000
Total TCDD	10	10	0	2.61	4.69	5.50	8.83	10.72	12.00	12.00	7.18	0.70	6.95	1.29	12
Total HpCDD	10	10	0	266.92	323.80	364.69	654.83	945.75	1427.07	2590.02	685.85	1.37	685.55	220	4700
Total HxCDD	10	10	0	36.89	37.80	77.46	112.88	144.73	314.55	614.61	121.69	1.73	121.28	36	1200
Total PeCDD	10	3	7	1.31	1.74	2.03	3.81	7.19	12.08	18.27	4.58	1.24	4.23	0.95	27.4
1,2,3,4,6,7,8-HpCDF	10	10	0	18.21	23.61	83.38	151.80	212.08	338.57	920.55	134.40	3.01	133.28	14	2500
1,2,3,4,7,8,9-HpCDF	10	8	2	1.02	1.41	7.99	14.30	26.66	35.58	46.62	12.07	2.11	10.83	0.7	61
1,2,3,4,7,8-HxCDF	10	8	2	1.30	1.58	13.31	24.51	49.79	70.85	73.38	19.13	2.57	17.45	1.05	76
1,2,3,6,7,8-HxCDF	10	6	4	1.03	1.17	3.69	8.94	17.91	25.08	25.44	7.59	1.66	6.88	0.9	25.8
1,2,3,7,8,9-HxCDF	10	2	8	0.45	0.61	0.86	1.30	1.93	2.92	6.00	1.61	0.87	1.38	0.305	11.5
1,2,3,7,8-PeCDF	10	5	5	0.44	0.46	2.70	2.97	14.47	19.45	21.61	4.91	1.87	4.04	0.42	24
2,3,4,6,7,8-HxCDF	10	3	7	0.82	1.01	1.11	1.87	3.68	16.37	16.68	2.87	1.37	2.51	0.65	17
2,3,4,7,8-PeCDF	10	5	5	0.41	0.45	1.92	2.81	7.98	17.56	20.28	3.92	1.68	3.21	0.365	23.4
2,3,7,8-TCDF	10	9	1	0.87	1.06	3.16	8.62	15.59	18.54	21.14	6.79	1.55	6.08	0.7	24.1
OCDF	10	10	0	50.45	65.19	201.70	388.91	712.25	1077.04	1503.98	338.74	2.37	337.75	39	2100
Total TCDF	10	10	0	12.86	13.79	31.40	72.68	117.42	162.86	176.37	57.47	1.62	56.92	12	191
Total HpCDF	10	10	0	55.94	67.99	197.09	354.38	476.99	757.46	2096.57	325.36	2.70	324.51	46	5800

Table E2-10. Summary of the whole-sediment chemistry for Upper Bayou d'Inde (UBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	10	10	0	22.30	23.68	77.35	163.77	200.00	410.10	784.53	135.33	2.45	134.47	21	1500
Total PeCDF	10	9	1	5.12	10.33	36.41	50.16	104.04	212.24	248.10	49.14	2.71	47.40	2.3	290
Total Toxic Equivalents (TEQs)[9]	10	10	0	3.15	3.63	9.40	11.30	19.43	46.90	67.11	13.65	1.63	13.17	2.72	95.9
Other COPCs (µg/kg DW)															
Acetone	37	8	29	19.47	25.43	60.00	120.00	195.00	301.22	680.00	104.70	1.74	104.04	10	820
Carbon disulfide	37	32	5	3.00	3.00	9.50	19.00	39.00	73.84	86.00	18.44	1.63	17.82	3	99
Mean PEC-Q	53	NA	NA	0.06	0.07	0.17	0.25	0.32	0.47	3.10	0.57	1.78	0.29	0.0493	213

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-11. Summary of the whole-sediment chemistry for Middle Bayou d'Inde (MBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	87	87	0	24.85	30.42	50.80	76.70	195.00	297.46	411.77	97.20	1.41	96.79	18.5	774
Copper	92	90	2	16.74	25.82	46.45	65.93	100.50	148.90	169.86	64.85	1.17	64.49	8.27	943
Lead	92	82	10	13.20	15.83	22.01	34.25	43.92	64.38	83.76	32.85	0.73	32.68	7.45	152
Mercury	91	85	6	0.08	0.13	0.38	0.74	1.25	2.20	3.44	0.88	0.60	0.65	0.04	12
Methyl mercury	5	4	1	0.0006	0.0007	0.0011	0.001	0.002	0.002	0.002	0.001	0.0004	0.001	0.00047	0.00159
Nickel	91	82	9	7.05	8.75	10.97	16.40	21.20	25.80	27.70	15.69	0.50	15.60	4.64	41.3
Zinc	85	71	14	45.74	63.94	110.00	188.00	232.00	324.85	449.99	157.35	0.90	157.11	31.7	700
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	2	0	2	26.87	27.25	28.42	30.46	32.66	34.04	34.52	30.46	0.21	30.45	26.5	35
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	10	4	6	7.64	8.34	16.06	39.84	50.00	52.98	68.70	28.59	1.25	28.20	7	89
Acenaphthene	11	4	7	7.72	8.50	10.39	50.00	53.39	140.00	140.50	33.31	1.87	32.67	7	141
Acenaphthylene	12	7	5	11.99	18.90	28.80	50.00	116.84	175.54	224.84	53.68	1.76	53.05	7	295
Anthracene	16	5	11	15.20	22.79	50.00	75.00	102.41	112.96	184.54	65.63	1.62	65.04	7	739
Fluorene	10	3	7	7.64	8.34	11.90	50.00	50.00	71.24	142.74	33.04	1.99	32.41	7	285
Naphthalene	13	2	11	7.87	8.78	21.30	50.00	75.00	86.78	93.88	34.81	1.42	34.31	7	100
Phenanthrene	17	8	9	34.01	40.27	50.00	75.00	110.00	239.84	506.96	89.68	1.92	89.28	20.6	2500
Total LMW-PAHs[5]	68	11	57	300.00	350.72	455.00	500.00	570.00	808.88	976.39	505.57	0.63	505.42	80.5	3737.8
Benz(a)anthracene	18	9	9	41.30	47.72	50.00	76.50	110.00	187.22	363.39	95.42	1.49	95.15	33.7	1950
Benzo(a)pyrene	21	10	11	50.00	50.00	59.30	94.00	120.00	250.00	250.00	99.86	1.28	99.59	25	1470
Benzo(b)fluoranthene	68	9	59	51.40	85.21	257.46	445.00	485.00	514.50	550.00	305.73	1.16	305.29	50	1990

Table E2-11. Summary of the whole-sediment chemistry for Middle Bayou d'Inde (MBI).

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PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	17	7	10	40.68	50.00	50.00	75.00	90.00	110.00	158.08	75.04	1.02	74.82	17.6	670
Benzo(k)fluoranthene	20	9	11	31.04	31.68	50.00	82.16	126.89	260.00	379.43	88.65	1.37	88.30	23.5	612
Chrysene	25	12	13	50.00	50.00	75.00	120.00	285.00	319.76	525.30	147.25	1.41	146.90	50	1790
Dibenz(a,h)anthracene	9	4	5	12.79	19.01	25.80	50.00	50.00	71.15	143.40	41.98	1.48	41.58	8.5	288
Fluoranthene	62	14	48	51.03	95.77	258.33	429.74	477.48	500.00	500.00	311.98	1.18	311.55	50	3560
Indeno(1,2,3-cd)pyrene	18	7	11	36.98	49.24	50.00	70.50	97.40	110.00	144.29	71.83	1.19	71.45	8.5	667
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	53	29	24	74.19	87.28	120.00	260.00	400.00	460.00	486.82	231.48	1.10	231.19	53	2550
Total HMW-PAHs[6]	88	30	58	387.82	549.82	1407.17	2000.00	2300.00	2425.00	2500.00	1575.64	0.87	1575.37	303	11608
Total PAHs[7]	88	30	58	626.14	841.13	1554.98	2400.00	2760.00	2910.00	3000.00	2006.09	0.71	2005.91	493.3	15345.8
PCB Aroclors (µg/kg DW)															
Aroclor-1016	78	0	78	13.00	17.71	33.12	45.75	55.00	60.00	65.00	38.88	0.61	38.72	6.5	65
Aroclor-1221	20	0	20	8.86	12.54	14.11	20.68	55.00	60.00	60.24	24.00	0.96	23.77	6.5	65
Aroclor-1232	78	0	78	13.00	17.71	33.12	45.75	55.00	60.00	65.00	38.88	0.61	38.72	6.5	65
Aroclor-1242	78	0	78	13.00	17.71	33.12	45.75	55.00	60.00	65.00	38.88	0.61	38.72	6.5	65
Aroclor-1248	78	0	78	13.00	17.71	33.12	45.75	55.00	60.00	65.00	38.88	0.61	38.72	6.5	65
Aroclor-1254	88	71	17	31.02	38.43	50.00	87.49	190.00	683.89	1029.37	109.34	2.02	108.67	6.5	1700
Aroclor-1260	78	2	76	13.00	17.71	33.50	46.00	55.00	60.00	65.00	39.83	0.64	39.66	6.5	140
Total PCBs[8]	72	71	1	228.58	311.40	393.87	476.00	599.94	981.09	1250.77	483.44	0.82	483.16	45.5	1850
PCB Congeners (µg/kg DW)															
PCB 105	12	12	0	2.73	4.77	9.11	12.24	28.13	43.79	62.31	14.24	1.74	13.52	1.24	93.3
PCB 108	12	12	0	1.11	1.94	2.90	4.78	7.21	9.56	15.61	4.76	1.13	4.33	0.439	27.6

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PCB Congeners (µg/kg DW; cont.)															
PCB 114	12	12	0	0.11	0.18	0.36	0.52	1.23	2.03	2.54	0.76	0.52	0.54	0.0368	3.2
PCB 118	12	12	0	9.98	18.27	28.78	44.95	77.79	123.30	171.12	45.66	1.69	44.96	4.65	251
PCB 126	12	12	0	0.13	0.21	0.28	0.45	0.81	1.17	1.95	0.62	0.45	0.47	0.0484	3.23
PCB 127	12	4	8	0.002	0.002	0.002	0.002	0.01	0.02	0.02	0.01	0.01	0.005	0.002395	0.0297
PCB 15	12	12	0	0.20	0.22	0.31	1.29	5.31	30.16	46.84	2.79	3.03	1.67	0.174	69.1
PCB 156	12	12	0	1.03	1.51	2.64	4.69	9.19	13.48	18.00	5.11	1.22	4.67	0.622	25
PCB 157	12	12	0	0.32	0.47	0.77	1.49	2.69	3.18	4.73	1.62	0.72	1.36	0.182	7.32
PCB 162	12	12	0	2.15	3.40	6.56	12.52	18.03	21.46	31.17	10.66	1.30	10.15	1.21	48.8
PCB 167	12	12	0	0.62	0.95	1.43	3.07	4.77	5.34	7.88	2.89	0.87	2.57	0.323	12.3
PCB 169	12	9	3	0.002	0.002	0.01	0.03	0.04	0.05	0.07	0.03	0.03	0.02	0.00246	0.0953
PCB 189	12	12	0	0.11	0.15	0.31	0.59	0.67	0.99	1.17	0.52	0.26	0.43	0.0599	1.37
PCB 37	12	12	0	0.13	0.17	0.49	0.76	1.09	1.94	2.48	0.84	0.49	0.66	0.108	3.25
PCB 58	12	12	0	0.04	0.06	0.19	0.55	0.86	0.95	2.39	0.64	0.65	0.39	0.0279	5.65
PCB 60	12	12	0	0.55	0.87	1.54	3.28	5.50	9.02	13.17	3.43	1.20	2.95	0.278	20.3
PCB 61/70	12	12	0	4.48	8.34	9.30	21.60	39.39	60.91	86.95	20.95	1.82	20.18	1.86	132
PCB 66	12	12	0	3.06	5.33	7.38	14.20	23.27	25.75	39.20	12.67	1.35	12.16	1.45	64.7
PCB 77	12	12	0	0.53	0.92	1.17	2.34	3.96	5.15	8.36	2.53	0.96	2.15	0.186	14.5
PCB 79	12	12	0	0.22	0.37	0.44	0.76	1.23	1.43	2.44	0.87	0.51	0.68	0.0554	4.25
PCB 80	12	1	11	0.002	0.002	0.002	0.002	0.002	0.003	0.02	0.01	0.01	0.003	0.002395	0.0417
PCB 81	12	12	0	0.14	0.23	0.35	0.62	1.46	1.91	2.93	0.86	0.60	0.62	0.0466	4.55
Organochlorine Pesticides (µg/kg DW)															
Aldrin	15	15	0	0.70	0.74	0.94	1.70	2.29	4.24	7.00	1.98	0.90	1.77	0.65	19
Dieldrin	10	10	0	1.04	1.09	1.10	1.20	1.57	1.75	1.96	1.35	0.16	1.33	1	2.2

Table E2-11. Summary of the whole-sediment chemistry for Middle Bayou d'Inde (MBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	88	39	49	61.71	73.46	130.00	319.84	500.00	814.68	1044.98	280.29	1.53	279.80	50	3900
Benzylbutylphthalate	2	1	1	30.28	34.58	51.35	98.64	188.65	278.05	316.39	98.64	5.18	97.67	26.5	360
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	4	2	2	27.63	28.81	32.66	51.99	79.16	83.20	84.59	49.91	0.77	49.78	26.5	86
Di-n-butylphthalate	83	0	83	50.00	66.89	292.49	460.00	524.41	600.00	650.00	325.77	1.28	325.17	26.5	700
Di-n-octylphthalate	5	5	0	267.41	286.03	350.00	430.00	470.00	707.89	811.39	439.84	0.62	439.76	250	930
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	43	0	43	9.00	9.10	12.00	13.50	14.00	14.50	15.50	12.53	0.18	12.51	7.5	15.5
1,2-Dichlorobenzene	54	0	54	9.00	9.65	12.50	14.00	15.50	16.50	17.00	13.27	0.20	13.25	7.5	17.5
1,3-Dichlorobenzene	78	10	68	4.65	8.00	12.50	14.50	18.37	21.00	21.86	13.51	0.61	13.30	1	31
1,4-Dichlorobenzene	78	7	71	6.85	9.00	12.50	14.25	18.00	21.15	22.72	13.90	0.53	13.75	2	31
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	78	0	78	9.00	10.35	13.00	14.99	18.00	21.15	22.72	15.22	0.29	15.18	7.5	31
1,2-Dichloroethane	78	0	78	9.00	10.35	13.00	14.99	18.00	21.15	22.72	15.22	0.29	15.18	7.5	31

Table E2-11. Summary of the whole-sediment chemistry for Middle Bayou d'Inde (MBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	27	27	0	102.90	121.60	203.05	260.00	344.96	516.79	882.20	262.43	0.93	262.20	51.2	1200
1,2,3,4,7,8-HxCDD	27	14	13	1.01	1.53	2.20	3.65	6.28	12.32	17.71	4.19	1.03	3.85	0.4505	23.4
1,2,3,6,7,8-HxCDD	27	24	3	2.45	3.57	11.49	21.00	30.25	46.82	120.01	18.67	1.69	17.98	1.8	179
1,2,3,7,8,9-HxCDD	27	23	4	1.80	2.71	7.20	11.00	13.78	20.48	45.11	9.93	1.24	9.44	0.75	68
1,2,3,7,8-PeCDD	27	12	15	0.91	0.98	2.25	3.00	5.09	11.28	22.36	3.64	1.16	3.27	0.3285	32.7
2,3,7,8-TCDD	27	13	14	0.20	0.25	0.53	0.79	1.17	2.68	2.88	0.92	0.47	0.79	0.189	4.5
OCDD	27	27	0	1522.28	2375.38	2818.87	3800.00	5632.54	7062.92	8174.19	3780.79	0.68	3780.64	1100	9610
Total TCDD	27	24	3	1.04	1.46	5.45	14.00	25.74	37.84	42.38	11.21	1.81	9.97	0.197	54
Total HpCDD	27	27	0	271.41	318.23	510.74	640.00	800.73	1513.07	2107.00	650.72	0.89	650.50	129	2700
Total HxCDD	27	27	0	55.97	96.86	124.90	210.00	349.96	423.60	1038.44	215.25	1.44	214.79	25.5	1890
Total PeCDD	27	19	8	2.06	2.84	5.93	19.90	59.69	75.54	157.05	19.30	2.82	18.02	1.31	286
1,2,3,4,6,7,8-HpCDF	27	27	0	63.02	74.97	184.93	312.00	714.98	873.37	1122.30	313.45	1.60	312.87	43.8	1460
1,2,3,4,7,8,9-HpCDF	27	25	2	2.38	5.69	10.39	26.00	58.24	181.42	227.23	27.36	2.83	25.80	0.825	340
1,2,3,4,7,8-HxCDF	27	27	0	8.92	12.50	22.24	50.00	124.38	423.00	482.86	58.11	2.68	57.15	6.1	650
1,2,3,6,7,8-HxCDF	27	25	2	2.52	6.40	12.15	27.00	46.22	108.80	149.21	24.98	2.12	23.79	0.9	182
1,2,3,7,8,9-HxCDF	27	12	15	0.58	0.63	1.12	3.06	7.97	21.81	31.01	3.83	1.78	3.24	0.55	62.8
1,2,3,7,8-PeCDF	27	25	2	2.71	2.95	6.52	19.00	39.95	113.90	137.00	18.24	2.51	17.30	2.1	200
2,3,4,6,7,8-HxCDF	27	21	6	1.26	1.56	3.91	15.00	25.80	38.59	56.26	11.58	1.91	10.68	1.05	96.7
2,3,4,7,8-PeCDF	27	24	3	1.91	2.56	8.99	13.10	41.70	79.44	97.54	16.92	2.09	15.90	0.85	137
2,3,7,8-TCDF	27	27	0	5.21	7.92	9.79	22.00	79.19	130.00	193.26	28.51	2.27	27.67	2.65	268
OCDF	27	27	0	146.47	190.00	325.66	730.00	1568.44	5679.39	6625.43	818.47	2.66	817.48	66.6	10000
Total TCDF	27	27	0	45.51	64.37	114.89	264.00	691.32	1364.30	1484.82	274.29	2.21	273.35	20.9	1800
Total HpCDF	27	27	0	115.66	147.25	334.67	735.00	1396.43	1550.71	2155.68	606.90	1.58	606.32	95.1	2500

Table E2-11. Summary of the whole-sediment chemistry for Middle Bayou d'Inde (MBI).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	27	27	0	53.69	76.53	168.83	459.00	711.96	1254.15	1804.53	369.08	1.92	368.31	48	2100
Total PeCDF	27	27	0	31.12	49.76	101.69	209.00	612.54	858.96	1228.46	211.89	2.26	210.89	15	1480
Total Toxic Equivalents (TEQs)[9]	27	27	0	6.99	8.76	20.53	35.03	89.39	138.98	172.17	37.21	1.70	36.61	5.10	220
Other COPCs (µg/kg DW)															
Acetone	78	32	46	9.92	13.85	17.24	33.49	95.20	180.00	212.89	41.79	1.63	41.30	7.5	280
Carbon disulfide	78	46	32	2.00	3.00	4.23	7.75	14.00	17.15	21.07	7.44	0.88	7.17	1	25
Mean PEC-Q	93	NA	NA	0.20	0.22	0.31	0.41	0.58	0.86	1.08	0.46	0.19	0.41	0.0431	1.78

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-12. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Mainstem (LBI-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	35	35	0	9.52	13.71	19.15	27.30	44.55	72.90	81.68	29.88	0.98	29.60	5.5	138
Copper	38	38	0	7.47	9.59	27.10	79.39	132.81	184.38	219.27	57.71	1.97	56.70	3.8	340
Lead	38	33	5	8.32	10.35	16.40	36.92	57.26	77.51	82.79	30.50	1.13	30.14	5.5	104
Mercury	38	35	3	0.05	0.05	0.39	1.20	2.10	2.83	3.16	1.13	0.67	0.69	0.01	6
Methyl mercury	3	3	0	0.004	0.004	0.004	0.004	0.005	0.006	0.006	0.005	0.001	0.004	0.00379	0.00602
Nickel	37	37	0	6.07	7.26	11.80	21.50	29.80	39.04	41.96	18.24	0.90	17.94	2.5	42.5
Zinc	38	28	10	15.12	23.77	48.47	80.90	144.24	188.19	201.30	69.93	1.45	69.18	4.8	212
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	14	13	1	54.22	82.47	87.00	154.28	288.03	406.97	473.87	157.15	1.30	156.74	25.5	620
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	11	3	8	24.74	25.50	31.54	45.50	60.00	94.00	110.56	47.98	0.70	47.86	24	130
Acenaphthene	7	0	7	9.76	14.45	24.74	26.50	39.45	43.06	44.26	25.98	0.85	25.73	6.5	45.5
Acenaphthylene	10	4	6	30.35	36.09	40.22	52.26	89.36	121.79	184.75	62.05	0.99	61.86	25.5	280
Anthracene	15	3	12	25.04	25.90	33.93	60.00	106.08	153.82	162.94	59.79	0.97	59.57	24	170
Fluorene	7	1	6	21.05	22.27	24.74	26.50	39.45	43.06	44.26	30.23	0.35	30.19	19.9	45.5
Naphthalene	11	1	10	24.74	25.50	29.49	41.50	60.00	75.00	82.16	43.03	0.55	42.94	24	90
Phenanthrene	19	12	7	36.09	50.66	61.48	110.00	134.63	209.13	255.44	96.74	0.90	96.52	25.5	310
Total LMW-PAHs[5]	33	12	21	191.11	267.58	347.50	460.00	714.00	790.00	827.94	452.93	0.63	452.79	120	1000
Benz(a)anthracene	21	12	9	26.50	37.50	60.00	87.00	145.00	200.00	270.00	90.19	0.94	89.95	25.5	290
Benzo(a)pyrene	18	6	12	35.00	37.35	47.40	82.16	148.73	225.82	241.47	84.84	1.02	84.59	25.5	250
Benzo(b)fluoranthene	33	12	21	46.69	60.00	90.00	250.00	410.00	460.00	475.94	178.36	1.38	177.89	25.5	495

Table E2-12. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Mainstem (LBI-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	14	4	10	24.97	25.80	38.58	65.73	115.16	136.92	141.73	62.98	0.89	62.77	24	145
Benzo(k)fluoranthene	16	3	13	25.12	26.00	40.46	60.00	113.57	157.01	187.22	65.83	1.01	65.59	24	250
Chrysene	26	18	8	42.19	60.00	113.57	161.41	246.42	373.51	472.32	156.83	1.07	156.49	25.5	530
Dibenz(a,h)anthracene	7	1	6	24.44	24.89	26.00	37.50	43.46	46.02	46.41	34.15	0.32	34.11	24	46.8
Fluoranthene	33	13	20	47.72	60.00	90.00	230.00	410.00	460.00	475.94	183.56	1.34	183.10	25.5	495
Indeno(1,2,3-cd)pyrene	15	3	12	25.04	25.90	39.45	60.00	91.93	122.98	130.69	59.79	0.79	59.62	24	145
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	32	17	15	40.92	62.49	136.09	206.98	410.00	459.50	526.14	202.38	1.34	201.85	24	860
Total HMW-PAHs[6]	37	20	17	323.70	383.49	625.00	1305.00	2100.00	2307.98	2404.98	1094.05	1.15	1093.66	153	2475
Total PAHs[7]	37	20	17	656.37	720.00	995.50	1820.00	2590.00	2815.66	2920.72	1589.80	0.79	1589.60	331.5	2970
PCB Aroclors (µg/kg DW)															
Aroclor-1016	27	0	27	6.65	8.42	11.75	24.50	43.75	46.40	55.77	22.66	1.02	22.37	6	60
Aroclor-1221	14	0	14	6.32	6.65	9.74	11.75	15.37	30.11	41.12	13.19	0.76	13.04	6	50
Aroclor-1232	27	0	27	6.65	8.42	11.75	24.50	43.75	46.40	55.77	22.66	1.02	22.37	6	60
Aroclor-1242	27	0	27	6.65	8.42	11.75	24.50	43.75	46.40	55.77	22.66	1.02	22.37	6	60
Aroclor-1248	27	0	27	6.65	8.42	11.75	24.50	43.75	46.40	55.77	22.66	1.02	22.37	6	60
Aroclor-1254	29	9	20	6.70	8.94	12.00	32.00	47.00	175.62	234.11	31.98	2.03	31.39	6	590
Aroclor-1260	27	1	26	6.65	8.42	11.75	35.00	44.25	51.83	60.00	23.78	1.08	23.46	6	67
Total PCBs[8]	13	10	3	44.07	46.18	196.50	340.50	522.50	580.66	690.22	254.71	1.85	253.92	42	880
PCB Congeners (µg/kg DW)															
PCB 105	10	10	0	0.03	0.05	0.13	0.76	4.06	5.30	6.47	1.37	1.30	0.58	0.0126	7.86
PCB 108	10	10	0	0.01	0.02	0.04	0.29	1.62	1.81	1.97	0.60	0.62	0.20	0.00439	2.13

Table E2-12. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Mainstem (LBI-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	10	9	1	0.01	0.01	0.02	0.16	0.67	1.36	1.69	0.39	0.48	0.12	0.002485	2.06
PCB 118	10	10	0	0.10	0.17	0.42	2.67	16.49	20.82	21.84	3.76	2.68	2.07	0.0367	22.9
PCB 126	10	9	1	0.003	0.004	0.01	0.05	0.20	0.33	0.35	0.11	0.13	0.04	0.002485	0.363
PCB 127	10	7	3	0.002	0.002	0.003	0.01	0.03	0.05	0.07	0.02	0.03	0.01	0.00124	0.0888
PCB 15	10	10	0	0.31	0.54	1.85	4.09	16.99	28.20	32.62	5.63	2.41	4.18	0.12	37.7
PCB 156	10	10	0	0.02	0.03	0.10	0.47	2.65	3.80	3.92	0.97	0.97	0.40	0.0113	4.04
PCB 157	10	9	1	0.01	0.01	0.03	0.13	0.66	0.97	1.00	0.31	0.34	0.10	0.002485	1.03
PCB 162	10	10	0	0.02	0.03	0.11	0.55	2.78	3.27	4.53	1.02	1.05	0.40	0.00932	6.17
PCB 167	10	10	0	0.02	0.03	0.07	0.41	1.64	3.18	3.23	0.75	0.78	0.29	0.00657	3.28
PCB 169	10	6	4	0.002	0.002	0.003	0.01	0.11	0.29	0.29	0.07	0.11	0.02	0.002385	0.304
PCB 189	10	9	1	0.01	0.02	0.04	0.19	0.87	2.21	2.39	0.48	0.62	0.16	0.002485	2.58
PCB 37	10	10	0	0.05	0.09	0.20	0.78	2.62	4.01	4.92	1.15	0.97	0.59	0.0138	6
PCB 58	10	10	0	0.01	0.01	0.02	0.12	0.63	0.88	0.94	0.27	0.33	0.09	0.00299	1
PCB 60	10	9	1	0.03	0.05	0.11	0.77	2.23	3.17	3.23	0.91	0.78	0.39	0.00515	3.29
PCB 61/70	10	10	0	0.13	0.23	0.37	2.94	12.68	15.56	17.78	3.27	2.27	1.86	0.0372	20.3
PCB 66	10	10	0	0.12	0.22	0.43	3.05	10.86	14.74	15.41	3.04	2.01	1.79	0.039	16.1
PCB 77	10	10	0	0.01	0.01	0.04	0.23	0.97	1.08	1.09	0.39	0.38	0.15	0.00366	1.09
PCB 79	10	9	1	0.004	0.005	0.01	0.06	0.31	0.36	0.43	0.15	0.16	0.05	0.002485	0.494
PCB 80	10	8	2	0.002	0.002	0.003	0.01	0.11	0.15	0.15	0.05	0.07	0.01	0.00229	0.158
PCB 81	10	9	1	0.004	0.01	0.01	0.06	0.34	0.39	0.39	0.15	0.16	0.05	0.002485	0.401
Organochlorine Pesticides (µg/kg DW)															
Aldrin	15	15	0	1.81	1.94	7.73	17.00	43.88	265.01	319.49	21.79	3.96	20.10	1.6	370
Dieldrin	9	9	0	1.38	1.46	1.50	3.20	7.80	28.94	30.90	4.80	1.88	4.27	1.3	33

Table E2-12. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Mainstem (LBI-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	37	23	14	57.62	64.11	125.00	300.00	450.00	1354.44	39738.60	352.04	4.84	350.88	31	80000
Benzylbutylphthalate	2	1	1	28.09	30.93	41.24	66.32	106.29	140.91	154.78	66.32	2.74	65.84	25.5	170
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	1	0	1	25.50	25.50	25.50	25.50	25.50	25.50	25.50	25.50	NA	25.50	25.5	25.5
Di-n-butylphthalate	37	5	32	42.62	48.39	90.00	370.00	460.00	534.60	659.71	227.22	1.60	226.59	34	700
Di-n-octylphthalate	1	1	0	910.00	910.00	910.00	910.00	910.00	910.00	910.00	910.00	NA	910.00	910	910
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	16	16	0	88.76	104.88	167.44	376.70	689.16	1496.67	1712.56	362.04	1.84	361.45	62	2100
Hexachlorobenzene	22	22	0	95.16	122.71	552.09	1897.37	4947.08	6200.00	20650.11	1336.47	4.67	1332.88	26	24000
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	22	0	22	7.59	9.60	10.62	12.25	13.50	14.00	14.00	11.59	0.23	11.56	5.5	14.5
1,2-Dichlorobenzene	22	0	22	7.59	9.60	10.62	12.25	13.50	14.00	14.00	11.59	0.23	11.56	5.5	14.5
1,3-Dichlorobenzene	26	21	5	4.23	5.24	7.85	13.75	21.93	33.00	39.55	13.35	1.05	13.03	2	48
1,4-Dichlorobenzene	26	18	8	4.00	4.00	5.85	12.46	19.75	31.50	40.64	11.34	1.11	11.01	2	44
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	26	0	26	7.96	9.99	11.00	13.00	14.00	18.49	20.48	12.60	0.31	12.56	5.5	21.5
1,2-Dichloroethane	26	0	26	7.96	9.99	11.00	13.00	14.00	18.49	20.48	12.60	0.31	12.56	5.5	21.5

Table E2-12. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Mainstem (LBI-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	14	14	0	19.62	29.76	58.71	148.92	213.94	575.58	778.29	131.06	2.30	130.10	12.7	1000
1,2,3,4,7,8-HxCDD	14	12	2	0.85	1.17	1.98	4.88	9.85	31.27	44.92	5.92	1.97	5.16	0.488	57
1,2,3,6,7,8-HxCDD	14	12	2	0.83	1.10	2.84	6.25	10.59	34.28	56.58	6.86	2.17	6.00	0.52	90
1,2,3,7,8,9-HxCDD	14	11	3	0.85	1.18	3.23	5.76	8.74	27.51	33.64	6.07	1.65	5.37	0.4455	38
1,2,3,7,8-PeCDD	14	9	5	0.37	0.41	0.99	2.01	5.33	19.50	29.82	3.09	1.84	2.45	0.371	33.5
2,3,7,8-TCDD	14	13	1	0.20	0.26	0.37	0.82	2.36	8.47	17.28	1.67	1.61	1.15	0.125	29
OCDD	14	14	0	173.59	300.07	946.51	2469.82	3073.15	6777.80	8426.52	1753.16	2.62	1751.66	108	11000
Total TCDD	14	14	0	3.33	4.65	10.12	25.24	32.71	65.77	91.47	20.85	1.65	20.23	3.12	120
Total HpCDD	14	14	0	44.19	67.52	151.20	343.42	458.62	1196.81	1557.94	286.23	2.23	285.25	25.7	1900
Total HxCDD	14	14	0	21.03	27.71	82.90	113.45	164.22	313.49	437.96	106.54	1.63	105.94	15.2	570
Total PeCDD	14	13	1	4.34	5.02	6.68	24.58	29.77	41.81	64.89	17.99	1.56	17.48	3.54	120
1,2,3,4,6,7,8-HpCDF	14	14	0	3.93	9.58	52.44	521.50	1784.81	7812.80	16342.15	339.75	13.87	323.86	1.65	29000
1,2,3,4,7,8,9-HpCDF	14	13	1	0.76	2.08	11.79	136.83	387.65	1583.66	3508.27	89.19	11.19	77.37	0.4915	7100
1,2,3,4,7,8-HxCDF	14	14	0	1.86	3.86	23.11	327.45	709.28	2107.28	4134.37	166.08	10.48	154.78	1.5	7500
1,2,3,6,7,8-HxCDF	14	13	1	0.56	1.22	6.16	87.29	214.35	698.68	1379.02	53.27	8.89	45.03	0.544	2600
1,2,3,7,8,9-HxCDF	14	13	1	0.54	0.98	3.78	26.19	84.61	120.00	161.50	19.35	4.58	16.15	0.412	280
1,2,3,7,8-PeCDF	14	14	0	0.82	1.36	5.46	109.63	199.25	537.31	1066.42	54.48	8.38	47.28	0.783	2000
2,3,4,6,7,8-HxCDF	14	13	1	0.40	0.95	6.64	36.27	113.01	209.53	324.99	27.73	5.67	22.63	0.2935	670
2,3,4,7,8-PeCDF	14	14	0	0.77	1.27	4.78	69.17	131.81	356.88	716.70	40.28	6.96	34.76	0.71	1300
2,3,7,8-TCDF	14	14	0	0.61	1.08	4.68	61.76	104.68	185.97	303.36	32.25	5.67	27.32	0.554	600
OCDF	14	14	0	25.58	63.95	389.36	4445.52	13518.43	70830.56	163420.80	2558.34	16.34	2539.48	13.6	290000
Total TCDF	14	14	0	6.07	18.72	151.31	518.36	1179.75	3441.66	6063.70	368.64	7.33	359.67	3.9	11000
Total HpCDF	14	14	0	10.72	24.13	120.45	1011.27	3302.53	14214.77	30124.08	679.04	12.75	665.65	4.45	54000

Table E2-12. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Mainstem (LBI-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	14	14	0	5.13	11.24	102.39	1057.01	2836.02	9424.86	18568.28	585.80	12.53	570.40	5.01	36000
Total PeCDF	14	14	0	3.24	7.05	55.19	747.05	1822.53	6377.40	12775.75	399.31	12.90	383.33	3.21	25000
Total Toxic Equivalents (TEQs)[9]	14	14	0	1.91	3.17	12.80	115.00	227.72	679.71	1322.72	70.74	6.76	65.88	1.57	2360
Other COPCs (µg/kg DW)															
Acetone	26	10	16	10.50	10.50	11.24	15.43	33.75	107.89	262.19	24.16	1.74	23.79	9.5	370
Carbon disulfide	26	16	10	2.00	2.00	4.00	7.75	12.00	13.75	14.00	6.56	0.82	6.32	2	19
Mean PEC-Q	38	NA	NA	0.06	0.08	0.16	0.28	0.46	0.57	0.849	0.31	0.19	0.25	0.0348	1.15

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-13. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Lockport Marsh (LBI-LM).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	106	106	0	7.65	10.60	14.38	27.95	66.11	113.93	161	31.99	1.52	31.49	2.8	310
Copper	118	118	0	8.87	12.53	25.20	68.10	149.00	298.79	387	63.69	2.17	62.75	3.6	880
Lead	118	118	0	12.63	14.84	28.90	53.70	126.00	200.78	312	57.74	1.79	57.06	4.2	902
Mercury	111	99	12	0.06	0.11	0.29	1.20	3.25	6.80	8.10	1.58	1.18	1.01	0.035	93.9
Methyl mercury	12	12	0	0.002	0.003	0.005	0.01	0.01	0.01	0.0168	0.01	0.005	0.01	0.00174	0.0198
Nickel	118	117	1	5.57	7.42	9.95	16.95	26.72	47.23	55.4	17.49	0.98	17.17	0.7	83.1
Zinc	118	117	1	20.47	29.77	47.79	93.90	160.75	266.70	321	88.73	1.33	88.26	9.9	386
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	13	4	9	21.95	26.07	37.50	48.50	78.00	96.96	109	50.87	0.76	50.71	17.5	128
Acenaphthene	11	4	7	26.96	28.50	38.97	47.50	109.74	320.00	684	79.73	2.43	79.21	25.5	1460
Acenaphthylene	14	7	7	27.41	31.68	58.21	65.00	283.92	507.70	653	112.41	2.10	111.82	25.5	901
Anthracene	18	8	10	32.28	36.09	48.70	65.00	193.28	527.35	694	104.13	2.06	103.62	28.5	1320
Fluorene	12	3	9	21.54	25.79	35.02	46.50	73.86	260.52	286	58.48	1.46	58.14	17.5	300
Naphthalene	16	1	15	23.22	26.96	36.32	46.74	62.74	69.82	98.2	47.86	0.73	47.72	17.5	220
Phenanthrene	27	16	11	58.46	63.78	85.87	180.00	607.05	1920.86	17700	298.86	5.19	297.69	40.5	59000
Total LMW-PAHs[5]	78	17	61	325.00	381.28	486.25	559.91	770.00	937.92	3080	690.25	1.39	690.02	120	59000
Benz(a)anthracene	29	17	12	51.10	60.97	75.00	160.00	370.00	992.89	1270	192.70	2.24	192.06	28.5	4850
Benzo(a)pyrene	28	17	11	63.03	65.00	108.21	172.34	257.75	723.99	1160	198.20	1.57	197.81	57	2620
Benzo(b)fluoranthene	77	17	60	72.89	140.00	229.00	415.00	546.00	550.00	588	343.53	1.09	343.21	57	7390

Table E2-13. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Lockport Marsh (LBI-LM).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	23	10	13	41.91	57.97	65.00	155.00	204.94	390.09	610	133.22	1.31	132.86	28.5	651
Benzo(k)fluoranthene	26	11	15	38.23	43.16	58.21	152.48	202.06	475.61	849	135.38	1.91	134.86	28.5	2620
Chrysene	40	24	16	64.85	73.94	162.44	280.00	401.94	1207.77	1410	293.97	1.87	293.45	57	10400
Dibenz(a,h)anthracene	10	6	4	26.81	28.19	38.23	63.26	143.61	196.52	315	77.49	1.59	77.10	25.5	503
Fluoranthene	63	18	45	65.00	75.40	195.50	385.00	462.49	776.44	1830	333.38	1.68	332.86	53.5	19100
Indeno(1,2,3-cd)pyrene	24	12	12	39.94	57.42	65.00	165.00	227.46	434.52	565	151.94	1.53	151.50	28.5	1450
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	64	34	30	65.00	88.44	153.73	305.47	427.48	967.75	1750	296.73	1.76	296.25	57	17300
Total HMW-PAHs[6]	108	37	71	449.14	822.29	1036.49	1742.41	2200.00	2464.89	4390	1610.61	0.96	1610.39	342	54773
Total PAHs[7]	110	39	71	746.69	850.00	1500.00	2194.86	2750.00	3012.75	7030	2149.01	1.18	2148.77	460	59136.7
PCB Aroclors (µg/kg DW)															
Aroclor-1016	52	0	52	15.00	20.15	30.49	44.75	55.00	55.00	62.2	37.50	0.58	37.37	8	65
Aroclor-1221	21	0	21	13.00	15.00	20.00	31.00	50.00	60.00	65.0	30.40	0.79	30.21	8	65
Aroclor-1232	52	0	52	15.00	20.15	30.49	44.75	55.00	55.00	62.2	37.50	0.58	37.37	8	65
Aroclor-1242	52	0	52	15.00	20.15	30.49	44.75	55.00	55.00	62.2	37.50	0.58	37.37	8	65
Aroclor-1248	52	0	52	15.00	20.15	30.49	44.75	55.00	55.00	62.2	37.50	0.58	37.37	8	65
Aroclor-1254	55	13	42	13.00	15.00	29.98	45.50	55.00	65.00	84.0	37.82	0.84	37.56	4.9	140
Aroclor-1260	52	1	51	15.00	20.15	31.00	45.25	55.00	59.48	65.0	38.55	0.62	38.40	8	120
Total PCBs[8]	17	16	1	34.66	103.42	164.00	362.50	437.00	570.72	617	240.11	2.19	237.32	4.466	692
PCB Congeners (µg/kg DW)															
PCB 105	7	7	0	0.02	0.02	0.14	0.43	3.79	6.47	8.47	1.44	1.65	0.50	0.0217	11
PCB 108	7	7	0	0.01	0.01	0.02	0.08	0.91	1.76	2.58	0.53	0.77	0.12	0.00631	3.65

Table E2-13. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Lockport Marsh (LBI-LM).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	7	5	2	0.02	0.02	0.02	0.02	0.25	0.61	0.827	0.20	0.30	0.07	0.0152	1.08
PCB 118	7	7	0	0.05	0.05	0.39	1.36	10.88	17.99	24.4	3.20	2.97	1.42	0.0447	32.9
PCB 126	7	5	2	0.01	0.01	0.02	0.02	0.19	0.38	0.430	0.12	0.17	0.05	0.012	0.485
PCB 127	7	1	6	0.002	0.002	0.002	0.02	0.02	0.03	0.0397	0.02	0.02	0.01	0.00249	0.0461
PCB 15	7	7	0	0.10	0.12	0.20	0.56	7.02	20.03	28.0	2.49	3.16	1.19	0.0888	39
PCB 156	7	7	0	0.01	0.01	0.04	0.13	1.46	2.56	3.40	0.70	0.92	0.20	0.0116	4.44
PCB 157	7	6	1	0.01	0.01	0.02	0.04	0.37	0.71	0.958	0.24	0.34	0.08	0.00446	1.24
PCB 162	7	7	0	0.01	0.01	0.07	0.27	2.25	3.91	5.34	1.00	1.24	0.30	0.0124	7.17
PCB 167	7	7	0	0.01	0.01	0.02	0.07	0.92	1.79	2.33	0.49	0.70	0.13	0.00857	2.97
PCB 169	7	2	5	0.002	0.002	0.002	0.02	0.08	0.15	0.161	0.05	0.07	0.02	0.00249	0.173
PCB 189	7	7	0	0.01	0.01	0.01	0.02	0.52	0.99	1.04	0.26	0.38	0.06	0.00694	1.09
PCB 37	7	5	2	0.02	0.02	0.03	0.13	1.59	3.09	3.35	0.68	0.92	0.21	0.0188	3.62
PCB 58	7	5	2	0.01	0.01	0.02	0.02	0.34	0.61	0.684	0.19	0.26	0.06	0.0051	0.762
PCB 60	7	5	2	0.02	0.02	0.06	0.14	3.02	6.48	7.20	1.12	1.56	0.33	0.0204	7.99
PCB 61/70	7	5	2	0.04	0.04	0.23	0.65	9.32	14.72	16.2	2.40	2.55	0.94	0.0336	17.9
PCB 66	7	6	1	0.05	0.07	0.20	0.48	9.11	16.71	17.7	2.32	2.69	0.97	0.03755	18.7
PCB 77	7	7	0	0.02	0.02	0.03	0.06	1.16	2.02	2.03	0.49	0.66	0.15	0.016	2.04
PCB 79	7	5	2	0.02	0.02	0.02	0.02	0.13	0.29	0.410	0.12	0.16	0.05	0.0145	0.541
PCB 80	7	4	3	0.004	0.01	0.01	0.02	0.04	0.08	0.0890	0.03	0.03	0.02	0.00249	0.0995
PCB 81	7	5	2	0.02	0.02	0.02	0.02	0.25	0.53	0.682	0.18	0.25	0.07	0.0161	0.848
Organochlorine Pesticides (µg/kg DW)															
Aldrin	14	14	0	0.66	0.89	2.05	5.09	16.70	31.39	35.2	5.95	2.16	4.99	0.35	42
Dieldrin	5	5	0	1.50	1.72	2.50	8.10	9.10	15.98	19.2	6.08	1.53	5.60	1.3	23

Table E2-13. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Lockport Marsh (LBI-LM).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	109	57	52	64.40	75.80	140.00	310.00	600.00	900.00	1050	309.76	2.14	309.15	45.5	150000
Benzylbutylphthalate	1	1	0	130.00	130.00	130.00	130.00	130.00	130.00	130	130.00	NA	130.00	130	130
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	90	6	84	60.00	75.00	184.81	412.49	550.00	600.00	650	291.74	1.22	291.27	31.5	700
Di-n-octylphthalate	1	1	0	270.00	270.00	270.00	270.00	270.00	270.00	270	270.00	NA	270.00	270	270
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	3	3	0	117.91	126.39	155.62	220.00	435.21	654.97	751	275.42	1.84	275.07	110	860
Hexachlorobenzene	8	8	0	136.68	143.70	193.07	249.80	374.49	651.63	717	281.06	0.87	280.90	130	790
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	26	1	25	6.85	8.00	10.12	12.50	13.50	14.99	15.5	11.59	0.25	11.56	6.5	15.5
1,2-Dichlorobenzene	32	0	32	7.29	9.55	11.00	13.50	15.50	16.45	17.0	12.68	0.27	12.65	6.5	17.5
1,3-Dichlorobenzene	51	16	35	1.45	2.00	7.00	12.00	23.98	37.50	47.7	11.44	1.39	10.81	1	50
1,4-Dichlorobenzene	51	10	41	1.45	3.00	8.72	13.50	23.98	37.50	47.7	12.73	1.28	12.12	1	50
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	51	0	51	8.72	10.00	12.50	16.00	23.98	37.50	47.7	17.39	0.61	17.28	6.5	50
1,2-Dichloroethane	52	0	52	8.80	10.05	12.50	16.00	25.00	38.40	50.0	18.02	0.70	17.89	6.5	105

Table E2-13. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Lockport Marsh (LBI-LM).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	17	17	0	11.12	26.74	71.00	110.00	240.00	618.60	966	126.88	2.74	125.58	9.7	1400
1,2,3,4,7,8-HxCDD	17	6	11	0.53	0.67	0.94	2.40	5.50	25.16	46.1	3.72	2.51	2.92	0.295	110
1,2,3,6,7,8-HxCDD	17	10	7	0.96	1.08	1.70	4.95	19.80	39.21	50.0	6.67	2.40	5.81	0.925	83
1,2,3,7,8,9-HxCDD	17	9	8	0.83	0.96	1.75	4.00	11.70	26.60	42.5	5.63	2.07	4.93	0.785	82
1,2,3,7,8-PeCDD	17	6	11	0.51	0.59	0.77	2.20	5.50	19.60	26.1	3.31	1.91	2.66	0.495	43
2,3,7,8-TCDD	17	9	8	0.17	0.24	0.50	1.10	4.00	5.58	8.45	1.71	1.10	1.19	0.04635	10
OCDD	17	17	0	166.91	557.36	1400.00	2410.00	3480.00	6988.48	8590	2094.01	2.24	2092.65	135	12000
Total TCDD	17	17	0	4.10	4.26	12.10	20.10	37.00	48.48	71.1	20.18	1.61	19.62	3.72	160
Total HpCDD	17	17	0	28.77	63.43	170.00	280.00	530.00	1339.53	1940	294.12	2.51	292.99	27.5	2600
Total HxCDD	17	17	0	20.29	23.41	27.30	100.00	180.00	374.15	498	88.94	2.23	88.23	17	900
Total PeCDD	17	10	7	2.09	2.77	4.90	14.20	32.00	66.27	84.6	14.33	2.42	13.43	1.7	180
1,2,3,4,6,7,8-HpCDF	17	16	1	11.60	12.58	55.00	190.00	940.00	2476.64	4180	193.05	6.73	189.96	11.2	7600
1,2,3,4,7,8,9-HpCDF	17	17	0	2.79	2.89	8.60	32.00	200.00	467.99	886	42.90	5.98	40.13	2.47	1400
1,2,3,4,7,8-HxCDF	17	16	1	7.52	7.92	21.00	66.00	540.00	1149.20	1990	89.96	6.11	87.44	6.59	3000
1,2,3,6,7,8-HxCDF	17	12	5	0.80	0.82	3.70	23.00	110.00	340.80	470	21.91	6.14	18.61	0.76	510
1,2,3,7,8,9-HxCDF	17	7	10	0.53	0.64	0.70	2.95	18.00	77.99	87.6	5.71	3.71	4.31	0.355	93.7
1,2,3,7,8-PeCDF	17	16	1	2.20	2.31	5.50	33.00	200.00	352.54	577	31.44	5.43	28.95	2.19	700
2,3,4,6,7,8-HxCDF	17	9	8	0.54	0.77	1.59	5.50	39.00	130.80	140	9.65	4.62	7.72	0.493	180
2,3,4,7,8-PeCDF	17	13	4	1.31	1.75	2.95	21.00	110.00	248.18	302	20.48	5.29	18.09	0.995	410
2,3,7,8-TCDF	17	17	0	1.54	1.78	5.70	36.00	190.00	335.31	440	30.42	6.00	27.07	0.844	880
OCDF	17	16	1	77.15	79.54	310.00	1400.00	6100.00	14105.18	29800	1185.21	6.60	1182.16	69.1	38000
Total TCDF	17	17	0	39.61	69.18	290.00	1000.00	1660.00	2086.11	2680	572.77	3.98	567.96	7.58	4200
Total HpCDF	17	17	0	20.22	22.15	98.00	340.00	1800.00	4440.61	7830	363.53	6.64	360.27	19.5	13000

Table E2-13. Summary of the whole-sediment chemistry for Lower Bayou d'Inde - Lockport Marsh (LBI-LM).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	17	17	0	11.41	11.76	34.00	260.00	1400.00	3734.15	5740	229.26	7.75	225.36	10.3	7300
Total PeCDF	17	17	0	2.47	10.59	40.00	220.00	1000.00	2767.23	3860	165.34	7.96	158.31	2.39	4600
Total Toxic Equivalents (TEQs)[9]	17	17	0	4.29	4.51	9.72	30.28	170.87	403.78	583	38.91	4.53	37.26	4.29118	866.35
Other COPCs (µg/kg DW)															
Acetone	52	6	46	7.29	10.00	13.24	23.75	37.75	49.08	59.7	25.34	2.67	24.92	4	81000
Carbon disulfide	52	23	29	2.00	4.00	6.37	12.00	18.25	37.35	50.0	11.70	1.29	11.23	1	105
Mean PEC-Q	125	NA	NA	0.07	0.10	0.14	0.23	0.39	0.58	0.860	0.23	0.28	0.19	0.0314	1.51

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-14. Summary of the whole-sediment chemistry for PPG Canal (PPGC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	6	6	0	15.78	16.27	18.58	50.85	172.01	386.30	538	69.26	3.71	68.21	15.3	749
Lead	6	6	0	11.38	13.00	17.97	57.22	289.44	399.46	420	67.85	4.10	66.48	9.95	442
Mercury	6	6	0	0.57	0.60	0.71	2.72	8.12	8.78	8.80	2.88	1.52	2.31	0.541	8.83
Methyl mercury	6	6	0	0.004	0.004	0.004	0.01	0.01	0.02	0.0169	0.01	0.006	0.01	0.00347	0.0177
Nickel	6	6	0	6.63	6.68	7.41	17.54	47.58	77.56	92.4	21.36	2.09	20.79	6.58	110
Zinc	6	6	0	21.33	21.87	23.63	57.80	153.04	235.45	284	67.26	2.28	66.63	20.8	342
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	4	1	3	26.57	26.65	26.87	27.25	39.04	72.82	89.5	38.51	0.99	38.36	26.5	110
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	6	3	3	8.12	8.25	8.62	33.79	122.99	261.20	379	42.85	4.83	41.35	8	549
Acenaphthene	6	0	6	8.12	8.25	8.62	9.95	22.56	30.44	31.5	13.71	0.82	13.57	8	32.5
Acenaphthylene	6	4	2	8.24	8.49	13.46	45.56	65.55	79.46	83.2	31.88	1.71	31.32	8	87.2
Anthracene	6	3	3	8.12	8.25	8.62	22.60	62.47	122.49	168	28.98	2.87	28.18	8	229
Fluorene	6	1	5	8.12	8.25	8.62	9.95	22.56	44.18	54.9	15.60	1.29	15.35	8	68.2
Naphthalene	6	3	3	8.12	8.25	8.62	21.56	56.87	93.23	117	25.99	2.32	25.34	8	146
Phenanthrene	6	4	2	8.24	8.49	11.18	63.65	205.27	398.81	548	61.59	5.37	59.73	8	753
Total LMW-PAHs[5]	6	4	2	57.67	59.40	71.81	227.06	560.92	1048.32	1400	242.59	3.11	241.69	56	1864.9
Benz(a)anthracene	6	4	2	8.24	8.49	11.94	71.55	231.11	510.57	732	69.61	5.94	67.51	8	1050
Benzo(a)pyrene	6	4	2	8.24	8.49	12.00	76.13	254.06	509.07	696	71.00	5.90	68.85	8	952
Benzo(b)fluoranthene	6	4	2	8.24	8.49	13.89	126.29	450.34	848.67	1110	99.86	7.44	96.75	8	1440

Table E2-14. Summary of the whole-sediment chemistry for PPG Canal (PPGC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	6	4	2	8.24	8.49	12.28	69.54	336.01	536.19	598	70.10	5.58	68.02	8	667
Benzo(k)fluoranthene	6	4	2	8.24	8.49	11.37	33.10	90.41	120.13	125	32.97	2.21	32.29	8	130
Chrysene	6	5	1	11.16	13.80	28.99	193.64	612.96	1258.79	1740	152.67	7.45	149.40	9	2400
Dibenz(a,h)anthracene	6	3	3	8.12	8.25	8.62	25.78	114.89	229.89	300	37.52	4.09	36.29	8	391
Fluoranthene	6	5	1	11.41	14.39	31.88	112.99	350.52	575.24	638	99.37	4.26	97.57	9	707
Indeno(1,2,3-cd)pyrene	6	3	3	8.12	8.25	8.62	34.50	143.32	229.55	284	41.30	4.33	39.89	8	351
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	6	5	1	11.69	15.09	36.51	234.86	826.01	1862.25	2560	190.95	8.37	187.00	9	3520
Total HMW-PAHs[6]	6	5	1	61.80	70.71	128.11	749.02	2391.15	4938.54	6670	641.86	6.43	639.32	54	9020
Total PAHs[7]	6	5	1	124.19	131.82	195.49	975.88	2955.89	5986.99	8070	918.31	5.15	916.50	117	10884.9
PCB Aroclors (µg/kg DW)															
Aroclor-1016	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Aroclor-1221	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Aroclor-1232	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Aroclor-1242	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Aroclor-1248	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Aroclor-1254	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Aroclor-1260	5	0	5	6.60	6.70	7.00	7.00	9.50	12.01	13.0	8.46	0.33	8.42	6.5	14
Total PCBs[8]	3	0	3	45.84	46.18	47.22	49.00	49.00	49.00	49.0	47.81	0.04	47.80	45.5	49
PCB Congeners (µg/kg DW)															
PCB 105	3	3	0	1.52	2.12	4.93	16.30	19.29	21.33	22.1	8.42	2.81	7.26	1.03	22.8
PCB 108	3	3	0	0.51	0.80	2.07	6.48	10.01	12.88	14.0	4.35	2.70	2.96	0.264	15.2

Table E2-14. Summary of the whole-sediment chemistry for PPG Canal (PPGC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	3	3	0	0.22	0.31	0.67	1.47	3.17	4.71	5.34	1.69	1.51	1.03	0.123	6.04
PCB 118	3	3	0	3.97	5.66	15.10	69.10	77.85	83.62	85.6	27.44	4.87	25.39	2.7	87.7
PCB 126	3	3	0	0.14	0.25	0.64	1.57	5.51	10.38	12.7	2.54	3.09	1.01	0.0426	15.5
PCB 127	3	3	0	0.02	0.04	0.09	0.18	0.33	0.43	0.462	0.21	0.22	0.08	0.00682	0.498
PCB 15	3	3	0	4.42	7.29	28.6	245.00	334.29	402.76	429	72.63	13.07	65.80	2.55	456
PCB 156	3	3	0	0.87	1.24	2.85	8.47	14.11	18.99	21.0	6.09	3.02	4.79	0.563	23.1
PCB 157	3	3	0	0.22	0.30	0.59	1.22	2.75	4.15	4.72	1.52	1.38	0.97	0.141	5.35
PCB 162	3	3	0	0.82	1.05	1.91	4.21	7.23	9.83	10.9	3.79	1.84	3.15	0.62	12
PCB 167	3	3	0	0.57	0.81	1.73	4.43	9.65	14.96	17.3	4.38	2.90	3.20	0.372	19.9
PCB 169	3	3	0	0.09	0.14	0.33	0.70	0.84	0.92	0.954	0.52	0.41	0.28	0.0323	0.984
PCB 189	3	3	0	0.41	0.64	1.62	4.69	7.67	10.16	11.1	3.49	2.37	2.28	0.206	12.2
PCB 37	3	3	0	1.07	1.79	5.81	29.10	47.70	64.00	70.6	14.40	6.78	10.69	0.539	77.8
PCB 58	3	3	0	0.23	0.43	1.22	3.64	4.02	4.26	4.35	1.99	1.46	1.01	0.0643	4.43
PCB 60	3	3	0	0.86	1.30	3.33	11.50	20.48	28.72	32.1	7.85	4.09	5.92	0.503	35.9
PCB 61/70	3	3	0	2.07	3.21	9.82	51.30	73.10	90.34	96.9	22.08	6.77	18.77	1.24	104
PCB 66	3	3	0	2.73	4.26	13.81	82.10	106.09	123.69	130	30.17	7.61	26.42	1.64	137
PCB 77	3	3	0	0.39	0.64	1.71	5.24	7.27	8.79	9.35	3.31	2.20	2.08	0.173	9.95
PCB 79	3	3	0	0.14	0.25	0.65	1.64	2.38	2.92	3.12	1.28	1.07	0.59	0.0371	3.33
PCB 80	3	2	1	0.028	0.05	0.14	0.29	0.54	0.71	0.773	0.33	0.36	0.08	0.00244	0.836
PCB 81	3	3	0	0.13	0.20	0.45	0.97	1.51	1.90	2.05	0.89	0.74	0.51	0.0637	2.2
Organochlorine Pesticides (µg/kg DW)															
Aldrin	1	1	0	320.00	320.00	320.00	320.00	320.00	320.00	320	320.00	NA	320.00	320	320
Dieldrin	2	2	0	30.62	31.25	33.21	36.76	40.68	43.22	44.1	36.76	0.32	36.74	30	45

Table E2-14. Summary of the whole-sediment chemistry for PPG Canal (PPGC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	6	4	2	29.21	31.03	35.49	84.19	197.45	296.73	361	92.31	2.16	91.72	27.5	440
Benzylbutylphthalate	3	0	3	26.55	26.60	26.75	27.00	27.25	27.40	27.4	27.00	0.02	27.00	26.5	27.5
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	3	0	3	26.55	26.60	26.75	27.00	27.25	27.40	27.4	27.00	0.02	27.00	26.5	27.5
Di-n-butylphthalate	6	0	6	26.62	26.75	27.12	38.95	65.91	115.45	148	49.54	1.15	49.32	26.5	190
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	2	2	0	195.02	200.18	216.47	246.61	280.93	303.76	312	246.61	0.44	246.58	190	320
Hexachlorobenzene	1	1	0	760.00	760.00	760.00	760.00	760.00	760.00	760	760.00	NA	760.00	760	760
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-14. Summary of the whole-sediment chemistry for PPG Canal (PPGC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	3	3	0	117.16	140.17	239.74	585.00	936.86	1242.61	1370	442.09	2.98	441.24	97.9	1500
1,2,3,4,7,8-HxCDD	3	2	1	4.11	5.36	11.26	35.60	60.99	84.04	93.5	24.09	4.22	22.58	3.11	104
1,2,3,6,7,8-HxCDD	3	3	0	7.09	9.48	21.73	81.70	97.79	108.90	113	38.36	3.97	36.89	5.25	117
1,2,3,7,8,9-HxCDD	3	2	1	3.70	4.54	8.10	19.80	25.83	30.25	31.9	13.20	2.10	12.56	2.98	33.6
1,2,3,7,8-PeCDD	3	3	0	3.81	5.58	15.80	79.20	88.15	93.99	96.0	29.36	5.48	26.95	2.52	98.1
2,3,7,8-TCDD	3	3	0	0.85	1.33	3.68	13.90	18.26	21.47	22.7	7.16	3.52	5.37	0.467	23.9
OCDD	3	3	0	1373.18	1545.57	2203.72	3980.00	6968.37	9751.47	10900	3898.73	2.16	3898.23	1220	12200
Total TCDD	3	3	0	4.98	7.41	22.41	128.00	144.45	155.31	159	43.80	6.72	40.78	3.25	163
Total HpCDD	3	3	0	236.31	283.42	488.67	1210.00	1866.86	2421.50	2640	883.00	2.92	882.16	197	2880
Total HxCDD	3	3	0	43.69	59.17	145.79	648.00	795.69	899.99	938	275.21	5.34	273.18	32.2	977
Total PeCDD	3	3	0	6.60	8.88	20.66	79.20	151.77	223.88	255	50.49	6.32	48.12	4.85	290
1,2,3,4,6,7,8-HpCDF	3	3	0	485.53	631.92	1392.35	5190.00	5843.82	6275.01	6430	2336.79	3.91	2335.43	373	6580
1,2,3,4,7,8,9-HpCDF	3	3	0	137.77	189.66	493.49	2420.00	2424.99	2428.00	2430	839.81	5.27	837.80	100	2430
1,2,3,4,7,8-HxCDF	3	3	0	314.69	414.24	944.01	3720.00	5523.12	7001.05	7580	1940.99	5.38	1939.03	239	8200
1,2,3,6,7,8-HxCDF	3	3	0	79.36	107.52	266.32	1200.00	1204.99	1207.99	1210	441.32	4.68	439.58	58.5	1210
1,2,3,7,8,9-HxCDF	3	3	0	38.42	52.96	137.39	664.00	794.66	885.08	917	262.20	5.85	259.89	27.8	951
1,2,3,7,8-PeCDF	3	3	0	78.47	107.32	273.35	1290.00	1353.44	1392.99	1410	473.67	5.15	471.71	57.3	1420
2,3,4,6,7,8-HxCDF	3	3	0	36.07	47.91	111.32	448.00	548.71	619.67	645	203.01	4.63	201.31	27.1	672
2,3,4,7,8-PeCDF	3	3	0	71.21	95.92	233.37	1020.00	1155.95	1246.06	1280	415.04	4.91	413.21	52.8	1310
2,3,7,8-TCDF	3	3	0	55.12	75.27	190.40	886.00	1121.69	1292.18	1350	372.38	5.83	370.12	40.3	1420
OCDF	3	3	0	3443.62	4543.38	10433.62	41700.00	47056.04	50594.45	51800	17947.11	4.33	17945.56	2610	53100
Total TCDF	3	3	0	353.22	500.87	1426.50	8150.00	9117.57	9752.41	9970	2748.57	7.00	2745.70	249	10200
Total HpCDF	3	3	0	968.28	1311.17	3254.38	14800.00	14849.92	14879.95	14900	5404.13	4.76	5402.37	715	14900

Table E2-14. Summary of the whole-sediment chemistry for PPG Canal (PPGC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	3	3	0	873.72	1209.64	3208.71	16300.00	17412.07	18115.40	18400	5764.31	5.79	5762.04	631	18600
Total PeCDF	3	3	0	559.83	768.01	1981.65	9610.00	11640.51	13059.31	13600	3811.83	5.98	3809.50	408	14100
Total Toxic Equivalents (TEQs)[9]	3	3	0	104.23	141.62	354.06	1622.68	1826.71	1961.24	2010	636.74	5.22	634.75	76.64464	2056.38
Other COPCs (µg/kg DW)															
Acetone	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean PEC-Q	6	NA	NA	0.05	0.05	0.06	0.21	0.62	0.79	0.830	0.19	0.32	0.30	0.0505	0.869

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-15. Summary of the whole-sediment chemistry for Middle Calcasieu River - Mainstem (MCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	76	74	2	2.52	3.35	7.67	11.65	19.15	29.98	35.86	11.47	1.06	11.06	0.7	58.9
Copper	76	62	14	2.27	4.54	8.53	14.80	26.37	49.37	65.70	14.76	1.32	14.28	1.4	93.6
Lead	76	76	0	4.24	8.65	10.97	14.30	26.80	45.60	59.25	16.76	1.09	16.42	1.5	213
Mercury	76	18	58	0.03	0.03	0.04	0.07	0.14	0.28	0.42	0.12	0.15	0.09	0.03	1.7
Methyl mercury	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	75	58	17	2.27	3.24	5.42	9.10	13.57	17.42	20.04	8.12	0.82	7.82	0.6	29.3
Zinc	76	48	28	6.92	9.17	13.92	24.20	50.17	80.95	90.02	26.39	1.21	26.02	4	126
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	3	3	0	121.87	123.76	129.62	140.00	154.28	163.53	166.73	141.89	0.19	141.88	120	170
Acenaphthene	3	3	0	262.86	265.74	274.59	290.00	852.11	1625.56	2015.93	573.84	2.58	573.37	260	2500
Acenaphthylene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	6	5	1	62.67	67.70	79.50	108.04	441.06	876.41	1025.53	186.32	2.48	185.73	58	1200
Fluorene	2	2	0	185.80	203.05	264.98	412.73	642.54	837.86	915.35	412.73	2.49	412.31	170	1000
Naphthalene	3	3	0	72.57	77.44	94.07	130.00	172.96	205.23	217.26	126.81	0.83	126.69	68	230
Phenanthrene	16	5	11	91.44	107.34	159.48	205.00	216.24	328.71	494.35	194.31	0.63	194.19	79	540
Total LMW-PAHs[5]	50	7	43	478.90	500.00	556.39	708.45	854.96	1000.00	1045.49	730.20	0.48	730.14	425	5490
Benz(a)anthracene	20	7	13	97.49	108.96	161.12	207.49	230.00	259.93	821.53	211.43	1.08	211.22	60	2200
Benzo(a)pyrene	24	9	15	78.31	105.63	147.44	207.49	230.00	256.96	468.69	193.01	0.75	192.85	55	930
Benzo(b)fluoranthene	49	9	40	74.70	137.77	210.00	300.00	445.00	550.00	550.00	279.90	0.94	279.57	27	1200

Table E2-15. Summary of the whole-sediment chemistry for Middle Calcasieu River - Mainstem (MCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	20	6	14	109.48	127.85	176.13	207.49	226.24	230.00	234.88	190.29	0.34	190.24	100	350
Benzo(k)fluoranthene	22	4	18	131.56	166.90	205.00	215.00	230.00	258.98	278.96	207.94	0.43	207.85	57	410
Chrysene	31	11	20	62.50	91.00	182.48	215.00	267.40	320.00	516.35	208.82	1.10	208.49	27	2200
Dibenz(a,h)anthracene	3	3	0	62.76	63.52	65.88	70.00	109.19	142.43	155.61	90.45	0.73	90.36	62	170
Fluoranthene	48	12	36	58.43	133.68	203.74	267.40	411.24	500.00	711.35	280.31	1.40	279.93	47	7600
Indeno(1,2,3-cd)pyrene	19	5	14	82.50	89.60	192.35	210.00	227.49	230.00	245.43	183.97	0.61	183.82	46	440
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	43	16	27	73.20	88.59	182.48	230.00	324.96	422.98	1407.92	249.43	1.51	249.06	44	7400
Total HMW-PAHs[6]	69	16	53	675.83	800.00	1000.00	1500.00	2075.00	2452.00	2500.00	1480.55	0.80	1480.40	503	20500
Total PAHs[7]	69	16	53	869.66	1208.72	1712.00	2065.00	2450.00	2911.97	3000.00	2058.03	0.66	2057.92	800	21550
PCB Aroclors (µg/kg DW)															
Aroclor-1016	62	0	62	20.50	21.50	24.62	32.50	49.87	60.00	65.00	34.41	0.49	34.33	11.5	65
Aroclor-1221	32	0	32	41.05	41.55	43.87	49.75	55.00	64.48	65.00	49.30	0.22	49.27	23	65
Aroclor-1232	62	0	62	20.50	21.50	24.62	32.50	49.87	60.00	65.00	34.41	0.49	34.33	11.5	65
Aroclor-1242	62	0	62	20.50	21.50	24.62	32.50	49.87	60.00	65.00	34.41	0.49	34.33	11.5	65
Aroclor-1248	62	0	62	20.50	21.50	24.62	32.50	49.87	60.00	65.00	34.41	0.49	34.33	11.5	65
Aroclor-1254	62	6	56	20.50	21.05	25.12	35.24	50.00	64.69	65.00	37.58	0.75	37.44	11.5	590
Aroclor-1260	62	1	61	20.50	21.50	24.62	33.25	50.00	60.00	65.00	34.84	0.50	34.75	11.5	65
Total PCBs[8]	7	7	0	183.42	196.74	219.72	237.00	291.19	459.21	584.93	276.59	0.61	276.51	171	745
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-15. Summary of the whole-sediment chemistry for Middle Calcasieu River - Mainstem (MCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	0.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	1	0	1	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	NA	1.15	1.15	1.15

Table E2-15. Summary of the whole-sediment chemistry for Middle Calcasieu River - Mainstem (MCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	70	28	42	89.00	108.96	184.81	309.84	550.00	704.85	850.00	319.37	1.53	318.95	42	30000
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	61	5	56	110.00	200.00	225.00	330.00	500.00	650.00	650.00	323.83	0.81	323.60	53	700
Di-n-octylphthalate	1	1	0	3700.00	3700.00	3700.00	3700.00	3700.00	3700.00	3700.00	3700.00	NA	3700.00	3700	3700
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	1	1	0	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	NA	550.00	550	550
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	47	0	47	6.50	6.50	7.00	8.50	11.25	14.70	15.35	9.02	0.31	8.98	5.5	15.5
1,2-Dichlorobenzene	54	0	54	6.50	6.50	7.50	8.75	13.50	16.00	16.17	9.77	0.37	9.71	5.5	17.5
1,3-Dichlorobenzene	74	0	74	6.50	6.65	7.62	12.25	18.87	24.70	29.17	12.58	0.62	12.46	5.5	38.5
1,4-Dichlorobenzene	74	0	74	6.50	6.65	7.62	12.25	18.87	24.70	29.17	12.58	0.62	12.46	5.5	38.5
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	74	0	74	6.50	6.65	7.62	12.25	18.87	24.70	29.17	12.58	0.62	12.46	5.5	38.5
1,2-Dichloroethane	74	0	74	6.50	6.65	7.62	12.25	18.87	24.70	29.17	12.58	0.62	12.46	5.5	38.5

Table E2-15. Summary of the whole-sediment chemistry for Middle Calcasieu River - Mainstem (MCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	14	14	0	26.15	32.69	60.91	114.89	147.44	207.15	223.45	88.99	1.11	88.66	19	230
1,2,3,4,7,8-HxCDD	14	0	14	0.29	0.32	0.50	0.60	1.16	1.77	2.10	0.80	0.36	0.72	0.255	2.4
1,2,3,6,7,8-HxCDD	14	2	12	0.34	0.39	0.63	1.35	2.01	5.19	6.92	1.61	0.82	1.35	0.335	8.7
1,2,3,7,8,9-HxCDD	14	8	6	0.65	0.91	1.77	4.15	7.65	10.43	11.34	3.83	1.06	3.40	0.415	12
1,2,3,7,8-PeCDD	14	0	14	0.26	0.28	0.35	0.55	0.86	0.98	1.21	0.61	0.24	0.56	0.245	1.65
2,3,7,8-TCDD	14	1	13	0.14	0.16	0.20	0.36	0.47	1.04	1.25	0.42	0.26	0.35	0.11	1.35
OCDD	14	14	0	474.29	650.25	1400.00	2792.85	4149.08	5212.93	5500.00	2142.69	1.30	2142.26	430	5500
Total TCDD	14	13	1	0.49	0.88	9.32	15.31	28.75	29.70	30.35	10.63	2.08	8.88	0.225	31
Total HpCDD	14	14	0	101.69	150.97	211.48	329.85	531.23	716.99	740.46	308.05	1.06	307.72	56	780
Total HxCDD	14	14	0	18.38	32.46	57.67	81.90	124.69	153.72	166.74	70.58	1.24	70.02	7.1	180
Total PeCDD	14	8	6	0.44	0.63	1.49	8.13	20.48	26.70	27.35	6.16	2.18	5.03	0.355	28
1,2,3,4,6,7,8-HpCDF	14	8	6	0.18	0.28	0.63	11.06	33.51	129.14	162.94	9.31	5.52	6.03	0.16	190
1,2,3,4,7,8,9-HpCDF	14	5	9	0.14	0.16	0.24	0.72	7.40	26.58	36.40	2.55	2.91	1.42	0.14	52
1,2,3,4,7,8-HxCDF	14	6	8	0.18	0.22	0.31	1.84	13.47	54.03	72.28	4.22	3.90	2.44	0.125	88
1,2,3,6,7,8-HxCDF	14	3	11	0.16	0.20	0.28	0.66	1.76	14.94	18.00	1.67	1.84	1.01	0.105	20
1,2,3,7,8,9-HxCDF	14	0	14	0.19	0.23	0.23	0.38	0.95	1.77	1.88	0.59	0.41	0.47	0.13	1.95
1,2,3,7,8-PeCDF	14	5	9	0.23	0.31	0.44	0.82	4.20	13.03	15.59	1.98	1.71	1.35	0.135	19
2,3,4,6,7,8-HxCDF	14	0	14	0.17	0.20	0.25	0.47	1.20	2.02	2.51	0.70	0.52	0.54	0.115	3.3
2,3,4,7,8-PeCDF	14	1	13	0.17	0.21	0.32	0.57	1.12	3.74	5.88	1.05	0.96	0.76	0.135	11
2,3,7,8-TCDF	14	7	7	0.14	0.18	0.32	1.82	3.40	13.54	16.67	2.03	1.69	1.28	0.115	18
OCDF	14	9	5	0.72	1.13	3.55	27.84	230.30	886.81	1096.18	35.06	10.17	28.49	0.31	1300
Total TCDF	14	12	2	0.15	0.94	17.24	50.03	127.43	163.74	229.43	33.61	5.20	25.14	0.15	400
Total HpCDF	14	9	5	0.31	0.41	0.75	24.98	72.78	277.94	346.00	14.42	7.87	9.72	0.2	400

Table E2-15. Summary of the whole-sediment chemistry for Middle Calcasieu River - Mainstem (MCR-MS).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	14	7	7	0.23	0.29	0.36	7.20	25.43	153.41	203.14	7.62	6.00	4.53	0.13	230
Total PeCDF	14	6	8	0.23	0.34	1.82	3.84	16.28	76.38	107.65	6.68	3.86	4.76	0.135	150
Total Toxic Equivalents (TEQs)[9]	14	14	0	1.55	1.79	2.02	2.56	5.88	15.05	19.11	4.04	1.14	3.76	1.218631	24.362
Other COPCs (µg/kg DW)															
Acetone	74	39	35	4.93	6.15	8.62	18.25	33.36	59.08	91.61	18.80	1.36	18.40	3	170
Carbon disulfide	74	19	55	2.62	3.28	7.00	10.00	16.37	24.38	29.35	10.27	0.88	10.01	2	38.5
Mean PEC-Q	76	NA	NA	0.09	0.11	0.13	0.16	0.20	0.25	0.302	0.18	0.08	0.16	0.0289	0.673

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-16. Summary of the whole-sediment chemistry for Prien Lake and upper old river channel (PL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	39	38	1	5.64	6.34	8.30	11.20	21.65	28.48	31.10	12.56	0.80	12.34	2.1	38.2
Copper	43	35	8	3.71	5.03	9.15	15.80	28.45	50.23	53.99	15.81	1.22	15.42	2.75	78.1
Lead	43	43	0	7.27	7.92	11.50	14.70	29.35	42.76	47.62	17.18	0.83	16.98	3.4	49.2
Mercury	42	13	29	0.03	0.03	0.04	0.06	0.13	0.17	0.19	0.10	0.09	0.07	0.03	0.55
Methyl mercury	4	2	2	0.0004	0.0005	0.0005	0.0009	0.001	0.002	0.002	0.001	0.0008	0.0009	0.00042	0.00223
Nickel	43	40	3	3.94	4.70	6.10	8.80	12.69	15.12	17.47	8.63	0.63	8.47	1.3	32.9
Zinc	43	37	6	10.74	14.16	25.40	40.90	67.62	95.17	103.00	38.38	0.99	38.10	8.95	115
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	2	0	2	26.71	26.92	27.56	28.66	29.81	30.52	30.76	28.66	0.11	28.66	26.5	31
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	9	0	9	10.03	19.28	34.00	45.50	47.50	51.86	55.78	34.37	1.02	33.94	5	60
Acenaphthene	8	0	8	9.22	16.42	31.95	45.25	45.99	48.24	49.11	32.04	1.05	31.61	5	50
Acenaphthylene	11	1	10	11.85	26.50	39.12	45.50	54.78	70.00	87.77	40.81	1.09	40.34	5	110
Anthracene	11	1	10	11.85	26.50	39.12	45.50	54.78	70.00	77.59	39.90	1.03	39.45	5	86
Fluorene	8	0	8	9.22	16.42	31.95	45.25	45.99	48.24	49.11	32.04	1.05	31.61	5	50
Naphthalene	10	0	10	10.90	22.62	36.47	45.50	49.36	60.93	65.31	36.92	1.01	36.49	5	70
Phenanthrene	17	5	12	25.08	29.12	45.00	50.00	130.00	206.99	213.86	64.67	1.13	64.41	20.1	230
Total LMW-PAHs[5]	38	5	33	152.98	259.97	331.84	484.77	657.49	840.00	925.89	438.51	0.95	438.13	50.1	1040
Benz(a)anthracene	19	6	13	33.17	37.09	45.25	52.00	128.48	213.86	248.59	76.48	1.20	76.22	26.5	500
Benzo(a)pyrene	21	6	15	34.00	45.00	46.00	61.00	205.00	240.00	260.00	87.96	1.30	87.65	26.5	610
Benzo(b)fluoranthene	38	8	30	33.53	43.44	53.25	234.95	361.82	500.00	550.00	154.53	1.76	153.91	26.5	620

Table E2-16. Summary of the whole-sediment chemistry for Prien Lake and upper old river channel (PL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	19	6	13	26.24	32.35	45.25	58.00	150.22	231.97	258.81	74.52	1.34	74.21	24	510
Benzo(k)fluoranthene	19	5	14	20.56	25.30	45.00	50.00	186.15	243.87	275.28	74.02	1.54	73.60	17	460
Chrysene	30	10	20	32.56	44.67	50.25	93.70	274.86	292.87	322.74	110.69	1.42	110.27	25	540
Dibenz(a,h)anthracene	11	4	7	22.16	26.50	35.47	45.50	48.73	72.00	96.79	44.37	0.64	44.26	18.5	130
Fluoranthene	38	16	22	41.92	45.35	60.25	103.36	283.74	425.00	439.84	129.23	1.51	128.78	26.5	770
Indeno(1,2,3-cd)pyrene	18	4	14	32.76	34.84	45.50	54.78	194.18	232.96	260.09	80.62	1.28	80.31	26.5	410
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	39	19	20	43.36	47.09	63.02	98.00	259.23	334.44	425.50	124.96	1.29	124.59	26.5	670
Total HMW-PAHs[6]	46	19	27	273.95	291.92	530.66	1160.95	1691.10	2112.46	2334.90	945.95	1.14	945.58	159	3220
Total PAHs[7]	46	19	27	541.49	571.00	853.06	1873.46	2185.45	2473.86	2613.68	1392.12	0.84	1391.90	326.9	3646
PCB Aroclors (µg/kg DW)															
Aroclor-1016	39	0	39	11.50	20.90	27.75	32.50	47.00	60.00	60.00	33.35	0.59	33.21	7.5	65
Aroclor-1221	20	0	20	11.26	21.48	37.63	55.00	60.00	60.48	65.00	41.28	0.78	41.04	7.5	65
Aroclor-1232	39	0	39	11.50	20.90	27.75	32.50	47.00	60.00	60.00	33.35	0.59	33.21	7.5	65
Aroclor-1242	39	0	39	11.50	20.90	27.75	32.50	47.00	60.00	60.00	33.35	0.59	33.21	7.5	65
Aroclor-1248	39	0	39	11.50	20.90	27.75	32.50	47.00	60.00	60.00	33.35	0.59	33.21	7.5	65
Aroclor-1254	39	1	38	11.50	20.90	27.75	32.50	48.48	60.00	60.48	34.44	0.66	34.29	7.5	130
Aroclor-1260	39	1	38	11.50	20.90	27.75	32.50	48.48	60.00	60.00	33.71	0.60	33.57	7.5	65
Total PCBs[8]	2	1	1	58.26	64.63	88.18	147.65	246.77	335.66	371.88	147.65	3.24	147.07	52.5	412
PCB Congeners (µg/kg DW)															
PCB 105	1	1	0	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	NA	0.51	0.514	0.514
PCB 108	1	1	0	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	NA	0.28	0.277	0.277

Table E2-16. Summary of the whole-sediment chemistry for Prien Lake and upper old river channel (PL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.0105	0.0105
PCB 118	1	1	0	3.14	3.14	3.14	3.14	3.14	3.14	3.14	3.14	NA	3.14	3.14	3.14
PCB 126	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.0103	0.0103
PCB 127	1	0	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	NA	0.002	0.00248	0.00248
PCB 15	1	1	0	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	NA	0.06	0.0634	0.0634
PCB 156	1	1	0	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	NA	0.24	0.241	0.241
PCB 157	1	1	0	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	NA	0.06	0.0604	0.0604
PCB 162	1	1	0	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	NA	0.40	0.397	0.397
PCB 167	1	1	0	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	NA	0.12	0.115	0.115
PCB 169	1	0	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	NA	0.00	0.00248	0.00248
PCB 189	1	1	0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	NA	0.02	0.0236	0.0236
PCB 37	1	1	0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	NA	0.04	0.042	0.042
PCB 58	1	1	0	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	NA	0.08	0.0821	0.0821
PCB 60	1	1	0	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	NA	0.21	0.209	0.209
PCB 61/70	1	1	0	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	NA	1.64	1.64	1.64
PCB 66	1	1	0	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	NA	1.49	1.49	1.49
PCB 77	1	1	0	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	NA	0.07	0.0681	0.0681
PCB 79	1	1	0	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	NA	0.04	0.0426	0.0426
PCB 80	1	0	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	NA	0.002	0.00248	0.00248
PCB 81	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.00741	0.00741
Organochlorine Pesticides (µg/kg DW)															
Aldrin	1	1	0	1.20	1.20	1.20	1.20	1.20	1.20		1.20	NA	1.20	1.2	1.2
Dieldrin	1	0	1	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	NA	1.15	1.15	1.15

Table E2-16. Summary of the whole-sediment chemistry for Prien Lake and upper old river channel (PL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	45	11	34	42.68	63.18	130.00	290.00	500.00	679.55	3120.18	304.67	3.20	303.74	36	120000
Benzylbutylphthalate	3	1	2	26.92	27.35	28.66	31.00	66.17	103.81	120.57	48.88	1.47	48.63	26.5	140
Diethylphthalate	1	1	0	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	NA	42.00	42	42
Dimethylphthalate	2	0	2	26.71	26.92	27.56	28.66	29.81	30.52	30.76	28.66	0.11	28.66	26.5	31
Di-n-butylphthalate	44	5	39	45.50	46.09	94.50	280.00	431.24	550.00	600.00	206.90	1.55	206.29	26.5	700
Di-n-octylphthalate	1	1	0	130.00	130.00	130.00	130.00	130.00	130.00	130.00	130.00	NA	130.00	130	130
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	29	0	29	6.70	7.00	8.50	10.50	13.00	13.29	14.50	10.28	0.26	10.25	6	15
1,2-Dichlorobenzene	33	0	33	6.80	7.10	9.00	11.50	13.00	15.80	16.20	10.89	0.30	10.85	6	17
1,3-Dichlorobenzene	39	0	39	6.95	7.40	9.25	11.50	15.49	18.79	21.00	12.39	0.52	12.31	6	75
1,4-Dichlorobenzene	38	0	38	6.92	7.35	9.12	11.50	14.87	18.50	20.15	11.79	0.36	11.74	6	21
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	39	0	39	6.95	7.40	9.25	11.50	15.49	18.79	21.00	12.39	0.52	12.31	6	75
1,2-Dichloroethane	39	0	39	6.95	7.40	9.25	11.50	15.49	18.79	21.00	12.39	0.52	12.31	6	75

Table E2-16. Summary of the whole-sediment chemistry for Prien Lake and upper old river channel (PL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	9	9	0	63.91	64.83	89.00	130.00	230.00	291.97	295.96	135.97	0.83	135.80	63	300
1,2,3,4,7,8-HxCDD	9	1	8	0.36	0.45	0.60	0.98	1.40	1.75	1.85	0.98	0.32	0.89	0.27	1.95
1,2,3,6,7,8-HxCDD	9	2	7	0.93	1.07	1.30	2.10	2.94	4.99	6.66	2.36	0.69	2.20	0.8	8.8
1,2,3,7,8,9-HxCDD	9	5	4	1.71	1.77	2.00	3.60	8.70	10.19	10.59	4.23	0.82	4.03	1.65	11
1,2,3,7,8-PeCDD	9	0	9	0.27	0.28	0.32	0.45	0.80	0.93	0.99	0.54	0.20	0.50	0.2715	1.05
2,3,7,8-TCDD	9	1	8	0.14	0.17	0.20	0.28	0.45	0.50	0.57	0.33	0.14	0.30	0.105	0.65
OCDD	9	9	0	1414.36	1470.89	2100.00	4000.00	7300.00	7697.47	7896.17	3484.96	1.01	3484.73	1360	8100
Total TCDD	9	9	0	3.77	6.34	8.20	14.00	17.00	20.48	24.81	11.54	0.91	11.24	2.1	30
Total HpCDD	9	8	1	180.00	180.00	231.00	300.00	690.00	880.00	880.00	382.07	0.90	381.89	180	880
Total HxCDD	9	9	0	56.53	65.19	72.00	120.00	128.00	183.64	214.28	105.23	0.64	105.12	49	250
Total PeCDD	9	8	1	3.74	4.24	5.90	7.80	9.50	15.45	20.46	8.08	0.74	7.94	3.3	27
1,2,3,4,6,7,8-HpCDF	9	7	2	2.48	3.25	8.75	31.00	130.00	189.05	208.53	32.77	3.98	30.65	1.85	230
1,2,3,4,7,8,9-HpCDF	9	6	3	0.45	0.52	1.52	5.40	27.00	41.65	50.01	6.83	3.22	5.31	0.39	60
1,2,3,4,7,8-HxCDF	9	7	2	1.24	1.57	2.74	12.00	50.00	76.59	86.64	13.46	3.34	11.91	0.95	98
1,2,3,6,7,8-HxCDF	9	5	4	0.22	0.26	1.20	1.65	14.00	18.37	21.44	3.85	2.32	2.71	0.185	25
1,2,3,7,8,9-HxCDF	9	0	9	0.21	0.21	0.22	0.55	1.55	1.69	2.00	0.74	0.47	0.59	0.207	2.35
1,2,3,7,8-PeCDF	9	4	5	0.70	0.99	1.24	1.30	6.50	12.16	14.81	3.24	1.50	2.73	0.455	18
2,3,4,6,7,8-HxCDF	9	1	8	0.24	0.28	0.42	0.94	1.45	2.14	2.22	0.94	0.46	0.79	0.195	2.3
2,3,4,7,8-PeCDF	9	2	7	0.23	0.25	0.70	1.19	3.40	4.88	6.67	1.68	1.02	1.29	0.215	9
2,3,7,8-TCDF	9	7	2	0.42	0.43	1.81	3.80	11.00	20.20	20.59	4.64	1.84	3.75	0.41	21
OCDF	9	9	0	25.01	26.06	45.00	220.00	880.00	1329.10	1630.42	219.61	4.32	217.79	24	2000
Total TCDF	9	9	0	22.78	23.59	28.90	57.00	84.00	169.62	288.44	60.80	1.65	60.43	22	490
Total HpCDF	9	7	2	2.48	3.25	20.80	70.00	280.00	434.91	466.32	62.14	5.68	58.03	1.85	500

Table E2-16. Summary of the whole-sediment chemistry for Prien Lake and upper old river channel (PL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	9	7	2	1.24	1.57	13.30	26.00	140.00	215.69	227.52	31.71	5.06	28.17	0.95	240
Total PeCDF	9	7	2	0.99	1.47	6.00	13.00	65.00	74.41	94.52	15.71	3.53	13.65	0.6	120
Total Toxic Equivalents (TEQs)[9]	9	9	0	1.56	1.95	2.93	3.87	14.11	19.79	22.71	6.04	1.43	5.60	1.22	26.0
Other COPCs (µg/kg DW)															
Acetone	39	25	14	7.00	7.79	11.75	18.00	27.93	61.97	76.30	20.36	1.20	20.08	6.5	290
Carbon disulfide	39	17	22	2.00	3.78	7.00	10.50	15.49	22.20	33.89	10.37	1.21	9.97	1	120
Mean PEC-Q	49	NA	NA	0.05	0.05	0.12	0.15	0.17	0.20	0.245	0.14	0.05	0.13	0.0306	0.262

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-17. Summary of the whole-sediment chemistry for Indian Wells Lagoon (IWL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	7	7	0	13.09	15.41	19.10	78.20	97.90	147.21	173.73	48.99	1.92	48.40	11.1	205
Copper	10	10	0	24.16	26.06	40.57	104.29	142.10	297.25	359.19	91.94	1.64	91.44	22.4	434
Lead	10	10	0	49.82	50.87	72.91	196.74	437.68	637.29	710.90	188.54	1.87	187.97	48.8	793
Mercury	10	10	0	0.15	0.16	0.25	0.53	0.87	1.11	1.71	0.61	0.40	0.49	0.14	2.5
Methyl mercury	3	2	1	0.0007	0.0008	0.001	0.002	0.01	0.02	0.02	0.007	0.01	0.003	0.000555	0.0198
Nickel	9	7	2	5.64	6.23	7.35	9.10	14.20	17.66	23.17	10.56	0.63	10.45	5.1	30.3
Zinc	10	10	0	43.13	44.82	59.88	117.73	181.11	232.28	273.50	108.42	1.01	108.18	41.5	322
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	8	8	0	78.15	115.01	294.01	2300.53	20774.73	65925.58	88944.24	2507.33	16.63	2499.01	53	120000
Acenaphthene	7	6	1	41.07	89.76	502.24	3900.00	7519.98	11073.17	13268.91	1502.01	9.78	1490.57	18.5	15900
Acenaphthylene	5	5	0	58.40	64.35	86.00	163.00	2000.00	4845.58	6507.76	421.58	7.95	419.47	53	8740
Anthracene	8	8	0	162.31	219.41	521.81	1373.45	3999.72	15159.99	18137.60	1539.84	5.01	1537.85	120	21700
Fluorene	7	6	1	41.85	93.16	567.39	2000.00	9022.21	11867.97	12563.60	1451.68	9.52	1440.69	18.5	13300
Naphthalene	6	4	2	18.12	18.25	29.12	407.18	5363.08	13733.31	17772.65	475.08	20.57	466.92	18	23000
Phenanthrene	8	7	1	77.19	312.54	3618.48	11304.98	24494.95	63254.00	94104.06	6043.28	14.51	6003.56	18.5	140000
Total LMW-PAHs[5]	10	10	0	495.12	528.32	1392.65	11809.91	75007.45	208422.58	211705.44	10700.82	9.82	10695.90	464	215040
Benz(a)anthracene	8	8	0	186.05	314.20	837.57	1745.01	5678.27	14770.84	25025.80	2055.23	5.22	2052.75	110	42400
Benzo(a)pyrene	10	10	0	302.74	538.53	1193.52	3261.91	7657.15	11872.59	16739.03	2708.55	3.39	2706.80	170	23600
Benzo(b)fluoranthene	9	9	0	316.97	528.35	1200.00	1450.00	4700.00	7825.94	12880.73	1952.24	2.89	1951.10	190	21200

Table E2-17. Summary of the whole-sediment chemistry for Indian Wells Lagoon (IWL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	7	7	0	134.60	143.78	384.59	1900.00	3358.63	7823.35	11464.46	1314.20	4.84	1312.10	126	16800
Benzo(k)fluoranthene	7	7	0	115.16	172.45	339.20	420.00	1729.20	3512.84	4826.03	690.04	3.36	688.81	76.8	6630
Chrysene	10	10	0	625.30	1116.54	3719.84	5019.97	8198.14	20975.24	41750.00	5233.40	3.29	5231.84	350	83100
Dibenz(a,h)anthracene	4	4	0	311.96	323.31	359.91	782.06	2555.01	5931.94	7854.48	1177.06	4.09	1176.10	301	10400
Fluoranthene	9	9	0	135.64	183.85	621.00	2000.00	3400.00	8310.10	13582.62	1472.48	4.45	1470.40	100	22200
Indeno(1,2,3-cd)pyrene	3	3	0	254.80	262.84	288.52	337.00	559.96	759.23	840.29	426.34	1.00	426.19	247	930
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	10	10	0	694.67	1339.61	3717.07	9643.65	21325.95	28807.81	65516.49	8095.45	4.26	8092.98	360	149000
Total HMW-PAHs[6]	10	10	0	2050.76	3857.58	10998.22	24878.32	40618.83	77858.50	160461.50	20219.39	3.72	20217.41	1090	330700
Total PAHs[7]	10	10	0	2672.07	4390.72	12985.69	49384.58	110823.09	259375.83	376233.73	37433.37	5.10	37430.49	1626	545740
PCB Aroclors (µg/kg DW)															
Aroclor-1016	8	0	8	8.34	8.69	23.48	35.18	46.25	50.58	55.09	28.24	1.06	27.93	8	60
Aroclor-1221	7	0	7	8.29	8.59	20.68	47.00	62.45	65.00	65.00	33.13	1.43	32.64	8	65
Aroclor-1232	8	0	8	8.34	8.69	23.48	35.18	46.25	50.58	55.09	28.24	1.06	27.93	8	60
Aroclor-1242	8	0	8	8.34	8.69	23.48	35.18	46.25	50.58	55.09	28.24	1.06	27.93	8	60
Aroclor-1248	8	0	8	8.34	8.69	23.48	35.18	46.25	50.58	55.09	28.24	1.06	27.93	8	60
Aroclor-1254	9	3	6	8.39	8.79	33.00	47.00	140.00	309.90	516.38	60.35	3.30	59.18	8	860
Aroclor-1260	8	0	8	8.34	8.69	23.48	35.18	46.25	50.58	55.09	28.24	1.06	27.93	8	60
Total PCBs[8]	5	3	2	57.34	58.70	63.00	365.00	835.00	997.22	1058.01	261.82	3.07	260.82	56	1122.5
PCB Congeners (µg/kg DW)															
PCB 105	4	4	0	1.18	1.39	2.13	4.66	10.28	16.65	19.50	5.24	1.95	4.65	0.995	22.8
PCB 108	4	4	0	0.20	0.23	0.32	0.77	1.55	2.16	2.40	0.91	0.67	0.68	0.166	2.65

Table E2-17. Summary of the whole-sediment chemistry for Indian Wells Lagoon (IWL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	4	4	0	0.06	0.07	0.11	0.36	0.77	1.03	1.12	0.44	0.42	0.26	0.0459	1.22
PCB 118	4	4	0	2.84	3.28	4.94	11.38	26.15	40.34	46.55	12.03	2.38	11.33	2.44	53.7
PCB 126	4	3	1	0.03	0.04	0.06	0.13	0.26	0.41	0.47	0.19	0.19	0.11	0.02475	0.523
PCB 127	4	1	3	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.0125	0.0248
PCB 15	4	4	0	0.16	0.18	0.24	1.14	2.99	3.83	4.14	1.31	1.17	0.81	0.138	4.48
PCB 156	4	4	0	0.44	0.51	0.74	1.49	3.17	5.41	6.39	1.92	1.23	1.54	0.369	7.53
PCB 157	4	4	0	0.10	0.12	0.17	0.42	0.90	1.37	1.55	0.57	0.52	0.38	0.0845	1.75
PCB 162	4	4	0	0.81	0.95	1.43	2.91	6.65	12.53	15.37	3.75	1.92	3.18	0.687	18.8
PCB 167	4	4	0	0.18	0.21	0.31	0.67	1.37	2.12	2.42	0.86	0.69	0.62	0.144	2.75
PCB 169	4	1	3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.002	0.02	0.0198	0.0248
PCB 189	4	4	0	0.04	0.04	0.06	0.12	0.21	0.30	0.34	0.15	0.14	0.11	0.0285	0.374
PCB 37	4	3	1	0.04	0.04	0.04	0.25	0.63	0.89	0.99	0.36	0.40	0.17	0.03695	1.09
PCB 58	4	3	1	0.02	0.02	0.02	0.08	0.16	0.22	0.24	0.10	0.11	0.06	0.0176	0.259
PCB 60	4	4	0	0.26	0.31	0.45	1.43	3.10	3.64	3.83	1.45	0.99	1.08	0.216	4.03
PCB 61/70	4	4	0	1.26	1.45	2.10	5.89	13.77	16.61	17.67	5.66	1.91	5.04	1.09	18.8
PCB 66	4	4	0	0.45	0.53	0.81	2.71	6.35	7.11	7.39	2.58	1.49	2.02	0.374	7.67
PCB 77	4	4	0	0.09	0.10	0.13	0.35	0.70	0.92	1.00	0.42	0.36	0.29	0.0746	1.08
PCB 79	4	4	0	0.03	0.03	0.03	0.10	0.19	0.21	0.21	0.11	0.09	0.08	0.0288	0.219
PCB 80	4	0	4	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.0025	0.0248
PCB 81	4	4	0	0.07	0.07	0.09	0.25	0.48	0.58	0.61	0.29	0.24	0.20	0.0594	0.643
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-17. Summary of the whole-sediment chemistry for Indian Wells Lagoon (IWL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	8	3	5	67.37	68.78	130.20	624.50	700.37	814.68	832.15	327.94	2.00	327.19	66	850
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	1	0	1	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	NA	32.00	32	32
Di-n-butylphthalate	5	0	5	37.46	43.83	70.00	330.00	600.00	629.52	639.68	196.88	2.82	195.87	32	650
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2	0	2	10.07	10.14	10.36	10.73	11.11	11.34	11.42	10.73	0.09	10.72	10	11.5
1,2-Dichlorobenzene	2	0	2	10.07	10.14	10.36	10.73	11.11	11.34	11.42	10.73	0.09	10.72	10	11.5
1,3-Dichlorobenzene	4	0	4	10.21	10.43	11.11	17.20	29.82	39.46	43.30	19.50	1.00	19.32	10	47.5
1,4-Dichlorobenzene	4	0	4	10.21	10.43	11.11	17.20	29.82	39.46	43.30	19.50	1.00	19.32	10	47.5
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	4	0	4	10.21	10.43	11.11	17.20	29.82	39.46	43.30	19.50	1.00	19.32	10	47.5
1,2-Dichloroethane	4	0	4	10.21	10.43	11.11	17.20	29.82	39.46	43.30	19.50	1.00	19.32	10	47.5

Table E2-17. Summary of the whole-sediment chemistry for Indian Wells Lagoon (IWL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	4	4	0	59.13	68.26	104.86	161.47	254.80	408.33	477.77	165.67	1.67	165.27	51.2	559
1,2,3,4,7,8-HxCDD	4	3	1	1.17	1.18	1.23	1.90	3.46	5.19	5.90	2.43	0.81	2.26	1.15	6.7
1,2,3,6,7,8-HxCDD	4	4	0	4.43	5.01	7.16	8.95	12.52	21.37	25.46	10.10	1.16	9.86	3.9	30.3
1,2,3,7,8,9-HxCDD	4	4	0	2.08	2.35	3.32	4.63	7.14	11.66	13.67	5.25	1.11	5.00	1.83	16
1,2,3,7,8-PeCDD	4	3	1	0.39	0.57	1.23	2.20	3.36	4.63	5.13	2.03	1.02	1.59	0.2385	5.68
2,3,7,8-TCDD	4	2	2	0.20	0.25	0.39	0.60	1.00	1.60	1.83	0.74	0.52	0.59	0.162	2.09
OCDD	4	4	0	1230.47	1455.78	2410.61	3350.94	4106.50	5419.26	5944.21	2954.22	1.15	2953.95	1040	6520
Total TCDD	4	4	0	1.56	1.87	3.05	7.28	16.19	23.86	27.12	7.40	2.18	6.69	1.28	30.8
Total HpCDD	4	4	0	154.00	179.64	284.91	407.40	573.67	884.35	1021.55	401.32	1.45	400.98	132	1180
Total HxCDD	4	4	0	45.31	51.30	74.35	96.98	129.01	193.31	221.16	98.99	1.11	98.77	40	253
Total PeCDD	4	4	0	5.91	7.26	13.06	22.05	33.93	50.68	57.89	20.31	1.77	19.80	4.79	66.1
1,2,3,4,6,7,8-HpCDF	4	4	0	77.07	86.18	120.45	154.68	231.06	423.13	517.55	180.03	1.51	179.73	68.9	633
1,2,3,4,7,8,9-HpCDF	4	4	0	1.96	2.28	3.51	7.51	13.53	15.58	16.32	6.69	1.40	6.28	1.66	17.1
1,2,3,4,7,8-HxCDF	4	4	0	4.39	5.00	7.28	11.82	19.10	27.37	30.83	11.98	1.32	11.66	3.84	34.7
1,2,3,6,7,8-HxCDF	4	4	0	2.20	2.72	4.84	6.58	7.81	10.33	11.32	5.78	0.93	5.54	1.75	12.4
1,2,3,7,8,9-HxCDF	4	2	2	0.33	0.42	0.70	1.83	3.69	4.60	4.95	1.82	1.09	1.40	0.253	5.31
1,2,3,7,8-PeCDF	4	4	0	1.25	1.46	2.23	4.16	7.40	10.42	11.64	4.26	1.28	3.89	1.05	13
2,3,4,6,7,8-HxCDF	4	4	0	2.80	3.05	3.88	6.44	9.89	11.22	11.70	6.15	0.81	5.98	2.57	12.2
2,3,4,7,8-PeCDF	4	4	0	2.52	2.94	4.54	6.15	8.29	12.25	13.92	6.20	0.99	5.98	2.14	15.8
2,3,7,8-TCDF	4	4	0	2.30	2.53	3.33	6.34	13.22	21.21	24.77	7.39	1.72	6.95	2.08	28.9
OCDF	4	4	0	98.04	120.54	223.64	343.24	403.96	464.06	486.01	263.27	1.26	262.93	79.7	509
Total TCDF	4	4	0	28.87	33.17	50.20	94.07	165.63	224.06	247.78	88.75	1.76	88.29	25.1	274
Total HpCDF	4	4	0	186.64	196.80	230.71	339.77	568.92	840.44	957.13	386.52	1.21	386.29	177	1090

Table E2-17. Summary of the whole-sediment chemistry for Indian Wells Lagoon (IWL).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	4	4	0	82.74	84.51	90.06	153.76	268.94	300.18	311.38	157.83	1.00	157.64	81	323
Total PeCDF	4	4	0	29.95	33.70	47.92	65.63	87.74	119.13	131.89	64.15	0.99	63.95	26.6	146
Total Toxic Equivalents (TEQs)[9]	4	4	0	5.85	6.95	11.38	15.44	19.50	27.56	30.89	14.44	1.09	14.19	4.91	34.6
Other COPCs (µg/kg DW)															
Acetone	4	4	0	30.08	34.78	53.57	90.37	192.48	449.36	595.85	114.56	3.15	113.78	26	790
Carbon disulfide	4	3	1	8.62	9.28	11.54	17.71	24.37	25.04	25.27	16.00	0.67	15.88	8	25.5
Mean PEC-Q	10	NA	NA	0.22	0.23	0.56	2.23	5.59	17.57	19.4	2.82	1.93	1.97	0.209	21.3

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-18. Summary of the whole-sediment chemistry for Bayou Olsen (BO).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	6	6	0	9.89	10.98	13.57	14.95	16.72	20.74	22.96	15.08	0.38	15.03	8.9	25.4
Copper	11	11	0	9.70	10.80	12.60	16.20	18.25	18.80	23.33	15.53	0.36	15.49	8.7	28.9
Lead	11	11	0	14.16	15.90	19.64	22.20	24.40	24.70	25.68	20.91	0.23	20.89	12.6	26.7
Mercury	11	5	6	0.06	0.06	0.07	0.08	0.10	0.10	0.11	0.08	0.02	0.08	0.06	0.114
Methyl mercury	5	1	4	0.0004	0.0004	0.0005	0.0005	0.0005	0.002	0.002	0.0009	0.0009	0.0006	0.000425	0.00242
Nickel	11	11	0	7.34	7.70	9.36	12.10	16.66	19.30	20.04	12.38	0.42	12.32	7	20.8
Zinc	11	8	3	13.47	16.10	30.71	48.60	66.37	72.70	78.24	41.28	0.86	41.05	11.25	84.2
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Acenaphthene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Acenaphthylene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Anthracene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Fluorene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Naphthalene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Phenanthrene	5	1	4	14.88	15.27	16.50	21.00	35.00	113.05	166.50	34.04	2.11	33.64	14.5	245
Total LMW-PAHs[5]	10	1	9	107.58	114.02	167.05	456.95	485.00	504.79	526.91	299.20	0.96	298.96	101.5	550
Benz(a)anthracene	5	1	4	14.88	15.27	16.50	21.00	35.00	81.02	106.92	30.40	1.47	30.12	14.5	141
Benzo(a)pyrene	5	1	4	14.88	15.27	16.50	21.00	35.00	83.76	111.75	30.74	1.52	30.46	14.5	149
Benzo(b)fluoranthene	10	1	9	15.37	16.29	23.88	300.14	485.00	504.79	526.91	127.94	3.85	126.19	14.5	550

Table E2-18. Summary of the whole-sediment chemistry for Bayou Olsen (BO).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	5	1	4	14.88	15.27	16.50	21.00	35.00	66.64	82.47	28.44	1.16	28.23	14.5	102
Benzo(k)fluoranthene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Chrysene	5	1	4	14.88	15.27	16.50	21.00	35.00	105.94	152.74	33.30	1.97	32.92	14.5	220
Dibenz(a,h)anthracene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Fluoranthene	9	2	7	16.83	19.51	35.00	249.00	485.00	487.96	493.95	120.85	3.49	119.43	14.5	500
Indeno(1,2,3-cd)pyrene	5	0	5	14.88	15.27	16.50	21.00	35.00	41.78	44.32	24.27	0.62	24.18	14.5	47
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	6	2	4	15.92	17.47	23.88	35.79	176.16	358.85	395.10	61.53	3.05	60.74	14.5	435
Total HMW-PAHs[6]	11	2	9	104.72	126.00	170.87	2100.00	2309.76	2425.00	2462.21	765.86	3.10	764.44	87	2500
Total PAHs[7]	11	2	9	219.04	254.50	352.47	2100.00	2828.87	2910.00	2954.66	1124.61	2.12	1123.78	188.5	3000
PCB Aroclors (µg/kg DW)															
Aroclor-1016	9	0	9	15.70	15.90	16.50	43.50	48.50	50.96	52.94	30.68	0.73	30.53	15.5	55
Aroclor-1221	4	0	4	15.57	15.65	15.87	16.25	17.32	18.88	19.43	16.92	0.11	16.91	15.5	20
Aroclor-1232	9	0	9	15.70	15.90	16.50	43.50	48.50	50.96	52.94	30.68	0.73	30.53	15.5	55
Aroclor-1242	9	0	9	15.70	15.90	16.50	43.50	48.50	50.96	52.94	30.68	0.73	30.53	15.5	55
Aroclor-1248	9	0	9	15.70	15.90	16.50	43.50	48.50	50.96	52.94	30.68	0.73	30.53	15.5	55
Aroclor-1254	9	0	9	15.70	15.90	16.50	43.50	48.50	50.96	52.94	30.68	0.73	30.53	15.5	55
Aroclor-1260	9	0	9	15.70	15.90	16.50	43.50	48.50	50.96	52.94	30.68	0.73	30.53	15.5	55
Total PCBs[8]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-18. Summary of the whole-sediment chemistry for Bayou Olsen (BO).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	1	1	0	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	NA	0.87	0.87	0.87

Table E2-18. Summary of the whole-sediment chemistry for Bayou Olsen (BO).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	11	7	4	63.88	68.00	89.63	250.00	591.62	770.00	1038.31	244.31	2.06	243.68	60	1400
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	11	0	11	62.45	65.00	69.82	435.00	492.44	550.00	620.49	207.63	1.89	207.04	60	700
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	4	0	4	13.00	13.00	13.00	13.73	14.50	14.50	14.50	13.73	0.06	13.73	13	14.5
1,2-Dichlorobenzene	5	0	5	13.00	13.00	13.00	14.50	14.50	15.67	16.08	14.25	0.10	14.24	13	16.5
1,3-Dichlorobenzene	6	0	6	13.00	13.00	13.36	14.50	15.98	18.62	19.78	15.21	0.19	15.20	13	21
1,4-Dichlorobenzene	6	0	6	13.00	13.00	13.36	14.50	15.98	18.62	19.78	15.21	0.19	15.20	13	21
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	6	0	6	13.00	13.00	13.36	14.50	15.98	18.62	19.78	15.21	0.19	15.20	13	21
1,2-Dichloroethane	6	0	6	13.00	13.00	13.36	14.50	15.98	18.62	19.78	15.21	0.19	15.20	13	21

Table E2-18. Summary of the whole-sediment chemistry for Bayou Olsen (BO).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-18. Summary of the whole-sediment chemistry for Bayou Olsen (BO).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Toxic Equivalents (TEQs)[9]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other COPCs (µg/kg DW)															
Acetone	6	1	5	13.36	13.73	14.50	15.47	19.78	29.03	34.09	18.39	0.49	18.33	13	40
Carbon disulfide	6	3	3	3.00	3.00	3.60	8.90	13.00	16.55	18.65	7.86	1.05	7.59	3	21
Mean PEC-Q	11	NA	NA	0.07	0.08	0.08	0.12	0.13	0.15	0.151	0.11	0.03	0.10	0.0635	0.156

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-19. Summary of the whole-sediment chemistry for Moss Lake (ML).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	14	14	0	6.61	6.93	7.71	24.61	29.80	33.97	36.67	17.32	0.95	17.07	6.1	40.4
Copper	17	15	2	8.44	9.02	11.00	21.60	36.50	40.97	42.45	20.42	0.81	20.22	6.8	44.3
Lead	17	17	0	9.64	10.41	11.80	24.00	32.80	39.90	43.61	21.19	0.72	21.03	8.3	47.9
Mercury	17	7	10	0.04	0.04	0.06	0.08	0.18	0.40	0.61	0.16	0.16	0.11	0.035	0.68
Methyl mercury	3	3	0	0.0008	0.0008	0.0009	0.001	0.002	0.002	0.002	0.001	0.0008	0.001	0.000743	0.00237
Nickel	17	17	0	6.42	6.56	7.00	15.00	20.20	23.97	25.87	13.34	0.65	13.20	6.1	27.4
Zinc	17	7	10	17.40	18.37	22.95	45.75	66.20	99.76	102.40	40.57	0.93	40.35	14.35	104
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	3	0	3	28.83	29.17	30.20	32.00	44.41	54.01	57.63	38.33	0.50	38.28	28.5	61.5
Acenaphthene	2	0	2	28.67	28.83	29.34	30.20	31.09	31.63	31.82	30.20	0.08	30.20	28.5	32
Acenaphthylene	3	0	3	28.83	29.17	30.20	32.00	44.41	54.01	57.63	38.33	0.50	38.28	28.5	61.5
Anthracene	4	1	3	22.87	23.78	26.72	30.20	37.71	50.60	55.79	33.39	0.53	33.33	22	61.5
Fluorene	2	0	2	28.67	28.83	29.34	30.20	31.09	31.63	31.82	30.20	0.08	30.20	28.5	32
Naphthalene	3	0	3	28.83	29.17	30.20	32.00	44.41	54.01	57.63	38.33	0.50	38.28	28.5	61.5
Phenanthrene	4	1	3	29.00	29.51	31.09	44.41	76.92	114.89	131.29	54.06	1.12	53.86	28.5	150
Total LMW-PAHs[5]	15	1	14	190.82	208.96	396.01	470.00	639.92	789.77	885.11	450.32	0.66	450.18	172	1000
Benz(a)anthracene	3	0	3	28.83	29.17	30.20	32.00	44.41	54.01	57.63	38.33	0.50	38.28	28.5	61.5
Benzo(a)pyrene	4	0	4	29.00	29.51	31.09	44.41	87.48	164.40	202.75	61.51	1.67	61.19	28.5	250
Benzo(b)fluoranthene	15	0	15	30.91	41.60	280.63	420.00	467.49	475.97	481.49	250.98	1.69	250.11	28.5	485

Table E2-19. Summary of the whole-sediment chemistry for Moss Lake (ML).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	3	0	3	28.83	29.17	30.20	32.00	44.41	54.01	57.63	38.33	0.50	38.28	28.5	61.5
Benzo(k)fluoranthene	4	0	4	29.00	29.51	31.09	44.41	87.48	164.40	202.75	61.51	1.67	61.19	28.5	250
Chrysene	6	0	6	29.34	30.20	37.71	124.25	297.32	319.96	322.47	106.84	2.12	106.21	28.5	325
Dibenz(a,h)anthracene	2	0	2	28.67	28.83	29.34	30.20	31.09	31.63	31.82	30.20	0.08	30.20	28.5	32
Fluoranthene	15	0	15	30.91	41.60	280.63	420.00	467.49	475.97	481.49	250.98	1.69	250.11	28.5	485
Indeno(1,2,3-cd)pyrene	3	0	3	28.83	29.17	30.20	32.00	44.41	54.01	57.63	38.33	0.50	38.28	28.5	61.5
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	11	1	10	30.20	32.00	78.45	315.00	388.85	425.00	444.55	174.27	1.89	173.50	28.5	465
Total HMW-PAHs[6]	16	1	15	186.52	266.23	1196.69	1800.00	2331.22	2374.87	2406.23	1267.43	1.44	1266.77	171	2425
Total PAHs[7]	16	2	14	404.13	554.12	1831.76	2394.37	2797.47	2864.65	2917.47	1771.87	1.01	1771.53	370.5	2940
PCB Aroclors (µg/kg DW)															
Aroclor-1016	13	0	13	19.58	26.19	32.50	42.50	47.00	47.80	48.20	36.86	0.42	36.78	13.5	48.5
Aroclor-1221	4	0	4	16.51	20.15	36.24	57.02	65.00	65.00	65.00	41.36	1.06	41.09	13.5	65
Aroclor-1232	13	0	13	19.58	26.19	32.50	42.50	47.00	47.80	48.20	36.86	0.42	36.78	13.5	48.5
Aroclor-1242	13	0	13	19.58	26.19	32.50	42.50	47.00	47.80	48.20	36.86	0.42	36.78	13.5	48.5
Aroclor-1248	13	0	13	19.58	26.19	32.50	42.50	47.00	47.80	48.20	36.86	0.42	36.78	13.5	48.5
Aroclor-1254	13	3	10	7.37	9.37	13.50	36.00	46.50	47.80	48.20	25.94	1.01	25.63	5.6	48.5
Aroclor-1260	13	0	13	19.58	26.19	32.50	42.50	47.00	47.80	48.20	36.86	0.42	36.78	13.5	48.5
Total PCBs[8]	3	3	0	239.56	246.19	267.21	306.30	323.66	334.54	338.25	290.13	0.22	290.12	233.1	342
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-19. Summary of the whole-sediment chemistry for Moss Lake (ML).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-19. Summary of the whole-sediment chemistry for Moss Lake (ML).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	15	7	8	62.49	74.06	144.23	360.00	470.00	988.68	1932.10	302.12	2.00	301.49	55	3000
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	15	3	12	53.45	59.52	104.88	325.00	444.55	470.00	474.45	209.57	1.37	209.13	50	485
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	12	0	12	8.80	10.05	10.87	13.00	14.00	14.45	14.50	12.19	0.20	12.17	7.5	14.5
1,2-Dichlorobenzene	12	0	12	8.80	10.05	10.87	13.00	14.00	14.45	14.50	12.19	0.20	12.17	7.5	14.5
1,3-Dichlorobenzene	14	0	14	9.05	10.15	11.36	13.49	14.37	18.17	23.34	13.52	0.36	13.48	7.5	31
1,4-Dichlorobenzene	14	0	14	9.05	10.15	11.36	13.49	14.37	18.17	23.34	13.52	0.36	13.48	7.5	31
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	14	0	14	9.05	10.15	11.36	13.49	14.37	18.17	23.34	13.52	0.36	13.48	7.5	31
1,2-Dichloroethane	14	0	14	9.05	10.15	11.36	13.49	14.37	18.17	23.34	13.52	0.36	13.48	7.5	31

Table E2-19. Summary of the whole-sediment chemistry for Moss Lake (ML).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	3	3	0	56.58	59.28	68.17	86.00	117.35	141.35	150.39	90.67	0.71	90.57	54	160
1,2,3,4,7,8-HxCDD	3	0	3	1.10	1.11	1.12	1.15	1.80	2.28	2.46	1.54	0.37	1.50	1.1	2.65
1,2,3,6,7,8-HxCDD	3	0	3	1.06	1.17	1.54	2.30	2.42	2.50	2.52	1.84	0.39	1.77	0.95	2.55
1,2,3,7,8,9-HxCDD	3	0	3	1.56	1.63	1.83	2.20	2.64	2.94	3.04	2.21	0.29	2.18	1.5	3.15
1,2,3,7,8-PeCDD	3	0	3	0.85	0.86	0.87	0.90	1.35	1.66	1.78	1.17	0.29	1.13	0.85	1.9
2,3,7,8-TCDD	3	0	3	0.46	0.47	0.52	0.60	1.02	1.32	1.43	0.81	0.35	0.75	0.445	1.55
OCDD	3	3	0	1216.13	1344.50	1816.72	3000.00	3098.39	3158.96	3179.41	2194.06	0.82	2193.92	1100	3200
Total TCDD	3	3	0	20.19	20.39	20.98	22.00	26.55	29.70	30.83	24.17	0.27	24.15	20	32
Total HpCDD	3	3	0	226.17	232.50	252.60	290.00	377.00	441.23	464.98	315.07	0.50	315.02	220	490
Total HxCDD	3	3	0	47.49	51.25	64.38	94.00	101.69	106.60	108.29	77.00	0.62	76.91	44	110
Total PeCDD	3	2	1	2.96	3.69	6.77	17.00	19.35	20.90	21.44	10.15	1.85	9.58	2.35	22
1,2,3,4,6,7,8-HpCDF	3	2	1	2.46	2.69	3.45	5.10	20.53	44.89	58.06	10.46	4.30	9.51	2.25	75
1,2,3,4,7,8,9-HpCDF	3	1	2	0.41	0.48	0.70	1.15	4.08	7.51	9.10	2.27	2.16	1.64	0.35	11
1,2,3,4,7,8-HxCDF	3	1	2	0.62	0.70	0.95	1.45	8.39	20.03	26.52	4.15	4.47	3.03	0.55	35
1,2,3,6,7,8-HxCDF	3	1	2	0.54	0.61	0.82	1.25	3.97	7.01	8.39	2.32	1.88	1.82	0.48	10
1,2,3,7,8,9-HxCDF	3	0	3	0.60	0.60	0.60	0.60	1.00	1.29	1.39	0.86	0.29	0.81	0.6	1.5
1,2,3,7,8-PeCDF	3	1	2	0.41	0.46	0.61	0.90	3.32	6.06	7.32	1.94	1.87	1.42	0.365	8.8
2,3,4,6,7,8-HxCDF	3	0	3	0.62	0.69	0.93	1.40	1.42	1.44	1.44	1.09	0.30	1.04	0.55	1.45
2,3,4,7,8-PeCDF	3	0	3	0.41	0.45	0.59	0.85	1.53	2.05	2.24	1.06	0.60	0.91	0.365	2.45
2,3,7,8-TCDF	3	2	1	1.17	1.25	1.49	1.95	4.43	6.83	7.85	2.96	1.27	2.68	1.1	9
OCDF	3	2	1	8.26	8.53	9.39	11.00	57.07	148.56	204.00	30.19	5.75	29.10	8	280
Total TCDF	3	3	0	7.83	10.81	27.26	120.00	216.51	308.24	346.73	66.84	7.18	63.99	5.6	390
Total HpCDF	3	2	1	2.81	3.47	6.21	15.00	49.75	100.46	126.81	19.31	6.12	17.54	2.25	160

Table E2-19. Summary of the whole-sediment chemistry for Moss Lake (ML).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	3	1	2	1.51	1.53	1.57	1.65	15.03	46.21	66.67	7.63	7.13	6.19	1.5	96
Total PeCDF	3	1	2	1.51	1.62	1.98	2.70	12.74	29.18	38.23	6.68	4.23	5.74	1.4	50
Total Toxic Equivalents (TEQs)[9]	3	3	0	3.03	3.31	4.28	6.39	8.05	9.23	9.65	5.76	0.73	5.63	2.77	10.1
Other COPCs (µg/kg DW)															
Acetone	14	3	11	9.05	10.15	11.47	14.00	27.80	94.68	168.76	21.00	1.63	20.67	7.5	210
Carbon disulfide	14	7	7	5.22	6.29	7.85	10.75	14.37	19.05	21.93	10.88	0.57	10.77	4	26
Mean PEC-Q	17	NA	NA	0.06	0.07	0.13	0.16	0.21	0.27	0.284	0.17	0.06	0.15	0.0591	0.321

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-20. Summary of the whole-sediment chemistry for Bayou Choupique (BC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	4	4	0	12.80	12.80	12.80	13.39	14.38	15.10	15.35	13.76	0.09	13.75	12.8	15.6
Lead	4	4	0	21.83	21.86	21.95	22.88	24.14	24.77	24.99	23.16	0.07	23.16	21.8	25.2
Mercury	4	4	0	0.07	0.07	0.07	0.08	0.08	0.08	0.09	0.08	0.01	0.08	0.0656	0.0857
Methyl mercury	4	1	3	0.0004	0.0004	0.0005	0.0005	0.001	0.001	0.002	0.001	0.001	0.001	0.00044	0.0019
Nickel	4	4	0	19.03	19.06	19.15	19.50	20.05	20.50	20.65	19.69	0.04	19.69	19	20.8
Zinc	4	4	0	68.44	69.39	72.32	74.15	75.76	78.45	79.37	73.89	0.07	73.89	67.5	80.3
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Acenaphthene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Acenaphthylene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Anthracene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Fluorene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Naphthalene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Phenanthrene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Total LMW-PAHs[5]	4	0	4	89.00	90.53	95.26	98.00	102.11	109.95	112.69	99.26	0.12	99.26	87.5	115.5
Benz(a)anthracene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Benzo(a)pyrene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Benzo(b)fluoranthene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5

Table E2-20. Summary of the whole-sediment chemistry for Bayou Choupique (BC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Benzo(k)fluoranthene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Chrysene	4	1	3	12.72	12.93	13.61	15.20	20.29	29.28	33.05	18.19	0.60	18.12	12.5	37.3
Dibenz(a,h)anthracene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Fluoranthene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Indeno(1,2,3-cd)pyrene	4	0	4	12.72	12.93	13.61	14.00	14.59	15.71	16.10	14.18	0.11	14.18	12.5	16.5
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	4	2	2	14.35	14.71	15.84	20.33	26.36	29.00	29.94	20.60	0.42	20.55	14	30.9
Total HMW-PAHs[6]	4	2	2	84.52	85.04	86.61	93.07	104.78	116.04	120.05	97.51	0.19	97.50	84	124.2
Total PAHs[7]	4	2	2	176.03	177.07	180.22	197.59	216.40	219.86	221.03	197.39	0.12	197.39	175	222.2
PCB Aroclors (µg/kg DW)															
Aroclor-1016	4	0	4	10.71	10.93	11.61	12.96	14.48	15.37	15.68	12.97	0.19	12.96	10.5	16
Aroclor-1221	4	0	4	10.71	10.93	11.61	12.96	14.48	15.37	15.68	12.97	0.19	12.96	10.5	16
Aroclor-1232	4	0	4	10.71	10.93	11.61	12.96	14.48	15.37	15.68	12.97	0.19	12.96	10.5	16
Aroclor-1242	4	0	4	10.71	10.93	11.61	12.96	14.48	15.37	15.68	12.97	0.19	12.96	10.5	16
Aroclor-1248	4	0	4	10.71	10.93	11.61	12.96	14.48	15.37	15.68	12.97	0.19	12.96	10.5	16
Aroclor-1254	4	2	2	12.53	13.09	14.90	40.44	121.84	173.73	195.51	46.13	2.95	45.33	12	220
Aroclor-1260	4	0	4	10.71	10.93	11.61	12.96	14.48	15.37	15.68	12.97	0.19	12.96	10.5	16
Total PCBs[8]	2	2	0	168.17	173.50	190.52	222.65	260.18	285.65	294.68	222.65	0.55	222.60	163	304
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-20. Summary of the whole-sediment chemistry for Bayou Choupique (BC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-20. Summary of the whole-sediment chemistry for Bayou Choupique (BC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	4	2	2	46.21	49.09	58.81	75.64	93.05	102.88	106.38	72.39	0.49	72.33	43.5	110
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	4	0	4	44.08	44.66	46.47	51.12	57.35	61.83	63.39	52.14	0.19	52.13	43.5	65
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-20. Summary of the whole-sediment chemistry for Bayou Choupique (BC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-20. Summary of the whole-sediment chemistry for Bayou Choupique (BC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Toxic Equivalents (TEQs)[9]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other COPCs (µg/kg DW)															
Acetone	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean PEC-Q	4	NA	NA	0.06	0.06	0.07	0.08	0.09	0.11	0.115	0.08	0.03	0.08	0.0562	0.121

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-21. Summary of the whole-sediment chemistry for Grand Bayou (GB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	3	3	0	13.06	13.22	13.73	14.60	15.09	15.39	15.50	14.33	0.09	14.32	12.9	15.6
Lead	3	3	0	19.53	19.76	20.47	21.70	22.44	22.89	23.05	21.34	0.09	21.34	19.3	23.2
Mercury	3	3	0	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.01	0.08	0.069	0.085
Methyl mercury	3	0	3	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0001	0.0004	0.000355	0.000455
Nickel	3	3	0	17.78	17.97	18.53	19.50	20.48	21.08	21.29	19.47	0.10	19.47	17.6	21.5
Zinc	3	3	0	58.17	59.36	63.08	69.80	71.28	72.19	72.49	66.17	0.14	66.16	57	72.8
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Acenaphthene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Acenaphthylene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Anthracene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Fluorene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Naphthalene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Phenanthrene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Total LMW-PAHs[5]	3	0	3	59.84	60.18	61.23	63.00	129.72	199.65	230.46	100.11	1.32	99.90	59.5	266
Benz(a)anthracene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Benzo(a)pyrene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Benzo(b)fluoranthene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38

Table E2-21. Summary of the whole-sediment chemistry for Grand Bayou (GB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Benzo(k)fluoranthene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Chrysene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Dibenz(a,h)anthracene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Fluoranthene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Indeno(1,2,3-cd)pyrene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	3	0	3	8.55	8.60	8.75	9.00	18.75	28.71	33.04	14.47	1.23	14.27	8.5	38
Total HMW-PAHs[6]	3	0	3	51.29	51.59	52.48	54.00	111.23	171.16	197.56	85.84	1.32	85.63	51	228
Total PAHs[7]	3	0	3	111.13	111.77	113.70	117.00	240.68	370.59	427.88	185.75	1.33	185.53	110.5	494
PCB Aroclors (µg/kg DW)															
Aroclor-1016	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Aroclor-1221	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Aroclor-1232	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Aroclor-1242	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Aroclor-1248	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Aroclor-1254	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Aroclor-1260	3	0	3	16.55	16.60	16.75	17.00	18.44	19.36	19.68	17.77	0.10	17.77	16.5	20
Total PCBs[8]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-21. Summary of the whole-sediment chemistry for Grand Bayou (GB).

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PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-21. Summary of the whole-sediment chemistry for Grand Bayou (GB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	3	0	3	65.48	65.97	67.45	70.00	74.84	77.89	78.94	71.40	0.11	71.40	65	80
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	3	0	3	65.48	65.97	67.45	70.00	74.84	77.89	78.94	71.40	0.11	71.40	65	80
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-21. Summary of the whole-sediment chemistry for Grand Bayou (GB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-21. Summary of the whole-sediment chemistry for Grand Bayou (GB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Toxic Equivalents (TEQs)[9]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other COPCs (µg/kg DW)															
Acetone	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean PEC-Q	3	NA	NA	0.06	0.06	0.07	0.07	0.08	0.08	0.0856	0.07	0.01	0.07	0.0597	0.087

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-22. Summary of the whole-sediment chemistry for Bayou Bois Connine (BBC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2	2	0	13.94	13.99	14.12	14.34	14.57	14.71	14.75	14.34	0.04	14.34	13.9	14.8
Lead	2	2	0	22.36	22.62	23.41	24.79	26.26	27.17	27.48	24.79	0.17	24.79	22.1	27.8
Mercury	2	2	0	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.08	0.01	0.08	0.0746	0.0926
Methyl mercury	2	0	2	0.0003	0.0003	0.0003	0.0004	0.0004	0.0004	0.0004	0.0004	0.0001	0.0004	0.000325	0.0004
Nickel	2	2	0	17.26	17.33	17.52	17.84	18.17	18.37	18.43	17.84	0.05	17.84	17.2	18.5
Zinc	2	2	0	55.01	55.33	56.28	57.91	59.58	60.61	60.95	57.91	0.08	57.91	54.7	61.3
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Acenaphthene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Acenaphthylene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Anthracene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Fluorene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Naphthalene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Phenanthrene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Total LMW-PAHs[5]	2	0	2	66.50	66.50	66.50	66.50	66.50	66.50	66.50	66.50	0	66.50	66.5	66.5
Benz(a)anthracene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Benzo(a)pyrene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Benzo(b)fluoranthene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5

Table E2-22. Summary of the whole-sediment chemistry for Bayou Bois Connine (BBC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Benzo(k)fluoranthene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Chrysene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Dibenz(a,h)anthracene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Fluoranthene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Indeno(1,2,3-cd)pyrene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	2	0	2	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	0	9.50	9.5	9.5
Total HMW-PAHs[6]	2	0	2	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	0	57.00	57	57
Total PAHs[7]	2	0	2	123.50	123.50	123.50	123.50	123.50	123.50	123.50	123.50	0	123.50	123.5	123.5
PCB Aroclors (µg/kg DW)															
Aroclor-1016	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Aroclor-1221	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Aroclor-1232	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Aroclor-1242	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Aroclor-1248	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Aroclor-1254	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Aroclor-1260	2	0	2	17.14	17.28	17.71	18.44	19.21	19.68	19.84	18.44	0.12	18.44	17	20
Total PCBs[8]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Congeners (µg/kg DW)															
PCB 105	1	1	0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	NA	0.05	0.0482	0.0482
PCB 108	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.0104	0.0104

Table E2-22. Summary of the whole-sediment chemistry for Bayou Bois Connine (BBC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	1	1	0	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	NA	0.002	0.0023	0.0023
PCB 118	1	1	0	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	NA	0.13	0.13	0.13
PCB 126	1	1	0	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	NA	0.003	0.0026	0.0026
PCB 127	1	1	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	NA	0.001	0.00102	0.00102
PCB 15	1	1	0	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	NA	0.07	0.0733	0.0733
PCB 156	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.0138	0.0138
PCB 157	1	1	0	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	NA	0.004	0.00379	0.00379
PCB 162	1	1	0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	NA	0.02	0.0217	0.0217
PCB 167	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.00743	0.00743
PCB 169	1	1	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	NA	0.001	0.00116	0.00116
PCB 189	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	NA	0.01	0.0124	0.0124
PCB 37	1	1	0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	NA	0.05	0.0463	0.0463
PCB 58	1	1	0	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	NA	0.005	0.00484	0.00484
PCB 60	1	0	1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	NA	0.03	0.0282	0.0282
PCB 61/70	1	0	1	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	NA	0.06	0.0625	0.0625
PCB 66	1	1	0	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	NA	0.12	0.121	0.121
PCB 77	1	1	0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	NA	0.02	0.0179	0.0179
PCB 79	1	1	0	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	NA	0.004	0.00375	0.00375
PCB 80	1	0	1	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	NA	0.003	0.0025	0.0025
PCB 81	1	1	0	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	NA	0.003	0.00271	0.00271
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-22. Summary of the whole-sediment chemistry for Bayou Bois Connine (BBC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	2	1	1	71.26	72.55	76.54	83.68	91.48	96.50	98.24	83.68	0.28	83.67	70	100
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	2	0	2	70.47	70.94	72.38	74.84	77.38	78.94	79.47	74.84	0.10	74.83	70	80
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-22. Summary of the whole-sediment chemistry for Bayou Bois Connine (BBC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	1	1	0	23.30	23.30	23.30	23.30	23.30	23.30	23.30	23.30	NA	23.30	23.3	23.3
1,2,3,4,7,8-HxCDD	1	0	1	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	NA	0.74	0.735	0.735
1,2,3,6,7,8-HxCDD	1	0	1	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	NA	0.88	0.875	0.875
1,2,3,7,8,9-HxCDD	1	0	1	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	NA	0.77	0.765	0.765
1,2,3,7,8-PeCDD	1	0	1	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	NA	0.32	0.315	0.315
2,3,7,8-TCDD	1	0	1	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	NA	0.16	0.158	0.158
OCDD	1	1	0	281.00	281.00	281.00	281.00	281.00	281.00	281.00	281.00	NA	281.00	281	281
Total TCDD	1	1	0	29.70	29.70	29.70	29.70	29.70	29.70	29.70	29.70	NA	29.70	29.7	29.7
Total HpCDD	1	1	0	86.60	86.60	86.60	86.60	86.60	86.60	86.60	86.60	NA	86.60	86.6	86.6
Total HxCDD	1	1	0	52.00	52.00	52.00	52.00	52.00	52.00	52.00	52.00	NA	52.00	52	52
Total PeCDD	1	1	0	17.80	17.80	17.80	17.80	17.80	17.80	17.80	17.80	NA	17.80	17.8	17.8
1,2,3,4,6,7,8-HpCDF	1	1	0	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	NA	1.59	1.59	1.59
1,2,3,4,7,8,9-HpCDF	1	0	1	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	NA	0.44	0.444	0.444
1,2,3,4,7,8-HxCDF	1	0	1	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	NA	0.23	0.2345	0.2345
1,2,3,6,7,8-HxCDF	1	0	1	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	NA	0.23	0.228	0.228
1,2,3,7,8,9-HxCDF	1	0	1	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	NA	0.37	0.372	0.372
1,2,3,7,8-PeCDF	1	1	0	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	NA	1.71	1.71	1.71
2,3,4,6,7,8-HxCDF	1	0	1	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	NA	0.28	0.278	0.278
2,3,4,7,8-PeCDF	1	1	0	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	NA	1.58	1.58	1.58
2,3,7,8-TCDF	1	1	0	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	NA	5.91	5.91	5.91
OCDF	1	1	0	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	NA	1.51	1.51	1.51
Total TCDF	1	1	0	113.00	113.00	113.00	113.00	113.00	113.00	113.00	113.00	NA	113.00	113	113
Total HpCDF	1	1	0	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	NA	1.59	1.59	1.59

Table E2-22. Summary of the whole-sediment chemistry for Bayou Bois Connine (BBC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	1	1	0	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	NA	1.45	1.45	1.45
Total PeCDF	1	1	0	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	NA	14.50	14.5	14.5
Total Toxic Equivalents (TEQs)[9]	1	1	0	2.23	2.23	2.23	2.23	2.23	2.23	2.23	2.23	NA	2.23	2.23	2.23
Other COPCs (µg/kg DW)															
Acetone	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean PEC-Q	2	NA	NA	0.06	0.06	0.07	0.07	0.07	0.07	0.0722	0.07	0.01	0.07	0.0635	0.0727

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-23. Summary of the whole-sediment chemistry for Johnson Bayou (JB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	3	3	0	8.02	8.15	8.53	9.20	9.83	10.23	10.36	9.14	0.14	9.14	7.9	10.5
Copper	6	6	0	5.33	5.82	7.54	10.98	13.22	14.56	15.12	9.83	0.49	9.75	4.87	15.7
Lead	6	6	0	9.41	10.24	12.10	12.45	13.98	14.55	14.62	12.29	0.19	12.28	8.64	14.7
Mercury	6	3	3	0.02	0.02	0.03	0.04	0.05	0.05	0.05	0.04	0.01	0.04	0.0203	0.055
Methyl mercury	3	1	2	0.0005	0.0005	0.0005	0.0005	0.001	0.002	0.002	0.0009	0.0007	0.0007	0.00045	0.00175
Nickel	6	6	0	7.97	8.14	8.68	9.62	12.39	13.65	13.82	10.25	0.24	10.23	7.8	14
Zinc	6	6	0	35.10	35.40	36.54	38.65	46.32	52.71	54.67	41.64	0.21	41.62	34.8	56.7
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	2	0	2	33.64	33.79	34.23	34.97	35.73	36.19	36.34	34.97	0.06	34.97	33.5	36.5
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Acenaphthene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Acenaphthylene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Anthracene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Fluorene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Naphthalene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Phenanthrene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Total LMW-PAHs[5]	6	0	6	73.50	73.50	76.78	240.86	660.00	708.24	733.66	232.80	2.30	232.14	73.5	760
Benz(a)anthracene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Benzo(a)pyrene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Benzo(b)fluoranthene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190

Table E2-23. Summary of the whole-sediment chemistry for Johnson Bayou (JB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Benzo(k)fluoranthene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Chrysene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Dibenz(a,h)anthracene	3	0	3	10.50	10.50	10.50	10.50	11.46	12.07	12.29	11.13	0.10	11.13	10.5	12.5
Fluoranthene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Indeno(1,2,3-cd)pyrene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	6	0	6	10.50	10.50	10.97	46.34	165.00	177.06	183.42	44.94	3.31	43.87	10.5	190
Total HMW-PAHs[6]	6	0	6	63.00	63.00	65.81	249.55	825.00	885.30	917.08	241.23	3.05	240.29	63	950
Total PAHs[7]	6	0	6	136.50	136.50	142.58	491.91	1485.00	1593.54	1650.74	475.32	2.67	474.53	136.5	1710
PCB Aroclors (µg/kg DW)															
Aroclor-1016	6	0	6	8.62	8.75	9.36	11.91	15.34	17.44	18.20	12.24	0.35	12.20	8.5	19
Aroclor-1221	6	0	6	8.62	8.75	9.36	16.94	30.67	35.33	37.12	17.52	0.93	17.33	8.5	39
Aroclor-1232	6	0	6	8.62	8.75	9.36	11.91	15.34	17.44	18.20	12.24	0.35	12.20	8.5	19
Aroclor-1242	6	0	6	8.62	8.75	9.36	11.91	15.34	17.44	18.20	12.24	0.35	12.20	8.5	19
Aroclor-1248	6	0	6	8.62	8.75	9.36	11.91	15.34	17.44	18.20	12.24	0.35	12.20	8.5	19
Aroclor-1254	6	0	6	8.62	8.75	9.36	11.91	15.34	17.44	18.20	12.24	0.35	12.20	8.5	19
Aroclor-1260	6	0	6	8.62	8.75	9.36	11.91	15.34	17.44	18.20	12.24	0.35	12.20	8.5	19
Total PCBs[8]	2	0	2	59.67	59.84	60.36	61.23	62.11	62.64	62.82	61.23	0.04	61.22	59.5	63
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-23. Summary of the whole-sediment chemistry for Johnson Bayou (JB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	1	0	1	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	NA	1.35	1.35	1.35

Table E2-23. Summary of the whole-sediment chemistry for Johnson Bayou (JB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	6	0	6	34.23	34.97	37.69	82.99	165.00	177.06	183.42	80.33	1.31	80.02	33.5	190
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	1	0	1	33.50	33.50	33.50	33.50	33.50	33.50	33.50	33.50	NA	33.50	33.5	33.5
Di-n-butylphthalate	6	0	6	34.23	34.97	37.69	82.99	165.00	177.06	183.42	80.33	1.31	80.02	33.5	190
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,2-Dichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,3-Dichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,4-Dichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,2-Dichloroethane	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5

Table E2-23. Summary of the whole-sediment chemistry for Johnson Bayou (JB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	3	3	0	62.84	64.72	70.74	82.00	89.65	94.57	96.27	78.87	0.27	78.85	61	98
1,2,3,4,7,8-HxCDD	3	0	3	0.40	0.40	0.42	0.45	0.47	0.48	0.48	0.44	0.03	0.44	0.39	0.485
1,2,3,6,7,8-HxCDD	3	0	3	0.71	0.73	0.77	0.85	0.87	0.89	0.89	0.81	0.06	0.81	0.7	0.9
1,2,3,7,8,9-HxCDD	3	2	1	2.20	2.41	3.14	4.70	5.45	5.95	6.12	4.00	0.58	3.90	2	6.3
1,2,3,7,8-PeCDD	3	0	3	0.22	0.22	0.22	0.23	0.24	0.25	0.26	0.23	0.02	0.23	0.215	0.26
2,3,7,8-TCDD	3	1	2	0.28	0.30	0.34	0.41	0.88	1.23	1.36	0.65	0.44	0.55	0.27	1.5
OCDD	3	3	0	1235.03	1271.07	1385.65	1600.00	1743.56	1835.81	1867.63	1539.42	0.26	1539.40	1200	1900
Total TCDD	3	3	0	18.10	18.20	18.49	19.00	19.00	19.00	19.00	18.66	0.03	18.66	18	19
Total HpCDD	3	3	0	310.99	311.97	314.96	320.00	344.10	359.41	364.67	332.33	0.10	332.33	310	370
Total HxCDD	3	3	0	97.25	99.55	106.78	120.00	142.84	158.57	164.19	124.70	0.34	124.68	95	170
Total PeCDD	3	3	0	20.37	20.75	21.91	24.00	29.00	32.47	33.71	25.64	0.32	25.61	20	35
1,2,3,4,6,7,8-HpCDF	3	0	3	0.16	0.17	0.20	0.26	0.48	0.64	0.69	0.36	0.25	0.30	0.145	0.75
1,2,3,4,7,8,9-HpCDF	3	0	3	0.03	0.03	0.04	0.04	0.06	0.06	0.07	0.05	0.02	0.05	0.033	0.07
1,2,3,4,7,8-HxCDF	3	0	3	0.16	0.16	0.16	0.17	0.23	0.27	0.28	0.21	0.06	0.20	0.16	0.295
1,2,3,6,7,8-HxCDF	3	0	3	0.06	0.06	0.07	0.09	0.14	0.17	0.18	0.11	0.07	0.10	0.055	0.195
1,2,3,7,8,9-HxCDF	3	0	3	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.01	0.04	0.0295	0.0445
1,2,3,7,8-PeCDF	3	0	3	0.25	0.27	0.32	0.42	0.43	0.43	0.43	0.36	0.09	0.35	0.235	0.435
2,3,4,6,7,8-HxCDF	3	0	3	0.04	0.04	0.05	0.05	0.09	0.11	0.12	0.07	0.04	0.06	0.0385	0.125
2,3,4,7,8-PeCDF	3	0	3	0.18	0.19	0.21	0.24	0.28	0.30	0.31	0.24	0.06	0.24	0.175	0.315
2,3,7,8-TCDF	3	3	0	1.33	1.36	1.45	1.60	1.60	1.60	1.60	1.50	0.07	1.49	1.3	1.6
OCDF	3	0	3	0.32	0.34	0.42	0.55	1.01	1.34	1.47	0.73	0.44	0.64	0.295	1.6
Total TCDF	3	3	0	15.36	15.73	16.89	19.00	19.49	19.80	19.90	17.87	0.16	17.86	15	20
Total HpCDF	3	0	3	0.20	0.22	0.27	0.37	0.66	0.85	0.93	0.48	0.31	0.41	0.18	1

Table E2-23. Summary of the whole-sediment chemistry for Johnson Bayou (JB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	3	0	3	0.18	0.19	0.22	0.26	0.47	0.60	0.65	0.36	0.22	0.32	0.17	0.7
Total PeCDF	3	0	3	0.69	0.73	0.86	1.10	1.31	1.45	1.50	1.07	0.24	1.03	0.65	1.55
Total Toxic Equivalents (TEQs)[9]	3	3	0	1.36	1.38	1.42	1.50	1.90	2.17	2.26	1.70	0.21	1.68	1.35	2.36
Other COPCs (µg/kg DW)															
Acetone	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
Carbon disulfide	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
Mean PEC-Q	6	NA	NA	0.04	0.04	0.04	0.08	0.12	0.13	0.133	0.08	0.04	0.07	0.0359	0.136

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-24. Summary of the whole-sediment chemistry for Willow Bayou (WB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	2	2	0	7.68	7.90	8.60	9.88	11.34	12.31	12.65	9.88	0.43	9.85	7.46	13
Lead	2	2	0	12.27	12.66	13.87	16.15	18.77	20.54	21.16	16.15	0.50	16.11	11.9	21.8
Mercury	2	2	0	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.04	0.01	0.04	0.0358	0.0486
Methyl mercury	2	0	2	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0000	0.0004	0.00043	0.000435
Nickel	2	2	0	12.07	12.34	13.18	14.72	16.42	17.52	17.91	14.72	0.34	14.69	11.8	18.3
Zinc	2	2	0	50.32	51.05	53.30	57.27	61.53	64.23	65.16	57.27	0.22	57.26	49.6	66.1
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0	0			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Acenaphthene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Acenaphthylene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Anthracene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Fluorene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Naphthalene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Phenanthrene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Total LMW-PAHs[5]	2	0	2	155.59	157.19	162.09	170.61	179.57	185.17	187.08	170.61	0.15	170.60	154	189
Benz(a)anthracene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Benzo(a)pyrene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Benzo(b)fluoranthene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27

Table E2-24. Summary of the whole-sediment chemistry for Willow Bayou (WB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(g,h,i)perylene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Benzo(k)fluoranthene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Chrysene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Dibenz(a,h)anthracene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Fluoranthene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Indeno(1,2,3-cd)pyrene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	2	0	2	22.23	22.46	23.16	24.38	25.66	26.45	26.73	24.38	0.15	24.37	22	27
Total HMW-PAHs[6]	2	0	2	133.36	134.73	138.94	146.24	153.92	158.72	160.35	146.24	0.15	146.23	132	162
Total PAHs[7]	2	0	2	288.94	291.92	301.03	316.84	333.49	343.89	347.43	316.84	0.16	316.84	286	351
PCB Aroclors (µg/kg DW)															
Aroclor-1016	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Aroclor-1221	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Aroclor-1232	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Aroclor-1242	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Aroclor-1248	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Aroclor-1254	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Aroclor-1260	2	0	2	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	0	11.50	11.5	11.5
Total PCBs[8]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB Congeners (µg/kg DW)															
PCB 105	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 108	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-24. Summary of the whole-sediment chemistry for Willow Bayou (WB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW; cont.)															
PCB 114	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 118	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 126	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 127	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 15	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 156	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 157	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 162	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 167	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 169	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 189	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 37	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 58	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 60	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 61/70	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 66	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 77	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 79	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 80	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 81	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-24. Summary of the whole-sediment chemistry for Willow Bayou (WB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	2	2	0	55.63	56.26	58.21	61.61	65.20	67.46	68.22	61.61	0.17	61.60	55	69
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	2	0	2	45.50	45.50	45.50	45.50	45.50	45.50	45.50	45.50	0.00	45.50	45.5	45.5
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-24. Summary of the whole-sediment chemistry for Willow Bayou (WB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HxCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDD	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4,7,8-PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total HpCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table E2-24. Summary of the whole-sediment chemistry for Willow Bayou (WB).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total HxCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PeCDF	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Toxic Equivalents (TEQs)[9]	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other COPCs (µg/kg DW)															
Acetone	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon disulfide	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mean PEC-Q	2	NA	NA	0.05	0.05	0.06	0.06	0.06	0.06	0.0630	0.06	0.01	0.06	0.053	0.0635

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; PEC-Q = probable effect concentration-quotient; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-25. Summary of the whole-sediment chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	110	110	0	2.93	4.60	6.80	10.00	17.54	31.74	78.25	12.18	1.41	11.81	1.5	454
Copper	139	134	5	2.81	3.98	6.93	12.50	27.00	43.84	59.24	14.06	1.51	13.54	0.95	379
Lead	139	138	1	6.96	7.88	10.75	18.20	34.17	57.70	129.59	20.68	1.39	20.29	1.9	354
Mercury	139	68	71	0.01	0.01	0.04	0.06	0.10	0.18	0.27	0.10	0.14	0.06	0.009	2.37
Methyl mercury	29	8	21	0.0003	0.0003	0.0003	0.0005	0.001	0.001	0.001	0.001	0.001	0.001	0.000245	0.00488
Nickel	139	135	4	2.69	3.58	5.40	8.80	13.45	20.92	30.24	8.86	0.96	8.59	0.83	140
Zinc	138	96	42	6.56	10.19	17.16	31.02	48.82	82.63	118.14	31.41	1.42	30.99	4.95	868
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	18	2	16	25.92	26.35	27.25	30.75	33.37	67.04	358.95	41.90	1.69	41.64	25.5	1200
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	52	11	41	14.57	17.05	22.10	33.50	38.14	760.27	2344.47	47.80	3.64	47.07	5	9660
Acenaphthene	60	10	50	16.45	17.45	26.00	26.25	44.50	70.60	163.31	34.59	1.34	34.29	4	2050
Acenaphthylene	60	4	56	7.85	16.95	21.93	29.50	38.14	60.00	70.88	29.82	0.96	29.54	4	308
Anthracene	87	20	67	17.50	18.00	18.25	36.50	55.00	167.72	577.70	48.15	1.99	47.70	8	9530
Fluorene	61	9	52	12.50	17.00	22.50	26.50	45.50	115.00	410.00	34.34	1.73	33.92	4	1820
Naphthalene	79	8	71	0.75	0.75	0.75	0.75	27.59	42.78	46.56	5.62	4.05	4.09	0.75	3810
Phenanthrene	96	34	62	18.64	20.00	33.75	60.00	146.96	359.18	1530.92	82.21	2.97	81.42	8	12700
Total LMW-PAHs[5]	134	35	99	136.87	150.25	247.25	315.80	740.00	1040.00	1820.36	424.31	1.60	423.91	56	39878
Benz(a)anthracene	98	41	57	16.50	16.50	33.00	53.39	208.23	542.55	1127.91	88.96	3.20	88.04	8	109000
Benzo(a)pyrene	105	40	65	16.50	16.50	33.00	72.00	230.00	367.47	910.17	89.51	2.84	88.64	8	83500

Table E2-25. Summary of the whole-sediment chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(b)fluoranthene	134	44	90	20.00	20.00	60.00	200.50	348.00	500.00	860.53	147.89	2.63	146.85	8	82200
Benzo(g,h,i)perylene	96	27	69	17.50	27.48	30.00	67.00	144.25	227.49	426.48	75.18	2.02	74.65	8	21200
Benzo(k)fluoranthene	106	29	77	16.50	16.50	30.22	49.50	195.87	262.49	317.47	66.46	2.13	65.82	8	9090
Chrysene	114	48	66	16.50	17.00	45.70	147.48	303.21	1003.52	2234.50	135.15	3.66	133.88	8	279000
Dibenz(a,h)anthracene	76	12	64	16.50	16.50	17.00	33.00	49.50	52.08	86.10	34.28	1.59	34.02	8	22500
Fluoranthene	133	51	82	16.50	16.50	49.50	155.00	370.00	525.94	1145.16	133.48	3.09	132.26	8	50100
Indeno(1,2,3-cd)pyrene	95	24	71	17.85	28.50	28.50	67.00	107.98	212.99	226.49	66.27	1.62	65.87	8	18300
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	128	60	68	16.50	17.00	49.50	195.45	370.00	1014.74	2714.15	164.02	3.72	162.56	8	189000
Total HMW-PAHs[6]	140	64	76	99.00	169.39	297.00	1094.82	1777.00	2915.71	6160.38	868.59	2.71	867.51	48	733100
Total PAHs[7]	140	64	76	249.25	367.34	582.75	1690.64	2388.74	3245.06	9540.23	1372.67	2.13	1371.99	104	772978
PCB Aroclors (µg/kg DW)															
Aroclor-1016	131	0	131	1.90	1.90	1.90	14.50	34.25	47.00	52.44	11.17	2.16	10.20	1.9	65
Aroclor-1221	99	0	99	1.90	1.90	1.90	7.00	45.00	55.00	60.00	8.63	2.49	7.73	1.9	65
Aroclor-1232	131	0	131	1.90	1.90	1.90	14.50	34.25	47.00	52.44	11.17	2.16	10.20	1.9	65
Aroclor-1242	131	0	131	1.90	1.90	1.90	14.50	34.25	47.00	52.44	11.17	2.16	10.20	1.9	65
Aroclor-1248	131	0	131	1.90	1.90	1.90	14.50	34.25	47.00	52.44	11.17	2.16	10.20	1.9	65
Aroclor-1254	131	17	114	1.90	1.90	1.90	23.00	42.00	65.00	129.62	16.21	2.79	14.87	1.9	930
Aroclor-1260	131	9	122	1.90	1.90	1.90	21.50	39.00	50.00	66.97	13.70	2.30	12.60	1.9	230
Total PCBs[8]	71	22	49	13.30	13.30	13.30	13.30	63.20	307.00	419.77	35.84	3.00	34.08	0.23612	1230

Table E2-25. Summary of the whole-sediment chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW)															
PCB 105	7	7	0	0.04	0.05	0.59	2.98	6.39	18.85	26.75	3.17	2.72	1.37	0.0206	37.8
PCB 108	7	7	0	0.01	0.01	0.14	0.45	1.84	4.07	5.10	0.96	1.12	0.30	0.00683	6.34
PCB 114	7	5	2	0.002	0.002	0.02	0.15	0.43	1.32	1.89	0.36	0.60	0.07	0.00112	2.59
PCB 118	7	7	0	0.09	0.13	1.29	7.59	18.06	49.14	67.47	6.71	4.19	3.59	0.0537	92.5
PCB 126	7	6	1	0.005	0.01	0.02	0.07	0.16	0.37	0.47	0.13	0.18	0.05	0.00249	0.577
PCB 127	7	2	5	0.002	0.002	0.002	0.002	0.01	0.01	0.01	0.01	0.01	0.00	0.00228	0.0161
PCB 15	7	7	0	0.04	0.05	0.09	0.17	1.19	1.64	1.93	0.56	0.59	0.28	0.0326	2.26
PCB 156	7	7	0	0.02	0.03	0.27	0.99	3.23	8.75	10.64	1.60	1.74	0.58	0.00912	12.9
PCB 157	7	6	1	0.01	0.01	0.09	0.21	0.62	1.62	2.17	0.46	0.62	0.14	0.00249	2.83
PCB 162	7	7	0	0.03	0.04	0.40	1.19	4.39	13.19	17.87	2.17	2.28	0.86	0.0163	24.1
PCB 167	7	7	0	0.01	0.01	0.13	0.39	1.29	3.15	3.97	0.78	0.95	0.24	0.0054	4.95
PCB 169	7	5	2	0.003	0.003	0.005	0.01	0.03	0.04	0.04	0.02	0.02	0.01	0.00249	0.0419
PCB 189	7	6	1	0.00	0.01	0.02	0.09	0.50	1.00	1.11	0.28	0.39	0.08	0.00249	1.23
PCB 37	7	6	1	0.02	0.02	0.05	0.12	0.88	1.57	1.64	0.43	0.53	0.16	0.0078	1.72
PCB 58	7	5	2	0.002	0.002	0.004	0.06	0.15	0.43	0.59	0.14	0.23	0.03	0.00249	0.779
PCB 60	7	5	2	0.01	0.01	0.08	0.51	2.70	6.34	6.81	1.13	1.45	0.31	0.00705	7.32
PCB 61/70	7	5	2	0.02	0.02	0.34	3.04	9.96	29.20	39.97	3.68	3.59	1.26	0.0137	54.6
PCB 66	7	5	2	0.02	0.02	0.21	2.55	7.16	15.68	16.14	2.48	2.36	0.84	0.0121	16.6
PCB 77	7	6	1	0.01	0.01	0.10	0.27	0.74	1.77	2.11	0.49	0.61	0.16	0.003035	2.5
PCB 79	7	5	2	0.002	0.002	0.02	0.07	0.39	0.57	0.63	0.20	0.24	0.06	0.00249	0.688
PCB 80	7	0	7	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.002	0.000745	0.0025
PCB 81	7	5	2	0.002	0.002	0.03	0.14	0.26	0.72	1.05	0.25	0.37	0.07	0.00249	1.44

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Organochlorine Pesticides (µg/kg DW)															
Aldrin	31	0	31	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0	0.06	0.06	0.06
Dieldrin	44	1	43	0.10	0.10	0.10	0.10	0.25	0.25	0.25	0.21	0.38	0.15	0.1	8
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	136	33	103	31.00	31.00	60.00	199.75	387.29	674.54	1277.36	182.15	3.51	181.11	26	77000
Benzylbutylphthalate	30	2	28	16.50	16.50	16.50	16.50	27.75	31.05	42.84	22.07	0.46	22.01	16.5	76
Diethylphthalate	17	0	17	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	0	18.50	18.5	18.5
Dimethylphthalate	41	0	41	17.00	17.00	17.00	26.50	33.00	33.50	33.50	24.23	0.35	24.18	17	35.5
Di-n-butylphthalate	137	4	133	16.50	16.50	33.00	60.00	320.00	466.99	500.00	96.22	2.31	95.38	16.5	700
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	44	0	44	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0	0.70	0.7	0.7
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	44	0	44	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0	0.25	0.25	0.25
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	98	0	98	0.25	0.25	0.25	6.50	9.87	13.00	14.00	3.04	1.95	1.85	0.25	14.5
1,2-Dichlorobenzene	101	0	101	0.25	0.25	0.25	7.00	10.50	13.50	14.50	3.23	1.99	1.98	0.25	17
1,3-Dichlorobenzene	107	0	107	0.26	0.26	0.26	7.00	11.50	14.50	18.04	3.65	2.09	2.30	0.26	26
1,4-Dichlorobenzene	107	0	107	0.25	0.25	0.25	7.00	11.50	14.50	18.04	3.64	2.10	2.26	0.25	26
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	107	0	107	0.60	0.60	0.60	7.00	11.50	14.50	18.04	4.13	1.75	3.24	0.6	26
1,2-Dichloroethane	107	0	107	0.50	0.50	0.50	7.00	11.50	14.50	18.04	4.00	1.84	3.01	0.5	26
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	26	26	0	21.49	42.23	94.00	130.00	527.04	882.33	1046.18	168.65	2.82	167.24	6.8	3100
1,2,3,4,7,8-HxCDD	26	7	19	0.27	0.42	0.61	0.90	1.77	5.88	8.09	1.41	0.86	1.15	0.23	9.6
1,2,3,6,7,8-HxCDD	26	15	11	0.65	0.72	1.39	2.68	19.63	26.98	33.18	5.13	2.24	4.25	0.31	71
1,2,3,7,8,9-HxCDD	26	21	5	0.57	0.82	4.16	7.45	13.81	50.61	111.79	8.47	2.61	7.32	0.5	190
1,2,3,7,8-PeCDD	26	5	21	0.28	0.29	0.70	0.95	1.93	3.54	3.93	1.26	0.58	1.07	0.253	5
2,3,7,8-TCDD	26	3	23	0.10	0.13	0.23	0.49	0.80	1.22	1.44	0.55	0.31	0.44	0.0855	2
Total TCDD	26	22	4	0.38	0.47	3.51	9.19	14.07	20.45	27.07	6.82	1.72	5.54	0.123	31
OCDD	26	26	0	493.22	733.57	2200.00	3298.48	7649.51	10529.01	14035.99	3515.69	1.89	3514.95	450	35000
Total HpCDD	26	26	0	62.82	123.04	252.46	318.29	1119.82	1766.36	2149.18	419.01	2.30	418.07	30	6900
Total HxCDD	26	25	1	11.26	21.58	60.22	76.90	307.47	574.80	734.41	96.33	2.94	93.79	1.35	811
Total PeCDD	26	19	7	0.63	0.95	2.27	8.45	21.48	78.27	91.12	9.45	2.86	8.01	0.35	97
1,2,3,4,6,7,8-HpCDF	26	17	9	0.30	0.37	1.25	11.00	51.43	196.38	259.25	12.48	5.33	9.17	0.21	365
1,2,3,4,7,8,9-HpCDF	26	7	19	0.23	0.28	0.41	0.63	6.32	21.05	32.92	2.23	2.35	1.44	0.195	54.5
1,2,3,4,7,8-HxCDF	26	9	17	0.22	0.24	0.35	0.96	11.74	27.72	50.73	3.04	2.99	1.85	0.143	76.3
1,2,3,6,7,8-HxCDF	26	7	19	0.15	0.19	0.34	0.60	3.16	10.00	21.23	1.74	1.78	1.09	0.135	36.6
1,2,3,7,8,9-HxCDF	26	3	23	0.17	0.20	0.35	0.58	1.10	3.53	7.87	0.99	0.94	0.72	0.1205	14.4
1,2,3,7,8-PeCDF	26	6	20	0.22	0.29	0.42	0.70	2.00	5.88	13.83	1.44	1.21	1.06	0.2	17.6
2,3,4,6,7,8-HxCDF	26	6	20	0.16	0.19	0.34	0.64	1.46	7.20	13.77	1.27	1.29	0.86	0.15	20.7
2,3,4,7,8-PeCDF	26	6	20	0.21	0.29	0.41	0.72	1.97	5.18	10.27	1.35	1.08	1.01	0.185	17.4
2,3,7,8-TCDF	26	13	13	0.14	0.17	0.35	0.72	4.62	9.15	11.02	1.72	1.46	1.12	0.135	18.5

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PCDDs and PCDFs (ng/kg DW; cont.)															
OCDF	26	20	6	0.61	1.17	2.94	25.45	201.87	513.05	979.61	29.74	7.58	25.05	0.405	1400
Total TCDF	26	23	3	0.46	0.81	5.23	34.78	69.75	156.76	187.97	22.18	4.00	18.50	0.25	198
Total HpCDF	26	18	8	0.38	0.45	1.56	24.79	85.71	437.76	625.48	22.77	7.55	17.24	0.25	1100
Total HxCDF	26	15	11	0.25	0.32	0.70	9.28	46.66	183.76	326.59	10.66	6.08	7.27	0.1675	448
Total PeCDF	26	14	12	0.36	0.38	0.67	5.05	31.95	47.49	152.18	6.84	4.35	4.80	0.285	307
Total Toxic Equivalents (TEQs)[9]	26	26	0	1.12	1.73	2.47	4.28	12.02	26.03	29.86	5.57	1.39	5.14	0.957	35.8
Other COPCs															
Acetone	63	23	40	6.55	7.00	9.75	15.00	27.93	65.94	136.67	18.91	1.37	18.58	6	200
Carbon disulfide	63	13	50	6.00	6.50	7.00	9.50	13.50	22.48	25.79	10.68	0.56	10.59	6	57
Mean PEC-Q	146	NA	NA	0.04	0.05	0.07	0.14	0.19	0.27	0.490	0.17	0.31	0.12	0.0271	22.7

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; PEC-Q = probable effect concentration-quotient; DL = detection limit; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geomean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-26. Summary of the whole-sediment chemistry for the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	271	271	0	9.15	12.40	21.95	44.30	78.90	192.00	262.46	45.54	1.71	44.95	2.8	774
Copper	302	300	2	9.32	13.85	26.47	58.40	104.75	187.49	302.70	56.85	1.73	56.19	3.6	943
Lead	302	287	15	11.20	14.90	24.52	37.65	64.95	132.00	198.38	41.21	1.35	40.81	4.2	902
Mercury	294	248	46	0.05	0.07	0.20	0.71	1.90	4.20	6.83	1.03	0.92	0.62	0.01	93.9
Methyl mercury	31	26	5	0.0004	0.0005	0.001	0.004	0.01	0.01	0.02	0.01	0.01	0.003	0.000325	0.0198
Nickel	300	290	10	6.19	7.29	10.70	16.55	23.90	37.79	47.20	16.41	0.79	16.19	0.7	110
Zinc	295	270	25	23.42	33.54	63.95	125.00	200.50	257.00	330.79	108.13	1.29	107.60	4.8	700
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	21	14	7	26.50	26.50	33.00	87.00	190.00	400.00	410.00	95.77	1.76	95.22	25.5	620
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	50	15	35	7.44	8.45	24.37	46.49	60.00	99.27	126.18	37.68	1.55	37.08	4.5	549
Acenaphthene	46	11	35	6.62	8.00	13.30	39.74	50.00	140.50	206.71	34.29	2.04	33.60	4.5	1460
Acenaphthylene	54	25	29	8.00	12.84	39.20	52.44	107.94	284.19	342.00	58.74	1.91	57.99	4.5	901
Anthracene	67	23	44	8.65	21.53	38.24	57.00	107.47	223.56	458.88	63.36	1.77	62.75	7	1320
Fluorene	45	11	34	8.00	8.50	19.80	39.00	50.00	77.45	246.79	32.99	1.55	32.48	4.5	300
Naphthalene	57	8	49	7.79	8.50	25.50	46.00	60.00	80.68	107.87	36.73	1.29	36.22	4.5	220
Phenanthrene	82	46	36	25.02	38.55	54.70	99.15	197.97	659.26	1786.90	126.37	3.27	125.48	8	59000
Total LMW-PAHs[5]	217	52	165	166.71	300.00	445.00	515.00	690.00	830.00	1027.07	531.16	1.08	530.89	56	59000
Benz(a)anthracene	87	50	37	27.44	42.80	55.00	95.00	180.00	537.13	1025.33	114.99	1.97	114.35	8	4850
Benzo(a)pyrene	86	44	42	29.71	43.46	56.02	106.44	208.12	330.00	851.03	115.01	1.71	114.43	8	2620

Table E2-26. Summary of the whole-sediment chemistry for the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(b)fluoranthene	215	49	166	52.77	68.83	154.50	395.00	482.49	550.00	550.00	275.69	1.42	274.99	8	7390
Benzo(g,h,i)perylene	72	30	42	24.81	30.74	50.00	75.00	141.23	280.83	514.94	84.21	1.45	83.75	8	670
Benzo(k)fluoranthene	80	32	48	22.30	25.49	44.47	65.00	151.23	250.79	438.90	81.73	1.69	81.20	8	2620
Chrysene	113	68	45	50.00	55.39	82.00	180.00	310.00	776.73	1231.38	186.35	1.88	185.70	9	10400
Dibenz(a)anthracene	42	19	23	8.52	15.58	25.97	43.41	55.00	148.43	281.08	45.53	1.52	45.07	8	503
Fluoranthene	194	63	131	52.25	66.72	140.00	365.00	460.00	500.00	860.77	267.52	1.60	266.87	9	19100
Indeno(1,2,3-cd)pyrene	75	30	45	17.99	30.91	50.00	75.00	142.99	278.31	427.32	82.43	1.59	81.85	8	1450
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	183	99	84	57.29	75.00	120.50	285.00	437.49	634.36	1377.78	243.88	1.64	243.27	9	17300
Total HMW-PAHs[6]	280	107	173	359.08	449.34	951.05	1837.46	2206.22	2425.00	2509.81	1449.04	1.11	1448.62	54	54773
Total PAHs[7]	282	110	172	611.59	750.00	1426.25	2262.47	2750.00	2910.00	3294.89	1921.46	1.04	1921.15	117	59136.7
PCB Aroclors (µg/kg DW)															
Aroclor-1016	206	0	206	9.00	12.25	27.25	42.75	50.00	60.00	63.71	33.69	0.78	33.46	6	65
Aroclor-1221	77	0	77	6.90	8.00	12.00	20.00	55.00	65.00	65.00	23.02	1.14	22.70	6	65
Aroclor-1232	206	0	206	9.00	12.25	27.25	42.75	50.00	60.00	63.71	33.69	0.78	33.46	6	65
Aroclor-1242	206	0	206	9.00	12.25	27.25	42.75	50.00	60.00	63.71	33.69	0.78	33.46	6	65
Aroclor-1248	206	0	206	9.00	12.25	27.25	42.75	50.00	60.00	63.71	33.69	0.78	33.46	6	65
Aroclor-1254	222	114	108	9.50	14.55	33.75	55.00	92.75	260.00	763.51	62.81	2.47	62.05	4.9	38100
Aroclor-1260	207	6	201	9.00	12.30	29.00	43.50	52.44	60.00	65.00	34.85	0.83	34.59	6	190
Total PCBs[8]	128	118	10	49.00	143.41	325.00	426.00	552.75	890.36	1216.19	389.88	1.81	388.74	4.46628	38391

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Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW)															
PCB 105	34	34	0	0.02	0.06	0.59	4.56	12.47	24.86	39.12	4.62	2.58	2.49	0.0126	93.3
PCB 108	34	34	0	0.01	0.02	0.18	1.72	5.15	8.12	11.33	1.90	1.51	0.78	0.00439	27.6
PCB 114	34	31	3	0.01	0.02	0.07	0.36	0.98	1.92	2.43	0.55	0.60	0.23	0.002485	6.04
PCB 118	34	34	0	0.06	0.22	1.96	17.39	45.17	81.79	114.35	12.46	4.07	8.22	0.0367	251
PCB 126	34	31	3	0.01	0.01	0.04	0.23	0.48	1.12	2.06	0.42	0.71	0.15	0.002485	15.5
PCB 127	34	15	19	0.002	0.002	0.002	0.005	0.02	0.05	0.12	0.03	0.08	0.01	0.00124	0.498
PCB 15	34	34	0	0.13	0.19	0.36	2.54	14.39	38.61	107.78	4.52	4.07	2.72	0.0888	456
PCB 156	34	34	0	0.01	0.05	0.36	2.50	5.20	10.58	16.48	2.35	1.62	1.16	0.0113	25
PCB 157	34	32	2	0.01	0.02	0.10	0.65	1.24	2.78	3.87	0.80	0.75	0.33	0.002485	7.32
PCB 162	34	34	0	0.01	0.05	0.36	3.02	10.95	16.54	21.24	3.37	2.09	1.66	0.00932	48.8
PCB 167	34	34	0	0.01	0.03	0.27	1.34	3.59	4.91	7.25	1.55	1.20	0.72	0.00657	19.9
PCB 169	34	21	13	0.002	0.002	0.003	0.02	0.05	0.25	0.43	0.08	0.16	0.02	0.002385	0.984
PCB 189	34	33	1	0.01	0.02	0.10	0.34	0.88	1.91	3.21	0.58	0.74	0.24	0.002485	12.2
PCB 37	34	32	2	0.02	0.06	0.14	0.76	1.91	3.77	10.66	1.25	1.58	0.62	0.0138	77.8
PCB 58	34	32	2	0.01	0.01	0.03	0.19	0.81	0.99	3.90	0.47	0.62	0.17	0.00299	5.65
PCB 60	34	31	3	0.02	0.05	0.32	1.51	4.31	8.79	14.06	2.06	1.57	1.05	0.00515	35.9
PCB 61/70	34	32	2	0.04	0.27	1.38	9.10	21.65	53.31	74.10	7.94	3.24	5.08	0.0336	132
PCB 66	34	33	1	0.08	0.25	1.50	7.31	17.10	25.44	70.33	6.43	2.80	4.25	0.03755	137
PCB 77	34	34	0	0.02	0.02	0.18	1.05	2.35	5.05	6.60	1.22	1.09	0.53	0.00366	14.5
PCB 79	34	31	3	0.01	0.01	0.03	0.33	0.80	1.41	2.14	0.46	0.52	0.18	0.002485	4.25
PCB 80	34	15	19	0.002	0.002	0.002	0.003	0.03	0.15	0.20	0.05	0.12	0.01	0.00229	0.836
PCB 81	34	31	3	0.01	0.02	0.04	0.31	0.83	1.49	2.04	0.45	0.50	0.18	0.002485	4.55

Table E2-26. Summary of the whole-sediment chemistry for the Bayou d'Inde Area of Concern (BI AOC).

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Organochlorine Pesticides (µg/kg DW)															
Aldrin	45	45	0	0.73	0.82	1.70	4.00	20.00	47.75	281.96	7.47	3.64	6.17	0.35	370
Dieldrin	26	26	0	1.10	1.10	1.30	1.65	8.02	28.98	32.22	3.91	1.85	3.39	1	45
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	281	158	123	60.00	70.00	130.00	285.00	520.00	850.00	1100.00	286.75	2.16	286.12	27.5	150000
Benzylbutylphthalate	8	3	5	25.85	26.20	26.50	27.25	139.02	212.97	276.93	57.07	1.90	56.63	25.5	360
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	9	2	7	25.90	26.30	26.50	27.50	35.00	78.72	82.28	36.09	0.59	36.01	25.5	86
Di-n-butylphthalate	253	14	239	44.30	55.00	125.00	415.00	500.00	600.00	650.00	264.94	1.52	264.26	26.5	700
Di-n-octylphthalate	7	7	0	255.84	261.82	307.42	430.00	654.04	917.95	923.95	455.17	0.70	455.06	250	930
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	21	21	0	100.00	110.00	170.00	320.00	670.00	1400.00	1600.00	335.68	1.65	335.19	62	2100
Hexachlorobenzene	31	31	0	106.21	130.00	249.80	760.00	2445.41	6200.00	11679.25	877.92	4.13	875.80	26	24000
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	115	1	114	8.00	9.00	10.75	13.00	14.00	14.50	15.50	11.97	0.21	11.95	5.5	15.5
1,2-Dichlorobenzene	136	0	136	8.37	9.50	11.37	13.00	14.50	16.00	17.00	12.66	0.22	12.63	5.5	17.5
1,3-Dichlorobenzene	192	49	143	2.51	5.55	9.87	13.75	19.00	25.00	33.00	12.81	0.87	12.47	1	50
1,4-Dichlorobenzene	192	37	155	3.00	5.55	10.00	14.00	19.00	24.90	31.45	13.04	0.82	12.74	1	50
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	192	0	192	9.00	10.00	12.50	14.00	18.50	22.40	27.17	15.11	0.41	15.05	5.5	50
1,2-Dichloroethane	193	0	193	9.00	10.00	12.50	14.00	18.50	22.50	29.16	15.27	0.44	15.20	5.5	105
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	71	71	0	33.68	51.20	110.00	217.00	354.96	680.00	1095.45	199.78	1.90	198.81	9.7	2200
1,2,3,4,7,8-HxCDD	71	37	34	0.66	0.94	1.68	3.15	8.33	23.40	47.47	4.55	1.89	3.92	0.295	110
1,2,3,6,7,8-HxCDD	71	58	13	1.09	1.70	4.20	12.00	26.25	53.00	102.62	12.00	2.24	10.96	0.52	179
1,2,3,7,8,9-HxCDD	71	54	17	0.94	1.60	3.39	8.71	13.00	31.50	47.37	7.95	1.54	7.31	0.4455	82
1,2,3,7,8-PeCDD	71	32	39	0.50	0.64	1.22	2.60	5.31	23.00	33.10	3.45	1.72	2.89	0.3285	98.1
2,3,7,8-TCDD	71	40	31	0.19	0.24	0.49	0.75	1.86	4.30	11.41	1.29	1.08	0.95	0.04635	29
Total TCDD	71	68	3	1.45	3.40	6.61	15.00	30.39	43.40	97.39	14.61	1.87	13.60	0.197	163
OCDD	71	71	0	364.58	1200.00	2329.81	3200.00	5914.98	8250.00	10281.54	3011.40	1.72	3010.26	108	23000
Total HpCDD	71	71	0	73.86	129.00	279.50	530.00	825.99	1700.00	2450.72	467.08	1.85	466.14	25.7	4700
Total HxCDD	71	71	0	25.00	27.30	80.60	140.00	292.98	440.00	937.71	141.47	1.95	140.74	15.2	1890
Total PeCDD	71	48	23	1.82	2.45	4.83	14.20	43.13	70.00	146.99	15.24	2.57	14.19	0.95	290
1,2,3,4,6,7,8-HpCDF	71	70	1	12.43	25.00	80.00	271.00	806.90	2500.00	5843.82	274.11	5.12	269.85	1.65	29000
1,2,3,4,7,8,9-HpCDF	71	66	5	1.19	2.87	9.21	30.20	147.79	427.00	1833.07	39.93	5.87	36.51	0.4915	7100
1,2,3,4,7,8-HxCDF	71	68	3	3.67	8.02	19.49	59.00	361.38	852.00	3000.00	79.11	5.98	75.63	1.05	8200
1,2,3,6,7,8-HxCDF	71	59	12	0.82	1.20	6.99	25.00	97.47	279.00	707.02	27.12	4.94	24.16	0.544	2600
1,2,3,7,8,9-HxCDF	71	37	34	0.56	0.62	1.10	3.06	19.95	86.10	120.00	6.54	4.05	5.09	0.305	951
1,2,3,7,8-PeCDF	71	63	8	1.38	2.39	3.66	19.00	102.34	239.00	729.38	25.05	5.29	22.35	0.42	2000
2,3,4,6,7,8-HxCDF	71	49	22	0.60	1.05	1.97	13.00	33.90	132.00	202.83	12.55	4.05	10.58	0.2935	672
2,3,4,7,8-PeCDF	71	59	12	0.83	1.85	3.31	17.00	68.97	216.00	461.74	20.00	4.72	17.53	0.365	1310
2,3,7,8-TCDF	71	70	1	0.97	2.19	8.66	24.10	86.87	268.00	471.20	27.30	4.34	24.75	0.554	1420

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PCDDs and PCDFs (ng/kg DW; cont.)															
OCDF	71	70	1	67.79	79.70	294.89	780.00	4608.49	15100.00	39807.04	1126.98	6.49	1123.35	13.6	290000
Total TCDF	71	71	0	12.96	32.00	110.00	290.00	1004.99	1900.00	4298.84	307.22	4.45	303.83	3.9	11000
Total HpCDF	71	71	0	21.85	55.90	194.94	490.00	1500.00	5130.00	13870.83	551.47	4.95	547.60	4.45	54000
Total HxCDF	71	71	0	11.75	29.50	86.86	430.00	1219.84	3300.00	9741.71	351.97	5.71	347.87	5.01	36000
Total PeCDF	71	70	1	3.23	24.80	54.99	209.00	768.96	2280.00	6398.49	208.45	6.36	202.86	2.3	25000
Total Toxic Equivalents (TEQs)[9]	71	71	0	4.01	5.10	10.18	35.03	121.12	297.45	915.88	42.02	3.96	40.33	1.57	2361
Other COPCs															
Acetone	193	56	137	9.80	11.00	16.00	32.00	90.00	190.00	266.99	40.57	2.27	39.95	4	81000
Carbon disulfide	193	117	76	2.00	3.00	5.00	10.00	16.00	32.59	47.56	9.89	1.28	9.47	1	105
Mean PEC-Q	315	NA	NA	0.07	0.12	0.20	0.32	0.55	1.04	1.44	0.47	0.63	0.34	0.0348	213

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; PEC-Q = probable effect concentration-quotient; DL = detection limit; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geomean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-27. Summary of the whole-sediment chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	142	139	3	2.90	5.82	8.00	11.85	22.32	33.73	40.29	13.35	1.11	12.96	0.7	205
Copper	157	133	24	3.21	5.53	9.80	16.20	32.10	52.28	81.51	17.63	1.44	17.14	1.4	434
Lead	157	157	0	6.30	8.90	11.70	16.90	31.10	48.96	76.13	20.61	1.43	20.22	1.5	793
Mercury	156	53	103	0.03	0.03	0.04	0.07	0.16	0.39	0.55	0.14	0.18	0.09	0.03	2.5
Methyl mercury	15	8	7	0.0004	0.0004	0.0005	0.001	0.002	0.002	0.01	0.002	0.005	0.001	0.00042	0.0198
Nickel	155	133	22	2.64	4.61	6.15	9.40	14.05	18.96	21.25	9.13	0.75	8.89	0.6	32.9
Zinc	157	110	47	9.07	11.02	18.45	36.60	64.30	97.16	110.17	34.64	1.24	34.24	4	322
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	2	0	2	26.71	26.92	27.56	28.66	29.81	30.52	30.76	28.66	0.11	28.66	26.5	31
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	28	11	17	15.17	19.54	33.49	48.73	162.44	11303.20	33539.40	131.21	10.93	128.83	5	120000
Acenaphthene	25	9	16	14.88	17.27	28.50	45.50	290.00	5298.79	8207.26	126.90	8.60	124.33	5	15900
Acenaphthylene	24	6	18	14.78	17.74	31.09	46.24	63.52	144.88	1373.95	59.50	3.41	58.67	5	8740
Anthracene	34	15	19	15.77	21.30	34.25	58.99	239.70	1892.24	4680.48	113.70	5.79	112.00	5	21700
Fluorene	24	8	16	14.78	17.08	27.99	45.50	372.61	4997.93	10364.99	114.73	8.35	112.38	5	13300
Naphthalene	27	7	20	15.07	17.39	27.48	45.50	68.99	487.34	4926.44	69.93	5.20	68.78	5	23000
Phenanthrene	50	19	31	19.20	25.89	45.50	146.97	218.74	5642.25	19073.88	176.70	6.82	174.99	14.5	140000
Total LMW-PAHs[5]	123	24	99	186.85	273.00	464.50	580.00	834.99	1031.87	5151.30	680.55	2.32	680.02	50.1	215040
Benz(a)anthracene	55	22	33	24.72	32.79	48.73	150.00	230.00	1249.76	2780.21	158.90	3.76	157.80	14.5	42400
Benzo(a)pyrene	64	26	38	26.79	34.30	58.71	177.34	242.46	1256.31	5443.55	182.43	3.70	181.27	14.5	23600

Table E2-27. Summary of the whole-sediment chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(b)fluoranthene	121	27	94	31.00	45.50	185.00	300.00	470.00	550.00	1200.00	248.33	2.19	247.34	14.5	21200
Benzo(g,h,i)perylene	54	20	34	22.91	29.51	48.11	142.87	222.46	455.55	2061.89	135.39	2.87	134.51	14.5	16800
Benzo(k)fluoranthene	57	16	41	20.13	27.68	47.00	205.00	240.00	397.88	566.30	130.31	2.33	129.46	14.5	6630
Chrysene	82	32	50	26.52	35.63	62.25	212.49	298.74	2082.40	5539.10	209.34	3.89	208.09	14.5	83100
Dibenz(a)anthracene	25	11	14	16.88	19.46	32.00	45.50	72.00	347.27	1201.69	70.74	3.39	70.04	14.5	10400
Fluoranthene	119	39	80	34.69	46.80	94.34	250.00	425.00	500.00	2096.25	229.82	2.34	228.93	14.5	22200
Indeno(1,2,3-cd)pyrene	48	12	36	22.79	30.91	45.87	165.00	217.46	242.08	382.81	104.81	1.63	104.24	14.5	930
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	109	48	61	33.17	47.09	87.00	225.00	350.00	1559.87	8487.56	239.76	3.71	238.67	14.5	149000
Total HMW-PAHs[6]	152	48	104	271.65	360.89	918.69	1487.45	2131.22	2500.00	11173.49	1440.34	2.03	1439.66	87	330700
Total PAHs[7]	152	49	103	499.95	720.07	1498.50	2070.00	2555.48	3000.00	14138.24	2085.23	1.97	2084.74	188.5	545740
PCB Aroclors (µg/kg DW)															
Aroclor-1016	131	0	131	14.47	20.50	25.00	34.00	48.50	60.00	60.00	33.65	0.56	33.53	7.5	65
Aroclor-1221	67	0	67	12.07	16.30	41.75	50.00	60.00	65.00	65.00	41.68	0.69	41.47	7.5	65
Aroclor-1232	131	0	131	14.47	20.50	25.00	34.00	48.50	60.00	60.00	33.65	0.56	33.53	7.5	65
Aroclor-1242	131	0	131	14.47	20.50	25.00	34.00	48.50	60.00	60.00	33.65	0.56	33.53	7.5	65
Aroclor-1248	131	0	131	14.47	20.50	25.00	34.00	48.50	60.00	60.00	33.65	0.56	33.53	7.5	65
Aroclor-1254	132	13	119	11.50	16.82	24.87	36.74	50.00	60.00	65.00	35.98	0.95	35.76	5.6	860
Aroclor-1260	131	2	129	14.47	20.50	25.00	34.50	49.00	60.00	60.00	33.95	0.57	33.83	7.5	65
Total PCBs[8]	17	14	3	55.28	60.10	216.00	255.00	365.00	779.77	885.91	254.95	1.39	254.49	52.5	1122.5

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PCB Congeners (µg/kg DW)															
PCB 105	5	5	0	0.60	0.69	0.99	2.64	7.79	14.98	18.50	3.70	2.10	2.99	0.514	22.8
PCB 108	5	5	0	0.19	0.21	0.28	0.38	1.26	2.01	2.32	0.76	0.62	0.57	0.166	2.65
PCB 114	5	5	0	0.02	0.02	0.05	0.13	0.64	0.97	1.09	0.34	0.41	0.14	0.0105	1.22
PCB 118	5	5	0	2.57	2.70	3.14	6.13	20.50	36.65	44.38	9.36	2.23	8.76	2.44	53.7
PCB 126	5	4	1	0.01	0.02	0.02	0.07	0.18	0.38	0.45	0.15	0.18	0.07	0.0103	0.523
PCB 127	5	1	4	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00248	0.02475
PCB 15	5	5	0	0.08	0.09	0.14	0.27	2.59	3.63	4.04	0.98	1.13	0.49	0.0634	4.48
PCB 156	5	5	0	0.27	0.29	0.37	0.88	2.29	4.83	6.05	1.46	1.21	1.06	0.241	7.53
PCB 157	5	5	0	0.07	0.07	0.08	0.20	0.68	1.26	1.49	0.45	0.50	0.26	0.0604	1.75
PCB 162	5	5	0	0.45	0.51	0.69	1.74	4.57	10.92	14.36	2.72	1.93	2.10	0.397	18.8
PCB 167	5	5	0	0.12	0.13	0.14	0.37	1.03	1.93	2.32	0.68	0.66	0.44	0.115	2.75
PCB 169	5	1	4	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00248	0.02475
PCB 189	5	5	0	0.02	0.03	0.03	0.08	0.16	0.28	0.33	0.12	0.13	0.08	0.0236	0.374
PCB 37	5	4	1	0.04	0.04	0.04	0.04	0.50	0.83	0.96	0.29	0.37	0.13	0.03695	1.09
PCB 58	5	4	1	0.02	0.02	0.02	0.08	0.14	0.21	0.23	0.10	0.09	0.07	0.0176	0.259
PCB 60	5	5	0	0.21	0.21	0.22	0.54	2.83	3.51	3.76	1.13	0.96	0.78	0.209	4.03
PCB 61/70	5	5	0	1.19	1.29	1.64	2.54	12.40	15.94	17.31	4.53	1.75	4.03	1.09	18.8
PCB 66	5	5	0	0.48	0.59	0.98	1.49	5.95	6.94	7.29	2.33	1.24	1.90	0.374	7.67
PCB 77	5	5	0	0.07	0.07	0.07	0.15	0.58	0.87	0.97	0.34	0.34	0.22	0.0681	1.08
PCB 79	5	5	0	0.03	0.03	0.03	0.04	0.18	0.20	0.21	0.10	0.09	0.07	0.0288	0.219
PCB 80	5	0	5	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00248	0.02475
PCB 81	5	5	0	0.02	0.03	0.06	0.10	0.43	0.56	0.60	0.23	0.24	0.10	0.00741	0.643

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Organochlorine Pesticides (µg/kg DW)															
Aldrin	1	1	0	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	NA	1.20	1.2	1.2
Dieldrin	3	1	2	0.90	0.92	1.01	1.15	1.15	1.15	1.15	1.05	0.08	1.05	0.87	1.15
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	149	56	93	60.79	71.60	160.00	320.00	550.00	775.91	1198.87	307.41	2.09	306.77	36	120000
Benzylbutylphthalate	3	1	2	26.92	27.35	28.66	31.00	66.17	103.81	120.57	48.88	1.47	48.63	26.5	140
Diethylphthalate	1	1	0	42.00	42.00	42.00	42.00	42.00	42.00	42.00	42.00	NA	42.00	42	42
Dimethylphthalate	3	0	3	26.92	27.35	28.66	31.00	31.50	31.80	31.90	29.74	0.10	29.73	26.5	32
Di-n-butylphthalate	136	13	123	49.36	65.00	183.42	320.00	485.00	600.00	650.00	252.94	1.31	252.43	26.5	700
Di-n-octylphthalate	2	2	0	153.82	181.97	301.02	695.30	1604.30	2648.81	3130.60	695.30	9.62	693.54	130	3700
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	1	1	0	550.00	550.00	550.00	550.00	550.00	550.00	550.00	550.00	NA	550.00	550	550
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	94	0	94	6.50	6.65	7.50	10.00	13.00	14.50	15.00	9.98	0.30	9.94	5.5	15.5
1,2-Dichlorobenzene	106	0	106	6.50	7.00	8.00	10.75	14.00	16.00	16.37	10.57	0.33	10.52	5.5	17.5
1,3-Dichlorobenzene	137	0	137	6.50	7.00	8.50	13.00	16.50	23.40	29.10	12.89	0.57	12.79	5.5	75
1,4-Dichlorobenzene	136	0	136	6.50	7.00	8.50	13.00	16.50	23.00	27.49	12.72	0.53	12.63	5.5	47.5
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	137	0	137	6.50	7.00	8.50	13.00	16.50	23.40	29.10	12.89	0.57	12.79	5.5	75
1,2-Dichloroethane	137	0	137	6.50	7.00	8.50	13.00	16.50	23.40	29.10	12.89	0.57	12.79	5.5	75
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	30	30	0	33.57	49.57	65.72	120.00	177.45	235.40	295.46	110.02	1.07	109.71	19	559
1,2,3,4,7,8-HxCDD	30	4	26	0.29	0.35	0.56	1.04	1.40	2.42	2.69	1.09	0.48	0.96	0.255	6.7
1,2,3,6,7,8-HxCDD	30	8	22	0.42	0.54	1.19	1.92	3.80	8.71	9.03	2.44	1.08	2.10	0.335	30.3
1,2,3,7,8,9-HxCDD	30	17	13	0.97	1.47	1.87	3.55	7.65	11.00	11.54	3.91	0.92	3.60	0.415	16
1,2,3,7,8-PeCDD	30	3	27	0.26	0.27	0.35	0.67	0.94	1.73	2.36	0.78	0.45	0.66	0.2385	5.68
2,3,7,8-TCDD	30	4	26	0.13	0.16	0.20	0.43	0.57	1.21	1.46	0.47	0.29	0.39	0.105	2.09
Total TCDD	30	29	1	0.91	1.48	8.46	14.00	26.37	30.08	30.91	11.30	1.58	10.14	0.225	32
OCDD	30	30	0	695.25	1093.85	1424.36	3049.59	4174.77	6594.09	7463.50	2593.95	1.14	2593.59	430	8100
Total HpCDD	30	29	1	135.54	175.54	222.70	329.85	548.85	789.47	880.00	341.18	0.96	340.91	56	1180
Total HxCDD	30	30	0	33.77	39.90	64.45	89.12	125.95	170.97	215.66	83.98	0.98	83.59	7.1	253
Total PeCDD	30	22	8	0.70	1.31	3.57	8.89	20.48	27.01	27.59	8.30	1.72	7.39	0.355	66.1
1,2,3,4,6,7,8-HpCDF	30	21	9	0.32	0.50	2.56	28.93	118.92	180.98	211.06	20.80	5.59	16.16	0.16	633
1,2,3,4,7,8,9-HpCDF	30	16	14	0.17	0.21	0.57	1.92	13.61	30.72	45.17	3.95	2.74	2.61	0.14	60
1,2,3,4,7,8-HxCDF	30	18	12	0.22	0.28	0.87	6.90	33.18	65.67	80.41	6.99	3.48	4.94	0.125	98
1,2,3,6,7,8-HxCDF	30	13	17	0.19	0.22	0.41	1.60	9.66	17.00	18.59	2.69	1.90	1.81	0.105	25
1,2,3,7,8,9-HxCDF	30	2	28	0.21	0.22	0.25	0.55	1.54	1.99	2.82	0.79	0.55	0.62	0.13	5.31
1,2,3,7,8-PeCDF	30	14	16	0.32	0.39	0.64	1.24	6.42	13.10	16.08	2.57	1.55	1.93	0.135	19
2,3,4,6,7,8-HxCDF	30	5	25	0.20	0.22	0.41	0.76	2.01	3.40	6.68	1.19	0.87	0.89	0.115	12.2
2,3,4,7,8-PeCDF	30	7	23	0.20	0.26	0.48	0.97	3.30	6.83	10.05	1.63	1.14	1.19	0.135	15.8
2,3,7,8-TCDF	30	20	10	0.20	0.30	0.58	2.35	9.07	18.19	20.54	3.29	1.77	2.38	0.115	28.9

Table E2-27. Summary of the whole-sediment chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
OCDF	30	24	6	1.19	2.94	13.48	108.48	471.26	1018.40	1254.01	78.81	7.57	70.68	0.31	2000
Total TCDF	30	28	2	1.52	5.60	24.00	64.53	130.00	283.85	395.47	49.02	3.56	42.46	0.15	490
Total HpCDF	30	22	8	0.43	0.63	2.56	57.31	237.86	423.65	480.64	36.19	7.77	28.79	0.2	1090
Total HxCDF	30	19	11	0.29	0.33	1.54	21.80	106.32	230.98	247.07	17.97	6.43	12.98	0.13	323
Total PeCDF	30	18	12	0.37	0.59	2.24	10.81	56.59	92.63	133.67	11.90	3.90	9.40	0.135	150
Total Toxic Equivalents (TEQs)[9]	30	30	0	1.44	1.87	2.50	4.00	13.46	18.99	25.28	5.66	1.29	5.27	1.22	34.6
Other COPCs															
Acetone	137	72	65	6.00	7.00	10.50	18.00	32.00	70.72	120.00	20.51	1.44	20.13	3	790
Carbon disulfide	137	49	88	2.78	3.57	7.00	10.50	16.00	23.40	29.20	10.38	0.94	10.09	1	120
Mean PEC-Q	163	NA	NA	0.06	0.08	0.13	0.16	0.20	0.26	0.644	0.25	0.47	0.17	0.0289	21.3

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; PEC-Q = probable effect concentration-quotient; DL = detection limit; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geomean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-28. Summary of the whole-sediment chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Metals (mg/kg DW)															
Chromium	3	3	0	8.02	8.15	8.53	9.20	9.83	10.23	10.4	9.14	0.14	9.14	7.9	10.5
Copper	17	17	0	6.46	7.24	12.40	13.00	14.60	15.60	15.6	11.91	0.35	11.85	4.87	15.7
Lead	17	17	0	11.17	12.02	12.80	21.70	22.10	24.35	25.7	17.68	0.38	17.62	8.64	27.8
Mercury	17	14	3	0.02	0.03	0.04	0.07	0.08	0.09	0.0871	0.06	0.02	0.06	0.0203	0.0926
Methyl mercury	14	2	12	0.0003	0.0004	0.0004	0.0004	0.0005	0.001	0.00180	0.001	0.001	0.001	0.000325	0.0019
Nickel	17	17	0	8.36	8.95	11.80	17.60	19.20	20.19	20.9	14.95	0.37	14.89	7.8	21.5
Zinc	17	17	0	35.76	37.30	49.00	57.00	69.80	74.12	75.5	55.84	0.31	55.80	34.8	80.3
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	2	0	2	33.64	33.79	34.23	34.97	35.73	36.19	36.3	34.97	0.06	34.97	33.5	36.5
1-Methylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Acenaphthene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Acenaphthylene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Anthracene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Fluorene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Naphthalene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Phenanthrene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Total LMW-PAHs[5]	17	0	17	62.28	65.08	73.50	98.00	189.00	660.00	679	136.66	1.38	136.36	59.5	760
Benz(a)anthracene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Benzo(a)pyrene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190

Table E2-28. Summary of the whole-sediment chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/kg DW; cont.)															
Benzo(b)fluoranthene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Benzo(g,h,i)perylene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Benzo(k)fluoranthene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Chrysene	17	1	16	8.90	9.30	10.50	14.00	37.30	165.00	170	23.20	1.83	22.78	8.5	190
Dibenz(a,h)anthracene	14	0	14	8.82	9.15	9.74	12.50	15.84	25.40	30.4	13.83	0.52	13.76	8.5	38
Fluoranthene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Indeno(1,2,3-cd)pyrene	17	0	17	8.90	9.30	10.50	14.00	27.00	165.00	170	21.90	1.83	21.50	8.5	190
Perylene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	17	2	15	8.90	9.30	10.50	16.50	30.90	165.00	170	23.88	1.79	23.47	8.5	190
Total HMW-PAHs[6]	17	2	15	53.39	55.78	63.00	87.50	162.00	825.00	849	129.38	1.70	129.00	51	950
Total PAHs[7]	17	2	15	115.67	120.86	136.50	182.00	351.00	1485.00	1530	266.56	1.54	266.22	110.5	1710
PCB Aroclors (µg/kg DW)															
Aroclor-1016	17	0	17	8.90	9.87	11.50	14.00	17.00	19.39	20.0	13.82	0.29	13.79	8.5	20
Aroclor-1221	17	0	17	8.90	9.87	11.50	16.00	20.00	28.90	33.3	15.68	0.51	15.60	8.5	39
Aroclor-1232	17	0	17	8.90	9.87	11.50	14.00	17.00	19.39	20.0	13.82	0.29	13.79	8.5	20
Aroclor-1242	17	0	17	8.90	9.87	11.50	14.00	17.00	19.39	20.0	13.82	0.29	13.79	8.5	20
Aroclor-1248	17	0	17	8.90	9.87	11.50	14.00	17.00	19.39	20.0	13.82	0.29	13.79	8.5	20
Aroclor-1254	17	2	15	8.90	9.87	11.50	16.00	19.00	38.36	117	18.73	1.25	18.51	8.5	220
Aroclor-1260	17	0	17	8.90	9.87	11.50	14.00	17.00	19.39	20.0	13.82	0.29	13.79	8.5	20
Total PCBs[8]	4	2	2	60.01	60.53	62.11	101.45	190.52	252.20	277	116.97	1.18	116.74	59.5	304

Table E2-28. Summary of the whole-sediment chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/kg DW)															
PCB 105	1	1	0	0.05	0.05	0.05	0.05	0.05	0.05	0.0482	0.05	NA	0.05	0.0482	0.0482
PCB 108	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.0104	0.01	NA	0.01	0.0104	0.0104
PCB 114	1	1	0	0.002	0.002	0.002	0.002	0.002	0.002	0.00230	0.002	NA	0.002	0.0023	0.0023
PCB 118	1	1	0	0.13	0.13	0.13	0.13	0.13	0.13	0.130	0.13	NA	0.13	0.13	0.13
PCB 126	1	1	0	0.003	0.003	0.003	0.003	0.003	0.003	0.00260	0.003	NA	0.003	0.0026	0.0026
PCB 127	1	1	0	0.001	0.001	0.001	0.001	0.001	0.001	0.00102	0.001	NA	0.001	0.00102	0.00102
PCB 15	1	1	0	0.07	0.07	0.07	0.07	0.07	0.07	0.0733	0.07	NA	0.07	0.0733	0.0733
PCB 156	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.0138	0.01	NA	0.01	0.0138	0.0138
PCB 157	1	1	0	0.004	0.004	0.004	0.004	0.004	0.004	0.00379	0.004	NA	0.004	0.00379	0.00379
PCB 162	1	1	0	0.02	0.02	0.02	0.02	0.02	0.02	0.0217	0.02	NA	0.02	0.0217	0.0217
PCB 167	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.00743	0.01	NA	0.01	0.00743	0.00743
PCB 169	1	1	0	0.001	0.001	0.001	0.001	0.001	0.001	0.00116	0.001	NA	0.001	0.00116	0.00116
PCB 189	1	1	0	0.01	0.01	0.01	0.01	0.01	0.01	0.0124	0.01	NA	0.01	0.0124	0.0124
PCB 37	1	1	0	0.05	0.05	0.05	0.05	0.05	0.05	0.0463	0.05	NA	0.05	0.0463	0.0463
PCB 58	1	1	0	0.005	0.005	0.005	0.005	0.005	0.005	0.00484	0.005	NA	0.005	0.00484	0.00484
PCB 60	1	0	1	0.03	0.03	0.03	0.03	0.03	0.03	0.0282	0.03	NA	0.03	0.0282	0.0282
PCB 61/70	1	0	1	0.06	0.06	0.06	0.06	0.06	0.06	0.0625	0.06	NA	0.06	0.0625	0.0625
PCB 66	1	1	0	0.12	0.12	0.12	0.12	0.12	0.12	0.121	0.12	NA	0.12	0.121	0.121
PCB 77	1	1	0	0.02	0.02	0.02	0.02	0.02	0.02	0.0179	0.02	NA	0.02	0.0179	0.0179
PCB 79	1	1	0	0.004	0.004	0.004	0.004	0.004	0.004	0.00375	0.004	NA	0.004	0.00375	0.00375
PCB 80	1	0	1	0.002	0.002	0.002	0.002	0.002	0.002	0.00250	0.002	NA	0.003	0.0025	0.0025
PCB 81	1	1	0	0.003	0.003	0.003	0.003	0.003	0.003	0.00271	0.003	NA	0.003	0.00271	0.00271

Table E2-28. Summary of the whole-sediment chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	1	0	1	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	NA	1.35	1.35	1.35
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	17	5	12	35.88	39.42	55.00	70.00	100.00	165.00	170	74.78	0.67	74.65	33.5	190
Benzylbutylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	1	0	1	33.50	33.50	33.50	33.50	33.50	33.50	33.5	33.50	NA	33.50	33.5	33.5
Di-n-butylphthalate	17	0	17	35.88	39.42	45.50	65.00	80.00	165.00	170	65.95	0.69	65.83	33.5	190
Di-n-octylphthalate	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,2-Dichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,3-Dichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,4-Dichlorobenzene	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
Pentachlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table E2-28. Summary of the whole-sediment chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
1,2-Dichloroethane	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	4	4	0	26.97	31.18	48.06	70.74	85.74	92.90	95.4	58.32	0.87	58.13	23.3	98
1,2,3,4,7,8-HxCDD	4	0	4	0.40	0.41	0.44	0.47	0.54	0.66	0.695	0.51	0.10	0.50	0.39	0.735
1,2,3,6,7,8-HxCDD	4	0	4	0.72	0.74	0.81	0.86	0.88	0.89	0.896	0.83	0.05	0.83	0.7	0.9
1,2,3,7,8,9-HxCDD	4	2	2	0.91	1.07	1.63	3.14	5.06	5.78	6.03	2.85	0.90	2.59	0.765	6.3
1,2,3,7,8-PeCDD	4	0	4	0.22	0.22	0.23	0.24	0.27	0.30	0.307	0.25	0.04	0.25	0.215	0.315
2,3,7,8-TCDD	4	1	3	0.17	0.19	0.24	0.34	0.63	1.11	1.29	0.51	0.41	0.40	0.158	1.5
Total TCDD	4	4	0	18.15	18.29	18.75	19.00	21.26	26.00	27.8	20.98	0.25	20.96	18	29.7
OCDD	4	4	0	349.46	434.55	835.03	1385.65	1670.24	1804.53	1852	1006.61	1.39	1006.21	281	1900
Total HpCDD	4	4	0	104.94	127.11	225.57	314.96	331.83	354.23	362	237.66	0.96	237.44	86.6	370
Total HxCDD	4	4	0	56.94	62.34	81.75	106.78	130.93	153.15	161	100.29	0.64	100.19	52	170
Total PeCDD	4	4	0	18.11	18.43	19.43	21.91	26.39	31.27	33.1	23.41	0.33	23.38	17.8	35
1,2,3,4,6,7,8-HpCDF	4	1	3	0.16	0.18	0.23	0.48	0.93	1.30	1.44	0.60	0.45	0.46	0.145	1.59
1,2,3,4,7,8,9-HpCDF	4	0	4	0.03	0.04	0.04	0.06	0.15	0.32	0.381	0.14	0.17	0.08	0.033	0.444
1,2,3,4,7,8-HxCDF	4	0	4	0.16	0.16	0.17	0.20	0.25	0.28	0.286	0.21	0.05	0.21	0.16	0.295
1,2,3,6,7,8-HxCDF	4	0	4	0.06	0.07	0.08	0.14	0.20	0.22	0.223	0.14	0.07	0.12	0.055	0.228
1,2,3,7,8,9-HxCDF	4	0	4	0.03	0.03	0.04	0.04	0.12	0.26	0.317	0.11	0.15	0.07	0.0295	0.372
1,2,3,7,8-PeCDF	4	1	3	0.26	0.29	0.37	0.43	0.68	1.24	1.46	0.62	0.42	0.52	0.235	1.71
2,3,4,6,7,8-HxCDF	4	0	4	0.04	0.04	0.05	0.09	0.16	0.23	0.254	0.12	0.10	0.09	0.0385	0.278
2,3,4,7,8-PeCDF	4	1	3	0.18	0.19	0.22	0.28	0.56	1.11	1.33	0.49	0.45	0.38	0.175	1.58
2,3,7,8-TCDF	4	4	0	1.34	1.39	1.52	1.60	2.32	4.15	4.97	2.22	0.67	2.11	1.3	5.91

Table E2-28. Summary of the whole-sediment chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCDDs and PCDFs (ng/kg DW; cont.)															
OCDF	4	1	3	0.33	0.37	0.48	0.97	1.53	1.57	1.59	0.90	0.42	0.79	0.295	1.6
Total TCDF	4	4	0	15.54	16.11	17.91	19.49	31.05	67.63	87.5	28.58	1.48	28.33	15	113
Total HpCDF	4	1	3	0.21	0.23	0.32	0.66	1.13	1.40	1.49	0.70	0.43	0.57	0.18	1.59
Total HxCDF	4	1	3	0.18	0.20	0.24	0.47	0.86	1.20	1.32	0.58	0.40	0.46	0.17	1.45
Total PeCDF	4	1	3	0.71	0.77	0.98	1.31	3.00	8.02	10.8	2.42	1.78	2.00	0.65	14.5
Total Toxic Equivalents (TEQs)[9]	4	4	0	1.37	1.39	1.46	1.84	2.26	2.32	2.34	1.82	0.20	1.80	1.35	2.36
Other COPCs															
Acetone	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
Carbon disulfide	3	0	3	6.18	6.36	6.94	8.00	8.72	9.18	9.34	7.71	0.23	7.70	6	9.5
Mean PEC-Q	17	NA	NA	0.04	0.04	0.06	0.07	0.09	0.12	0.127	0.08	0.03	0.07	0.0359	0.136

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; PEC-Q = probable effect concentration-quotient; DL = detection limit; DW = dry weight.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geomean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[6]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[7]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[8]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[9]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)															
Chromium	41	100%	1.9	76.4	28.3	20	100%	2.8	454	265	3	100%	11.3	22.2	21.5
Copper	49	90%	0.95	46.7	40.8	26	100%	3.2	379	144	9	100%	4.81	53.8	52.6
Lead	49	98%	1.9	113	49.5	26	100%	5.2	67.8	39.0	9	100%	8.53	55.4	51.4
Mercury	49	18%	0.0235	0.19	0.117	26	50%	0.0302	2.37	0.778	9	67%	0.0149	0.252	0.210
Methyl mercury	8	25%	0.00034	0.00128	0.00120	6	50%	0.000245	0.00488	0.00390	6	17%	0.000265	0.00086	0.000782
Nickel	49	96%	1.7	22.3	14.4	26	96%	2.4	54.6	36.8	9	89%	4.89	15.7	14.5
Zinc	49	47%	4.95	222	82.6	25	44%	5.5	868	561	9	78%	11.55	99.1	92.2
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	4	0%	26.5	33	32.7	5	0%	27	35.5	35.3	2	0%	29.5	30.5	30.4
1-Methylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2-Methylnaphthalene	8	13%	16.5	110	74.9	11	27%	8	61.4	53.4	6	0%	5	33	31.4
Acenaphthene	9	22%	16.5	68	54.7	12	42%	4	280	206	6	33%	17.5	241	147
Acenaphthylene	9	11%	16.5	100	67.0	12	17%	4	130	92.2	6	0%	5	33	31.4
Anthracene	10	40%	18	180	118	17	59%	8	590	343	6	17%	13	33	31.4
Fluorene	9	11%	16.5	68	53.1	12	25%	4	160	133	6	0%	5	33	31.4
Naphthalene	8	13%	16.5	42.6	40.4	11	36%	8	79.2	61.1	6	0%	5	33	31.4
Phenanthrene	16	63%	32.5	590	328	20	65%	8	2500	1050	6	50%	17.5	138	103
Total LMW-PAHs[4]	42	24%	139	1231	1060	28	50%	56	3030	1400	9	33%	78	830	748

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)															
Benz(a)anthracene	18	67%	36.5	420	291	20	70%	8	640	576	6	83%	33	178	133
Benzo(a)pyrene	22	50%	36.5	330	260	22	64%	8	480	432	6	67%	18	244	173
Benzo(b)fluoranthene	42	31%	67	550	500	28	46%	8	690	599	9	67%	68.5	435	427
Benzo(g,h,i)perylene	19	37%	16.5	235	235	17	65%	8	338	235	6	33%	17.5	144	102
Benzo(k)fluoranthene	24	38%	23.5	300	265	21	62%	8	640	320	6	33%	16.2	95.4	73.3
Chrysene	29	41%	36.5	530	389	23	61%	8	1300	776	7	71%	33	320	262
Dibenz(a,h)anthracene	8	38%	23.5	63.6	60.4	12	42%	8	150	120	6	17%	17.3	33	31.4
Fluoranthene	41	46%	49	990	500	28	57%	8	5200	1520	9	78%	79.5	435	385
Indeno(1,2,3-cd)pyrene	18	50%	32.5	235	235	17	59%	8	317	232	6	33%	17.5	150	104
Perylene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Pyrene	37	54%	45	810	496	27	59%	8	3600	1770	9	78%	82.2	435	385
Total HMW-PAHs[5]	47	47%	346.7	3080	2500	29	55%	48	10970	5000	9	78%	293.7	2175	1920
Total PAHs[6]	47	47%	602.2	4311	2970	29	55%	104	14000	6370	9	78%	500.9	2610	2500
PCB Aroclors (µg/kg DW)															
Aroclor-1016	45	0%	6.5	65	60.0	22	0%	7	55	49.9	9	0%	7.5	43.5	42.9
Aroclor-1221	27	0%	6.5	65	63.5	11	0%	7	65	59.8	7	0%	7.5	65	41.7
Aroclor-1232	45	0%	6.5	65	60.0	22	0%	7	55	49.9	9	0%	7.5	43.5	42.9
Aroclor-1242	45	0%	6.5	65	60.0	22	0%	7	55	49.9	9	0%	7.5	43.5	42.9
Aroclor-1248	45	0%	6.5	65	60.0	22	0%	7	55	49.9	9	0%	7.5	43.5	42.9
Aroclor-1254	45	2%	6.5	65	60.0	22	27%	8.5	930	499	9	11%	7.5	250	125

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)															
Aroclor-1260	45	0%	6.5	65	60.0	22	9%	7	190	74.4	9	0%	7.5	43.5	42.9
Total PCBs[7]	6	17%	45.5	233	166	12	83%	0.23612	1230	937	3	33%	52.5	307	258
PCB Congeners (µg/kg DW)															
PCB 105	0	0%	NA	NA	NA	5	100%	0.0206	37.8	30.0	0	0%	NA	NA	NA
PCB 108	0	0%	NA	NA	NA	5	100%	0.00683	6.34	5.49	0	0%	NA	NA	NA
PCB 114	0	0%	NA	NA	NA	5	60%	0.00112	2.59	2.11	0	0%	NA	NA	NA
PCB 118	0	0%	NA	NA	NA	5	100%	0.0537	92.5	75.0	0	0%	NA	NA	NA
PCB 126	0	0%	NA	NA	NA	5	80%	0.00249	0.577	0.504	0	0%	NA	NA	NA
PCB 127	0	0%	NA	NA	NA	5	20%	0.00249	0.0119	0.0100	0	0%	NA	NA	NA
PCB 15	0	0%	NA	NA	NA	5	100%	0.0587	2.26	2.04	0	0%	NA	NA	NA
PCB 156	0	0%	NA	NA	NA	5	100%	0.00912	12.9	11.4	0	0%	NA	NA	NA
PCB 157	0	0%	NA	NA	NA	5	80%	0.00249	2.83	2.37	0	0%	NA	NA	NA
PCB 162	0	0%	NA	NA	NA	5	100%	0.0163	24.1	19.8	0	0%	NA	NA	NA
PCB 167	0	0%	NA	NA	NA	5	100%	0.0054	4.95	4.28	0	0%	NA	NA	NA
PCB 169	0	0%	NA	NA	NA	5	60%	0.00249	0.0419	0.0406	0	0%	NA	NA	NA
PCB 189	0	0%	NA	NA	NA	5	80%	0.00249	1.23	1.15	0	0%	NA	NA	NA
PCB 37	0	0%	NA	NA	NA	5	80%	0.0078	1.72	1.67	0	0%	NA	NA	NA
PCB 58	0	0%	NA	NA	NA	5	60%	0.00249	0.779	0.65	0	0%	NA	NA	NA
PCB 60	0	0%	NA	NA	NA	5	60%	0.00705	7.32	6.98	0	0%	NA	NA	NA
PCB 61/70	0	0%	NA	NA	NA	5	60%	0.0137	54.6	44.4	0	0%	NA	NA	NA

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)															
PCB 66	0	0%	NA	NA	NA	5	60%	0.0121	16.6	16.3	0	0%	NA	NA	NA
PCB 77	0	0%	NA	NA	NA	5	80%	0.003035	2.5	2.24	0	0%	NA	NA	NA
PCB 79	0	0%	NA	NA	NA	5	60%	0.00249	0.688	0.65	0	0%	NA	NA	NA
PCB 80	0	0%	NA	NA	NA	5	0%	0.000745	0.0025	0.0025	0	0%	NA	NA	NA
PCB 81	0	0%	NA	NA	NA	5	60%	0.00249	1.44	1.17	0	0%	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dieldrin	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	47	13%	26.5	850	685	25	40%	29.5	75000	9490	9	22%	29.5	435	427
Benzylbutylphthalate	5	40%	26.5	76	71.2	2	0%	27	29.5	29.4	2	0%	29.5	30.5	30.4
Diethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dimethylphthalate	5	0%	26.5	33	33.0	5	0%	27	35.5	35.3	2	0%	29.5	30.5	30.4
Di-n-butylphthalate	45	2%	26.5	700	600	28	4%	27	550	473	9	11%	29.5	435	427
Di-n-octylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Hexachlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)															
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	33	0%	6	14.5	13.7	16	0%	6	14.5	14.5	3	0%	9.5	13	13.0
1,2-Dichlorobenzene	36	0%	6	17	16.6	16	0%	6	14.5	14.5	3	0%	9.5	13	13.0
1,3-Dichlorobenzene	41	0%	6	26	20.0	17	0%	6	24	16.1	3	0%	9.5	13	13.0
1,4-Dichlorobenzene	41	0%	6	26	20.0	17	0%	6	24	16.1	3	0%	9.5	13	13.0
Pentachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	41	0%	6	26	20.0	17	0%	6	24	16.1	3	0%	9.5	13	13.0
1,2-Dichloroethane	41	0%	6	26	20.0	17	0%	6	24	16.1	3	0%	9.5	13	13.0
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	11	100%	19	1100	995	7	100%	57.4	3100	2110	1	100%	190	190	190
1,2,3,4,7,8-HxCDD	11	0%	0.23	7	5.23	7	71%	0.6	9.6	9.25	1	0%	1.1	1.1	1.10
1,2,3,6,7,8-HxCDD	11	45%	0.31	26	25.0	7	86%	1.35	71	57.5	1	100%	8.6	8.6	8.60
1,2,3,7,8,9-HxCDD	11	64%	0.5	190	157	7	100%	2.18	36	27.7	1	100%	11	11	11.0
1,2,3,7,8-PeCDD	11	0%	0.28	4.05	3.82	7	43%	0.253	5	4.50	1	0%	1.5	1.5	1.50
2,3,7,8-TCDD	11	0%	0.165	2	1.74	7	43%	0.0855	1.2	1.07	1	0%	0.9	0.9	0.900
OCDD	11	100%	470	15000	11100	7	100%	944	35000	2510	1	100%	2800	2800	2800

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total TCDD	11	82%	0.345	31	30.0	7	86%	0.123	17	16.1	1	100%	8.8	8.8	8.80
Total HpCDD	11	100%	57	1600	1440	7	100%	182	6900	4910	1	100%	520	520	520
Total HxCDD	11	100%	10	590	575	7	100%	53.7	811	805	1	100%	110	110	110
Total PeCDD	11	55%	0.35	94	88.3	7	100%	2.67	73.8	68.2	1	100%	7.1	7.1	7.10
1,2,3,4,6,7,8-HpCDF	11	64%	0.21	72	61.8	7	57%	0.2975	260	259	1	100%	21	21	21.0
1,2,3,4,7,8,9-HpCDF	11	9%	0.195	9.6	6.17	7	43%	0.4	35.6	32.4	1	0%	0.8	0.8	0.800
1,2,3,4,7,8-HxCDF	11	18%	0.235	24	16.3	7	43%	0.143	59.1	45.2	1	0%	1.25	1.25	1.25
1,2,3,6,7,8-HxCDF	11	9%	0.135	6.6	4.68	7	43%	0.1405	27.1	20.2	1	0%	0.95	0.95	0.950
1,2,3,7,8,9-HxCDF	11	0%	0.17	4.15	2.83	7	29%	0.226	9.64	6.9	1	0%	0.9	0.9	0.900
1,2,3,7,8-PeCDF	11	9%	0.2	6.9	3.91	7	43%	0.3955	17.3	12.1	1	0%	1.05	1.05	1.05
2,3,4,6,7,8-HxCDF	11	9%	0.15	3.6	2.46	7	43%	0.171	20.7	15.5	1	0%	0.8	0.8	0.800
2,3,4,7,8-PeCDF	11	9%	0.185	4.2	2.98	7	43%	0.3945	17.4	13.0	1	0%	1.05	1.05	1.05
2,3,7,8-TCDF	11	36%	0.135	9.2	5.23	7	57%	0.1365	18.5	16.1	1	0%	0.55	0.55	0.550
OCDF	11	73%	0.405	350	290	7	86%	1.62	1400	1300	1	100%	48	48	48.0
Total TCDF	11	82%	0.25	41	40.0	7	100%	2.7	198	193	1	100%	53	53	53.0
Total HpCDF	11	73%	0.25	170	124	7	57%	0.367	1100	930	1	100%	56	56	56.0
Total HxCDF	11	55%	0.26	75	63.7	7	57%	0.1675	448	376	1	100%	21	21	21.0
Total PeCDF	11	45%	0.285	33	33.0	7	57%	0.395	307	188	1	100%	16	16	16.0
Total Toxic Equivalents (TEQs)[8]	11	100%	0.957	15	14.1	7	100%	1.93	35.8	33.3	1	100%	4.83	4.83	4.83

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	UCR-MS					CIL					CB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)															
Acetone	41	34%	6	200	55.0	17	41%	7	160	152	3	0%	10	13	13.0
Carbon disulfide	41	20%	6	29	26.0	17	29%	6	57	28.6	3	0%	9.5	13	13.0
Mean PEC-Q	49	100%	0.0596	0.3	0.243	32	100%	0.034	0.645	0.571	9	100%	0.0516	0.28	0.243

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; UCR-MS = Upper Calcasieu River Mainstem; CIL = Clooney Island Loop; CI = Coon Island Loop; CB = Contraband Bayou.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)					
Chromium	46	100%	1.5	130	89.8
Copper	55	100%	1.2	124	68.2
Lead	55	100%	2.3	354	221
Mercury	55	73%	0.009	0.27	0.220
Methyl mercury	9	22%	0.00026	0.00147	0.00146
Nickel	55	100%	0.83	140	39.4
Zinc	55	100%	10.4	161	101
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)					
1,1'-Biphenyl	7	29%	25.5	1200	784
1-Methylnaphthalene	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND
2-Methylnaphthalene	27	26%	17	9660	2810
Acenaphthene	33	3%	17	2050	50.0
Acenaphthylene	33	3%	17	308	60.0
Anthracene	54	9%	17	9530	617
Fluorene	34	15%	17	1820	563
Naphthalene	54	6%	0.75	3810	39.2
Phenanthrene	54	15%	17	12700	3300
Total LMW-PAHs[4]	55	15%	119	39878	6970

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)					
Benz(a)anthracene	54	19%	16.5	109000	1660
Benzo(a)pyrene	55	20%	16.5	83500	1300
Benzo(b)fluoranthene	55	22%	17	82200	1230
Benzo(g,h,i)perylene	54	13%	17	21200	843
Benzo(k)fluoranthene	55	9%	16.5	9090	394
Chrysene	55	31%	16.5	279000	2430
Dibenz(a,h)anthracene	50	6%	16.5	22500	60.5
Fluoranthene	55	16%	16.5	50100	1260
Indeno(1,2,3-cd)pyrene	54	6%	17	18300	140
Perylene	0	0%	ND	ND	ND
Pyrene	55	31%	16.5	189000	3460
Total HMW-PAHs[5]	55	35%	99	733100	9710
Total PAHs[6]	55	35%	221	772978	14400
PCB Aroclors (µg/kg DW)					
Aroclor-1016	55	0%	1.9	50	20
Aroclor-1221	54	0%	1.9	50	13.5
Aroclor-1232	55	0%	1.9	50	20
Aroclor-1242	55	0%	1.9	50	20
Aroclor-1248	55	0%	1.9	50	20
Aroclor-1254	55	16%	1.9	210	120

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)					
Aroclor-1260	55	13%	1.9	230	75.0
Total PCBs[7]	50	20%	8.79302	449.5	211
PCB Congeners (µg/kg DW)					
PCB 105	2	100%	1.36	2.98	2.88
PCB 108	2	100%	0.284	0.446	0.440
PCB 114	2	100%	0.0449	0.171	0.160
PCB 118	2	100%	3.43	7.59	7.31
PCB 126	2	100%	0.0277	0.0657	0.0600
PCB 127	2	50%	0.00228	0.0161	0.0200
PCB 15	2	100%	0.0326	1.1	1.03
PCB 156	2	100%	0.552	0.992	0.970
PCB 157	2	100%	0.165	0.213	0.210
PCB 162	2	100%	0.88	1.19	1.17
PCB 167	2	100%	0.258	0.389	0.380
PCB 169	2	100%	0.0071	0.023	0.0200
PCB 189	2	100%	0.037	0.0864	0.0800
PCB 37	2	100%	0.0645	0.429	0.410
PCB 58	2	100%	0.00454	0.0612	0.0600
PCB 60	2	100%	0.149	1.03	0.970
PCB 61/70	2	100%	0.75	4.98	4.62

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)					
PCB 66	2	100%	0.42	3.14	2.92
PCB 77	2	100%	0.178	0.269	0.264
PCB 79	2	100%	0.04	0.0696	0.0681
PCB 80	2	0%	0.0009	0.0025	0.00242
PCB 81	2	100%	0.0675	0.143	0.139
Organochlorine Pesticides (µg/kg DW)					
Aldrin	31	0%	0.06	0.06	0.0600
Dieldrin	44	2%	0.1	8	0.250
Phthalates (µg/kg DW)					
Bis(2-ethylhexyl)phthalate	55	27%	26	77000	9270
Benzylbutylphthalate	21	0%	16.5	31.5	26.5
Diethylphthalate	17	0%	18.5	18.5	18.5
Dimethylphthalate	29	0%	17	33.5	33.5
Di-n-butylphthalate	55	2%	16.5	475	114
Di-n-octylphthalate	0	0%	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)					
Hexachloro-1,3-butadiene	44	0%	0.7	0.7	0.700
Hexachlorobenzene	0	0%	NA	NA	NA

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)					
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	44	0%	0.25	0.25	0.250
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	46	0%	0.25	14	0.250
1,2-Dichlorobenzene	46	0%	0.25	14	0.250
1,3-Dichlorobenzene	46	0%	0.26	14	0.260
1,4-Dichlorobenzene	46	0%	0.25	14	0.250
Pentachlorobenzene	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)					
1,1,1-Trichloroethane	46	0%	0.6	14	0.600
1,2-Dichloroethane	46	0%	0.5	14	0.500
PCDDs and PCDFs (ng/kg DW)					
1,2,3,4,6,7,8-HpCDD	7	100%	6.8	490	350
1,2,3,4,7,8-HxCDD	7	29%	0.65	2.59	2.35
1,2,3,6,7,8-HxCDD	7	43%	0.65	28	19.5
1,2,3,7,8,9-HxCDD	7	86%	0.65	25	17.8
1,2,3,7,8-PeCDD	7	29%	0.821	2.15	2.10
2,3,7,8-TCDD	7	0%	0.1465	1.25	1.16
OCDD	7	100%	450	7500	6430

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)					
Total TCDD	7	86%	0.48	22	21.1
Total HpCDD	7	100%	30	1400	1000
Total HxCDD	7	86%	1.35	430	280
Total PeCDD	7	71%	0.9	97	62.4
1,2,3,4,6,7,8-HpCDF	7	71%	0.41	365	280
1,2,3,4,7,8,9-HpCDF	7	43%	0.3745	54.5	38.6
1,2,3,4,7,8-HxCDF	7	57%	0.6	76.3	58.9
1,2,3,6,7,8-HxCDF	7	43%	0.55	36.6	25.0
1,2,3,7,8,9-HxCDF	7	14%	0.1205	14.4	7.87
1,2,3,7,8-PeCDF	7	29%	0.44	17.6	10.9
2,3,4,6,7,8-HxCDF	7	29%	0.6	16.6	8.86
2,3,4,7,8-PeCDF	7	29%	0.643	12	7.62
2,3,7,8-TCDF	7	71%	0.365	9.11	8.80
OCDF	7	71%	0.8	731	591
Total TCDF	7	86%	0.365	190	158
Total HpCDF	7	71%	0.5	618	482
Total HxCDF	7	57%	0.7	357	251
Total PeCDF	7	57%	0.75	208	125
Total Toxic Equivalents (TEQs)[8]	7	100%	2.45	30.4	24.2

Table E2-29. Summary of the whole-sediment chemistry data for the four reaches within the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	CI				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)					
Acetone	2	100%	6	20	18.9
Carbon disulfide	2	0%	8	14	13.6
Mean PEC-Q	56	100%	0.0271	22.7	0.576

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; UCR-MS = Upper Calcasieu River Mainstem; CIL = Clooney Island Loop; CI = Coon Island Loop; CB = Contraband Bayou.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-30. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]									Retained as a Preliminary COC[3]
	Reference Areas	UCR-MS[2]	Ratio (UCR: Reference)	CIL[2]	Ratio (CIL: Reference)	CB[2]	Ratio (CB: Reference)	CI[2]	Ratio (CI: Reference)	
Metals (mg/kg DW)										
Chromium	10.4	**28.3**	2.7	**265**	25.5	**21.5**	2.1	**89.8**	8.6	Y
Copper	15.6	**40.8**	2.6	**144**	9.2	**52.6**	3.4	**68.2**	4.4	Y
Lead	25.7	49.5	1.9	39.0	1.5	**51.4**	2.0	**221**	8.6	Y
Mercury	0.0871	0.117	1.3	**0.778**	8.9	**0.210**	2.4	**0.220**	2.5	Y
Methyl mercury	0.00180	0.00120	0.7	**0.00390**	2.2	0.00078	0.4	0.00146	0.8	Y
Nickel	20.9	14.4	0.7	36.8	1.8	14.5	0.7	39.4	1.9	N
Zinc	75.5	82.6	1.1	**561**	7.4	92.2	1.2	101	1.3	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)										
1,1'-Biphenyl	36.3	32.7	0.9	35.3	1.0	30.4	0.8	**784**	21.6	Y
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	30.4	**74.9**	2.5	53.4	1.8	31.4	1.0	**2810**	92.4	Y
Acenaphthene	30.4	54.7	1.8	**206**	6.8	**147**	4.8	50.0	1.6	Y
Acenaphthylene	30.4	**67.0**	2.2	**92.2**	3.0	31.4	1.0	60.0	2.0	Y
Anthracene	30.4	**118**	3.9	**343**	11.3	31.4	1.0	**617**	20.3	Y
Fluorene	30.4	53.1	1.7	**133**	4.4	31.4	1.0	**563**	18.5	Y
Naphthalene	30.4	40.4	1.3	**61.1**	2.0	31.4	1.0	39.2	1.3	Y
Phenanthrene	170	328	1.9	**1050**	6.2	103	0.6	**3300**	19.4	Y
Total LMW-PAHs	679	1060	1.6	**1400**	2.1	748	1.1	**6970**	10.3	Y
Benz(a)anthracene	170	291	1.7	**576**	3.4	133	0.8	**1660**	9.8	Y
Benzo(a)pyrene	170	260	1.5	**432**	2.5	173	1.0	**1300**	7.6	Y
Benzo(b)fluoranthene	170	**500**	2.9	**599**	3.5	**427**	2.5	**1230**	7.2	Y

Table E2-30. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]									Retained as a Preliminary COC[3]
	Reference Areas	UCR-MS[2]	Ratio (UCR: Reference)	CIL[2]	Ratio (CIL: Reference)	CB[2]	Ratio (CB: Reference)	CI[2]	Ratio (CI: Reference)	
PAHs (µg/kg DW; cont.)										
Benzo(g,h,i)perylene	170	235	1.4	235	1.4	102	0.6	**843**	5.0	Y
Benzo(k)fluoranthene	170	265	1.6	320	1.9	73.3	0.4	**394**	2.3	Y
Benzofluoranthenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	170	**389**	2.3	**776**	4.6	262	1.5	**2430**	14.3	Y
Dibenz(a,h)anthracene	30.4	60.4	2.0	**120**	3.9	31.4	1.0	60.5	2.0	Y
Fluoranthene	170	**500**	2.9	**1520**	8.9	**385**	2.3	**1260**	7.4	Y
Indeno(1,2,3-cd)pyrene	170	235	1.4	232	1.4	104	0.6	140	0.8	N
Perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	170	**496**	2.9	**1770**	10.4	**385**	2.3	**3460**	20.4	Y
Total HMW-PAHs	849	**2500**	2.9	**5000**	5.9	**1920**	2.3	**9710**	11.4	Y
Total PAHs	1530	2970	1.9	**6370**	4.2	2500	1.6	**14400**	9.4	Y
PCB Aroclors (µg/kg DW)										
Aroclor-1016	20.0	**60.0**	3.0	**49.9**	2.5	**42.9**	2.1	20.0	1.0	Y
Aroclor-1221	33.3	63.5	1.9	59.8	1.8	41.7	1.3	13.5	0.4	N
Aroclor-1232	20.0	**60.0**	3.0	**49.9**	2.5	**42.9**	2.1	20.0	1.0	Y
Aroclor-1242	20.0	**60.0**	3.0	**49.9**	2.5	**42.9**	2.1	20.0	1.0	Y
Aroclor-1248	20.0	**60.0**	3.0	**49.9**	2.5	**42.9**	2.1	20.0	1.0	Y
Aroclor-1254	117	60.0	0.5	**499**	4.3	125	1.1	120	1.0	Y
Aroclor-1260	20.0	**60.0**	3.0	**74.4**	3.7	**42.9**	2.1	**75.0**	3.8	Y
Total PCBs	277	166	0.6	**937**	3.4	258	0.9	211	0.8	Y
PCB Congeners (µg/kg DW)										
PCB 105	0.0482	NA	NA	**30.0**	622.4	NA	NA	**2.88**	59.8	Y
PCB 108	0.0104	NA	NA	**5.49**	527.9	NA	NA	**0.440**	42.3	Y

Table E2-30. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]									Retained as a Preliminary COC[3]
	Reference Areas	UCR-MS[2]	Ratio (UCR: Reference)	CIL[2]	Ratio (CIL: Reference)	CB[2]	Ratio (CB: Reference)	CI[2]	Ratio (CI: Reference)	
PCB Congeners (µg/kg DW; cont.)										
PCB 114	0.00230	NA	NA	**2.11**	917.4	NA	NA	**0.160**	69.6	Y
PCB 118	0.130	NA	NA	**75.0**	576.9	NA	NA	**7.31**	56.2	Y
PCB 126	0.00260	NA	NA	**0.504**	193.8	NA	NA	**0.0600**	23.1	Y
PCB 127	0.00102	NA	NA	**0.0100**	9.8	NA	NA	**0.0200**	19.6	Y
PCB 15	0.0733	NA	NA	**2.04**	27.8	NA	NA	**1.03**	14.1	Y
PCB 156	0.0138	NA	NA	**11.4**	826.1	NA	NA	**0.970**	70.3	Y
PCB 157	0.00379	NA	NA	**2.37**	625.3	NA	NA	**0.210**	55.4	Y
PCB 162	0.0217	NA	NA	**19.8**	912.4	NA	NA	**1.17**	53.9	Y
PCB 167	0.00743	NA	NA	**4.28**	576.0	NA	NA	**0.380**	51.1	Y
PCB 169	0.00116	NA	NA	**0.0406**	35.0	NA	NA	**0.0200**	17.2	Y
PCB 189	0.0124	NA	NA	**1.15**	92.7	NA	NA	**0.0800**	6.5	Y
PCB 37	0.0463	NA	NA	**1.67**	36.1	NA	NA	**0.410**	8.9	Y
PCB 58	0.00484	NA	NA	**0.65**	134.3	NA	NA	**0.0600**	12.4	Y
PCB 60	0.0282	NA	NA	**6.98**	247.5	NA	NA	**0.970**	34.4	Y
PCB 61/70	0.0625	NA	NA	**44.4**	710.4	NA	NA	**4.62**	73.9	Y
PCB 66	0.121	NA	NA	**16.3**	134.7	NA	NA	**2.92**	24.1	Y
PCB 77	0.0179	NA	NA	**2.24**	125.1	NA	NA	**0.264**	14.7	Y
PCB 79	0.00375	NA	NA	**0.65**	173.3	NA	NA	**0.0681**	18.2	Y
PCB 80	0.00250	NA	NA	0.0025	1.0	NA	NA	0.00242	1.0	N
PCB 81	0.00271	NA	NA	**1.17**	431.7	NA	NA	**0.139**	51.3	Y
Organochlorine Pesticides (µg/kg DW)										
Aldrin	NA	NA	NA	NA	NA	NA	NA	0.0600	NA	U
Dieldrin	1.35	NA	NA	NA	NA	NA	NA	0.250	0.2	U

Table E2-30. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]									Retained as a Preliminary COC[3]
	Reference Areas	UCR-MS[2]	Ratio (UCR: Reference)	CIL[2]	Ratio (CIL: Reference)	CB[2]	Ratio (CB: Reference)	CI[2]	Ratio (CI: Reference)	
Phthalates (µg/kg DW)										
Bis(2-ethylhexyl)phthalate	170	**685**	4.0	**9490**	55.8	**427**	2.5	**9270**	54.5	Y
Benzylbutylphthalate	NA	71.2	NA	29.4	NA	30.4	NA	26.5	NA	U
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	18.5	NA	U
Dimethylphthalate	33.5	33.0	1.0	35.3	1.1	30.4	0.9	33.5	1.0	N
Di-n-butylphthalate	170	**600**	3.5	**473**	2.8	**427**	2.5	114	0.7	Y
Di-n-octylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
Chlorinated Benzenes (µg/kg DW)										
Hexachloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	0.700	NA	U
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
1,2,3,4-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	0.250	NA	U
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9.34	13.7	1.5	14.5	1.6	13.0	1.4	0.250	0.0	N
1,2-Dichlorobenzene	9.34	16.6	1.8	14.5	1.6	13.0	1.4	0.250	0.0	N
1,3-Dichlorobenzene	9.34	**20.0**	2.1	16.1	1.7	13.0	1.4	0.260	0.0	Y
1,4-Dichlorobenzene	9.34	**20.0**	2.1	16.1	1.7	13.0	1.4	0.250	0.0	Y
Pentachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)										
1,1,1-Trichloroethane	9.34	**20.0**	2.1	16.1	1.7	13.0	1.4	0.600	0.1	Y
1,2-Dichloroethane	9.34	**20.0**	2.1	16.1	1.7	13.0	1.4	0.500	0.1	Y

Table E2-30. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]									Retained as a Preliminary COC[3]
	Reference Areas	UCR-MS[2]	Ratio (UCR: Reference)	CIL[2]	Ratio (CIL: Reference)	CB[2]	Ratio (CB: Reference)	CI[2]	Ratio (CI: Reference)	
PCDDs and PCDFs (ng/kg DW)										
1,2,3,4,6,7,8-HpCDD	95.4	**995**	10.4	**2110**	22.1	190	2.0	**350**	3.7	Y
1,2,3,4,7,8-HxCDD	0.695	**5.23**	7.5	**9.25**	13.3	1.10	1.6	**2.35**	3.4	Y
1,2,3,6,7,8-HxCDD	0.896	**25.0**	27.9	**57.5**	64.2	**8.60**	9.6	**19.5**	21.8	Y
1,2,3,7,8,9-HxCDD	6.03	**157**	26.0	**27.7**	4.6	11.0	1.8	**17.8**	3.0	Y
1,2,3,7,8-PeCDD	0.307	**3.82**	12.4	**4.50**	14.7	**1.50**	4.9	**2.10**	6.8	Y
2,3,7,8-TCDD	1.29	1.74	1.3	1.07	0.8	0.900	0.7	1.16	0.9	N
OCDD	1852	**11100**	6.0	2510	1.4	2800	1.5	**6430**	3.5	Y
Total TCDD	27.8	30.0	1.1	16.1	0.6	8.80	0.3	21.1	0.8	N
Total HpCDD	362	**1440**	4.0	**4910**	13.6	520	1.4	**1000**	2.8	Y
Total HxCDD	161	**575**	3.6	**805**	5.0	110	0.7	280	1.7	Y
Total PeCDD	33.1	**88.3**	2.7	**68.2**	2.1	7.10	0.2	62.4	1.9	Y
1,2,3,4,6,7,8-HpCDF	1.44	**61.8**	42.9	**259**	179.9	**21.0**	14.6	**280**	194.4	Y
1,2,3,4,7,8,9-HpCDF	0.381	**6.17**	16.2	**32.4**	85.0	**0.800**	2.1	**38.6**	101.3	Y
1,2,3,4,7,8-HxCDF	0.286	**16.3**	57.1	**45.2**	158.0	**1.25**	4.4	**58.9**	205.9	Y
1,2,3,6,7,8-HxCDF	0.223	**4.68**	21.0	**20.2**	90.6	**0.950**	4.3	**25.0**	112.1	Y
1,2,3,7,8,9-HxCDF	0.317	**2.83**	8.9	**6.9**	21.8	**0.900**	2.8	**7.87**	24.8	Y
1,2,3,7,8-PeCDF	1.46	**3.91**	2.7	**12.1**	8.3	1.05	0.7	**10.9**	7.5	Y
2,3,4,6,7,8-HxCDF	0.254	**2.46**	9.7	**15.5**	61.0	**0.800**	3.1	**8.86**	34.9	Y
2,3,4,7,8-PeCDF	1.33	**2.98**	2.2	**13.0**	9.8	1.05	0.8	**7.62**	5.7	Y
2,3,7,8-TCDF	4.97	5.23	1.1	**16.1**	3.2	0.550	0.1	8.80	1.8	Y
OCDF	1.59	**290**	182.4	**1300**	817.6	**48.0**	30.2	**591**	371.7	Y
Total TCDF	87.5	40.0	0.5	**193**	2.2	53.0	0.6	158	1.8	Y
Total HpCDF	1.49	**124**	83.2	**930**	624.2	**56.0**	37.6	**482**	323.5	Y
Total HxCDF	1.32	**63.7**	48.2	**376**	284.8	**21.0**	15.9	**251**	190.2	Y

Table E2-30. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]									Retained as a Preliminary COC[3]
	Reference Areas	UCR-MS[2]	Ratio (UCR: Reference)	CIL[2]	Ratio (CIL: Reference)	CB[2]	Ratio (CB: Reference)	CI[2]	Ratio (CI: Reference)	
PCDDs and PCDFs (ng/kg DW; cont.)										
Total PeCDF	10.8	**33.0**	3.1	**188**	17.4	16.0	1.5	**125**	11.6	Y
Total Toxic Equivalents (TEQs)	2.34	**14.1**	6.0	**33.3**	14.2	**4.83**	2.1	**24.2**	10.3	Y
Other COPCs (µg/kg DW)										
Acetone	9.34	**55.0**	5.9	**152**	16.3	13.0	1.4	**18.9**	2.0	Y
Carbon disulfide	9.34	**26.0**	2.8	**28.6**	3.1	13.0	1.4	13.6	1.5	Y

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; COC = contaminant of concern.

[1]Substances for which the 95th percentile concentration for a reach is a factor of two or higher than that for reference areas (highlighted with bold and underlined) were retained as preliminary COCs for the UCR AOC.

[2]UCR-MS = Upper Calcasieu River; CIL = Clooney Island Loop; CI = Coon Island Loop; CB = Contraband Bayou.

[3]Y = Yes, whole-sediment chemistry data for one or more reaches indicated that the substance should be retained as a preliminary COC for the UCR AOC.
N = No, whole-sediment chemistry data for all reaches indicated that the substance should not be retained as a preliminary COC for the UCR AOC.
U = Uncertain, insufficient information is available to conclude that the substance should not be retained as a preliminary COC for the UCR AOC.

Table E2-31. Summary of the pore-water chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Conventionals (mg/L)															
Hydrogen sulfide	29	28	1	0.001	0.001	0.001	0.003	0.004	0.01	0.0191	0.005	0.01	0.003	0.0004295	0.0365
Total dissolved sulfide	29	28	1	0.01	0.02	0.02	0.03	0.04	0.07	0.163	0.05	0.09	0.03	0.005	0.6
Nitrogen, as ammonia	29	29	0	0.10	0.10	0.20	0.30	0.40	0.60	0.659	0.35	0.27	0.28	0.1	2.8
Ammonia - toxic units (no units)	29	29	0	0.03	0.03	0.05	0.10	0.19	0.28	0.320	0.17	0.25	0.10	0.0282	2.54
Metals (µg/L)															
Chromium, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper, total	4	4	0	4.67	5.24	7.29	9.93	11.45	11.72	11.8	8.44	0.52	8.35	4.16	11.9
Copper, dissolved	15	15	0	2.74	2.99	5.24	5.82	6.26	9.99	11.7	5.73	0.46	5.64	2.38	12.3
Lead, total	15	0	15	0.73	0.90	0.90	0.90	0.90	0.90	0.958	0.87	0.09	0.86	0.38	1.1
Lead, dissolved	15	11	4	0.07	0.07	0.07	0.31	0.35	0.38	0.399	0.23	0.12	0.19	0.065	0.42
Mercury, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl mercury	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, total	14	14	0	3.87	4.04	4.35	4.75	5.31	5.57	5.62	4.77	0.12	4.76	3.74	5.68
Nickel, dissolved	15	15	0	3.52	4.48	4.74	5.01	5.69	6.01	6.12	4.92	0.23	4.89	2.03	6.31
Zinc, total	2	1	1	7.30	7.36	7.53	7.82	8.11	8.30	8.36	7.82	0.10	7.81	7.25	8.42
Zinc, dissolved	15	15	0	83.53	138.21	293.48	475.00	556.02	697.19	753	354.25	1.21	353.72	39.4	781
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)															
1,1'-Biphenyl	15	15	0	0.002	0.002	0.002	0.002	0.003	0.004	0.00391	0.003	0.001	0.003	0.0019	0.0044
1-Methylnaphthalene	15	15	0	0.004	0.004	0.004	0.005	0.01	0.01	0.0102	0.01	0.004	0.01	0.0035	0.02

Table E2-31. Summary of the pore-water chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/L; cont.)															
1-Methylphenanthrene	15	15	0	0.001	0.001	0.001	0.001	0.001	0.002	0.00188	0.001	0.0004	0.001	0.0007	0.0023
2,6-Dimethylnaphthalene	15	15	0	0.001	0.001	0.001	0.002	0.003	0.005	0.00752	0.003	0.003	0.002	0.0011	0.0113
2-Methylnaphthalene	15	15	0	0.01	0.01	0.01	0.01	0.01	0.01	0.0111	0.01	0.004	0.01	0.005	0.0198
Acenaphthene	15	15	0	0.002	0.003	0.004	0.01	0.02	0.07	0.100	0.02	0.03	0.01	0.0019	0.1136
Acenaphthylene	15	15	0	0.001	0.001	0.001	0.001	0.002	0.003	0.00324	0.002	0.001	0.001	0.0004	0.0038
Anthracene	15	15	0	0.001	0.001	0.001	0.002	0.003	0.004	0.00561	0.003	0.002	0.002	0.0008	0.0082
Fluorene	15	15	0	0.005	0.01	0.01	0.01	0.01	0.01	0.0146	0.01	0.004	0.008	0.0039	0.0162
Naphthalene	15	15	0	0.01	0.01	0.01	0.01	0.02	0.02	0.0269	0.02	0.01	0.02	0.0101	0.0279
Phenanthrene	15	15	0	0.01	0.01	0.02	0.02	0.03	0.03	0.0335	0.02	0.01	0.02	0.0142	0.0364
Benz(a)anthracene	15	15	0	0.0003	0.0003	0.0004	0.001	0.001	0.002	0.00315	0.001	0.001	0.001	0.0002	0.0049
Benzo(a)pyrene	15	15	0	0.0003	0.0004	0.0004	0.001	0.001	0.002	0.00533	0.002	0.003	0.001	0.0001	0.0122
Benzo(b)fluoranthene	15	15	0	0.0002	0.0003	0.0004	0.001	0.001	0.004	0.00643	0.002	0.003	0.001	0.00002	0.0107
Benzo(g,h,i)perylene	15	15	0	0.0002	0.0002	0.0003	0.0004	0.001	0.003	0.00519	0.001	0.003	0.001	0.0001	0.0108
Benzo(k)fluoranthene	15	15	0	0.0001	0.0001	0.0002	0.0004	0.001	0.001	0.00161	0.001	0.001	0.0003	0.00003	0.0021
Chrysene	15	15	0	0.0005	0.001	0.001	0.001	0.001	0.003	0.00368	0.002	0.001	0.001	0.0004	0.0062
Dibenz(a,h)anthracene	15	15	0	0.0001	0.0001	0.0002	0.0002	0.0004	0.001	0.00185	0.001	0.001	0.0003	0.0001	0.0036
Fluoranthene	15	15	0	0.003	0.003	0.01	0.01	0.01	0.02	0.0201	0.01	0.01	0.01	0.003	0.0245
Indeno(1,2,3-cd)pyrene	15	15	0	0.0001	0.0001	0.0002	0.0003	0.001	0.002	0.00243	0.001	0.001	0.0004	0.0001	0.0032
Perylene	15	15	0	0.001	0.001	0.001	0.002	0.004	0.01	0.0125	0.004	0.01	0.002	0.0006	0.0232
Pyrene	15	15	0	0.001	0.001	0.004	0.01	0.01	0.01	0.0226	0.01	0.01	0.01	0.0011	0.0443

Table E2-31. Summary of the pore-water chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Aroclors (µg/L)															
Aroclor-1016	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1232	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1242	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1248	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
PCB Congeners (µg/L)															
PCB 105	15	5	10	0.00004	0.00005	0.00005	0.0001	0.001	0.004	0.00496	0.001	0.002	0.0002	0.00004	0.00552
PCB 118	15	3	12	0.0002	0.0002	0.0002	0.0003	0.0004	0.001	0.000982	0.0004	0.0003	0.0003	0.00019	0.00101
PCB 128	15	0	15	0.00004	0.00004	0.0001	0.0001	0.0001	0.0001	0.0000935	0.0001	0.00002	0.0001	0.000035	0.000125
PCB 132/153	15	1	14	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.000302	0.0001	0.0001	0.0001	0.000045	0.0006
PCB 138/160	15	15	0	0.003	0.003	0.004	0.01	0.01	0.02	0.0234	0.01	0.01	0.01	0.00203	0.03048
PCB 170/190	15	1	14	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.000518	0.0002	0.0003	0.0001	0.000055	0.00125
PCB 18/17	15	9	6	0.00004	0.00004	0.00004	0.002	0.004	0.004	0.00491	0.002	0.002	0.001	0.00004	0.00561
PCB 180	15	7	8	0.0001	0.0001	0.0001	0.0002	0.0004	0.001	0.00139	0.0004	0.001	0.0002	0.00004	0.00276
PCB 187	15	5	10	0.0001	0.0001	0.0001	0.0001	0.001	0.002	0.00191	0.001	0.001	0.0002	0.00005	0.00244
PCB 195/208	15	0	15	0.00004	0.00005	0.0001	0.0001	0.0001	0.0001	0.0000985	0.0001	0.00002	0.0001	0.000035	0.00013
PCB 206	15	1	14	0.00005	0.0001	0.0001	0.0001	0.0001	0.0001	0.000134	0.0001	0.00003	0.0001	0.00004	0.000145
PCB 209	15	3	12	0.00005	0.0001	0.0001	0.0001	0.0001	0.0002	0.000287	0.0001	0.0001	0.0001	0.00004	0.00049
PCB 28	15	2	13	0.00004	0.00004	0.00005	0.00005	0.0001	0.002	0.00346	0.001	0.001	0.0001	0.00003	0.00466
PCB 29	15	4	11	0.00003	0.00003	0.00003	0.00004	0.0003	0.001	0.00265	0.001	0.002	0.0001	0.000025	0.00589

Table E2-31. Summary of the pore-water chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/L; cont.)															
PCB 44	15	9	6	0.0001	0.0001	0.0001	0.001	0.001	0.002	0.00261	0.001	0.001	0.0004	0.000055	0.00274
PCB 5/8	15	10	5	0.00003	0.00004	0.00004	0.01	0.01	0.02	0.0242	0.01	0.01	0.002	0.000025	0.03219
PCB 52	15	10	5	0.00003	0.00003	0.00004	0.002	0.003	0.004	0.00571	0.002	0.002	0.001	0.000025	0.00752
PCB 66	15	0	15	0.00004	0.00005	0.0001	0.0001	0.0001	0.0001	0.0000985	0.0001	0.00002	0.0001	0.000035	0.00013
PCB 77/110	15	3	12	0.00004	0.00004	0.00004	0.00005	0.0001	0.0002	0.000391	0.0001	0.0001	0.0001	0.00004	0.00058
PCB 87/115	15	4	11	0.00004	0.00005	0.00005	0.0001	0.001	0.003	0.00339	0.001	0.001	0.0001	0.00003	0.0044
PCB 90/101	15	1	14	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.000288	0.0001	0.0001	0.0001	0.00005	0.0006
PCB 201/157/173	15	0	15	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.000121	0.0001	0.00003	0.0001	0.00004	0.00016
Total PCBs[5]	15	15	0	0.005	0.01	0.01	0.03	0.04	0.05	0.0515	0.03	0.02	0.02	0.00365	0.05797
Organochlorine Pesticides (µg/L)															
Aldrin	15	0	15	0.00002	0.00002	0.00002	0.00002	0.00003	0.00004	0.0000510	0.00003	0.00001	0.00003	0.000015	0.000065
Dieldrin	15	0	15	0.00003	0.00003	0.00004	0.00004	0.00004	0.0001	0.0000740	0.00005	0.00002	0.00004	0.000025	0.000095
Phthalates (µg/L)															
Bis(2-ethylhexyl)phthalate	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)															
Hexachloro-1,3-butadiene	15	0	15	0.07	0.07	0.07	0.07	0.07	0.07	0.0750	0.07	0	0.08	0.075	0.075
Hexachlorobenzene	15	14	1	0.00003	0.00004	0.0004	0.002	0.003	0.004	0.00412	0.002	0.002	0.001	0.00002	0.00436
1,2,3,4-Tetrachlorobenzene	15	14	1	0.0001	0.0002	0.001	0.01	0.01	0.02	0.0209	0.01	0.01	0.003	0.000085	0.02395
1,2,3-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table E2-31. Summary of the pore-water chemistry for the Upper Calcasieu River Area of Concern (UCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Chlorinated Benzenes (µg/L; cont.)															
1,2,4,5-Tetrachlorobenzene	15	5	10	0.0001	0.0001	0.0001	0.0001	0.0004	0.005	0.0144	0.003	0.01	0.0002	0.000055	0.02985
1,2,4-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	15	14	1	0.0002	0.0002	0.0003	0.001	0.002	0.003	0.00303	0.001	0.001	0.001	0.00014	0.00318
Chlorinated Ethanes (µg/L)															
1,1,1-Trichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)															
Acetone	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls; DL = detection limit.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of PCB congeners were summed to calculate Total PCBs.

Table E2-32. Comparison of concentrations of chemicals of potential concern in pore water from each area of concern to those in pore water from sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]						
	Reference Areas	UCR AOC[2]	Ratio (UCR: Reference)	BI AOC[2]	Ratio (BI: Reference)	MCR AOC[2]	Ratio (MCR: Reference)
Conventionals (mg/L)							
Hydrogen sulfide	0.00315	**0.0191**	6.0	**0.0102**	3.2	0.00580	1.8
Total dissolved sulfide	0.0469	**0.163**	3.5	0.0760	1.6	**0.106**	2.3
Nitrogen, as ammonia	0.434	0.659	1.5	**0.849**	2.0	0.400	0.9
Ammonia - toxic units (no units)	0.180	0.320	1.8	0.349	1.9	0.144	0.8
Metals (µg/L)							
Chromium, total	ND	ND	ND	ND	ND	ND	ND
Chromium, dissolved	ND	ND	ND	ND	ND	ND	ND
Copper, total	10.5	11.8	1.1	11.6	1.1	15.7	1.5
Copper, dissolved	11.3	11.7	1.0	8.84	0.8	7.48	0.7
Lead, total	0.900	0.958	1.1	1.10	1.2	1.03	1.1
Lead, dissolved	0.261	0.399	1.5	**0.847**	3.2	0.386	1.5
Mercury, total	ND	ND	ND	ND	ND	ND	ND
Mercury, dissolved	ND	ND	ND	ND	ND	ND	ND
Methyl mercury	ND	ND	ND	ND	ND	ND	ND
Nickel, total	6.47	5.62	0.9	**18.0**	2.8	7.48	1.2
Nickel, dissolved	5.72	6.12	1.1	**11.3**	2.0	7.51	1.3
Zinc, total	6.83	8.36	1.2	**91.4**	13.4	12.1	1.8
Zinc, dissolved	617	753	1.2	**1380**	2.2	1100	1.8
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)							
1,1'-Biphenyl	0.00300	0.00391	1.3	**0.00793**	2.6	**0.0213**	7.1
1-Methylnaphthalene	0.0129	0.0102	0.8	0.0238	1.8	**4.46**	345.7
1-Methylphenanthrene	0.00164	0.00188	1.1	**0.0350**	21.3	**0.561**	342.1
2,6-Dimethylnaphthalene	0.00550	0.00752	1.4	**0.0183**	3.3	**2.52**	458.2
2-Methylnaphthalene	0.0156	0.0111	0.7	0.0231	1.5	**0.910**	58.3
Acenaphthene	0.00557	**0.100**	18.0	**0.0958**	17.2	**0.533**	95.7
Acenaphthylene	0.00188	0.00324	1.7	**0.0147**	7.8	**0.222**	118.1

Table E2-32. Comparison of concentrations of chemicals of potential concern in pore water from each area of concern to those in pore water from sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]						
	Reference Areas	UCR AOC[2]	Ratio (UCR: Reference)	BI AOC[2]	Ratio (BI: Reference)	MCR AOC[2]	Ratio (MCR: Reference)
PAHs (µg/L; cont.)							
Anthracene	0.00225	**0.00561**	2.5	**0.0391**	17.4	**0.189**	84.0
Fluorene	0.0140	0.0146	1.0	**0.0382**	2.7	**0.613**	43.8
Naphthalene	0.0217	0.0269	1.2	**0.0613**	2.8	**0.177**	8.2
Phenanthrene	0.033	0.0335	1.0	0.0639	1.9	**0.747**	22.6
Benz(a)anthracene	0.000570	**0.00315**	5.5	**0.00886**	15.5	**0.199**	349.1
Benzo(a)pyrene	0.00109	**0.00533**	4.9	**0.00590**	5.4	**0.116**	106.4
Benzo(b)fluoranthene	0.0130	0.00643	0.5	0.00824	0.6	**0.0771**	5.9
Benzo(g,h,i)perylene	0.00233	**0.00519**	2.2	**0.00673**	2.9	**0.0579**	24.8
Benzo(k)fluoranthene	0.00316	0.00161	0.5	0.00129	0.4	**0.0149**	4.7
Chrysene	0.0154	0.00368	0.2	**0.0652**	4.2	**0.366**	23.8
Dibenz(a,h)anthracene	0.000370	**0.00185**	5.0	**0.00248**	6.7	**0.0306**	82.7
Fluoranthene	0.0140	0.0201	1.4	0.0251	1.8	**0.0805**	5.8
Indeno(1,2,3-cd)pyrene	0.00337	0.00243	0.7	0.00155	0.5	**0.0185**	5.5
Perylene	0.000800	**0.0125**	15.6	**0.00870**	10.9	**0.0178**	22.3
Pyrene	0.00912	**0.0226**	2.5	**0.0790**	8.7	**0.377**	41.3
PCB Aroclors (µg/L)							
Aroclor-1016	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.0500	0.0500	1.0	0.0500	1.0	0.0500	1.0
Aroclor-1232	0.0500	0.0500	1.0	0.0500	1.0	0.0500	1.0
Aroclor-1242	0.0500	0.0500	1.0	0.0500	1.0	0.0500	1.0
Aroclor-1248	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	0.0500	0.0500	1.0	0.0500	1.0	0.0500	1.0

Table E2-32. Comparison of concentrations of chemicals of potential concern in pore water from each area of concern to those in pore water from sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]						
	Reference Areas	UCR AOC[2]	Ratio (UCR: Reference)	BI AOC[2]	Ratio (BI: Reference)	MCR AOC[2]	Ratio (MCR: Reference)
PCB Congeners (µg/L)							
PCB 105	0.0000500	**0.00496**	99.2	**0.0207**	414.0	**0.00107**	21.4
PCB 118	0.000255	**0.000982**	3.9	**0.00293**	11.5	**0.00775**	30.4
PCB 128	0.0000550	0.0000935	1.7	**0.000289**	5.3	**0.00109**	19.8
PCB 132/153	0.0000800	**0.000302**	3.8	**0.000425**	5.3	**0.00650**	81.3
PCB 138/160	0.00515	**0.0234**	4.6	**0.0629**	12.2	**0.0361**	7.0
PCB 170/190	0.0000900	**0.000518**	5.8	**0.000270**	3.0	**0.0301**	334.4
PCB 18/17	0.0000400	**0.00491**	122.7	**0.0199**	497.5	**0.0159**	397.5
PCB 180	0.00114	0.00139	1.2	0.00189	1.7	**0.00382**	3.4
PCB 187	0.0000700	**0.00191**	27.3	**0.00332**	47.4	**0.00565**	80.7
PCB 195/208	0.0000600	0.0000985	1.6	**0.000175**	2.9	**0.000130**	2.2
PCB 206	0.000131	0.000134	1.0	0.000205	1.6	**0.000961**	7.3
PCB 209	0.000161	0.000287	1.8	**0.00118**	7.3	0.000155	1.0
PCB 28	0.00434	0.00346	0.8	0.00106	0.2	**0.0279**	6.4
PCB 29	0.0000300	**0.00265**	88.2	**0.000715**	23.8	**0.00282**	94.0
PCB 44	0.000476	**0.00261**	5.5	**0.00129**	2.7	**0.00204**	4.3
PCB 5/8	0.0132	0.0242	1.8	0.0154	1.2	**0.120**	9.1
PCB 52	0.00264	**0.00571**	2.2	0.00434	1.6	**0.0190**	7.2
PCB 66	0.000422	0.0000985	0.2	**0.000907**	2.1	0.000747	1.8
PCB 77/110	0.00107	0.000391	0.4	0.00120	1.1	**0.023**	21.5
PCB 87/115	0.0000500	**0.00339**	67.8	**0.00125**	25.0	**0.000892**	17.8
PCB 90/101	0.00232	0.000288	0.1	0.000863	0.4	0.00197	0.8
PCB 201/157/173	0.0000700	0.000121	1.7	**0.000210**	3.0	**0.000257**	3.7
Total PCBs	0.0273	0.0515	1.9	**0.125**	4.6	**0.263**	9.6
Organochlorine Pesticides (µg/L)							
Aldrin	0.000240	0.0000510	0.2	**0.000815**	3.4	**0.0151**	62.9
Dieldrin	0.0000400	0.0000740	1.8	**0.000297**	7.4	**0.0000950**	2.4

Table E2-32. Comparison of concentrations of chemicals of potential concern in pore water from each area of concern to those in pore water from sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]						
	Reference Areas	UCR AOC[2]	Ratio (UCR: Reference)	BI AOC[2]	Ratio (BI: Reference)	MCR AOC[2]	Ratio (MCR: Reference)
Phthalates (µg/L)							
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)							
Hexachloro-1,3-butadiene	0.0750	0.0750	1.0	0.0750	1.0	0.0750	1.0
Hexachlorobenzene	0.00221	0.00412	1.9	**0.00841**	3.8	**0.0104**	4.7
1,2,3,4-Tetrachlorobenzene	0.0118	0.0209	1.8	0.0182	1.5	**0.0364**	3.1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	0.00644	**0.0144**	2.2	0.00741	1.2	**0.0194**	3.0
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	0.00244	0.00303	1.2	0.00392	1.6	**0.0103**	4.2
Chlorinated Ethanes (µg/L)							
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)							
Acetone	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls; DL = detection limit; COC = contaminant of concern.

[1]Substances for which the 95th percentile concentration for an AOC is a factor of two or higher than that for reference areas (highlighted with bold and underlined) were retained as preliminary COCs for each AOC.

[2]UCR AOC = Upper Calcasieu River Area of Concern; BI AOC = Bayou d'Inde Area of Concern; MCR AOC = Middle Calcasieu River Area of Concern.

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)															
Chromium	43	100%	7.1	248	133	87	100%	18.5	774	412	35	100%	5.5	138	81.7
Copper	48	100%	8.5	113	85.6	92	98%	8.27	943	170	38	100%	3.8	340	219
Lead	48	100%	11.3	218	49.5	92	89%	7.45	152	83.8	38	87%	5.5	104	82.8
Mercury	48	48%	0.045	0.75	0.439	91	93%	0.04	12	3.44	38	92%	0.01	6	3.16
Methyl mercury	5	20%	0.000325	0.00068	0.000649	5	80%	0.00047	0.00159	0.00157	3	100%	0.00379	0.00602	0.00581
Nickel	48	100%	4.6	53.8	23.1	91	90%	4.64	41.3	27.7	37	100%	2.5	42.5	42.0
Zinc	48	100%	16.8	359	243	85	84%	31.7	700	450	38	74%	4.8	212	201
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	1	0%	33	33	33.0	2	0%	26.5	35	34.5	14	93%	25.5	620	474
1-Methylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2-Methylnaphthalene	10	10%	4.5	85.5	70.1	10	40%	7	89	68.7	11	27%	24	130	111
Acenaphthene	11	27%	4.5	200	105	11	36%	7	141	140	7	0%	6.5	45.5	44.3
Acenaphthylene	12	25%	4.5	286	169	12	58%	7	295	225	10	40%	25.5	280	185
Anthracene	12	33%	8	254	172	16	31%	7	739	185	15	20%	24	170	163
Fluorene	10	30%	4.5	84.3	69.6	10	30%	7	285	143	7	14%	19.9	45.5	44.3
Naphthalene	11	9%	4.5	146	97.5	13	15%	7	100	93.9	11	9%	24	90	82.2
Phenanthrene	13	46%	25	570	420	17	47%	20.6	2500	507	19	63%	25.5	310	255
Total LMW-PAHs[4]	32	25%	73	1247.8	808	68	16%	80.5	3737.8	976	33	36%	120	1000	828

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)															
Benz(a)anthracene	13	62%	42.8	563	543	18	50%	33.7	1950	363	21	57%	25.5	290	270
Benzo(a)pyrene	13	54%	39	436	348	21	48%	25	1470	250	18	33%	25.5	250	241
Benzo(b)fluoranthene	31	23%	45.5	843	550	68	13%	50	1990	550	33	36%	25.5	495	476
Benzo(g,h,i)perylene	12	42%	37.1	283	181	17	41%	17.6	670	158	14	29%	24	145	142
Benzo(k)fluoranthene	12	42%	19.9	258	173	20	45%	23.5	612	379	16	19%	24	250	187
Chrysene	16	56%	45.5	900	831	25	48%	50	1790	525	26	69%	25.5	530	472
Dibenz(a,h)anthracene	10	50%	15.4	105	78.5	9	44%	8.5	288	143	7	14%	24	46.8	46.4
Fluoranthene	30	43%	45.5	1600	893	62	23%	50	3560	500	33	39%	25.5	495	476
Indeno(1,2,3-cd)pyrene	12	42%	34.9	263	175	18	39%	8.5	667	144	15	20%	24	145	131
Perylene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Pyrene	28	50%	45.5	1520	1190	53	55%	53	2550	487	32	53%	24	860	526
Total HMW-PAHs[5]	41	37%	273	4943	2400	88	34%	303	11608	2500	37	54%	153	2475	2400
Total PAHs[6]	41	39%	496	6190.8	2900	88	34%	493.3	15345.8	3000	37	54%	331.5	2970	2920
PCB Aroclors (µg/kg DW)															
Aroclor-1016	44	0%	8	65	59.2	78	0%	6.5	65	65.0	27	0%	6	60	55.8
Aroclor-1221	17	0%	8	65	65.0	20	0%	6.5	65	60.2	14	0%	6	50	41.1
Aroclor-1232	44	0%	8	65	59.2	78	0%	6.5	65	65.0	27	0%	6	60	55.8
Aroclor-1242	44	0%	8	65	59.2	78	0%	6.5	65	65.0	27	0%	6	60	55.8
Aroclor-1248	44	0%	8	65	59.2	78	0%	6.5	65	65.0	27	0%	6	60	55.8
Aroclor-1254	45	47%	9	38100	738	88	81%	6.5	1700	1030	29	31%	6	590	234

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)															
Aroclor-1260	45	4%	8	190	65.0	78	3%	6.5	140	65.0	27	4%	6	67	60.0
Total PCBs[7]	23	91%	63	38391	26800	72	99%	45.5	1850	1250	13	77%	42	880	690
PCB Congeners (µg/kg DW)															
PCB 105	2	100%	2.82	21	19.2	12	100%	1.24	93.3	62.3	10	100%	0.0126	7.86	6.47
PCB 108	2	100%	0.767	6.15	5.67	12	100%	0.439	27.6	15.6	10	100%	0.00439	2.13	1.97
PCB 114	2	100%	0.104	0.647	0.614	12	100%	0.0368	3.2	2.54	10	90%	0.002485	2.06	1.69
PCB 118	2	100%	9.44	68.4	62.1	12	100%	4.65	251	171	10	100%	0.0367	22.9	21.8
PCB 126	2	100%	0.0729	0.642	0.607	12	100%	0.0484	3.23	1.95	10	90%	0.002485	0.363	0.35
PCB 127	2	0%	0.002485	0.0025	0.00250	12	33%	0.002395	0.0297	0.0237	10	70%	0.00124	0.0888	0.0693
PCB 15	2	100%	0.327	2.53	2.36	12	100%	0.174	69.1	46.8	10	100%	0.12	37.7	32.6
PCB 156	2	100%	1.19	7.65	7.08	12	100%	0.622	25	18.0	10	100%	0.0113	4.04	3.92
PCB 157	2	100%	0.362	2.17	2.04	12	100%	0.182	7.32	4.73	10	90%	0.002485	1.03	1.00
PCB 162	2	100%	2.84	15.3	14.2	12	100%	1.21	48.8	31.2	10	100%	0.00932	6.17	4.53
PCB 167	2	100%	0.705	3.79	3.55	12	100%	0.323	12.3	7.88	10	100%	0.00657	3.28	3.23
PCB 169	2	50%	0.002485	0.0357	0.0340	12	75%	0.00246	0.0953	0.070	10	60%	0.002385	0.304	0.295
PCB 189	2	100%	0.132	0.509	0.487	12	100%	0.0599	1.37	1.17	10	90%	0.002485	2.58	2.39
PCB 37	2	100%	0.132	0.791	0.750	12	100%	0.108	3.25	2.48	10	100%	0.0138	6	4.92
PCB 58	2	100%	0.0232	0.48	0.453	12	100%	0.0279	5.65	2.39	10	100%	0.00299	1	0.94
PCB 60	2	100%	0.476	3.59	3.34	12	100%	0.278	20.3	13.2	10	90%	0.00515	3.29	3.23
PCB 61/70	2	100%	3.49	29	26.3	12	100%	1.86	132	86.9	10	100%	0.0372	20.3	17.8

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)															
PCB 66	2	100%	2.25	18	16.4	12	100%	1.45	64.7	39.2	10	100%	0.039	16.1	15.4
PCB 77	2	100%	0.29	2.38	2.22	12	100%	0.186	14.5	8.36	10	100%	0.00366	1.09	1.09
PCB 79	2	100%	0.114	0.882	0.833	12	100%	0.0554	4.25	2.44	10	90%	0.002485	0.494	0.426
PCB 80	2	0%	0.002485	0.0025	0.00250	12	8%	0.002395	0.0417	0.0200	10	80%	0.00229	0.158	0.155
PCB 81	2	100%	0.139	1.05	0.991	12	100%	0.0466	4.55	2.93	10	90%	0.002485	0.401	0.395
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0%	NA	NA	NA	15	100%	0.65	19	7.00	15	100%	1.6	370	319
Dieldrin	0	0%	NA	NA	NA	10	100%	1	2.2	1.96	9	100%	1.3	33	30.9
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	41	85%	33	1100	860	88	44%	50	3900	1040	37	62%	31	80000	39700
Benzylbutylphthalate	0	0%	NA	NA	NA	2	50%	26.5	360	316	2	50%	25.5	170	155
Diethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dimethylphthalate	1	0%	33	33	33.0	4	50%	26.5	86	84.6	1	0%	25.5	25.5	25.5
Di-n-butylphthalate	37	8%	33	700	700	83	0%	26.5	700	650	37	14%	34	700	660
Di-n-octylphthalate	0	0%	NA	NA	NA	5	100%	250	930	811	1	100%	910	910	910
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	16	100%	62	2100	1710
Hexachlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	22	100%	26	24000	20700

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)															
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	24	0%	8.5	14	13.9	43	0%	7.5	15.5	15.5	22	0%	5.5	14.5	14.0
1,2-Dichlorobenzene	28	0%	8.5	17.5	16.3	54	0%	7.5	17.5	17.0	22	0%	5.5	14.5	14.0
1,3-Dichlorobenzene	37	5%	3	22.5	21.0	78	13%	1	31	21.9	26	81%	2	48	39.5
1,4-Dichlorobenzene	37	5%	3	22.5	21.0	78	9%	2	31	22.7	26	69%	2	44	40.6
Pentachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	37	0%	8.5	22.5	21.0	78	0%	7.5	31	22.7	26	0%	5.5	21.5	20.5
1,2-Dichloroethane	37	0%	8.5	22.5	21.0	78	0%	7.5	31	22.7	26	0%	5.5	21.5	20.5
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	10	100%	98	2200	1020	27	100%	51.2	1200	882	14	100%	12.7	1000	778
1,2,3,4,7,8-HxCDD	10	30%	0.95	73	24.6	27	52%	0.4505	23.4	17.7	14	86%	0.488	57	44.9
1,2,3,6,7,8-HxCDD	10	90%	3.05	140	63.5	27	89%	1.8	179	120	14	86%	0.52	90	56.6
1,2,3,7,8,9-HxCDD	10	90%	3.35	59	30.2	27	85%	0.75	68	45.1	14	79%	0.4455	38	33.6
1,2,3,7,8-PeCDD	10	20%	0.55	4.17	4.09	27	44%	0.3285	32.7	22.4	14	64%	0.371	33.5	29.8
2,3,7,8-TCDD	10	20%	0.098	0.75	0.73	27	48%	0.189	4.5	2.88	14	93%	0.125	29	17.3
OCDD	10	100%	1900	23000	14700	27	100%	1100	9610	8170	14	100%	108	11000	8430

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total TCDD	10	100%	1.29	12	12.0	27	89%	0.197	54	42.4	14	100%	3.12	120	91.5
Total HpCDD	10	100%	220	4700	2590	27	100%	129	2700	2110	14	100%	25.7	1900	1560
Total HxCDD	10	100%	36	1200	615	27	100%	25.5	1890	1040	14	100%	15.2	570	438
Total PeCDD	10	30%	0.95	27.4	18.3	27	70%	1.31	286	157	14	93%	3.54	120	64.9
1,2,3,4,6,7,8-HpCDF	10	100%	14	2500	921	27	100%	43.8	1460	1120	14	100%	1.65	29000	16300
1,2,3,4,7,8,9-HpCDF	10	80%	0.7	61	46.6	27	93%	0.825	340	227	14	93%	0.4915	7100	3510
1,2,3,4,7,8-HxCDF	10	80%	1.05	76	73.4	27	100%	6.1	650	483	14	100%	1.5	7500	4130
1,2,3,6,7,8-HxCDF	10	60%	0.9	25.8	25.4	27	93%	0.9	182	149	14	93%	0.544	2600	1380
1,2,3,7,8,9-HxCDF	10	20%	0.305	11.5	6.00	27	44%	0.55	62.8	31.0	14	93%	0.412	280	162
1,2,3,7,8-PeCDF	10	50%	0.42	24	21.6	27	93%	2.1	200	137	14	100%	0.783	2000	1070
2,3,4,6,7,8-HxCDF	10	30%	0.65	17	16.7	27	78%	1.05	96.7	56.3	14	93%	0.2935	670	325
2,3,4,7,8-PeCDF	10	50%	0.365	23.4	20.3	27	89%	0.85	137	97.5	14	100%	0.71	1300	717
2,3,7,8-TCDF	10	90%	0.7	24.1	21.1	27	100%	2.65	268	193	14	100%	0.554	600	303
OCDF	10	100%	39	2100	1500	27	100%	66.6	10000	6630	14	100%	13.6	290000	163000
Total TCDF	10	100%	12	191	176	27	100%	20.9	1800	1480	14	100%	3.9	11000	6060
Total HpCDF	10	100%	46	5800	2100	27	100%	95.1	2500	2160	14	100%	4.45	54000	30100
Total HxCDF	10	100%	21	1500	785	27	100%	48	2100	1800	14	100%	5.01	36000	18600
Total PeCDF	10	90%	2.3	290	248	27	100%	15	1480	1230	14	100%	3.21	25000	12800
Total Toxic Equivalents (TEQs)[8]	10	100%	2.72	95.9	67.1	27	100%	5.10	220	172	14	100%	1.57	2360	1320

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	UBI					MBI					LBI-MS				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)															
Acetone	37	22%	10	820	680	78	41%	7.5	280	213	26	38%	9.5	370	262
Carbon disulfide	37	86%	3	99	86.0	78	59%	1	25	21.1	26	62%	2	19	14.0
Mean PEC-Q	53	100%	0.0493	213	3.10	93	100%	0.0431	1.78	1.08	38	100%	0.0348	1.15	0.849

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; DL = detection limit; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; UBI = Upper Bayou d'Inde; MBI = Middle Bayou d'Inde; LBI-MS = Lower Bayou d'Inde - Mainstem; LBI-LM = Lower Bayou d'Inde - Lockport Marsh; PPGC = PPG Canal.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)										
Chromium	106	100%	2.8	310	161	0	NA	NA	NA	NA
Copper	118	100%	3.6	880	387	6	100%	15.3	749	538
Lead	118	100%	4.2	902	312	6	100%	9.95	442	420
Mercury	111	89%	0.035	93.9	8.10	6	100%	0.541	8.83	8.80
Methyl mercury	12	100%	0.00174	0.0198	0.0168	6	100%	0.00347	0.0177	0.0169
Nickel	118	99%	0.7	83.1	55.4	6	100%	6.58	110	92.4
Zinc	118	99%	9.9	386	321	6	100%	20.8	342	284
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)										
1,1'-Biphenyl	0	ND	ND	ND	ND	4	25%	26.5	110	90
1-Methylnaphthalene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
1-Methylphenanthrene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
2,6-Dimethylnaphthalene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
2-Methylnaphthalene	13	31%	17.5	128	109	6	50%	8	549	379
Acenaphthene	11	36%	25.5	1460	684	6	0%	8	32.5	31.5
Acenaphthylene	14	50%	25.5	901	653	6	67%	8	87.2	83
Anthracene	18	44%	28.5	1320	694	6	50%	8	229	168
Fluorene	12	25%	17.5	300	286	6	17%	8	68.2	54.9
Naphthalene	16	6%	17.5	220	98.2	6	50%	8	146	117
Phenanthrene	27	59%	40.5	59000	17700	6	67%	8	753	548
Total LMW-PAHs[4]	78	22%	120	59000	3080	6	67%	56	1864.9	1400

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)										
Benz(a)anthracene	29	59%	28.5	4850	1270	6	67%	8	1050	732
Benzo(a)pyrene	28	61%	57	2620	1160	6	67%	8	952	696
Benzo(b)fluoranthene	77	22%	57	7390	588	6	67%	8	1440	1110
Benzo(g,h,i)perylene	23	43%	28.5	651	610	6	67%	8	667	598
Benzo(k)fluoranthene	26	42%	28.5	2620	849	6	67%	8	130	125
Chrysene	40	60%	57	10400	1410	6	83%	9	2400	1740
Dibenz(a,h)anthracene	10	60%	25.5	503	315	6	50%	8	391	300
Fluoranthene	63	29%	53.5	19100	1830	6	83%	9	707	638
Indeno(1,2,3-cd)pyrene	24	50%	28.5	1450	565	6	50%	8	351	284
Perylene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
Pyrene	64	53%	57	17300	1750	6	83%	9	3520	2560
Total HMW-PAHs[5]	108	34%	342	54773	4390	6	83%	54	9020	6670
Total PAHs[6]	110	35%	460	59136.7	7030	6	83%	117	10884.9	8070
PCB Aroclors (µg/kg DW)										
Aroclor-1016	52	0%	8	65	62.2	5	0%	6.5	14	13.0
Aroclor-1221	21	0%	8	65	65.0	5	0%	6.5	14	13.0
Aroclor-1232	52	0%	8	65	62.2	5	0%	6.5	14	13.0
Aroclor-1242	52	0%	8	65	62.2	5	0%	6.5	14	13.0
Aroclor-1248	52	0%	8	65	62.2	5	0%	6.5	14	13.0
Aroclor-1254	55	24%	4.9	140	84.0	5	0%	6.5	14	13.0

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)										
Aroclor-1260	52	2%	8	120	65.0	5	0%	6.5	14	13.0
Total PCBs[7]	17	94%	4.46628	692	617	3	0%	45.5	49	49.0
PCB Congeners (µg/kg DW)										
PCB 105	7	100%	0.0217	11	8.47	3	100%	1.03	22.8	22.1
PCB 108	7	100%	0.00631	3.65	2.58	3	100%	0.264	15.2	14.0
PCB 114	7	71%	0.0152	1.08	0.827	3	100%	0.123	6.04	5.34
PCB 118	7	100%	0.0447	32.9	24.4	3	100%	2.7	87.7	85.6
PCB 126	7	71%	0.012	0.485	0.430	3	100%	0.0426	15.5	12.7
PCB 127	7	14%	0.00249	0.0461	0.0397	3	100%	0.00682	0.498	0.462
PCB 15	7	100%	0.0888	39	28.0	3	100%	2.55	456	429
PCB 156	7	100%	0.0116	4.44	3.40	3	100%	0.563	23.1	21.0
PCB 157	7	86%	0.00446	1.24	0.958	3	100%	0.141	5.35	4.72
PCB 162	7	100%	0.0124	7.17	5.34	3	100%	0.62	12	10.9
PCB 167	7	100%	0.00857	2.97	2.33	3	100%	0.372	19.9	17.3
PCB 169	7	29%	0.00249	0.173	0.161	3	100%	0.0323	0.984	0.954
PCB 189	7	100%	0.00694	1.09	1.04	3	100%	0.206	12.2	11.1
PCB 37	7	71%	0.0188	3.62	3.35	3	100%	0.539	77.8	70.6
PCB 58	7	71%	0.0051	0.762	0.684	3	100%	0.0643	4.43	4.35
PCB 60	7	71%	0.0204	7.99	7.20	3	100%	0.503	35.9	32.1
PCB 61/70	7	71%	0.0336	17.9	16.2	3	100%	1.24	104	96.9

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)										
PCB 66	7	86%	0.03755	18.7	17.7	3	100%	1.64	137	130
PCB 77	7	100%	0.016	2.04	2.03	3	100%	0.173	9.95	9.35
PCB 79	7	71%	0.0145	0.541	0.410	3	100%	0.0371	3.33	3.12
PCB 80	7	57%	0.00249	0.0995	0.0890	3	67%	0.00244	0.836	0.773
PCB 81	7	71%	0.0161	0.848	0.682	3	100%	0.0637	2.2	2.05
Organochlorine Pesticides (µg/kg DW)										
Aldrin	14	100%	0.35	42	35.2	1	100%	320	320	320
Dieldrin	5	100%	1.3	23	19.2	2	100%	30	45	44.1
Phthalates (µg/kg DW)										
Bis(2-ethylhexyl)phthalate	109	52%	45.5	150000	1050	6	67%	27.5	440	361
Benzylbutylphthalate	1	100%	130	130	130	3	0%	26.5	27.5	27.4
Diethylphthalate	0	NA	NA	NA	NA	0	NA	NA	NA	NA
Dimethylphthalate	0	NA	NA	NA	NA	3	0%	26.5	27.5	27.4
Di-n-butylphthalate	90	7%	31.5	700	650	6	0%	26.5	190	148
Di-n-octylphthalate	1	100%	270	270	270	0	NA	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)										
Hexachloro-1,3-butadiene	3	100%	110	860	751	2	100%	190	320	312
Hexachlorobenzene	8	100%	130	790	717	1	100%	760	760	760

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)										
1,2,3,4-Tetrachlorobenzene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0	NA	NA	NA	NA	0	NA	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
1,2,4-Trichlorobenzene	26	4%	6.5	15.5	15.5	0	NA	NA	NA	NA
1,2-Dichlorobenzene	32	0%	6.5	17.5	17.0	0	NA	NA	NA	NA
1,3-Dichlorobenzene	51	31%	1	50	47.7	0	NA	NA	NA	NA
1,4-Dichlorobenzene	51	20%	1	50	47.7	0	NA	NA	NA	NA
Pentachlorobenzene	0	ND	ND	ND	ND	0	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)										
1,1,1-Trichloroethane	51	0%	6.5	50	47.7	0	NA	NA	NA	NA
1,2-Dichloroethane	52	0%	6.5	105	50.0	0	NA	NA	NA	NA
PCDDs and PCDFs (ng/kg DW)										
1,2,3,4,6,7,8-HpCDD	17	100%	9.7	1400	966	3	100%	97.9	1500	1370
1,2,3,4,7,8-HxCDD	17	35%	0.295	110	46.1	3	67%	3.11	104	93.5
1,2,3,6,7,8-HxCDD	17	59%	0.925	83	50.0	3	100%	5.25	117	113
1,2,3,7,8,9-HxCDD	17	53%	0.785	82	42.5	3	67%	2.98	33.6	31.9
1,2,3,7,8-PeCDD	17	35%	0.495	43	26.1	3	100%	2.52	98.1	96.0
2,3,7,8-TCDD	17	53%	0.04635	10	8.45	3	100%	0.467	23.9	22.7
OCDD	17	100%	135	12000	8590	3	100%	1220	12200	10900

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)										
Total TCDD	17	100%	3.72	160	71.1	3	100%	3.25	163	159
Total HpCDD	17	100%	27.5	2600	1940	3	100%	197	2880	2640
Total HxCDD	17	100%	17	900	498	3	100%	32.2	977	938
Total PeCDD	17	59%	1.7	180	84.6	3	100%	4.85	290	255
1,2,3,4,6,7,8-HpCDF	17	94%	11.2	7600	4180	3	100%	373	6580	6430
1,2,3,4,7,8,9-HpCDF	17	100%	2.47	1400	886	3	100%	100	2430	2430
1,2,3,4,7,8-HxCDF	17	94%	6.59	3000	1990	3	100%	239	8200	7580
1,2,3,6,7,8-HxCDF	17	71%	0.76	510	470	3	100%	58.5	1210	1210
1,2,3,7,8,9-HxCDF	17	41%	0.355	93.7	87.6	3	100%	27.8	951	917
1,2,3,7,8-PeCDF	17	94%	2.19	700	577	3	100%	57.3	1420	1410
2,3,4,6,7,8-HxCDF	17	53%	0.493	180	140	3	100%	27.1	672	645
2,3,4,7,8-PeCDF	17	76%	0.995	410	302	3	100%	52.8	1310	1280
2,3,7,8-TCDF	17	100%	0.844	880	440	3	100%	40.3	1420	1350
OCDF	17	94%	69.1	38000	29800	3	100%	2610	53100	51800
Total TCDF	17	100%	7.58	4200	2680	3	100%	249	10200	9970
Total HpCDF	17	100%	19.5	13000	7830	3	100%	715	14900	14900
Total HxCDF	17	100%	10.3	7300	5740	3	100%	631	18600	18400
Total PeCDF	17	100%	2.39	4600	3860	3	100%	408	14100	13600
Total Toxic Equivalents (TEQs)[8]	17	100%	4.291179	866.35	583	3	100%	76.64464	2056.38	2010

Table E2-33. Summary of the whole-sediment chemistry data for the five reaches within the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	LBI-LM					PPGC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)										
Acetone	52	12%	4	81000	59.7	0	NA	NA	NA	NA
Carbon disulfide	52	44%	1	105	50.0	0	NA	NA	NA	NA
Mean PEC-Q	125	100%	0.0314	1.51	0.860	6	100%	0.0505	0.869	0.830

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; DL = detection limit; PCDDs = polychlorinated dibenzo-*p* -dioxins; PCDFs = polychlorinated dibenzofurans; UBI = Upper Bayou d'Inde; MBI = Middle Bayou d'Inde; LBI-MS = Lower Bayou d'Inde - Mainstem; LBI-LM = Lower Bayou d'Inde - Lockport Marsh; PPGC = PPG Canal.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-34. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	UBI[2]	Ratio (UBI: Reference)	MBI[2]	Ratio (MBI: Reference)	LBI-MS[2]	Ratio (LBI-MS: Reference)	LBI-LM[2]	Ratio (LBI-LM: Reference)	PPGC[2]	Ratio (PPGC: Reference)	
Metals (mg/kg DW)												
Chromium	10.4	**133**	12.8	**412**	39.6	**81.7**	7.9	**161**	15.5	NA	NA	Y
Copper	15.6	**85.6**	5.5	**170**	10.9	**219**	14.1	**387**	24.8	**538**	34.5	Y
Lead	25.7	49.5	1.9	**83.8**	3.3	**82.8**	3.2	**312**	12.1	**420**	16.3	Y
Mercury	0.0871	**0.439**	5.0	**3.44**	39.5	**3.16**	36.3	**8.10**	93.0	**8.80**	101.1	Y
Methyl mercury	0.00180	0.000649	0.4	0.00157	0.9	**0.00581**	3.2	**0.0168**	9.3	**0.0169**	9.4	Y
Nickel	20.9	23.1	1.1	27.7	1.3	**42.0**	2.0	**55.4**	2.7	**92.4**	4.4	Y
Zinc	75.5	**243**	3.2	**450**	6.0	**201**	2.7	**321**	4.2	**284**	3.8	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)												
1,1'-Biphenyl	36.3	33.0	0.9	34.5	1.0	**474**	13.1	ND	ND	**90**	2.5	Y
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	30.4	**70.1**	2.3	**68.7**	2.3	**111**	3.6	**109**	3.6	**379**	12.5	Y
Acenaphthene	30.4	**105**	3.5	**140**	4.6	44.3	1.5	**684**	22.5	31.5	1.0	Y
Acenaphthylene	30.4	**169**	5.6	**225**	7.4	**185**	6.1	**653**	21.5	**83**	2.7	Y
Anthracene	30.4	**172**	5.7	**185**	6.1	**163**	5.4	**694**	22.8	**168**	5.5	Y
Fluorene	30.4	**69.6**	2.3	**143**	4.7	44.3	1.5	**286**	9.4	54.9	1.8	Y
Naphthalene	30.4	**97.5**	3.2	**93.9**	3.1	**82.2**	2.7	**98.2**	3.2	**117**	3.8	Y
Phenanthrene	170	**420**	2.5	**507**	3.0	255	1.5	**17700**	104.1	**548**	3.2	Y
Total LMW-PAHs	679	808	1.2	976	1.4	828	1.2	**3080**	4.5	**1400**	2.1	Y
Benz(a)anthracene	170	**543**	3.2	**363**	2.1	270	1.6	**1270**	7.5	**732**	4.3	Y
Benzo(a)pyrene	170	**348**	2.0	250	1.5	241	1.4	**1160**	6.8	**696**	4.1	Y

Table E2-34. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	UBI[2]	Ratio (UBI: Reference)	MBI[2]	Ratio (MBI: Reference)	LBI-MS[2]	Ratio (LBI-MS: Reference)	LBI-LM[2]	Ratio (LBI-LM: Reference)	PPGC[2]	Ratio (PPGC: Reference)	
PAHs (µg/kg DW; cont.)												
Benzo(b)fluoranthene	170	**550**	3.2	**550**	3.2	**476**	2.8	**588**	3.5	**1110**	6.5	Y
Benzo(g,h,i)perylene	170	181	1.1	158	0.9	142	0.8	**610**	3.6	**598**	3.5	Y
Benzo(k)fluoranthene	170	173	1.0	**379**	2.2	187	1.1	**849**	5.0	125	0.7	Y
Benzofluoranthenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	170	**831**	4.9	**525**	3.1	**472**	2.8	**1410**	8.3	**1740**	10.2	Y
Dibenz(a,h)anthracene	30.4	**78.5**	2.6	**143**	4.7	46.4	1.5	**315**	10.3	**300**	9.9	Y
Fluoranthene	170	**893**	5.3	**500**	2.9	**476**	2.8	**1830**	10.8	**638**	3.8	Y
Indeno(1,2,3-cd)pyrene	170	175	1.0	144	0.8	131	0.8	**565**	3.3	284	1.7	Y
Perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	170	**1190**	7.0	**487**	2.9	**526**	3.1	**1750**	10.3	**2560**	15.1	Y
Total HMW-PAHs	849	**2400**	2.8	**2500**	2.9	**2400**	2.8	**4390**	5.2	**6670**	7.9	Y
Total PAHs	1530	2900	1.9	3000	2.0	2920	1.9	**7030**	4.6	**8070**	5.3	Y
PCB Aroclors (µg/kg DW)												
Aroclor-1016	20.0	**59.2**	3.0	**65.0**	3.2	**55.8**	2.8	**62.2**	3.1	13.0	0.6	Y
Aroclor-1221	33.3	**65.0**	2.0	60.2	1.8	41.1	1.2	**65.0**	2.0	13.0	0.4	Y
Aroclor-1232	20.0	**59.2**	3.0	**65.0**	3.2	**55.8**	2.8	**62.2**	3.1	13.0	0.6	Y
Aroclor-1242	20.0	**59.2**	3.0	**65.0**	3.2	**55.8**	2.8	**62.2**	3.1	13.0	0.6	Y
Aroclor-1248	20.0	**59.2**	3.0	**65.0**	3.2	**55.8**	2.8	**62.2**	3.1	13.0	0.6	Y
Aroclor-1254	117	**738**	6.3	**1030**	8.8	**234**	2.0	84	0.7	13	0.1	Y
Aroclor-1260	20.0	**65.0**	3.2	**65.0**	3.2	**60.0**	3.0	**65.0**	3.2	13.0	0.6	Y
Total PCBs	277	**26800**	96.8	**1250**	4.5	**690**	2.5	**617**	2.2	49	0.2	Y

Table E2-34. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	UBI[2]	Ratio (UBI: Reference)	MBI[2]	Ratio (MBI: Reference)	LBI-MS[2]	Ratio (LBI-MS: Reference)	LBI-LM[2]	Ratio (LBI-LM: Reference)	PPGC[2]	Ratio (PPGC: Reference)	
PCB Congeners (µg/kg DW)												
PCB 105	0.0482	**19.2**	397.4	**62.3**	1292.8	**6.47**	134.3	**8.47**	175.7	**22.1**	457.5	Y
PCB 108	0.0104	**5.67**	544.9	**15.6**	1501.1	**1.97**	189.2	**2.58**	248.2	**14.0**	1345.7	Y
PCB 114	0.00230	**0.614**	267.1	**2.54**	1104.9	**1.69**	733.0	**0.827**	359.8	**5.34**	2321.7	Y
PCB 118	0.130	**62.1**	477.9	**171**	1316.3	**21.8**	168.0	**24.4**	187.5	**85.6**	658.7	Y
PCB 126	0.00260	**0.607**	233.6	**1.95**	748.1	**0.35**	133.5	**0.430**	165.5	**12.7**	4884.7	Y
PCB 127	0.00102	**0.00250**	2.5	**0.0237**	23.2	**0.0693**	68.0	**0.0397**	38.9	**0.462**	453.0	Y
PCB 15	0.0733	**2.36**	32.2	**46.8**	639.0	**32.6**	445.0	**28.0**	382.0	**429**	5846.6	Y
PCB 156	0.0138	**7.08**	512.7	**18.0**	1304.4	**3.92**	283.8	**3.40**	246.3	**21.0**	1518.2	Y
PCB 157	0.00379	**2.04**	538.0	**4.73**	1247.4	**1.00**	263.4	**0.958**	252.8	**4.72**	1244.5	Y
PCB 162	0.0217	**14.2**	652.7	**31.2**	1436.4	**4.53**	208.9	**5.34**	245.9	**10.9**	500.6	Y
PCB 167	0.00743	**3.55**	477.6	**7.88**	1060.5	**3.23**	434.7	**2.33**	313.6	**17.3**	2323.6	Y
PCB 169	0.00116	**0.0340**	29.3	**0.070**	60.4	**0.295**	254.3	**0.161**	139.2	**0.954**	822.3	Y
PCB 189	0.0124	**0.487**	39.3	**1.17**	94.4	**2.39**	192.7	**1.04**	83.9	**11.1**	898.0	Y
PCB 37	0.0463	**0.750**	16.2	**2.48**	53.6	**4.92**	106.3	**3.35**	72.3	**70.6**	1524.2	Y
PCB 58	0.00484	**0.453**	93.6	**2.39**	494.5	**0.94**	194.5	**0.684**	141.3	**4.35**	897.8	Y
PCB 60	0.0282	**3.34**	118.3	**13.2**	467.0	**3.23**	114.6	**7.20**	255.4	**32.1**	1138.8	Y
PCB 61/70	0.0625	**26.3**	420.5	**86.9**	1391.2	**17.8**	284.5	**16.2**	259.8	**96.9**	1550.9	Y
PCB 66	0.121	**16.4**	135.5	**39.2**	324.0	**15.4**	127.3	**17.7**	146.1	**130**	1075.8	Y
PCB 77	0.0179	**2.22**	124.1	**8.36**	467.3	**1.09**	60.6	**2.03**	113.3	**9.35**	522.4	Y
PCB 79	0.00375	**0.833**	222.2	**2.44**	651.9	**0.426**	113.6	**0.410**	109.3	**3.12**	832.3	Y
PCB 80	0.00250	0.00250	1.0	**0.0200**	8.0	**0.155**	61.9	**0.0890**	35.6	**0.773**	309.0	Y
PCB 81	0.00271	**0.991**	365.5	**2.93**	1080.3	**0.395**	145.6	**0.682**	251.7	**2.05**	755.9	Y

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Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	UBI[2]	Ratio (UBI: Reference)	MBI[2]	Ratio (MBI: Reference)	LBI-MS[2]	Ratio (LBI-MS: Reference)	LBI-LM[2]	Ratio (LBI-LM: Reference)	PPGC[2]	Ratio (PPGC: Reference)	
Organochlorine Pesticides (µg/kg DW)												
Aldrin	NA	NA	NA	7.00	NA	319	NA	35	NA	320	NA	U
Dieldrin	1.35	NA	NA	1.96	1.5	**30.9**	22.9	**19.2**	14.2	**44.1**	32.7	Y
Phthalates (µg/kg DW)												
Bis(2-ethylhexyl)phthalate	170	**860**	5.1	**1040**	6.1	**39700**	233.5	**1050**	6.2	**361**	2.1	Y
Benzylbutylphthalate	NA	NA	NA	316	NA	155	NA	130	NA	27	NA	U
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
Dimethylphthalate	33.5	33.0	1.0	**84.6**	2.5	25.5	0.8	NA	NA	27.4	0.8	Y
Di-n-butylphthalate	170	**700**	4.1	**650**	3.8	**660**	3.9	**650**	3.8	148	0.9	Y
Di-n-octylphthalate	NA	NA	NA	811	NA	910	NA	270	NA	NA	NA	U
Chlorinated Benzenes (µg/kg DW)												
Hexachloro-1,3-butadiene	NA	NA	NA	NA	NA	1710	NA	751	NA	312	NA	U
Hexachlorobenzene	NA	NA	NA	NA	NA	20700	NA	717	NA	760	NA	U
1,2,3,4-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9.34	13.9	1.5	15.5	1.7	14.0	1.5	15.5	1.7	NA	NA	U
1,2-Dichlorobenzene	9.34	16.3	1.7	17.0	1.8	14.0	1.5	17.0	1.8	NA	NA	U
1,3-Dichlorobenzene	9.34	**21.0**	2.2	**21.9**	2.3	**39.5**	4.2	**47.7**	5.1	NA	NA	Y
1,4-Dichlorobenzene	9.34	**21.0**	2.2	**22.7**	2.4	**40.6**	4.4	**47.7**	5.1	NA	NA	Y
Pentachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table E2-34. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	UBI[2]	Ratio (UBI: Reference)	MBI[2]	Ratio (MBI: Reference)	LBI-MS[2]	Ratio (LBI-MS: Reference)	LBI-LM[2]	Ratio (LBI-LM: Reference)	PPGC[2]	Ratio (PPGC: Reference)	
Chlorinated Ethanes (µg/kg DW)												
1,1,1-Trichloroethane	9.34	**21.0**	2.2	**22.7**	2.4	**20.5**	2.2	**47.7**	5.1	NA	NA	Y
1,2-Dichloroethane	9.34	**21.0**	2.2	**22.7**	2.4	**20.5**	2.2	**50.0**	5.4	NA	NA	Y
PCDDs and PCDFs (ng/kg DW)												
1,2,3,4,6,7,8-HpCDD	95.4	**1020**	10.7	**882**	9.2	**778**	8.2	**966**	10.1	**1370**	14.4	Y
1,2,3,4,7,8-HxCDD	0.695	**24.6**	35.4	**17.7**	25.5	**44.9**	64.6	**46.1**	66.3	**93.5**	134.5	Y
1,2,3,6,7,8-HxCDD	0.896	**63.5**	70.9	**120**	133.9	**56.6**	63.1	**50.0**	55.8	**113**	126.0	Y
1,2,3,7,8,9-HxCDD	6.03	**30.2**	5.0	**45.1**	7.5	**33.6**	5.6	**42.5**	7.0	**31.9**	5.3	Y
1,2,3,7,8-PeCDD	0.307	**4.09**	13.3	**22.4**	72.8	**29.8**	97.1	**26.1**	85.0	**96.0**	312.8	Y
2,3,7,8-TCDD	1.29	0.73	0.6	**2.88**	2.2	**17.3**	13.4	**8.45**	6.6	**22.7**	17.6	Y
OCDD	1852	**14700**	7.9	**8170**	4.4	**8430**	4.6	**8590**	4.6	**10900**	5.9	Y
Total TCDD	27.8	12.0	0.4	42.4	1.5	**91.5**	3.3	**71.1**	2.6	**159**	5.7	Y
Total HpCDD	362	**2590**	7.2	**2110**	5.8	**1560**	4.3	**1940**	5.4	**2640**	7.3	Y
Total HxCDD	161	**615**	3.8	**1040**	6.5	**438**	2.7	**498**	3.1	**938**	5.8	Y
Total PeCDD	33.1	18.3	0.6	**157**	4.7	64.9	2.0	**84.6**	2.6	**255**	7.7	Y
1,2,3,4,6,7,8-HpCDF	1.44	**921**	639.3	**1120**	777.8	**16300**	11319.4	**4180**	2903.0	**6430**	4465.3	Y
1,2,3,4,7,8,9-HpCDF	0.381	**46.6**	122.4	**227**	596.4	**3510**	9212.6	**886**	2325.0	**2430**	6378.0	Y
1,2,3,4,7,8-HxCDF	0.286	**73.4**	256.6	**483**	1688.3	**4130**	14440.6	**1990**	6958.0	**7580**	26503.5	Y
1,2,3,6,7,8-HxCDF	0.223	**25.4**	114.1	**149**	669.1	**1380**	6188.3	**470**	2105.8	**1210**	5426.0	Y
1,2,3,7,8,9-HxCDF	0.317	**6.00**	18.9	**31.0**	97.8	**162**	509.5	**88**	276.2	**917**	2894.2	Y
1,2,3,7,8-PeCDF	1.46	**21.6**	14.8	**137**	93.8	**1070**	732.9	**577**	395.3	**1410**	965.8	Y
2,3,4,6,7,8-HxCDF	0.254	**16.7**	65.7	**56.3**	221.5	**325**	1279.5	**140**	553.0	**645**	2540.6	Y
2,3,4,7,8-PeCDF	1.33	**20.3**	15.2	**97.5**	73.3	**717**	538.9	**302**	227.2	**1280**	962.4	Y

Table E2-34. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	UBI[2]	Ratio (UBI: Reference)	MBI[2]	Ratio (MBI: Reference)	LBI-MS[2]	Ratio (LBI-MS: Reference)	LBI-LM[2]	Ratio (LBI-LM: Reference)	PPGC[2]	Ratio (PPGC: Reference)	
PCDDs and PCDFs (ng/kg DW; cont.)												
2,3,7,8-TCDF	4.97	**21.1**	4.3	**193**	38.9	**303**	61.0	**440**	88.5	**1350**	271.6	Y
OCDF	1.59	**1500**	943.4	**6630**	4169.8	**163000**	102515.7	**29800**	18742.1	**51800**	32578.6	Y
Total TCDF	87.5	**176**	2.0	**1480**	16.9	**6060**	69.3	**2680**	30.6	**9970**	113.9	Y
Total HpCDF	1.49	**2100**	1409.4	**2160**	1449.7	**30100**	20201.3	**7830**	5255.0	**14900**	10000.0	Y
Total HxCDF	1.32	**785**	594.3	**1800**	1363.6	**18600**	14090.9	**5740**	4348.5	**18400**	13939.4	Y
Total PeCDF	10.8	**248**	23.0	**1230**	113.9	**12800**	1185.2	**3860**	357.4	**13600**	1259.3	Y
Total Toxic Equivalents (TEQs)	2.34	**67.1**	28.7	**172**	73.6	**1320**	564.1	**583**	249.2	**2010**	859.0	Y
Other COPCs (µg/kg DW)												
Acetone	9.34	**680**	72.8	**213**	22.8	**262**	28.1	**59.7**	6.4	NA	NA	Y
Carbon disulfide	9.34	**86.0**	9.2	**21.1**	2.3	14.0	1.5	**50.0**	5.4	NA	NA	Y

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; COC = contaminant of concern.

[1]Substances for which the 95th percentile concentration for a reach is a factor of two or higher than that for reference areas (highlighted with bold and underlined) were retained as preliminary COCs for the BI AOC.

[2]UBI = Upper Bayou d'Inde; MBI = Middle Bayou d'Inde; LBI-MS = Lower Bayou d'Inde - Mainstem; LBI-LM = Lower Bayou d'Inde - Lockport Marsh; PPGC = PPG Canal.

[3]Y = Yes, whole-sediment chemistry data for one or more reaches indicated that the substance should be retained as a preliminary COC for the BI AOC.
N = No, whole-sediment chemistry data for all reaches indicated that the substance should not be retained as a preliminary COC for the BI AOC.
U = Uncertain, insufficient information is available to conclude that the substance should not be retained as a preliminary COC for the BI AOC.

Table E2-35. Summary of the pore-water chemistry for the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Conventionals (mg/L)															
Hydrogen sulfide	31	30	1	0.001	0.002	0.003	0.003	0.01	0.01	0.0102	0.004	0.003	0.004	0.000965	0.0145
Total dissolved sulfide	31	30	1	0.01	0.02	0.02	0.03	0.04	0.07	0.0760	0.04	0.02	0.03	0.005	0.09
Nitrogen, as ammonia	31	31	0	0.10	0.20	0.30	0.40	0.60	0.70	0.849	0.44	0.17	0.39	0.1	1
Ammonia - toxic units (no units)	31	31	0	0.04	0.05	0.11	0.15	0.20	0.31	0.349	0.16	0.08	0.13	0.024	0.364
Metals (µg/L)															
Chromium, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper, total	7	7	0	5.42	5.90	6.72	7.38	7.60	9.82	11.6	7.52	0.31	7.48	4.97	13.75
Copper, dissolved	15	15	0	3.77	3.84	4.19	5.16	6.55	7.59	8.84	5.50	0.33	5.46	3.76	12.29
Lead, total	15	1	14	0.73	0.90	0.90	0.90	0.98	1.10	1.10	0.91	0.10	0.89	0.38	1.1
Lead, dissolved	15	14	1	0.14	0.20	0.21	0.29	0.47	0.66	0.847	0.37	0.22	0.30	0.026	1.37
Mercury, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl mercury	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, total	15	14	1	3.50	4.44	5.35	6.32	8.40	10.41	18.0	7.15	0.88	6.98	1.9	54.3
Nickel, dissolved	15	15	0	4.98	5.07	5.68	6.13	7.78	10.41	11.3	6.75	0.27	6.72	4.88	11.4
Zinc, total	6	2	4	3.55	3.55	4.28	7.25	18.84	60.00	91.4	12.18	2.76	11.53	3.55	139
Zinc, dissolved	15	15	0	68.57	117.14	281.67	590.00	723.37	1084.62	1380	386.75	1.94	385.57	21.9	1450
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)															
1,1'-Biphenyl	15	15	0	0.002	0.002	0.003	0.004	0.005	0.007	0.00793	0.004	0.002	0.004	0.0013	0.0108
1-Methylnaphthalene	15	15	0	0.005	0.01	0.01	0.01	0.01	0.02	0.0238	0.01	0.01	0.01	0.0044	0.0392

Table E2-35. Summary of the pore-water chemistry for the Bayou d'Inde Area of Concern (BI AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/L; cont.)															
1-Methylphenanthrene	15	15	0	0.001	0.001	0.002	0.003	0.01	0.03	0.0350	0.01	0.01	0.005	0.0004	0.0383
2,6-Dimethylnaphthalene	15	15	0	0.001	0.002	0.003	0.003	0.005	0.01	0.0183	0.01	0.01	0.004	0.0009	0.0304
2-Methylnaphthalene	15	15	0	0.01	0.01	0.01	0.01	0.01	0.02	0.0231	0.01	0.01	0.01	0.0044	0.03
Acenaphthene	15	15	0	0.003	0.004	0.01	0.01	0.03	0.03	0.0958	0.03	0.06	0.01	0.002	0.2649
Acenaphthylene	15	15	0	0.001	0.001	0.002	0.003	0.01	0.01	0.0147	0.01	0.01	0.003	0.0005	0.0173
Anthracene	15	15	0	0.002	0.003	0.003	0.004	0.01	0.03	0.0391	0.01	0.01	0.01	0.001	0.0524
Fluorene	15	15	0	0.01	0.01	0.01	0.02	0.02	0.03	0.0382	0.02	0.01	0.01	0.003	0.0403
Naphthalene	15	15	0	0.01	0.01	0.01	0.02	0.02	0.04	0.0613	0.02	0.02	0.02	0.0095	0.0684
Phenanthrene	15	15	0	0.01	0.02	0.02	0.03	0.04	0.05	0.0639	0.03	0.02	0.03	0.0065	0.0796
Benz(a)anthracene	15	15	0	0.0004	0.001	0.001	0.001	0.003	0.01	0.00886	0.003	0.003	0.001	0.0002	0.0097
Benzo(a)pyrene	15	15	0	0.0002	0.0003	0.0004	0.001	0.001	0.004	0.00590	0.001	0.002	0.001	0.0002	0.0073
Benzo(b)fluoranthene	15	15	0	0.0005	0.001	0.001	0.001	0.003	0.01	0.00824	0.003	0.003	0.001	0.0004	0.0102
Benzo(g,h,i)perylene	15	15	0	0.0002	0.0003	0.0004	0.001	0.001	0.004	0.00673	0.001	0.002	0.001	0.0001	0.0068
Benzo(k)fluoranthene	15	15	0	0.0002	0.0002	0.0003	0.0004	0.001	0.001	0.00129	0.001	0.0004	0.0005	0.0002	0.0015
Chrysene	15	15	0	0.001	0.001	0.002	0.002	0.01	0.05	0.0652	0.01	0.02	0.004	0.0008	0.0754
Dibenz(a,h)anthracene	15	15	0	0.0001	0.0001	0.0001	0.0005	0.001	0.001	0.00248	0.001	0.001	0.0004	0.00002	0.005
Fluoranthene	15	15	0	0.003	0.004	0.01	0.01	0.02	0.02	0.0251	0.01	0.01	0.01	0.0015	0.0342
Indeno(1,2,3-cd)pyrene	15	15	0	0.0001	0.0001	0.0003	0.0005	0.001	0.001	0.00155	0.001	0.001	0.0004	0.0001	0.0033
Perylene	15	15	0	0.001	0.001	0.001	0.002	0.004	0.01	0.00870	0.003	0.003	0.002	0.0008	0.0115
Pyrene	15	15	0	0.002	0.003	0.004	0.006	0.02	0.08	0.0790	0.02	0.03	0.01	0.0009	0.0819

Table E2-35. Summary of the pore-water chemistry for the Bayou d'Inde Area of Concern (BI AOC).

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PCB Aroclors (µg/L)															
Aroclor-1016	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1232	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1242	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0	0.05	0.05	0.05
Aroclor-1248	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	15	0	15	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
PCB Congeners (µg/L)															
PCB 105	15	10	5	0.0001	0.0001	0.0001	0.001	0.002	0.01	0.0207	0.004	0.01	0.001	0.00006	0.02411
PCB 118	15	7	8	0.0002	0.0003	0.0003	0.001	0.001	0.002	0.00293	0.001	0.001	0.001	0.00012	0.00516
PCB 128	15	1	14	0.00004	0.00004	0.0001	0.0001	0.0001	0.0002	0.000289	0.0001	0.0001	0.0001	0.000035	0.00058
PCB 132/153	15	3	12	0.0001	0.0001	0.0001	0.0001	0.0002	0.0003	0.000425	0.0002	0.0002	0.0001	0.00006	0.00074
PCB 138/160	15	15	0	0.003	0.003	0.005	0.01	0.01	0.04	0.0629	0.015	0.02	0.01	0.0032	0.06803
PCB 170/190	15	0	15	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.000270	0.0001	0.0001	0.0001	0.00006	0.00027
PCB 18/17	15	6	9	0.00004	0.00004	0.0001	0.0001	0.004	0.02	0.0199	0.004	0.01	0.0003	0.00003	0.02504
PCB 180	15	10	5	0.0001	0.0001	0.0002	0.001	0.001	0.001	0.00189	0.001	0.001	0.0004	0.000065	0.00292
PCB 187	15	7	8	0.0001	0.0001	0.0001	0.0002	0.001	0.002	0.00332	0.001	0.001	0.0003	0.00006	0.00381
PCB 195/208	15	0	15	0.00004	0.00005	0.0001	0.0001	0.0001	0.0002	0.000175	0.0001	0.00005	0.0001	0.000035	0.000175
PCB 206	15	6	9	0.00003	0.00005	0.0001	0.0001	0.0002	0.0002	0.000205	0.0001	0.0001	0.0001	0.00002	0.00023
PCB 209	15	4	11	0.0001	0.0001	0.0001	0.0002	0.0004	0.001	0.00118	0.0003	0.0004	0.0002	0.00005	0.00147
PCB 28	15	1	14	0.00004	0.00004	0.00005	0.0001	0.0001	0.0002	0.00106	0.0003	0.001	0.0001	0.000035	0.00319
PCB 29	15	5	10	0.00003	0.00003	0.00004	0.0001	0.0002	0.001	0.000715	0.0002	0.0002	0.0001	0.00002	0.00082

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PCB Congeners (µg/L; cont.)															
PCB 44	15	4	11	0.0001	0.0001	0.0001	0.0001	0.0002	0.001	0.00129	0.0003	0.0004	0.0002	0.000065	0.00132
PCB 5/8	15	8	7	0.00003	0.00003	0.0001	0.0002	0.003	0.01	0.0154	0.003	0.01	0.0004	0.000025	0.0227
PCB 52	15	5	10	0.00002	0.00003	0.00003	0.0001	0.001	0.003	0.00434	0.001	0.002	0.0002	0.00002	0.0058
PCB 66	15	2	13	0.00004	0.00005	0.0001	0.0001	0.0001	0.0004	0.000907	0.0002	0.0004	0.0001	0.000035	0.0016
PCB 77/110	15	5	10	0.00004	0.00004	0.0001	0.0001	0.0003	0.001	0.00120	0.0003	0.0005	0.0001	0.000035	0.00185
PCB 87/115	15	3	12	0.00004	0.00004	0.0001	0.0001	0.0001	0.001	0.00125	0.0002	0.0004	0.0001	0.000035	0.00146
PCB 90/101	15	5	10	0.0001	0.0001	0.0001	0.0002	0.0004	0.001	0.000863	0.0003	0.0003	0.0002	0.000045	0.00094
PCB 201/157/173	15	0	15	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.000210	0.0001	0.0001	0.0001	0.000045	0.00021
Total PCBs[5]	15	15	0	0.01	0.01	0.01	0.02	0.03	0.10	0.125	0.03	0.04	0.02	0.00842	0.124865
Organochlorine Pesticides (µg/L)															
Aldrin	15	2	13	0.00002	0.00002	0.00002	0.00004	0.0001	0.0001	0.000815	0.0002	0.001	0.0001	0.00002	0.00244
Dieldrin	15	1	14	0.00003	0.00003	0.00004	0.0001	0.0001	0.0001	0.000297	0.0001	0.0002	0.0001	0.000025	0.0007
Phthalates (µg/L)															
Bis(2-ethylhexyl)phthalate	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)															
Hexachloro-1,3-butadiene	15	0	15	0.07	0.07	0.07	0.07	0.07	0.07	0.0750	0.07	0.000	0.08	0.075	0.075
Hexachlorobenzene	15	14	1	0.0002	0.0002	0.0004	0.001	0.004	0.01	0.00841	0.003	0.004	0.001	0.00011	0.01327
1,2,3,4-Tetrachlorobenzene	15	14	1	0.0003	0.0003	0.0004	0.001	0.01	0.02	0.0182	0.01	0.01	0.001	0.000285	0.01835
1,2,3-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Chlorinated Benzenes (µg/L; cont.)															
1,2,4,5-Tetrachlorobenzene	15	13	2	0.0002	0.001	0.001	0.002	0.004	0.005	0.00741	0.003	0.003	0.002	0.00007	0.01314
1,2,4-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	15	13	2	0.0001	0.0001	0.0003	0.001	0.002	0.003	0.00392	0.001	0.001	0.001	0.000065	0.00499
Chlorinated Ethanes (µg/L)															
1,1,1-Trichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)															
Acetone	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary);
DL = detection limit.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of PCB congeners were summed to calculate Total PCBs.

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)															
Chromium	76	97%	0.7	58.9	35.9	39	97%	2.1	38.2	31.1	7	100%	11.1	205	174
Copper	76	82%	1.4	93.6	65.7	43	81%	2.75	78.1	54.0	10	100%	22.4	434	359
Lead	76	100%	1.5	213	59.2	43	100%	3.4	49.2	47.6	10	100%	48.8	793	711
Mercury	76	24%	0.03	1.7	0.400	42	31%	0.03	0.55	0.190	10	100%	0.14	2.5	1.71
Methyl mercury	0	0%	NA	NA	NA	4	50%	0.00042	0.00223	0.00207	3	67%	0.000555	0.0198	0.0180
Nickel	75	77%	0.6	29.3	20.0	43	93%	1.3	32.9	17.5	9	78%	5.1	30.3	23.2
Zinc	76	63%	4	126	90.0	43	86%	8.95	115	103	10	100%	41.5	322	274
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0%	NA	NA	NA	2	0%	26.5	31	30.8	0	0%	NA	NA	NA
1-Methylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2-Methylnaphthalene	3	100%	120	170	167	9	0%	5	60	55.8	8	100%	53	120000	88900
Acenaphthene	3	100%	260	2500	2020	8	0%	5	50	49.1	7	86%	18.5	15900	13300
Acenaphthylene	0	0%	NA	NA	NA	11	9%	5	110	87.8	5	100%	53	8740	6510
Anthracene	6	83%	58	1200	1030	11	9%	5	86	77.6	8	100%	120	21700	18100
Fluorene	2	100%	170	1000	915	8	0%	5	50	49.1	7	86%	18.5	13300	12600
Naphthalene	3	100%	68	230	217	10	0%	5	70	65.3	6	67%	18	23000	17800
Phenanthrene	16	31%	79	540	494	17	29%	20.1	230	214	8	88%	18.5	140000	94100
Total LMW-PAHs[4]	50	14%	425	5490	1050	38	13%	50.1	1040	926	10	100%	464	215040	212000

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)															
Benz(a)anthracene	20	35%	60	2200	822	19	32%	26.5	500	249	8	100%	110	42400	25000
Benzo(a)pyrene	24	38%	55	930	469	21	29%	26.5	610	260	10	100%	170	23600	16700
Benzo(b)fluoranthene	49	18%	27	1200	550	38	21%	26.5	620	550	9	100%	190	21200	12900
Benzo(g,h,i)perylene	20	30%	100	350	235	19	32%	24	510	259	7	100%	126	16800	11500
Benzo(k)fluoranthene	22	18%	57	410	279	19	26%	17	460	275	7	100%	76.8	6630	4830
Chrysene	31	35%	27	2200	516	30	33%	25	540	323	10	100%	350	83100	41800
Dibenz(a,h)anthracene	3	100%	62	170	156	11	36%	18.5	130	96.8	4	100%	301	10400	7850
Fluoranthene	48	25%	47	7600	711	38	42%	26.5	770	440	9	100%	100	22200	13600
Indeno(1,2,3-cd)pyrene	19	26%	46	440	245	18	22%	26.5	410	260	3	100%	247	930	840
Perylene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Pyrene	43	37%	44	7400	1410	39	49%	26.5	670	425	10	100%	360	149000	65500
Total HMW-PAHs[5]	69	23%	503	20500	2500	46	41%	159	3220	2330	10	100%	1090	330700	160000
Total PAHs[6]	69	23%	800	21550	3000	46	41%	326.9	3646	2610	10	100%	1626	545740	376000
PCB Aroclors (µg/kg DW)															
Aroclor-1016	62	0%	11.5	65	65.0	39	0%	7.5	65	60.0	8	0%	8	60	55.1
Aroclor-1221	32	0%	23	65	65.0	20	0%	7.5	65	65.0	7	0%	8	65	65.0
Aroclor-1232	62	0%	11.5	65	65.0	39	0%	7.5	65	60.0	8	0%	8	60	55.1
Aroclor-1242	62	0%	11.5	65	65.0	39	0%	7.5	65	60.0	8	0%	8	60	55.1
Aroclor-1248	62	0%	11.5	65	65.0	39	0%	7.5	65	60.0	8	0%	8	60	55.1
Aroclor-1254	62	10%	11.5	590	65.0	39	3%	7.5	130	60.5	9	33%	8	860	516

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)															
Aroclor-1260	62	2%	11.5	65	65.0	39	3%	7.5	65	60.0	8	0%	8	60	55.1
Total PCBs[7]	7	100%	171	745	585	2	50%	52.5	412	372	5	60%	56	1122.5	1060
PCB Congeners (µg/kg DW)															
PCB 105	0	0%	NA	NA	NA	1	100%	0.514	0.514	0.514	4	100%	0.995	22.8	19.5
PCB 108	0	0%	NA	NA	NA	1	100%	0.277	0.277	0.277	4	100%	0.166	2.65	2.40
PCB 114	0	0%	NA	NA	NA	1	100%	0.0105	0.0105	0.0105	4	100%	0.0459	1.22	1.12
PCB 118	0	0%	NA	NA	NA	1	100%	3.14	3.14	3.14	4	100%	2.44	53.7	46.6
PCB 126	0	0%	NA	NA	NA	1	100%	0.0103	0.0103	0.0103	4	75%	0.02475	0.523	0.466
PCB 127	0	0%	NA	NA	NA	1	0%	0.00248	0.00248	0.00248	4	25%	0.0125	0.02475	0.0246
PCB 15	0	0%	NA	NA	NA	1	100%	0.0634	0.0634	0.0634	4	100%	0.138	4.48	4.14
PCB 156	0	0%	NA	NA	NA	1	100%	0.241	0.241	0.241	4	100%	0.369	7.53	6.39
PCB 157	0	0%	NA	NA	NA	1	100%	0.0604	0.0604	0.0604	4	100%	0.0845	1.75	1.55
PCB 162	0	0%	NA	NA	NA	1	100%	0.397	0.397	0.397	4	100%	0.687	18.8	15.4
PCB 167	0	0%	NA	NA	NA	1	100%	0.115	0.115	0.115	4	100%	0.144	2.75	2.42
PCB 169	0	0%	NA	NA	NA	1	0%	0.00248	0.00248	0.00248	4	25%	0.0198	0.02475	0.246
PCB 189	0	0%	NA	NA	NA	1	100%	0.0236	0.0236	0.0236	4	100%	0.0285	0.374	0.339
PCB 37	0	0%	NA	NA	NA	1	100%	0.042	0.042	0.0420	4	75%	0.03695	1.09	0.988
PCB 58	0	0%	NA	NA	NA	1	100%	0.0821	0.0821	0.0821	4	75%	0.0176	0.259	0.240
PCB 60	0	0%	NA	NA	NA	1	100%	0.209	0.209	0.209	4	100%	0.216	4.03	3.83
PCB 61/70	0	0%	NA	NA	NA	1	100%	1.64	1.64	1.64	4	100%	1.09	18.8	17.7

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)															
PCB 66	0	0%	NA	NA	NA	1	100%	1.49	1.49	1.49	4	100%	0.374	7.67	7.39
PCB 77	0	0%	NA	NA	NA	1	100%	0.0681	0.0681	0.0681	4	100%	0.0746	1.08	0.997
PCB 79	0	0%	NA	NA	NA	1	100%	0.0426	0.0426	0.0426	4	100%	0.0288	0.219	0.213
PCB 80	0	0%	NA	NA	NA	1	0%	0.00248	0.00248	0.00248	4	0%	0.0025	0.02475	0.0246
PCB 81	0	0%	NA	NA	NA	1	100%	0.00741	0.00741	0.00741	4	100%	0.0594	0.643	0.610
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0%	NA	NA	NA	1	100%	1.2	1.2	1.20	0	0%	NA	NA	NA
Dieldrin	1	0%	1.15	1.15	1.15	1	0%	1.15	1.15	1.15	0	0%	NA	NA	NA
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	70	40%	42	30000	850	45	24%	36	120000	3120	8	38%	66	850	832
Benzylbutylphthalate	0	0%	NA	NA	NA	3	33%	26.5	140	121	0	0%	NA	NA	NA
Diethylphthalate	0	0%	NA	NA	NA	1	100%	42	42	42.0	0	0%	NA	NA	NA
Dimethylphthalate	0	0%	NA	NA	NA	2	0%	26.5	31	30.8	1	0%	32	32	32.0
Di-n-butylphthalate	61	8%	53	700	650	44	11%	26.5	700	600	5	0%	32	650	640
Di-n-octylphthalate	1	100%	3700	3700	3700	1	100%	130	130	130	0	0%	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Hexachlorobenzene	1	100%	550	550	550	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)															
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	47	0%	5.5	15.5	15.3	29	0%	6	15	14.5	2	0%	10	11.5	11.4
1,2-Dichlorobenzene	54	0%	5.5	17.5	16.2	33	0%	6	17	16.2	2	0%	10	11.5	11.4
1,3-Dichlorobenzene	74	0%	5.5	38.5	29.2	39	0%	6	75	21.0	4	0%	10	47.5	43.3
1,4-Dichlorobenzene	74	0%	5.5	38.5	29.2	38	0%	6	21	20.1	4	0%	10	47.5	43.3
Pentachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	74	0%	5.5	38.5	29.2	39	0%	6	75	21.0	4	0%	10	47.5	43.3
1,2-Dichloroethane	74	0%	5.5	38.5	29.2	39	0%	6	75	21.0	4	0%	10	47.5	43.3
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	14	100%	19	230	223	9	100%	63	300	296	4	100%	51.2	559	478
1,2,3,4,7,8-HxCDD	14	0%	0.255	2.4	2.10	9	11%	0.27	1.95	1.85	4	75%	1.15	6.7	5.90
1,2,3,6,7,8-HxCDD	14	14%	0.335	8.7	6.92	9	22%	0.8	8.8	6.66	4	100%	3.9	30.3	25.5
1,2,3,7,8,9-HxCDD	14	57%	0.415	12	11.3	9	56%	1.65	11	10.6	4	100%	1.83	16	13.7
1,2,3,7,8-PeCDD	14	0%	0.245	1.65	1.21	9	0%	0.2715	1.05	0.989	4	75%	0.2385	5.68	5.13
2,3,7,8-TCDD	14	7%	0.11	1.35	1.25	9	11%	0.105	0.65	0.572	4	50%	0.162	2.09	1.83
OCDD	14	100%	430	5500	5500	9	100%	1360	8100	7900	4	100%	1040	6520	5940

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total TCDD	14	93%	0.225	31	30.3	9	100%	2.1	30	24.8	4	100%	1.28	30.8	27.1
Total HpCDD	14	100%	56	780	740	9	89%	180	880	880	4	100%	132	1180	1020
Total HxCDD	14	100%	7.1	180	167	9	100%	49	250	214	4	100%	40	253	221
Total PeCDD	14	57%	0.355	28	27.3	9	89%	3.3	27	20.5	4	100%	4.79	66.1	57.9
1,2,3,4,6,7,8-HpCDF	14	57%	0.16	190	163	9	78%	1.85	230	209	4	100%	68.9	633	518
1,2,3,4,7,8,9-HpCDF	14	36%	0.14	52	36.4	9	67%	0.39	60	50.0	4	100%	1.66	17.1	16.3
1,2,3,4,7,8-HxCDF	14	43%	0.125	88	72.3	9	78%	0.95	98	86.6	4	100%	3.84	34.7	30.8
1,2,3,6,7,8-HxCDF	14	21%	0.105	20	18.0	9	56%	0.185	25	21.4	4	100%	1.75	12.4	11.3
1,2,3,7,8,9-HxCDF	14	0%	0.13	1.95	1.88	9	0%	0.207	2.35	2.00	4	50%	0.253	5.31	4.95
1,2,3,7,8-PeCDF	14	36%	0.135	19	15.6	9	44%	0.455	18	14.8	4	100%	1.05	13	11.6
2,3,4,6,7,8-HxCDF	14	0%	0.115	3.3	2.51	9	11%	0.195	2.3	2.22	4	100%	2.57	12.2	11.7
2,3,4,7,8-PeCDF	14	7%	0.135	11	5.88	9	22%	0.215	9	6.67	4	100%	2.14	15.8	13.9
2,3,7,8-TCDF	14	50%	0.115	18	16.7	9	78%	0.41	21	20.6	4	100%	2.08	28.9	24.8
OCDF	14	64%	0.31	1300	1100	9	100%	24	2000	1630	4	100%	79.7	509	486
Total TCDF	14	86%	0.15	400	229	9	100%	22	490	288	4	100%	25.1	274	248
Total HpCDF	14	64%	0.2	400	346	9	78%	1.85	500	466	4	100%	177	1090	957
Total HxCDF	14	50%	0.13	230	203	9	78%	0.95	240	228	4	100%	81	323	311
Total PeCDF	14	43%	0.135	150	108	9	78%	0.6	120	94.5	4	100%	26.6	146	132
Total Toxic Equivalents (TEQs)[8]	14	100%	1.218631	24.362	19.1	9	100%	1.22	26	22.7	4	100%	4.91	34.6	30.9

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	MCR-MS					PL					IWL				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)															
Acetone	74	53%	3	170	91.6	39	64%	6.5	290	76.3	4	100%	26	790	596
Carbon disulfide	74	26%	2	38.5	29.3	39	44%	1	120	33.9	4	75%	8	25.5	25.3
Mean PEC-Q	76	100%	0.0289	0.673	0.302	49	100%	0.0306	0.262	0.245	10	100%	0.209	21.3	19.4

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; MCR-MS = Middle Calcasieu River - Mainstem; PL = Prien Lake and upper old river channel; IWL = Indian Wells Lagoon; BO = Bayou Olsen; ML = Moss Lake.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)										
Chromium	6	100%	8.9	25.4	23.0	14	100%	6.1	40.4	36.7
Copper	11	100%	8.7	28.9	23.3	17	88%	6.8	44.3	42.5
Lead	11	100%	12.6	26.7	25.7	17	100%	8.3	47.9	43.6
Mercury	11	45%	0.06	0.114	0.109	17	41%	0.035	0.68	0.608
Methyl mercury	5	20%	0.000425	0.00242	0.00204	3	100%	0.000743	0.00237	0.00225
Nickel	11	100%	7	20.8	20.0	17	100%	6.1	27.4	25.9
Zinc	11	73%	11.25	84.2	78.2	17	41%	14.35	104	102
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)										
1,1'-Biphenyl	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1-Methylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2-Methylnaphthalene	5	0%	14.5	47	44.3	3	0%	28.5	61.5	57.6
Acenaphthene	5	0%	14.5	47	44.3	2	0%	28.5	32	31.8
Acenaphthylene	5	0%	14.5	47	44.3	3	0%	28.5	61.5	57.6
Anthracene	5	0%	14.5	47	44.3	4	25%	22	61.5	55.8
Fluorene	5	0%	14.5	47	44.3	2	0%	28.5	32	31.8
Naphthalene	5	0%	14.5	47	44.3	3	0%	28.5	61.5	57.6
Phenanthrene	5	20%	14.5	245	166	4	25%	28.5	150	131
Total LMW-PAHs[4]	10	10%	101.5	550	527	15	7%	172	1000	885

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)										
Benz(a)anthracene	5	20%	14.5	141	107	3	0%	28.5	61.5	57.6
Benzo(a)pyrene	5	20%	14.5	149	112	4	0%	28.5	250	203
Benzo(b)fluoranthene	10	10%	14.5	550	527	15	0%	28.5	485	481
Benzo(g,h,i)perylene	5	20%	14.5	102	82.5	3	0%	28.5	61.5	57.6
Benzo(k)fluoranthene	5	0%	14.5	47	44.3	4	0%	28.5	250	203
Chrysene	5	20%	14.5	220	153	6	0%	28.5	325	322
Dibenz(a,h)anthracene	5	0%	14.5	47	44.3	2	0%	28.5	32	31.8
Fluoranthene	9	22%	14.5	500	494	15	0%	28.5	485	481
Indeno(1,2,3-cd)pyrene	5	0%	14.5	47	44.3	3	0%	28.5	61.5	57.6
Perylene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Pyrene	6	33%	14.5	435	395	11	9%	28.5	465	445
Total HMW-PAHs[5]	11	18%	87	2500	2460	16	6%	171	2425	2410
Total PAHs[6]	11	18%	188.5	3000	2950	16	13%	370.5	2940	2920
PCB Aroclors (µg/kg DW)										
Aroclor-1016	9	0%	15.5	55	52.9	13	0%	13.5	48.5	48.2
Aroclor-1221	4	0%	15.5	20	19.4	4	0%	13.5	65	65.0
Aroclor-1232	9	0%	15.5	55	52.9	13	0%	13.5	48.5	48.2
Aroclor-1242	9	0%	15.5	55	52.9	13	0%	13.5	48.5	48.2
Aroclor-1248	9	0%	15.5	55	52.9	13	0%	13.5	48.5	48.2
Aroclor-1254	9	0%	15.5	55	52.9	13	23%	5.6	48.5	48.2

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)										
Aroclor-1260	9	0%	15.5	55	52.9	13	0%	13.5	48.5	48.2
Total PCBs[7]	0	0%	NA	NA	NA	3	100%	233.1	342	338
PCB Congeners (µg/kg DW)										
PCB 105	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 108	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 114	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 118	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 126	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 127	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 15	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 156	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 157	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 162	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 167	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 169	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 189	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 37	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 58	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 60	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 61/70	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)										
PCB 66	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 77	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 79	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 80	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 81	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)										
Aldrin	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dieldrin	1	100%	0.87	0.87	0.870	0	0%	NA	NA	NA
Phthalates (µg/kg DW)										
Bis(2-ethylhexyl)phthalate	11	64%	60	1400	1040	15	47%	55	3000	1930
Benzylbutylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Diethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dimethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Di-n-butylphthalate	11	0%	60	700	620	15	20%	50	485	474
Di-n-octylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)										
Hexachloro-1,3-butadiene	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Hexachlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)										
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	4	0%	13	14.5	14.5	12	0%	7.5	14.5	14.5
1,2-Dichlorobenzene	5	0%	13	16.5	16.1	12	0%	7.5	14.5	14.5
1,3-Dichlorobenzene	6	0%	13	21	19.8	14	0%	7.5	31	23.3
1,4-Dichlorobenzene	6	0%	13	21	19.8	14	0%	7.5	31	23.3
Pentachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)										
1,1,1-Trichloroethane	6	0%	13	21	19.8	14	0%	7.5	31	23.3
1,2-Dichloroethane	6	0%	13	21	19.8	14	0%	7.5	31	23.3
PCDDs and PCDFs (ng/kg DW)										
1,2,3,4,6,7,8-HpCDD	0	0%	NA	NA	NA	3	100%	54	160	150
1,2,3,4,7,8-HxCDD	0	0%	NA	NA	NA	3	0%	1.1	2.65	2.46
1,2,3,6,7,8-HxCDD	0	0%	NA	NA	NA	3	0%	0.95	2.55	2.52
1,2,3,7,8,9-HxCDD	0	0%	NA	NA	NA	3	0%	1.5	3.15	3.04
1,2,3,7,8-PeCDD	0	0%	NA	NA	NA	3	0%	0.85	1.9	1.78
2,3,7,8-TCDD	0	0%	NA	NA	NA	3	0%	0.445	1.55	1.43
OCDD	0	0%	NA	NA	NA	3	100%	1100	3200	3180

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)										
Total TCDD	0	0%	NA	NA	NA	3	100%	20	32	30.8
Total HpCDD	0	0%	NA	NA	NA	3	100%	220	490	465
Total HxCDD	0	0%	NA	NA	NA	3	100%	44	110	108
Total PeCDD	0	0%	NA	NA	NA	3	67%	2.35	22	21.4
1,2,3,4,6,7,8-HpCDF	0	0%	NA	NA	NA	3	67%	2.25	75	58.1
1,2,3,4,7,8,9-HpCDF	0	0%	NA	NA	NA	3	33%	0.35	11	9.10
1,2,3,4,7,8-HxCDF	0	0%	NA	NA	NA	3	33%	0.55	35	26.5
1,2,3,6,7,8-HxCDF	0	0%	NA	NA	NA	3	33%	0.48	10	8.39
1,2,3,7,8,9-HxCDF	0	0%	NA	NA	NA	3	0%	0.6	1.5	1.39
1,2,3,7,8-PeCDF	0	0%	NA	NA	NA	3	33%	0.365	8.8	7.32
2,3,4,6,7,8-HxCDF	0	0%	NA	NA	NA	3	0%	0.55	1.45	1.44
2,3,4,7,8-PeCDF	0	0%	NA	NA	NA	3	0%	0.365	2.45	2.24
2,3,7,8-TCDF	0	0%	NA	NA	NA	3	67%	1.1	9	7.85
OCDF	0	0%	NA	NA	NA	3	67%	8	280	204
Total TCDF	0	0%	NA	NA	NA	3	100%	5.6	390	347
Total HpCDF	0	0%	NA	NA	NA	3	67%	2.25	160	127
Total HxCDF	0	0%	NA	NA	NA	3	33%	1.5	96	66.7
Total PeCDF	0	0%	NA	NA	NA	3	33%	1.4	50	38.2
Total Toxic Equivalents (TEQs)[8]	0	0%	NA	NA	NA	3	100%	2.77	10.1	9.65

Table E2-36. Summary of the whole-sediment chemistry data for the five reaches within the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	BO					ML				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)										
Acetone	6	17%	13	40	34.1	14	21%	7.5	210	169
Carbon disulfide	6	50%	3	21	18.6	14	50%	4	26	21.9
Mean PEC-Q	11	100%	0.0635	0.156	0.151	17	100%	0.0591	0.321	0.284

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; MCR-MS = Middle Calcasieu River - Mainstem; PL = Prien Lake and upper old river channel; IWL = Indian Wells Lagoon; BO = Bayou Olsen; ML = Moss Lake.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-37. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Middle Calcasieu River Area of Concern (MCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	MCR-MS[2]	Ratio (MCR-MS: Reference)	PL[2]	Ratio (PL: Reference)	IWL[2]	Ratio (IWL: Reference)	BO[2]	Ratio (BO: Reference)	ML[2]	Ratio (ML: Reference)	
Metals (mg/kg DW)												
Chromium	10.4	**35.9**	3.5	**31.1**	3.0	**174**	16.7	**23.0**	2.2	**36.7**	3.5	Y
Copper	15.6	**65.7**	4.2	**54.0**	3.5	**359**	23.0	23.3	1.5	**42.5**	2.7	Y
Lead	25.7	**59.2**	2.3	47.6	1.9	**711**	27.7	25.7	1.0	43.6	1.7	Y
Mercury	0.0871	**0.400**	4.6	**0.190**	2.2	**1.71**	19.6	0.109	1.3	**0.608**	7.0	Y
Methyl mercury	0.00180	NA	NA	0.00207	1.2	**0.0180**	10.0	0.00204	1.1	0.00225	1.3	Y
Nickel	20.9	20.0	1.0	17.5	0.8	23.2	1.1	20.0	1.0	25.9	1.2	N
Zinc	75.5	90.0	1.2	103	1.4	**274**	3.6	78.2	1.0	102	1.4	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)												
1,1'-Biphenyl	36.3	NA	NA	30.8	0.8	NA	NA	NA	NA	NA	NA	U
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	30.4	**167**	5.5	55.8	1.8	**88900**	2924.3	44.3	1.5	57.6	1.9	Y
Acenaphthene	30.4	**2020**	66.4	49.1	1.6	**13300**	437.5	44.3	1.5	31.8	1.0	Y
Acenaphthylene	30.4	NA	NA	**87.8**	2.9	**6510**	214.1	44.3	1.5	57.6	1.9	Y
Anthracene	30.4	**1030**	33.9	**77.6**	2.6	**18100**	595.4	44.3	1.5	55.8	1.8	Y
Fluorene	30.4	**915**	30.1	49.1	1.6	**12600**	414.5	44.3	1.5	31.8	1.0	Y
Naphthalene	30.4	**217**	7.1	**65.3**	2.1	**17800**	585.5	44.3	1.5	57.6	1.9	Y
Phenanthrene	170	**494**	2.9	214	1.3	**94100**	553.5	166	1.0	131	0.8	Y
Total LMW-PAHs	679	1050	1.5	926	1.4	**212000**	312.2	527	0.8	885	1.3	Y
Benz(a)anthracene	170	**822**	4.8	249	1.5	**25000**	147.1	107	0.6	57.6	0.3	Y
Benzo(a)pyrene	170	**469**	2.8	260	1.5	**16700**	98.2	112	0.7	203	1.2	Y

Table E2-37. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Middle Calcasieu River Area of Concern (MCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	MCR-MS[2]	Ratio (MCR-MS: Reference)	PL[2]	Ratio (PL: Reference)	IWL[2]	Ratio (IWL: Reference)	BO[2]	Ratio (BO: Reference)	ML[2]	Ratio (ML: Reference)	
PAHs (µg/kg DW; cont.)												
Benzo(b)fluoranthene	170	**550**	3.2	**550**	3.2	**12900**	75.9	**527**	3.1	**481**	2.8	Y
Benzo(g,h,i)perylene	170	235	1.4	259	1.5	**11500**	67.6	82.5	0.5	57.6	0.3	Y
Benzo(k)fluoranthene	170	279	1.6	275	1.6	**4830**	28.4	44.3	0.3	203	1.2	Y
Benzofluoranthenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	170	**516**	3.0	323	1.9	**41800**	245.9	153	0.9	322	1.9	Y
Dibenz(a,h)anthracene	30.4	**156**	5.1	**96.8**	3.2	**7850**	258.2	44.3	1.5	31.8	1.0	Y
Fluoranthene	170	**711**	4.2	**440**	2.6	**13600**	80.0	**494**	2.9	**481**	2.8	Y
Indeno(1,2,3-cd)pyrene	170	245	1.4	260	1.5	**840**	4.9	44.3	0.3	57.6	0.3	Y
Perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	170	**1410**	8.3	**425**	2.5	**65500**	385.3	**395**	2.3	**445**	2.6	Y
Total HMW-PAHs	849	**2500**	2.9	**2330**	2.7	**160000**	188.5	**2460**	2.9	**2410**	2.8	Y
Total PAHs	1530	3000	2.0	2610	1.7	**376000**	245.8	2950	1.9	2920	1.9	Y
PCB Aroclors (µg/kg DW)												
Aroclor-1016	20.0	**65.0**	3.3	**60.0**	3.0	**55.1**	2.8	**52.9**	2.6	**48.2**	2.4	Y
Aroclor-1221	33.3	**65.0**	2.0	**65.0**	2.0	65.0	2.0	19.4	0.6	**65.0**	2.0	Y
Aroclor-1232	20.0	**65.0**	3.3	**60.0**	3.0	**55.1**	2.8	**52.9**	2.6	**48.2**	2.4	Y
Aroclor-1242	20.0	**65.0**	3.3	**60.0**	3.0	**55.1**	2.8	**52.9**	2.6	**48.2**	2.4	Y
Aroclor-1248	20.0	**65.0**	3.3	**60.0**	3.0	**55.1**	2.8	**52.9**	2.6	**48.2**	2.4	Y
Aroclor-1254	117	65.0	0.6	60.5	0.5	**516**	4.4	52.9	0.5	48.2	0.4	Y
Aroclor-1260	20.0	**65.0**	3.3	**60.0**	3.0	**55.1**	2.8	**52.9**	2.6	**48.2**	2.4	Y
Total PCBs	277	**585**	2.1	372	1.3	**1060**	3.8	NA	NA	338	1.2	Y

Table E2-37. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Middle Calcasieu River Area of Concern (MCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	MCR-MS[2]	Ratio (MCR-MS: Reference)	PL[2]	Ratio (PL: Reference)	IWL[2]	Ratio (IWL: Reference)	BO[2]	Ratio (BO: Reference)	ML[2]	Ratio (ML: Reference)	
PCB Congeners (µg/kg DW)												
PCB 105	0.0482	NA	NA	**0.514**	10.7	**19.5**	404.6	NA	NA	NA	NA	Y
PCB 108	0.0104	NA	NA	**0.277**	26.6	**2.40**	230.8	NA	NA	NA	NA	Y
PCB 114	0.00230	NA	NA	**0.0105**	4.6	**1.12**	487.0	NA	NA	NA	NA	Y
PCB 118	0.130	NA	NA	**3.14**	24.2	**46.6**	358.5	NA	NA	NA	NA	Y
PCB 126	0.00260	NA	NA	**0.0103**	4.0	**0.466**	179.2	NA	NA	NA	NA	Y
PCB 127	0.00102	NA	NA	**0.00248**	2.4	**0.0246**	24.1	NA	NA	NA	NA	Y
PCB 15	0.0733	NA	NA	0.0634	0.9	**4.14**	56.5	NA	NA	NA	NA	Y
PCB 156	0.0138	NA	NA	**0.241**	17.5	**6.39**	463.0	NA	NA	NA	NA	Y
PCB 157	0.00379	NA	NA	**0.0604**	15.9	**1.55**	409.0	NA	NA	NA	NA	Y
PCB 162	0.0217	NA	NA	**0.397**	18.3	**15.4**	709.7	NA	NA	NA	NA	Y
PCB 167	0.00743	NA	NA	**0.115**	15.5	**2.42**	325.7	NA	NA	NA	NA	Y
PCB 169	0.00116	NA	NA	**0.00248**	2.1	**0.246**	212.1	NA	NA	NA	NA	Y
PCB 189	0.0124	NA	NA	0.0236	1.9	**0.339**	27.3	NA	NA	NA	NA	Y
PCB 37	0.0463	NA	NA	0.0420	0.9	**0.988**	21.3	NA	NA	NA	NA	Y
PCB 58	0.00484	NA	NA	**0.0821**	17.0	**0.240**	49.6	NA	NA	NA	NA	Y
PCB 60	0.0282	NA	NA	**0.209**	7.4	**3.83**	135.8	NA	NA	NA	NA	Y
PCB 61/70	0.0625	NA	NA	**1.64**	26.2	**17.7**	283.2	NA	NA	NA	NA	Y
PCB 66	0.121	NA	NA	**1.49**	12.3	**7.39**	61.1	NA	NA	NA	NA	Y
PCB 77	0.0179	NA	NA	**0.0681**	3.8	**0.997**	55.7	NA	NA	NA	NA	Y
PCB 79	0.00375	NA	NA	**0.0426**	11.4	**0.213**	56.8	NA	NA	NA	NA	Y
PCB 80	0.00250	NA	NA	0.00248	1.0	**0.0246**	9.8	NA	NA	NA	NA	Y
PCB 81	0.00271	NA	NA	**0.00741**	2.7	**0.610**	225.1	NA	NA	NA	NA	Y

Table E2-37. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Middle Calcasieu River Area of Concern (MCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	MCR-MS[2]	Ratio (MCR-MS: Reference)	PL[2]	Ratio (PL: Reference)	IWL[2]	Ratio (IWL: Reference)	BO[2]	Ratio (BO: Reference)	ML[2]	Ratio (ML: Reference)	
Organochlorine Pesticides (µg/kg DW)												
Aldrin	NA	NA	NA	1.20	NA	NA	NA	NA	NA	NA	NA	U
Dieldrin	1.35	1.15	0.9	1.15	0.9	NA	NA	0.870	0.6	NA	NA	U
Phthalates (µg/kg DW)												
Bis(2-ethylhexyl)phthalate	170	**850**	5.0	**3120**	18.4	**832**	4.9	**1040**	6.1	**1930**	11.4	Y
Benzylbutylphthalate	NA	NA	NA	121	NA	NA	NA	NA	NA	NA	NA	U
Diethylphthalate	NA	NA	NA	42.0	NA	NA	NA	NA	NA	NA	NA	U
Dimethylphthalate	33.5	NA	NA	30.8	0.9	32.0	1.0	NA	NA	NA	NA	U
Di-n-butylphthalate	170	**650**	3.8	**600**	3.5	**640**	3.8	**620**	3.6	**474**	2.8	Y
Di-n-octylphthalate	NA	3700	NA	130	NA	NA	NA	NA	NA	NA	NA	U
Chlorinated Benzenes (µg/kg DW)												
Hexachloro-1,3-butadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
Hexachlorobenzene	NA	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
1,2,3,4-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	9.34	15.3	1.6	14.5	1.6	11.4	1.2	14.5	1.6	14.5	1.6	N
1,2-Dichlorobenzene	9.34	16.2	1.7	16.2	1.7	11.4	1.2	16.1	1.7	14.5	1.6	N
1,3-Dichlorobenzene	9.34	**29.2**	3.1	**21.0**	2.2	**43.3**	4.6	**19.8**	2.1	**23.3**	2.5	Y
1,4-Dichlorobenzene	9.34	**29.2**	3.1	**20.1**	2.2	**43.3**	4.6	**19.8**	2.1	**23.3**	2.5	Y
Pentachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table E2-37. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Middle Calcasieu River Area of Concern (MCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	MCR-MS[2]	Ratio (MCR-MS: Reference)	PL[2]	Ratio (PL: Reference)	IWL[2]	Ratio (IWL: Reference)	BO[2]	Ratio (BO: Reference)	ML[2]	Ratio (ML: Reference)	
Chlorinated Ethanes (µg/kg DW)												
1,1,1-Trichloroethane	9.34	**29.2**	3.1	**21.0**	2.2	**43.3**	4.6	**19.8**	2.1	**23.3**	2.5	Y
1,2-Dichloroethane	9.34	**29.2**	3.1	**21.0**	2.2	**43.3**	4.6	**19.8**	2.1	**23.3**	2.5	Y
PCDDs and PCDFs (ng/kg DW)												
1,2,3,4,6,7,8-HpCDD	95.4	**223**	2.3	**296**	3.1	**478**	5.0	NA	NA	150	1.6	Y
1,2,3,4,7,8-HxCDD	0.695	**2.10**	3.0	**1.85**	2.7	**5.90**	8.5	NA	NA	**2.46**	3.5	Y
1,2,3,6,7,8-HxCDD	0.896	**6.92**	7.7	**6.66**	7.4	**25.5**	28.5	NA	NA	**2.52**	2.8	Y
1,2,3,7,8,9-HxCDD	6.03	11.3	1.9	10.6	1.8	**13.7**	2.3	NA	NA	3.04	0.5	Y
1,2,3,7,8-PeCDD	0.307	**1.21**	3.9	**0.989**	3.2	**5.13**	16.7	NA	NA	**1.78**	5.8	Y
2,3,7,8-TCDD	1.29	1.25	1.0	0.572	0.4	1.83	1.4	NA	NA	1.43	1.1	U
OCDD	1852	**5500**	3.0	**7900**	4.3	**5940**	3.2	NA	NA	3180	1.7	Y
Total TCDD	27.8	30.3	1.1	24.8	0.9	27.1	1.0	NA	NA	30.8	1.1	U
Total HpCDD	362	**740**	2.0	**880**	2.4	**1020**	2.8	NA	NA	465	1.3	Y
Total HxCDD	161	167	1.0	214	1.3	221	1.4	NA	NA	108	0.7	U
Total PeCDD	33.1	27.3	0.8	20.5	0.6	57.9	1.7	NA	NA	21.4	0.6	U
1,2,3,4,6,7,8-HpCDF	1.44	**163**	113.2	**209**	145.1	**518**	359.7	NA	NA	**58.1**	40.3	Y
1,2,3,4,7,8,9-HpCDF	0.381	**36.4**	95.5	**50.0**	131.2	**16.3**	42.8	NA	NA	**9.10**	23.9	Y
1,2,3,4,7,8-HxCDF	0.286	**72.3**	252.8	**86.6**	302.8	**30.8**	107.7	NA	NA	**26.5**	92.7	Y
1,2,3,6,7,8-HxCDF	0.223	**18.0**	80.7	**21.4**	96.0	**11.3**	50.7	NA	NA	**8.39**	37.6	Y
1,2,3,7,8,9-HxCDF	0.317	**1.88**	5.9	**2.00**	6.3	**4.95**	15.6	NA	NA	**1.39**	4.4	Y
1,2,3,7,8-PeCDF	1.46	**15.6**	10.7	**14.8**	10.1	**11.6**	7.9	NA	NA	**7.32**	5.0	Y
2,3,4,6,7,8-HxCDF	0.254	**2.51**	9.9	**2.22**	8.7	**11.7**	46.1	NA	NA	**1.44**	5.7	Y
2,3,4,7,8-PeCDF	1.33	**5.88**	4.4	**6.67**	5.0	**13.9**	10.5	NA	NA	2.24	1.7	Y

Table E2-37. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Middle Calcasieu River Area of Concern (MCR AOC) to those in whole sediments from reference areas.

Chemicals of Potential Concern (COPCs)	95th Percentile Concentration[1]											Retained as a Preliminary COC[3]
	Reference Areas	MCR-MS[2]	Ratio (MCR-MS: Reference)	PL[2]	Ratio (PL: Reference)	IWL[2]	Ratio (IWL: Reference)	BO[2]	Ratio (BO: Reference)	ML[2]	Ratio (ML: Reference)	
PCDDs and PCDFs (ng/kg DW; cont.)												
2,3,7,8-TCDF	4.97	**16.7**	3.4	**20.6**	4.1	**24.8**	5.0	NA	NA	7.85	1.6	Y
OCDF	1.59	**1100**	691.8	**1630**	1025.2	**486**	305.7	NA	NA	**204**	128.3	Y
Total TCDF	87.5	**229**	2.6	**288**	3.3	**248**	2.8	NA	NA	**347**	4.0	Y
Total HpCDF	1.49	**346**	232.2	**466**	312.8	**957**	642.3	NA	NA	**127**	85.2	Y
Total HxCDF	1.32	**203**	153.8	**228**	172.7	**311**	235.6	NA	NA	**66.7**	50.5	Y
Total PeCDF	10.8	**108**	10.0	**94.5**	8.8	**132**	12.2	NA	NA	**38.2**	3.5	Y
Total Toxic Equivalents (TEQs)	2.34	**19.1**	8.2	**22.7**	9.7	**30.9**	13.2	NA	NA	**9.65**	4.1	Y
Other COPCs (µg/kg DW)												
Acetone	9.34	**91.6**	9.8	**76.3**	8.2	**596**	63.8	**34.1**	3.7	**169**	18.1	Y
Carbon disulfide	9.34	**29.3**	3.1	**33.9**	3.6	**25.3**	2.7	18.6	2.0	**21.9**	2.3	Y

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; COC = contaminant of concern.

[1]Substances for which the 95th percentile concentration for a reach is a factor of two or higher than that for reference areas (highlighted with bold and underlined) were retained as preliminary COCs for the MCR AOC.

[2]MCR-MS = Middle Calcasieu River - Mainstem; PL = Prien Lake and upper old river channel; IWL = Indian Wells Lagoon; BO = Bayou Olsen; ML = Moss Lake.

[3]Y = Yes, whole-sediment chemistry data for one or more reaches indicated that the substance should be retained as a preliminary COC for the MCR AOC.
N = No, whole-sediment chemistry data for all reaches indicated that the substance should not be retained as a preliminary COC for the MCR AOC.
U = Uncertain, insufficient information is available to conclude that the substance should not be retained as a preliminary COC for the MCR AOC.

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)															
Chromium	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Copper	4	100%	12.8	15.6	15.3	3	100%	12.9	15.6	15.5	2	100%	13.9	14.8	14.8
Lead	4	100%	21.8	25.2	25.0	3	100%	19.3	23.2	23.0	2	100%	22.1	27.8	27.5
Mercury	4	100%	0.0656	0.0857	0.0851	3	100%	0.069	0.085	0.0846	2	100%	0.0746	0.0926	0.0917
Methyl mercury	4	25%	0.00044	0.0019	0.00169	3	0%	0.000355	0.000455	0.000446	2	0%	0.000325	0.0004	0.000396
Nickel	4	100%	19	20.8	20.6	3	100%	17.6	21.5	21.3	2	100%	17.2	18.5	18.4
Zinc	4	100%	67.5	80.3	79.4	3	100%	57	72.8	72.5	2	100%	54.7	61.3	61.0
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)															
1,1'-Biphenyl	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1-Methylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2-Methylnaphthalene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Acenaphthene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Acenaphthylene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Anthracene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Fluorene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Naphthalene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Phenanthrene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Total LMW-PAHs[4]	4	0%	87.5	115.5	113	3	0%	59.5	266	230	2	0%	66.5	66.5	66.5

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)															
Benz(a)anthracene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Benzo(a)pyrene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Benzo(b)fluoranthene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Benzo(g,h,i)perylene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Benzo(k)fluoranthene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Chrysene	4	25%	12.5	37.3	33.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Dibenz(a,h)anthracene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Fluoranthene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Indeno(1,2,3-cd)pyrene	4	0%	12.5	16.5	16.1	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Perylene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Pyrene	4	50%	14	30.9	29.9	3	0%	8.5	38	33.0	2	0%	9.5	9.5	9.50
Total HMW-PAHs[5]	4	50%	84	124.2	120	3	0%	51	228	198	2	0%	57	57	57.0
Total PAHs[6]	4	50%	175	222.2	221	3	0%	110.5	494	428	2	0%	123.5	123.5	123
PCB Aroclors (µg/kg DW)															
Aroclor-1016	4	0%	10.5	16	15.7	3	0%	16.5	20	19.7	2	0%	17	20	19.8
Aroclor-1221	4	0%	10.5	16	15.7	3	0%	16.5	20	19.7	2	0%	17	20	19.8
Aroclor-1232	4	0%	10.5	16	15.7	3	0%	16.5	20	19.7	2	0%	17	20	19.8
Aroclor-1242	4	0%	10.5	16	15.7	3	0%	16.5	20	19.7	2	0%	17	20	19.8
Aroclor-1248	4	0%	10.5	16	15.7	3	0%	16.5	20	19.7	2	0%	17	20	19.8
Aroclor-1254	4	50%	12	220	196	3	0%	16.5	20	19.7	2	0%	17	20	19.8

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)															
Aroclor-1260	4	0%	10.5	16	15.7	3	0%	16.5	20	19.7	2	0%	17	20	19.8
Total PCBs[7]	2	100%	163	304	295	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB Congeners (µg/kg DW)															
PCB 105	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0482	0.0482	0.0482
PCB 108	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0104	0.0104	0.0104
PCB 114	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0023	0.0023	0.00230
PCB 118	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.13	0.13	0.130
PCB 126	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0026	0.0026	0.00260
PCB 127	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00102	0.00102	0.00102
PCB 15	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0733	0.0733	0.0733
PCB 156	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0138	0.0138	0.0138
PCB 157	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00379	0.00379	0.00379
PCB 162	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0217	0.0217	0.0217
PCB 167	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00743	0.00743	0.00743
PCB 169	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00116	0.00116	0.00116
PCB 189	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0124	0.0124	0.0124
PCB 37	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0463	0.0463	0.0463
PCB 58	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00484	0.00484	0.00484
PCB 60	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.0282	0.0282	0.0282
PCB 61/70	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.0625	0.0625	0.0625

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)															
PCB 66	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.121	0.121	0.121
PCB 77	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.0179	0.0179	0.0179
PCB 79	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00375	0.00375	0.00375
PCB 80	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.0025	0.0025	0.00250
PCB 81	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	0.00271	0.00271	0.00271
Organochlorine Pesticides (µg/kg DW)															
Aldrin	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dieldrin	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Phthalates (µg/kg DW)															
Bis(2-ethylhexyl)phthalate	4	50%	43.5	110	106	3	0%	65	80	78.9	2	50%	70	100	98.2
Benzylbutylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Diethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dimethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Di-n-butylphthalate	4	0%	43.5	65	63.4	3	0%	65	80	78.9	2	0%	70	80	79.5
Di-n-octylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)															
Hexachloro-1,3-butadiene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Hexachlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)															
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	NA	NA	NA	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	NA	NA	NA	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2-Dichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,3-Dichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,4-Dichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Pentachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)															
1,1,1-Trichloroethane	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2-Dichloroethane	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCDDs and PCDFs (ng/kg DW)															
1,2,3,4,6,7,8-HpCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	23.3	23.3	23.3
1,2,3,4,7,8-HxCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.735	0.735	0.735
1,2,3,6,7,8-HxCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.875	0.875	0.875
1,2,3,7,8,9-HxCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.765	0.765	0.765
1,2,3,7,8-PeCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.315	0.315	0.315
2,3,7,8-TCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.158	0.158	0.158
OCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	281	281	281

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)															
Total TCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	29.7	29.7	29.7
Total HpCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	86.6	86.6	86.6
Total HxCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	52	52	52.0
Total PeCDD	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	17.8	17.8	17.8
1,2,3,4,6,7,8-HpCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	1.59	1.59	1.59
1,2,3,4,7,8,9-HpCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.444	0.444	0.444
1,2,3,4,7,8-HxCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.2345	0.2345	0.234
1,2,3,6,7,8-HxCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.228	0.228	0.228
1,2,3,7,8,9-HxCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.372	0.372	0.372
1,2,3,7,8-PeCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	1.71	1.71	1.71
2,3,4,6,7,8-HxCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	0%	0.278	0.278	0.278
2,3,4,7,8-PeCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	1.58	1.58	1.58
2,3,7,8-TCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	5.91	5.91	5.91
OCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	1.51	1.51	1.51
Total TCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	113	113	113
Total HpCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	1.59	1.59	1.59
Total HxCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	1.45	1.45	1.45
Total PeCDF	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	14.5	14.5	14.5
Total Toxic Equivalents (TEQs)[8]	0	0%	NA	NA	NA	0	0%	NA	NA	NA	1	100%	2.23	2.23	2.23

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	BC					GB					BBC				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)															
Acetone	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Carbon disulfide	0	0%	NA	NA	NA	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Mean PEC-Q	4	100%	0.0562	0.121	0.115	3	100%	0.0597	0.087	0.0856	2	100%	0.0635	0.0727	0.0722

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; BC = Bayou Choupique; GB = Grand Bayou; BBC = Bayou Bois Connine; JB = Johnson Bayou; WB = Willow Bayou

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Metals (mg/kg DW)										
Chromium	3	100%	7.9	10.5	10.4	0	0%	NA	NA	NA
Copper	6	100%	4.87	15.7	15.1	2	100%	7.46	13	12.7
Lead	6	100%	8.64	14.7	14.6	2	100%	11.9	21.8	21.2
Mercury	6	50%	0.0203	0.055	0.0537	2	100%	0.0358	0.0486	0.0480
Methyl mercury	3	33%	0.00045	0.00175	0.00163	2	0%	0.00043	0.000435	0.000435
Nickel	6	100%	7.8	14	13.8	2	100%	11.8	18.3	17.9
Zinc	6	100%	34.8	56.7	54.7	2	100%	49.6	66.1	65.2
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)										
1,1'-Biphenyl	2	0%	33.5	36.5	36.3	0	0%	NA	NA	NA
1-Methylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1-Methylphenanthrene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2,6-Dimethylnaphthalene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
2-Methylnaphthalene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Acenaphthene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Acenaphthylene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Anthracene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Fluorene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Naphthalene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Phenanthrene	6	0%	10.5	190	183	2	0%	22	27	26.7
Total LMW-PAHs[4]	6	0%	73.5	760	734	2	0%	154	189	187

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PAHs (µg/kg DW; cont.)										
Benz(a)anthracene	6	0%	10.5	190	183	2	0%	22	27	26.7
Benzo(a)pyrene	6	0%	10.5	190	183	2	0%	22	27	26.7
Benzo(b)fluoranthene	6	0%	10.5	190	183	2	0%	22	27	26.7
Benzo(g,h,i)perylene	6	0%	10.5	190	183	2	0%	22	27	26.7
Benzo(k)fluoranthene	6	0%	10.5	190	183	2	0%	22	27	26.7
Chrysene	6	0%	10.5	190	183	2	0%	22	27	26.7
Dibenz(a,h)anthracene	3	0%	10.5	12.5	12.3	2	0%	22	27	26.7
Fluoranthene	6	0%	10.5	190	183	2	0%	22	27	26.7
Indeno(1,2,3-cd)pyrene	6	0%	10.5	190	183	2	0%	22	27	26.7
Perylene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Pyrene	6	0%	10.5	190	183	2	0%	22	27	26.7
Total HMW-PAHs[5]	6	0%	63	950	917	2	0%	132	162	160
Total PAHs[6]	6	0%	136.5	1710	1650	2	0%	286	351	347
PCB Aroclors (µg/kg DW)										
Aroclor-1016	6	0%	8.5	19	18.2	2	0%	11.5	11.5	11.5
Aroclor-1221	6	0%	8.5	39	37.1	2	0%	11.5	11.5	11.5
Aroclor-1232	6	0%	8.5	19	18.2	2	0%	11.5	11.5	11.5
Aroclor-1242	6	0%	8.5	19	18.2	2	0%	11.5	11.5	11.5
Aroclor-1248	6	0%	8.5	19	18.2	2	0%	11.5	11.5	11.5
Aroclor-1254	6	0%	8.5	19	18.2	2	0%	11.5	11.5	11.5

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Aroclors (µg/kg DW; cont.)										
Aroclor-1260	6	0%	8.5	19	18.2	2	0%	11.5	11.5	11.5
Total PCBs[7]	2	0%	59.5	63	62.8	0	0%	NA	NA	NA
PCB Congeners (µg/kg DW)										
PCB 105	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 108	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 114	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 118	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 126	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 127	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 15	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 156	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 157	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 162	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 167	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 169	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 189	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 37	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 58	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 60	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 61/70	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCB Congeners (µg/kg DW; cont.)										
PCB 66	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 77	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 79	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 80	0	0%	NA	NA	NA	0	0%	NA	NA	NA
PCB 81	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Organochlorine Pesticides (µg/kg DW)										
Aldrin	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dieldrin	1	0%	1.35	1.35	1.35	0	0%	NA	NA	NA
Phthalates (µg/kg DW)										
Bis(2-ethylhexyl)phthalate	6	0%	33.5	190	183	2	100%	55	69	68.2
Benzylbutylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Diethylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Dimethylphthalate	1	0%	33.5	33.5	33.5	0	0%	NA	NA	NA
Di-n-butylphthalate	6	0%	33.5	190	183	2	0%	45.5	45.5	45.5
Di-n-octylphthalate	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Chlorinated Benzenes (µg/kg DW)										
Hexachloro-1,3-butadiene	0	0%	NA	NA	NA	0	0%	NA	NA	NA
Hexachlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Chlorinated Benzenes (µg/kg DW; cont.)										
1,2,3,4-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,3-Trichlorobenzene	0	0%	NA	NA	NA	0	0%	NA	NA	NA
1,2,4,5-Tetrachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
1,2,4-Trichlorobenzene	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
1,2-Dichlorobenzene	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
1,3-Dichlorobenzene	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
1,4-Dichlorobenzene	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
Pentachlorobenzene	0	0%	ND	ND	ND	0	0%	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)										
1,1,1-Trichloroethane	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
1,2-Dichloroethane	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
PCDDs and PCDFs (ng/kg DW)										
1,2,3,4,6,7,8-HpCDD	3	100%	61	98	96.3	0	0%	NA	NA	NA
1,2,3,4,7,8-HxCDD	3	0%	0.39	0.485	0.482	0	0%	NA	NA	NA
1,2,3,6,7,8-HxCDD	3	0%	0.7	0.9	0.895	0	0%	NA	NA	NA
1,2,3,7,8,9-HxCDD	3	67%	2	6.3	6.12	0	0%	NA	NA	NA
1,2,3,7,8-PeCDD	3	0%	0.215	0.26	0.257	0	0%	NA	NA	NA
2,3,7,8-TCDD	3	33%	0.27	1.5	1.36	0	0%	NA	NA	NA
OCDD	3	100%	1200	1900	1870	0	0%	NA	NA	NA

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
PCDDs and PCDFs (ng/kg DW; cont.)										
Total TCDD	3	100%	18	19	19.0	0	0%	NA	NA	NA
Total HpCDD	3	100%	310	370	365	0	0%	NA	NA	NA
Total HxCDD	3	100%	95	170	164	0	0%	NA	NA	NA
Total PeCDD	3	100%	20	35	33.7	0	0%	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	3	0%	0.145	0.75	0.693	0	0%	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	3	0%	0.033	0.07	0.0670	0	0%	NA	NA	NA
1,2,3,4,7,8-HxCDF	3	0%	0.16	0.295	0.282	0	0%	NA	NA	NA
1,2,3,6,7,8-HxCDF	3	0%	0.055	0.195	0.185	0	0%	NA	NA	NA
1,2,3,7,8,9-HxCDF	3	0%	0.0295	0.0445	0.0440	0	0%	NA	NA	NA
1,2,3,7,8-PeCDF	3	0%	0.235	0.435	0.433	0	0%	NA	NA	NA
2,3,4,6,7,8-HxCDF	3	0%	0.0385	0.125	0.118	0	0%	NA	NA	NA
2,3,4,7,8-PeCDF	3	0%	0.175	0.315	0.307	0	0%	NA	NA	NA
2,3,7,8-TCDF	3	100%	1.3	1.6	1.60	0	0%	NA	NA	NA
OCDF	3	0%	0.295	1.6	1.47	0	0%	NA	NA	NA
Total TCDF	3	100%	15	20	19.9	0	0%	NA	NA	NA
Total HpCDF	3	0%	0.18	1	0.926	0	0%	NA	NA	NA
Total HxCDF	3	0%	0.17	0.7	0.650	0	0%	NA	NA	NA
Total PeCDF	3	0%	0.65	1.55	1.50	0	0%	NA	NA	NA
Total Toxic Equivalents (TEQs)[8]	3	100%	1.35	2.36	2.26	0	0%	NA	NA	NA

Table E2-38. Summary of the whole-sediment chemistry data for five Reference Areas.

Chemicals of Potential Concern (COPCs)	JB					WB				
	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]	Number of Samples (n)[1]	Detected	Minimum[2]	Maximum[2]	95th Percentile[2,3]
Other COPCs (µg/kg DW)										
Acetone	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
Carbon disulfide	3	0%	6	9.5	9.34	0	0%	NA	NA	NA
Mean PEC-Q	6	100%	0.0359	0.136	0.133	2	100%	0.053	0.0635	0.0630

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*- dioxins; PCDFs = polychlorinated dibenzofurans; DL = detection limit; BC = Bayou Choupique; GB = Grand Bayou; BBC = Bayou Bois Connine; JB = Johnson Bayou; WB = Willow Bayou

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The 95th percentile was calculated using $\log_e$ transformed data.

[4]The concentrations of 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene and phenanthrene were summed to calculate LMW-PAHs.

[5]The concentrations of benz(a)anthracene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluoranthene and pyrene were summed to calculate HMW-PAHs.

[6]The concentrations of LMW-PAHs and HMW-PAHs were summed to calculate Total PAHs.

[7]The concentrations of PCB Aroclors were summed to calculate Total PCBs, or if all aroclors were NR, the concentrations of PCB Congeners were summed.

[8]Calculated using the WHO (van den Berg *et al.* 1998) toxic equivalency factors (TEFs) for fish, based on the concentrations of PCDDs, PCDFs, and co-planar PCB congeners.

Table E2-39. Summary of the pore-water chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Conventionals (mg/L)															
Hydrogen sulfide	15	15	0	0.001	0.001	0.001	0.002	0.003	0.004	0.00580	0.002	0.002	0.002	0.000719	0.00998
Total dissolved sulfide	15	15	0	0.02	0.02	0.02	0.03	0.05	0.08	0.106	0.05	0.04	0.04	0.019	0.18
Nitrogen, as ammonia	15	15	0	0.20	0.20	0.30	0.30	0.40	0.40	0.400	0.31	0.06	0.30	0.2	0.4
Ammonia - toxic units (no units)	15	15	0	0.04	0.05	0.07	0.08	0.12	0.12	0.144	0.09	0.04	0.08	0.03	0.193
Metals (µg/L)															
Chromium, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper, total	2	2	0	8.41	8.72	9.69	11.52	13.68	15.14	15.7	11.52	0.57	11.47	8.12	16.2
Copper, dissolved	8	8	0	3.80	3.97	4.43	5.93	6.26	6.86	7.48	5.47	0.25	5.45	3.63	8.15
Lead, total	8	0	8	0.38	0.38	0.38	0.38	0.49	0.96	1.03	0.51	0.19	0.48	0.38	1.1
Lead, dissolved	8	7	1	0.08	0.09	0.15	0.20	0.31	0.37	0.386	0.22	0.10	0.19	0.06	0.4
Mercury, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl mercury	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, total	3	3	0	4.81	4.89	5.13	5.56	6.56	7.24	7.48	5.89	0.24	5.88	4.73	7.72
Nickel, dissolved	8	8	0	3.34	3.52	4.31	5.06	5.45	6.64	7.51	4.98	0.28	4.95	3.16	8.47
Zinc, total	7	2	5	3.55	3.55	3.55	3.55	9.32	12.02	12.1	5.69	0.66	5.57	3.55	12.2
Zinc, dissolved	8	8	0	126.62	157.12	244.92	297.60	682.81	1088.91	1100	366.08	1.30	365.75	102	1110
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)															
1,1'-Biphenyl	8	8	0	0.002	0.002	0.002	0.004	0.005	0.01	0.0213	0.01	0.01	0.004	0.0015	0.0302
1-Methylnaphthalene	8	8	0	0.004	0.01	0.01	0.01	0.03	1.23	4.46	0.40	1.49	0.03	0.0037	12.338

Table E2-39. Summary of the pore-water chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/L; cont.)															
1-Methylphenanthrene	8	8	0	0.001	0.001	0.002	0.002	0.01	0.24	0.561	0.09	0.27	0.005	0.0009	0.9698
2,6-Dimethylnaphthalene	8	8	0	0.003	0.004	0.01	0.01	0.02	0.82	2.52	0.28	0.96	0.02	0.0025	5.81
2-Methylnaphthalene	8	8	0	0.01	0.01	0.01	0.01	0.02	0.38	0.910	0.14	0.40	0.02	0.0049	1.6465
Acenaphthene	8	8	0	0.001	0.001	0.004	0.01	0.01	0.23	0.533	0.09	0.25	0.01	0.0008	0.9108
Acenaphthylene	8	8	0	0.001	0.001	0.001	0.002	0.004	0.10	0.222	0.04	0.11	0.00	0.0011	0.3569
Anthracene	8	8	0	0.001	0.001	0.002	0.003	0.01	0.10	0.189	0.04	0.09	0.01	0.001	0.2874
Fluorene	8	8	0	0.01	0.01	0.01	0.01	0.01	0.26	0.613	0.11	0.29	0.02	0.0078	1.0646
Naphthalene	8	8	0	0.01	0.01	0.01	0.02	0.03	0.10	0.177	0.05	0.08	0.02	0.0102	0.2636
Phenanthrene	8	8	0	0.02	0.02	0.02	0.03	0.03	0.32	0.747	0.13	0.33	0.04	0.0152	1.3145
Benz(a)anthracene	8	8	0	0.0003	0.0004	0.001	0.001	0.004	0.09	0.199	0.04	0.10	0.002	0.0003	0.314
Benzo(a)pyrene	8	8	0	0.0004	0.0004	0.001	0.001	0.004	0.06	0.116	0.02	0.06	0.002	0.0003	0.177
Benzo(b)fluoranthene	8	8	0	0.0003	0.0004	0.001	0.001	0.005	0.04	0.0771	0.02	0.04	0.002	0.0003	0.1144
Benzo(g,h,i)perylene	8	8	0	0.0004	0.0004	0.001	0.001	0.004	0.03	0.0579	0.01	0.03	0.002	0.0003	0.0832
Benzo(k)fluoranthene	8	8	0	0.0002	0.0002	0.0004	0.001	0.001	0.01	0.0149	0.003	0.01	0.001	0.0001	0.022
Chrysene	8	8	0	0.001	0.001	0.001	0.001	0.01	0.18	0.366	0.07	0.17	0.004	0.0004	0.5803
Dibenz(a,h)anthracene	8	8	0	0.0002	0.0003	0.0004	0.0005	0.002	0.02	0.0306	0.01	0.01	0.001	0.0002	0.0435
Fluoranthene	8	8	0	0.003	0.004	0.01	0.01	0.01	0.05	0.0805	0.02	0.04	0.01	0.0027	0.1143
Indeno(1,2,3-cd)pyrene	8	8	0	0.0003	0.0004	0.0005	0.001	0.003	0.01	0.0185	0.004	0.01	0.001	0.0003	0.0249
Perylene	8	8	0	0.0004	0.001	0.001	0.001	0.003	0.01	0.0178	0.004	0.01	0.002	0.0003	0.026
Pyrene	8	8	0	0.002	0.002	0.003	0.005	0.02	0.21	0.377	0.07	0.17	0.01	0.0013	0.5727

Table E2-39. Summary of the pore-water chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Aroclors (µg/L)															
Aroclor-1016	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1232	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1242	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0	0.05	0.05	0.05
Aroclor-1248	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
PCB Congeners (µg/L)															
PCB 105	8	1	7	0.00004	0.00004	0.0001	0.0001	0.0001	0.001	0.00107	0.000	0.001	0.0001	0.00003	0.00158
PCB 118	8	3	5	0.0002	0.0002	0.0003	0.0004	0.001	0.004	0.00775	0.002	0.004	0.001	0.00023	0.01122
PCB 128	8	1	7	0.00004	0.00005	0.0001	0.0001	0.0001	0.001	0.00109	0.000	0.001	0.0001	0.000035	0.00161
PCB 132/153	8	2	6	0.0001	0.0001	0.0001	0.0001	0.001	0.01	0.00650	0.002	0.003	0.0003	0.00007	0.0073
PCB 138/160	8	8	0	0.004	0.005	0.01	0.01	0.01	0.03	0.0361	0.01	0.01	0.01	0.0039	0.04726
PCB 170/190	8	1	7	0.0001	0.0001	0.0001	0.0001	0.0002	0.01	0.0301	0.01	0.02	0.0002	0.000055	0.0465
PCB 18/17	8	5	3	0.0001	0.0001	0.0001	0.002	0.01	0.01	0.0159	0.004	0.01	0.001	0.00005	0.02165
PCB 180	8	7	1	0.0002	0.0003	0.0005	0.001	0.001	0.002	0.00382	0.001	0.002	0.001	0.00016	0.00516
PCB 187	8	4	4	0.0001	0.0001	0.0001	0.0002	0.001	0.003	0.00565	0.001	0.003	0.0004	0.00008	0.00784
PCB 195/208	8	0	8	0.00004	0.00005	0.0001	0.0001	0.0001	0.0001	0.000130	0.0001	0.00004	0.0001	0.000035	0.00013
PCB 206	8	1	7	0.00005	0.0001	0.0001	0.0001	0.0001	0.001	0.000961	0.0003	0.0005	0.0001	0.00004	0.0014
PCB 209	8	0	8	0.00005	0.0001	0.0001	0.0001	0.0001	0.0002	0.000155	0.0001	0.00004	0.0001	0.00004	0.000155
PCB 28	8	7	1	0.0005	0.001	0.002	0.003	0.01	0.03	0.0279	0.01	0.01	0.003	0.00012	0.02993
PCB 29	8	4	4	0.00003	0.00004	0.0001	0.0002	0.001	0.002	0.00282	0.001	0.001	0.0002	0.00003	0.00403

Table E2-39. Summary of the pore-water chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

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PCB Congeners (µg/L; cont.)															
PCB 44	8	3	5	0.0001	0.0001	0.0001	0.0002	0.001	0.002	0.00204	0.001	0.001	0.0003	0.000065	0.00252
PCB 5/8	8	7	1	0.004	0.01	0.01	0.02	0.03	0.07	0.120	0.03	0.05	0.01	0.000085	0.16813
PCB 52	8	7	1	0.001	0.001	0.002	0.003	0.01	0.02	0.0190	0.01	0.01	0.003	0.00003	0.02016
PCB 66	8	1	7	0.00004	0.00005	0.0001	0.0001	0.0001	0.0004	0.000747	0.0002	0.0004	0.0001	0.000035	0.00108
PCB 77/110	8	6	2	0.0001	0.0001	0.001	0.001	0.01	0.02	0.023	0.01	0.01	0.0013	0.00005	0.02644
PCB 87/115	8	1	7	0.00004	0.00004	0.00005	0.0001	0.0001	0.0005	0.000892	0.0002	0.0004	0.0001	0.00003	0.00131
PCB 90/101	8	3	5	0.0001	0.0001	0.0001	0.0002	0.001	0.002	0.00197	0.001	0.001	0.0002	0.00006	0.00211
PCB 201/157/173	8	1	7	0.00005	0.0001	0.0001	0.0001	0.0002	0.0002	0.000257	0.0001	0.0001	0.0001	0.00004	0.00031
Total PCBs[5]	8	8	0	0.03	0.03	0.03	0.04	0.10	0.21	0.263	0.09	0.09	0.06	0.026405	0.3143
Organochlorine Pesticides (µg/L)															
Aldrin	8	3	5	0.00003	0.00003	0.00004	0.0001	0.001	0.01	0.0151	0.003	0.01	0.0002	0.000025	0.02278
Dieldrin	8	0	8	0.00003	0.00004	0.00004	0.0001	0.0001	0.0001	0.0000950	0.0001	0.00003	0.0001	0.000025	0.000095
Phthalates (µg/L)															
Bis(2-ethylhexyl)phthalate	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)															
Hexachloro-1,3-butadiene	8	0	8	0.07	0.07	0.07	0.07	0.07	0.07	0.0750	0.07	0	0.08	0.075	0.075
Hexachlorobenzene	8	8	0	0.001	0.002	0.002	0.003	0.01	0.01	0.0104	0.005	0.004	0.003	0.00083	0.01066
1,2,3,4-Tetrachlorobenzene	8	8	0	0.002	0.003	0.003	0.01	0.02	0.04	0.0364	0.01	0.01	0.01	0.00137	0.03735
1,2,3-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table E2-39. Summary of the pore-water chemistry for the Middle Calcasieu River Area of Concern (MCR AOC).

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Chlorinated Benzenes (µg/L; cont.)															
1,2,4,5-Tetrachlorobenzene	8	4	4	0.0001	0.0001	0.0001	0.0002	0.01	0.02	0.0194	0.01	0.01	0.001	0.000055	0.02252
1,2,4-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	8	8	0	0.001	0.001	0.001	0.002	0.003	0.01	0.0103	0.003	0.004	0.002	0.00114	0.01243
Chlorinated Ethanes (µg/L)															
1,1,1-Trichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)															
Acetone	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls; DL = detection limit.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of PCB congeners were summed to calculate Total PCBs.

Table E2-40. Summary of the pore-water chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Conventionals (mg/L)															
Hydrogen sulfide	14	14	0	0.001	0.001	0.001	0.001	0.002	0.002	0.00315	0.002	0.001	0.001	0.000592	0.00459
Total dissolved sulfide	14	14	0	0.01	0.01	0.01	0.02	0.03	0.03	0.0469	0.02	0.02	0.02	0.01	0.079
Nitrogen, as ammonia	14	14	0	0.10	0.10	0.12	0.20	0.20	0.37	0.434	0.21	0.10	0.19	0.1	0.5
Ammonia - toxic units (no units)	14	14	0	0.02	0.02	0.03	0.04	0.06	0.12	0.180	0.07	0.06	0.05	0.0216	0.29
Metals (µg/L)															
Chromium, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper, total	3	3	0	5.95	5.98	6.08	6.24	8.36	9.92	10.5	7.46	0.36	7.43	5.92	11.1
Copper, dissolved	7	7	0	3.26	3.47	4.28	5.55	8.36	10.75	11.3	6.01	0.53	5.92	3.07	11.8
Lead, total	7	0	7	0.38	0.38	0.38	0.38	0.90	0.90	0.900	0.58	0.19	0.55	0.38	0.9
Lead, dissolved	7	6	1	0.08	0.09	0.11	0.15	0.20	0.25	0.261	0.16	0.06	0.15	0.075	0.27
Mercury, total	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury, dissolved	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl mercury	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel, total	3	3	0	3.92	4.00	4.23	4.65	5.60	6.24	6.47	4.95	0.27	4.93	3.85	6.7
Nickel, dissolved	7	7	0	2.57	2.68	3.25	3.71	4.86	5.37	5.72	3.94	0.29	3.90	2.45	6.08
Zinc, total	4	1	3	3.55	3.55	3.55	3.55	4.34	6.12	6.83	4.34	0.38	4.30	3.55	7.62
Zinc, dissolved	7	7	0	166.00	182.47	233.33	325.00	448.25	602.75	617	319.53	0.68	319.41	151	632
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)															
1,1'-Biphenyl	7	7	0	0.002	0.002	0.002	0.002	0.003	0.003	0.00300	0.003	0.0004	0.002	0.0022	0.003
1-Methylnaphthalene	7	7	0	0.004	0.004	0.005	0.01	0.01	0.01	0.0129	0.01	0.004	0.01	0.0038	0.0136

Table E2-40. Summary of the pore-water chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PAHs (µg/L; cont.)															
1-Methylphenanthrene	7	7	0	0.001	0.001	0.001	0.001	0.002	0.002	0.00164	0.001	0.0004	0.001	0.0008	0.0017
2,6-Dimethylnaphthalene	7	7	0	0.001	0.001	0.002	0.003	0.004	0.005	0.00550	0.003	0.002	0.003	0.0013	0.0061
2-Methylnaphthalene	7	7	0	0.005	0.01	0.01	0.01	0.01	0.01	0.0156	0.01	0.004	0.01	0.0046	0.0162
Acenaphthene	7	7	0	0.001	0.002	0.003	0.004	0.005	0.01	0.00557	0.004	0.002	0.003	0.0006	0.0056
Acenaphthylene	7	7	0	0.0004	0.0005	0.0005	0.001	0.001	0.002	0.00188	0.001	0.001	0.001	0.0004	0.002
Anthracene	7	7	0	0.001	0.001	0.001	0.001	0.002	0.002	0.00225	0.001	0.001	0.001	0.0007	0.0024
Fluorene	7	7	0	0.01	0.01	0.01	0.01	0.01	0.01	0.0140	0.01	0.003	0.01	0.0049	0.015
Naphthalene	7	7	0	0.01	0.01	0.01	0.02	0.02	0.02	0.0217	0.02	0.005	0.02	0.0091	0.0226
Phenanthrene	7	7	0	0.01	0.02	0.02	0.02	0.03	0.03	0.033	0.02	0.008	0.02	0.0111	0.0342
Benz(a)anthracene	7	7	0	0.0002	0.0003	0.0003	0.0004	0.0004	0.001	0.000570	0.0004	0.0001	0.0004	0.0002	0.0006
Benzo(a)pyrene	7	7	0	0.0001	0.0001	0.0002	0.0004	0.001	0.001	0.00109	0.0005	0.0004	0.0003	0.0001	0.0013
Benzo(b)fluoranthene	7	7	0	0.0003	0.0003	0.0004	0.001	0.001	0.01	0.0130	0.003	0.01	0.001	0.0002	0.0182
Benzo(g,h,i)perylene	7	7	0	0.0001	0.0001	0.0002	0.0003	0.0003	0.001	0.00233	0.001	0.001	0.0003	0.00004	0.0032
Benzo(k)fluoranthene	7	7	0	0.0001	0.0001	0.0001	0.0003	0.0004	0.002	0.00316	0.001	0.002	0.0003	0.00004	0.0043
Chrysene	7	7	0	0.0005	0.0005	0.001	0.001	0.001	0.01	0.0154	0.004	0.01	0.001	0.0005	0.0217
Dibenz(a,h)anthracene	7	7	0	0.0001	0.0001	0.0001	0.0002	0.0003	0.0003	0.000370	0.0002	0.0001	0.0002	0.00004	0.0004
Fluoranthene	7	7	0	0.003	0.004	0.005	0.01	0.01	0.01	0.0140	0.01	0.005	0.01	0.0029	0.0171
Indeno(1,2,3-cd)pyrene	7	7	0	0.0001	0.0002	0.0002	0.0003	0.0004	0.002	0.00337	0.001	0.002	0.0004	0.0001	0.0046
Perylene	7	7	0	0.0003	0.0004	0.001	0.001	0.001	0.001	0.000800	0.001	0.000	0.001	0.0002	0.0008
Pyrene	7	7	0	0.002	0.002	0.002	0.003	0.003	0.01	0.00912	0.004	0.004	0.003	0.0017	0.0118

Table E2-40. Summary of the pore-water chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Aroclors (µg/L)															
Aroclor-1016	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1232	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
Aroclor-1242	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0	0.05	0.05	0.05
Aroclor-1248	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	7	0	7	0.05	0.05	0.05	0.05	0.05	0.05	0.0500	0.05	0	0.05	0.05	0.05
PCB Congeners (µg/L)															
PCB 105	7	0	7	0.00005	0.00005	0.00005	0.00005	0.00005	0.0001	0.0000500	0.00005	0.000002	0.00005	0.000045	0.00005
PCB 118	7	0	7	0.0002	0.0002	0.0002	0.0002	0.0002	0.0003	0.000255	0.0002	0.00001	0.0002	0.00023	0.000255
PCB 128	7	0	7	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000550	0.0001	0.000002	0.0001	0.00005	0.000055
PCB 132/153	7	0	7	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000800	0.0001	0.000005	0.0001	0.00007	0.00008
PCB 138/160	7	7	0	0.002	0.002	0.003	0.003	0.004	0.005	0.00515	0.004	0.001	0.003	0.00224	0.00542
PCB 170/190	7	0	7	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000900	0.0001	0.000005	0.0001	0.00008	0.00009
PCB 18/17	7	0	7	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	0.0000400	0.00004	0	0.00004	0.00004	0.00004
PCB 180	7	5	2	0.0001	0.0001	0.0002	0.0004	0.001	0.001	0.00114	0.001	0.0004	0.0003	0.000065	0.00128
PCB 187	7	0	7	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000700	0.0001	0.000005	0.0001	0.00006	0.00007
PCB 195/208	7	0	7	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000600	0.0001	0.000005	0.0001	0.00005	0.00006
PCB 206	7	1	6	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.000131	0.0001	0.00004	0.0001	0.00006	0.00016
PCB 209	7	1	6	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.000161	0.0001	0.0001	0.0001	0.00006	0.0002
PCB 28	7	4	3	0.00005	0.00005	0.0001	0.002	0.004	0.004	0.00434	0.002	0.002	0.001	0.000045	0.00437
PCB 29	7	0	7	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.0000300	0.00003	0.00000	0.00003	0.00003	0.00003

Table E2-40. Summary of the pore-water chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
PCB Congeners (µg/L; cont.)															
PCB 44	7	1	6	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003	0.000476	0.0001	0.0002	0.0001	0.000065	0.00065
PCB 5/8	7	5	2	0.00004	0.00004	0.0003	0.01	0.01	0.01	0.0132	0.01	0.01	0.001	0.000035	0.01416
PCB 52	7	3	4	0.00003	0.00003	0.00003	0.00004	0.001	0.002	0.00264	0.001	0.001	0.0002	0.00003	0.00324
PCB 66	7	1	6	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003	0.000422	0.0001	0.0002	0.0001	0.00005	0.00058
PCB 77/110	7	2	5	0.00004	0.00004	0.00004	0.00005	0.0003	0.001	0.00107	0.0003	0.0005	0.0001	0.00004	0.00133
PCB 87/115	7	0	7	0.00005	0.00005	0.00005	0.00005	0.00005	0.0001	0.0000500	0.00005	0.000002	0.00005	0.000045	0.00005
PCB 90/101	7	1	6	0.0001	0.0001	0.0001	0.0001	0.0001	0.001	0.00232	0.001	0.001	0.0001	0.00006	0.00328
PCB 201/157/173	7	0	7	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0000700	0.0001	0.000002	0.0001	0.000065	0.00007
Total PCBs[5]	7	7	0	0.004	0.005	0.01	0.01	0.02	0.03	0.0273	0.01	0.01	0.01	0.00389	0.0291
Organochlorine Pesticides (µg/L)															
Aldrin	7	1	6	0.00002	0.00002	0.00002	0.00002	0.00003	0.0001	0.000240	0.0001	0.0001	0.00004	0.000025	0.00033
Dieldrin	7	0	7	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004	0.0000400	0.00004	0	0.00004	0.00004	0.00004
Phthalates (µg/L)															
Bis(2-ethylhexyl)phthalate	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)															
Hexachloro-1,3-butadiene	7	0	7	0.07	0.07	0.07	0.07	0.07	0.07	0.0750	0.07	0.00	0.08	0.075	0.075
Hexachlorobenzene	7	7	0	0.00004	0.0001	0.0001	0.001	0.001	0.002	0.00221	0.001	0.001	0.0004	0.00002	0.00252
1,2,3,4-Tetrachlorobenzene	7	6	1	0.0001	0.0001	0.0004	0.01	0.01	0.01	0.0118	0.01	0.01	0.002	0.000095	0.01189
1,2,3-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table E2-40. Summary of the pore-water chemistry for the Reference Areas.

Chemicals of Potential Concern (COPCs)	Number of Samples (n)[1]	Number of Samples with Detected Concentrations	Number of Samples with Concentrations <DL[1]	5th Percentile[2,3]	10th Percentile[2,3]	25th Percentile[2,3]	50th Percentile[2,3]	75th Percentile[2,3]	90th Percentile[2,3]	95th Percentile[2,3]	Arithmetic Mean[2,3]	Standard Deviation[2,3]	Geometric Mean[2,4]	Minimum[2]	Maximum[2]
Chlorinated Benzenes (µg/L; cont.)															
1,2,4,5-Tetrachlorobenzene	7	5	2	0.0001	0.0001	0.0001	0.003	0.004	0.01	0.00644	0.003	0.003	0.001	0.000085	0.00711
1,2,4-Trichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	7	5	2	0.0001	0.0001	0.0001	0.0005	0.002	0.002	0.00244	0.001	0.001	0.0004	0.00004	0.00271
Chlorinated Ethanes (µg/L)															
1,1,1-Trichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)															
Acetone	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	0	0	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls; DL = detection limit.

[1]Excluding results for which the detection limit was greater than the selected chemical benchmark (see methods section for details).

[2]If the result is <DL, the value of 1/2 the detection limit was assigned.

[3]The percentiles, arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

[4]The geometric mean was not calculated using the $\log_e$ transformed data.

[5]The concentrations of PCB congeners were summed to calculate Total PCBs.

Table E2-41. Predicted incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[2]
Upper Calcasieu River AOC					
Upper Calcasieu River - Mainstem	49	0.145	29	58.2	Low
Clooney Island Loop	32	0.140	18	57.7	Low
Contraband Bayou	9	0.126	5	56.1	Low
Coon Island Loop	56	0.0859	28	50.5	Low
Overall UCR AOC	146	0.117	80	55.0	Low
Bayou d'Inde AOC					
Upper Bayou d'Inde	53	0.265	36	67.9	Indeterminate
Middle Bayou d'Inde	93	0.369	68	73.4	Indeterminate
Lower Bayou d'Inde - Mainstem	38	0.198	24	63.2	Low
Lower Bayou d'Inde - Lockport Marsh	125	0.229	82	65.5	Indeterminate
PPG Canal	6	0.187	4	62.2	Low
Overall BI AOC	315	0.265	214	67.9	Indeterminate
Middle Calcasieu River AOC					
Middle Calcasieu River - Mainstem	76	0.147	44	58.5	Low
Prien Lake and upper old river channel	49	0.114	27	54.6	Low
Indian Wells Lagoon	10	1.15	9	93.0	High
Bayou Olsen	11	0.116	6	54.9	Low
Moss Lake	17	0.159	10	59.7	Low
Overall MCR AOC	163	0.154	96	59.2	Low
AOC Subtotal	***624***	***0.189***	***389***	***62.4***	***Low***

Table E2-41. Predicted incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[2]
Reference					
Bayou Choupique	4	0.138	2	57.5	Low
Grand Bayou	3	0.121	2	55.5	Low
Bayou Bois Connine	2	0.120	1	55.4	Low
Johnson Bayou	6	0.0908	3	51.3	Low
Willow Bayou	2	0.0870	1	50.7	Low
Overall Reference Areas	17	0.108	9	53.8	Low
Entire Estuary	***641***	***0.187***	***399***	***62.2***	***Low***

n = number of samples; PEC-Q = probable effect concentration-quotient; IOT = incidence of toxicity.

[1]Incidence of toxicity was estimated using the whole sediment chemistry data and the Calcasieu Estuary-specific concentration-response model (Figure E2-9).

[2]Risk to the Benthic Community:

Low: Predicted IOT in reach is <20% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT <63.4%).

Indeterminate: Predicted IOT in reach is 20 to 50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT 63.4 - 77.1%).

High: Predicted IOT in reach is >50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT >77.1%).

Table E2-42. Predicted incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[2]
Upper Calcasieu River AOC					
Upper Calcasieu River - Mainstem	49	0.145	13	27.4	Low
Clooney Island Loop	32	0.140	8	26.3	Low
Contraband Bayou	9	0.126	2	23.2	Low
Coon Island Loop	56	0.0859	8	13.9	Low
Overall UCR AOC	146	0.117	31	21.2	Low
Bayou d'Inde AOC					
Upper Bayou d'Inde	53	0.265	25	47.0	Indeterminate
Middle Bayou d'Inde	93	0.369	53	56.5	Indeterminate
Lower Bayou d'Inde - Mainstem	38	0.198	14	37.5	Indeterminate
Lower Bayou d'Inde - Lockport Marsh	125	0.229	53	42.3	Indeterminate
PPG Canal	6	0.187	2	35.6	Low
Overall BI AOC	315	0.265	148	47.0	Indeterminate
Middle Calcasieu River AOC					
Middle Calcasieu River - Mainstem	76	0.147	21	27.8	Low
Prien Lake and upper old river channel	49	0.114	10	20.5	Low
Indian Wells Lagoon	10	1.15	7	72.2	High
Bayou Olsen	11	0.116	2	20.9	Low
Moss Lake	17	0.159	5	30.3	Low
Overall MCR AOC	163	0.154	48	29.3	Low
AOC Subtotal	***624***	***0.189***	***225***	***36.0***	***Indeterminate***

Table E2-42. Predicted incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[2]
Reference					
Bayou Choupique	4	0.138	1	25.9	Low
Grand Bayou	3	0.121	1	22.1	Low
Bayou Bois Connine	2	0.120	0	21.8	Low
Johnson Bayou	6	0.0908	1	15.1	Low
Willow Bayou	2	0.0870	0	14.1	Low
Overall Reference Areas	17	0.108	3	19.1	Low
Entire Estuary	***641***	***0.187***	***228***	***35.6***	***Low***

n = number of samples; PEC-Q = probable effect concentration-quotient; IOT = incidence of toxicity.

[1]Incidence of toxicity was estimated using the whole sediment chemistry data and the Calcasieu Estuary-specific concentration-response model (Figure E2-6).

[2]Risk to the Benthic Community:

Low: Predicted IOT in reach is <20% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT <35.8%).

Indeterminate: Predicted IOT in reach is 20 to 50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT 35.8 - 59.9).

High: Predicted IOT in reach is >50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT >59.9%).

Table E2-43. Observed incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Observed Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Upper Calcasieu River AOC					
Upper Calcasieu River - Mainstem	8	0.0907	3	38	Indeterminate
Clooney Island Loop	6	0.179	6	100	High
Contraband Bayou	6	0.102	0	0	Low
Coon Island Loop	9	0.123	7	78	High
Overall UCR AOC	29	0.118	16	55	High
Bayou d'Inde AOC					
Upper Bayou d'Inde	5	0.143	5	100	High
Middle Bayou d'Inde	5	0.201	4	80	High
Lower Bayou d'Inde - Mainstem	3	0.182	3	100	High
Lower Bayou d'Inde - Lockport Marsh	12	0.271	12	100	High
PPG Canal	6	0.187	4	67	High
Overall BI AOC	31	0.209	28	90	High
Middle Calcasieu River AOC					
Middle Calcasieu River - Mainstem	0	NA	NA	NA	NA
Prien Lake and upper old river channel	4	0.0990	2	50	Indeterminate
Indian Wells Lagoon	3	0.846	3	100	High
Bayou Olsen	5	0.113	2	40	Indeterminate
Moss Lake	3	0.103	1	33	Indeterminate
Overall MCR AOC	15	0.160	8	53	High
AOC Subtotal	***75***	***0.159***	***52***	***69***	***High***

Table E2-43. Observed incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Observed Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Reference					
Bayou Choupique	4	0.138	0	0	Low
Grand Bayou	3	0.121	0	0	Low
Bayou Bois Connine	2	0.120	0	0	Low
Johnson Bayou	3	0.0673	0	0	Low
Willow Bayou	2	0.0870	0	0	Low
Overall Reference Areas	14	0.106	0	0	Low
Entire Estuary	***89***	***0.149***	***52***	***58***	***High***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; IOT = incidence of toxicity.

[1]Risk to the Benthic Community:
Low: Observed IOT in reach is <20% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT <20%).
Indeterminate: Observed IOT in reach is 20 to 50% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT 20 - 50%).
High: Observed IOT in reach is >50% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT >50%).

Table E2-44. Observed incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Observed Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Upper Calcasieu River AOC					
Upper Calcasieu River - Mainstem	8	0.0907	3	38	Indeterminate
Clooney Island Loop	6	0.179	3	50	Indeterminate
Contraband Bayou	6	0.102	0	0	Low
Coon Island Loop	9	0.123	3	33	Indeterminate
Overall UCR AOC	29	0.118	9	31	Indeterminate
Bayou d'Inde AOC					
Upper Bayou d'Inde	5	0.143	2	40	Indeterminate
Middle Bayou d'Inde	5	0.201	0	0	Low
Lower Bayou d'Inde - Mainstem	3	0.182	2	67	High
Lower Bayou d'Inde - Lockport Marsh	12	0.271	9	75	High
PPG Canal	6	0.187	2	33	Indeterminate
Overall BI AOC	31	0.209	15	48	Indeterminate
Middle Calcasieu River AOC					
Middle Calcasieu River - Mainstem	0	NA	NA	NA	NA
Prien Lake and upper old river channel	4	0.0990	0	0	Low
Indian Wells Lagoon	3	0.846	3	100	High
Bayou Olsen	5	0.113	1	20	Indeterminate
Moss Lake	3	0.103	0	0	Low
Overall MCR AOC	15	0.160	4	27	Indeterminate
AOC Subtotal	***75***	***0.159***	***28***	***37***	***Indeterminate***

Table E2-44. Observed incidence of toxicity to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Observed Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Reference					
Bayou Choupique	4	0.138	0	0	Low
Grand Bayou	3	0.121	0	0	Low
Bayou Bois Connine	2	0.120	0	0	Low
Johnson Bayou	3	0.0673	0	0	Low
Willow Bayou	2	0.0870	0	0	Low
Overall Reference Areas	14	0.106	0	0	Low
Entire Estuary	***89***	***0.149***	***28***	***31***	***Indeterminate***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; IOT = incidence of toxicity.

[1]Risk to the Benthic Community:
Low: Observed IOT in reach is <20% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT <20%).
Indeterminate: Observed IOT in reach is 20 to 50% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT 20 - 50%).
High: Observed IOT in reach is >50% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT >50%).

Table E2-45. Predicted incidence of pore-water toxicity to benthic invertebrates in the Calcasieu Estuary, based on the evaluation of the concentrations of conventional variables[1] relative to chronic toxicity thresholds.

Area of Concern (AOC)/Reach	n	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[2]
Upper Calcasieu River AOC				
Upper Calcasieu River - Mainstem	8	3	38	Indeterminate
Clooney Island Loop	6	4	67	High
Contraband Bayou	6	3	50	Indeterminate
Coon Island Loop	9	8	89	High
Overall UCR AOC	29	18	62	High
Bayou d'Inde AOC				
Upper Bayou d'Inde	5	5	100	High
Middle Bayou d'Inde	5	5	100	High
Lower Bayou d'Inde - Mainstem	3	2	67	High
Lower Bayou d'Inde - Lockport Marsh	12	9	75	High
PPG Canal	6	6	100	High
Overall BI AOC	31	27	87	High
Middle Calcasieu River AOC				
Middle Calcasieu River - Mainstem	0	NA	NA	NA
Prien Lake and upper old river channel	4	1	25	Low
Indian Wells Lagoon	3	3	100	High
Bayou Olsen	5	1	20	Low
Moss Lake	3	2	67	High
Overall MCR AOC	15	7	47	Indeterminate
AOC Subtotal	***75***	***52***	***69***	***High***

Table E2-45. Predicted incidence of pore-water toxicity to benthic invertebrates in the Calcasieu Estuary, based on the evaluation of the concentrations of conventional variables[1] relative to chronic toxicity thresholds.

Area of Concern (AOC)/Reach	n	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[2]
Reference				
Bayou Choupique	4	0	0	Low
Grand Bayou	3	1	33	Low
Bayou Bois Connine	2	2	100	High
Johnson Bayou	3	0	0	Low
Willow Bayou	2	0	0	Low
Overall Reference Areas	14	3	21	Low
Entire Estuary	***89***	***55***	***62***	***High***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; IOT = incidence of toxicity.

[1]Hydrogen sulfide and ammonia (toxic units).

[2]Risk to the Benthic Community:

Low: Predicted IOT in reach is <20% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT <36.8%).

Indeterminate: Predicted IOT in reach is 20 to 50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT 36.8 - 60.5%).

High: Predicted IOT in reach is >50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT >60.5%).

Table E2-46. Observed incidence of toxicity to benthic invertebrates exposed to pore water from the Calcasieu Estuary, based on the fertilization or development of the sea urchin, *Arbacia punctulata,* in 60-minute or 48-hour toxicity tests (100% pore-water concentration).

Area of Concern (AOC)/Reach	n	Number of Toxic Samples	Observed Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Upper Calcasieu River AOC				
Upper Calcasieu River - Mainstem	4	1	25	Indeterminate
Clooney Island Loop	3	0	0	Low
Contraband Bayou	3	0	0	Low
Coon Island Loop	5	0	0	Low
Overall UCR AOC	15	1	7	Low
Bayou d'Inde AOC				
Upper Bayou d'Inde	2	0	0	Low
Middle Bayou d'Inde	3	1	33	Indeterminate
Lower Bayou d'Inde - Mainstem	2	0	0	Low
Lower Bayou d'Inde - Lockport Marsh	6	1	17	Low
PPG Canal	2	0	0	Low
Overall BI AOC	15	2	13	Low
Middle Calcasieu River AOC				
Middle Calcasieu River - Mainstem	0	NA	NA	NA
Prien Lake and upper old river channel	2	0	0	Low
Indian Wells Lagoon	2	2	100	High
Bayou Olsen	2	0	0	Low
Moss Lake	2	0	0	Low
Overall MCR AOC	8	2	25	Indeterminate
AOC Subtotal	***38***	***5***	***13***	***Low***

Table E2-46. Observed incidence of toxicity to benthic invertebrates exposed to pore water from the Calcasieu Estuary, based on the fertilization or development of the sea urchin, *Arbacia punctulata,* in 60-minute or 48-hour toxicity tests (100% pore-water concentration).

Area of Concern (AOC)/Reach	n	Number of Toxic Samples	Observed Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Reference				
Bayou Choupique	2	0	0	Low
Grand Bayou	2	0	0	Low
Bayou Bois Connine	1	0	0	Low
Johnson Bayou	1	0	0	Low
Willow Bayou	1	0	0	Low
Overall Reference Areas	7	0	0	Low
Entire Estuary	***45***	***5***	***11***	***Low***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; IOT = incidence of toxicity.

[1]Risk to the Benthic Community:
Low: Observed IOT in reach is <20% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT <20%).
Indeterminate: Observed IOT in reach is 20 to 50% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT 20 - 50%).
High: Observed IOT in reach is >50% higher than the observed incidence of toxicity for selected reference samples (i.e., IOT >50%).

Table E2-47. Observed incidence of impact to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the results of cluster analysis of benthic invertebrate community structure data.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Impacted Samples	Observed Incidence of Impact (%)	Risk to the Benthic Community[1]
Upper Calcasieu River AOC					
Upper Calcasieu River - Mainstem	8	0.0907	4	50	Indeterminate
Clooney Island Loop	6	0.179	2	33	Low
Contraband Bayou	6	0.102	6	100	High
Coon Island Loop	9	0.123	3	33	Low
Overall UCR AOC	29	0.118	15	52	Indeterminate
Bayou d'Inde AOC					
Upper Bayou d'Inde	5	0.143	5	100	High
Middle Bayou d'Inde	5	0.201	4	80	High
Lower Bayou d'Inde - Mainstem	3	0.182	2	67	Indeterminate
Lower Bayou d'Inde - Lockport Marsh	12	0.271	9	75	High
PPG Canal	6	0.187	6	100	High
Overall BI AOC	31	0.209	26	84	High
Middle Calcasieu River AOC					
Middle Calcasieu River - Mainstem	0	NA	NA	NA	NA
Prien Lake and upper old river channel	4	0.0990	0	0	Low
Indian Wells Lagoon	3	0.846	3	100	High
Bayou Olsen	5	0.113	3	60	Indeterminate
Moss Lake	3	0.103	0	0	Low
Overall MCR AOC	15	0.160	6	40	Low
AOC Subtotal	***75***	***0.159***	***47***	***63***	***Indeterminate***

Table E2-47. Observed incidence of impact to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the results of cluster analysis of benthic invertebrate community structure data.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Impacted Samples	Observed Incidence of Impact (%)	Risk to the Benthic Community[1]
Reference					
Bayou Choupique	4	0.138	1	25	Low
Grand Bayou	3	0.121	3	100	High
Bayou Bois Connine	2	0.120	1	50	Indeterminate
Johnson Bayou	3	0.0673	0	0	Low
Willow Bayou	2	0.0870	0	0	Low
Overall Reference Areas	14	0.106	5	36	Low
Entire Estuary	***89***	***0.149***	***52***	***58***	***Low***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable.

[1]Risk to the Benthic Community:

Low: Observed incidence of impact in reach is <20% higher than the observed incidence of impact for selected reference samples (i.e., <48.8%).

Indeterminate: Observed incidence of impact in reach is 20 to 50% higher than the observed incidence of impact for selected reference samples (i.e., 48.8 - 68.0%).

High: Observed incidence of impact in reach is >50% higher than the observed incidence of impact for selected reference samples (i.e., >68.0%).

Table E2-48. Predicted incidence of pore-water toxicity to benthic invertebrates in the Calcasieu Estuary, based on the evaluation of the concentrations of total and dissolved metals relative to chronic toxicity thresholds.

Area of Concern (AOC)/Reach	n	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Upper Calcasieu River AOC				
Upper Calcasieu River - Mainstem	4	4	100	Low
Clooney Island Loop	3	3	100	Low
Contraband Bayou	3	3	100	Low
Coon Island Loop	5	5	100	Low
Overall UCR AOC	15	15	100	Low
Bayou d'Inde AOC				
Upper Bayou d'Inde	2	2	100	Low
Middle Bayou d'Inde	3	3	100	Low
Lower Bayou d'Inde - Mainstem	2	2	100	Low
Lower Bayou d'Inde - Lockport Marsh	6	6	100	Low
PPG Canal	2	2	100	Low
Overall BI AOC	15	15	100	Low
Middle Calcasieu River AOC				
Middle Calcasieu River - Mainstem	0	NA	NA	NA
Prien Lake and upper old river channel	2	2	100	Low
Indian Wells Lagoon	2	2	100	Low
Bayou Olsen	2	2	100	Low
Moss Lake	2	2	100	Low
Overall MCR AOC	8	8	100	Low
AOC Subtotal	***38***	***38***	***100***	***Low***

Table E2-48. Predicted incidence of pore-water toxicity to benthic invertebrates in the Calcasieu Estuary, based on the evaluation of the concentrations of total and dissolved metals relative to chronic toxicity thresholds.

Area of Concern (AOC)/Reach	n	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Reference				
Bayou Choupique	2	2	100	NA
Grand Bayou	2	2	100	NA
Bayou Bois Connine	1	1	100	NA
Johnson Bayou	1	1	100	NA
Willow Bayou	1	1	100	NA
Overall Reference Areas	7	7	100	NA
Entire Estuary	***45***	***45***	***100***	***Low***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable.

[1]Risk to the Benthic Community:
Low: Predicted incidence of toxicity (IOT) in reach is <20% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT 100%).

Table E2-49. Predicted incidence of pore-water toxicity to benthic invertebrates in the Calcasieu Estuary, based on the evaluation of the concentrations of organic chemicals of potential concern relative to chronic toxicity thresholds.

Area of Concern (AOC)/Reach	n	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Upper Calcasieu River AOC				
Upper Calcasieu River - Mainstem	4	0	0	Low
Clooney Island Loop	3	0	0	Low
Contraband Bayou	3	0	0	Low
Coon Island Loop	5	0	0	Low
Overall UCR AOC	15	0	0	Low
Bayou d'Inde AOC				
Upper Bayou d'Inde	2	0	0	Low
Middle Bayou d'Inde	3	0	0	Low
Lower Bayou d'Inde - Mainstem	2	0	0	Low
Lower Bayou d'Inde - Lockport Marsh	6	0	0	Low
PPG Canal	2	0	0	Low
Overall BI AOC	15	0	0	Low
Middle Calcasieu River AOC				
Middle Calcasieu River - Mainstem	0	NA	NA	NA
Prien Lake and upper old river channel	2	0	0	Low
Indian Wells Lagoon	2	1	50	Indeterminate
Bayou Olsen	2	1	50	Indeterminate
Moss Lake	2	0	0	Low
Overall MCR AOC	8	2	25	Indeterminate
AOC Subtotal	***38***	***2***	***5***	***Low***

Table E2-49. Predicted incidence of pore-water toxicity to benthic invertebrates in the Calcasieu Estuary, based on the evaluation of the concentrations of organic chemicals of potential concern relative to chronic toxicity thresholds.

Area of Concern (AOC)/Reach	n	Number of Samples Predicted to be Toxic	Predicted Incidence of Toxicity (%)	Risk to the Benthic Community[1]
Reference				
Bayou Choupique	2	0	0	Low
Grand Bayou	2	0	0	Low
Bayou Bois Connine	1	0	0	Low
Johnson Bayou	1	0	0	Low
Willow Bayou	1	0	0	Low
Overall Reference Areas	7	0	0	Low
Entire Estuary	***45***	***2***	***4***	***Low***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; IOT = incidence of toxicity.

[1]Risk to the Benthic Community:
Low: Predicted IOT in reach is <20% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT <20%).
Indeterminate: Predicted IOT in reach is 20 to 50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT 20 - 50%).
High: Predicted IOT in reach is >50% higher than the predicted incidence of toxicity for selected reference samples (i.e., IOT >50%).

Table E2-50. Observed magnitude of toxicity (i.e., % survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Average Survival (%)	Risk to the Benthic Community[1]	*Number of Samples/Risk Category* [1]		
						Low	*Indeterminate*	*High*
Upper Calcasieu River AOC								
Upper Calcasieu River - Mainstem	8	0.0907	3	61.6	Low	6	1	1
Clooney Island Loop	6	0.179	6	41.2	High	0	2	4
Contraband Bayou	6	0.102	0	67.3	Low	6	0	0
Coon Island Loop	9	0.123	7	46.8	High	4	1	4
Overall UCR AOC	29	0.118	16	54.0	Indeterminate	16	4	9
Bayou d'Inde AOC								
Upper Bayou d'Inde	5	0.143	5	40.6	High	0	2	3
Middle Bayou d'Inde	5	0.201	4	50.6	Indeterminate	1	3	1
Lower Bayou d'Inde - Mainstem	3	0.182	3	7.3	High	0	0	3
Lower Bayou d'Inde - Lockport Marsh	12	0.271	12	20.3	High	0	2	10
PPG Canal	6	0.187	4	30.8	High	2	0	4
Overall BI AOC	31	0.209	28	29.2	High	3	7	21
Middle Calcasieu River AOC								
Middle Calcasieu River - Mainstem	0	NA	NA	NA	NA	0	0	0
Prien Lake and upper old river channel	4	0.0990	2	58.3	Low	2	1	1
Indian Wells Lagoon	3	0.846	3	0.7	High	0	0	3
Bayou Olsen	5	0.113	2	64.2	Low	4	1	0
Moss Lake	3	0.103	1	77.0	Low	2	1	0
Overall MCR AOC	15	0.160	8	52.5	Indeterminate	8	3	4
AOC Subtotal	***75***	***0.159***	***52***	***43.4***	***High***	***27***	***14***	***34***

Table E2-50. Observed magnitude of toxicity (i.e., % survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Average Survival (%)	Risk to the Benthic Community[1]	*Number of Samples/Risk Category* [1]		
						Low	*Indeterminate*	*High*
Reference								
Bayou Choupique	4	0.138	0	73.5	Low	4	0	0
Grand Bayou	3	0.121	0	79.3	Low	3	0	0
Bayou Bois Connine	2	0.120	0	78.5	Low	2	0	0
Johnson Bayou	3	0.0673	0	82.3	Low	3	0	0
Willow Bayou	2	0.0870	0	66.5	Low	2	0	0
Overall Reference Areas	14	0.106	0	76.4	Low	14	0	0
Entire Estuary	***89***	***0.149***	***52***	***48.6***	***High***	***41***	***14***	***34***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; LCL = lower confidence limit.

[1]Risk to the benthic community based on observed magnitude of toxicity:

Low: Observed percent survival in toxicity tests is >55.5% (i.e., < 10% change from the 95th LCL of observed percent survival in selected reference samples).

Indeterminate: Observed percent survival in toxicity tests is 49.4 to 55.5% (i.e., 10-20% change from the 95th LCL of observed percent survival in selected reference samples).

High: Observed percent survival in toxicity tests is <49.4% (i.e., > 20% change from the 95th LCL of observed percent survival in selected reference samples).

Table E2-51. Observed magnitude of toxicity (i.e., % survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Average Survival (%)	Risk to the Benthic Community[1]	*Number of Samples/Risk Category* [1]		
						Low	*Indeterminate*	*High*
Upper Calcasieu River AOC								
Upper Calcasieu River - Mainstem	8	0.0907	3	85.3	Low	7	0	1
Clooney Island Loop	6	0.179	3	79.5	Low	5	0	1
Contraband Bayou	6	0.102	0	94.3	Low	6	0	0
Coon Island Loop	9	0.123	3	74.1	Low	6	1	2
Overall UCR AOC	29	0.118	9	82.5	Low	24	1	4
Bayou d'Inde AOC								
Upper Bayou d'Inde	5	0.143	2	84.4	Low	5	0	0
Middle Bayou d'Inde	5	0.201	0	94.4	Low	5	0	0
Lower Bayou d'Inde - Mainstem	3	0.182	2	64.7	High	1	1	1
Lower Bayou d'Inde - Lockport Marsh	12	0.271	9	57.0	High	5	0	7
PPG Canal	6	0.187	2	83.3	Low	4	2	0
Overall BI AOC	31	0.209	15	73.3	Indeterminate	20	3	8
Middle Calcasieu River AOC								
Middle Calcasieu River - Mainstem	0	NA	NA	NA	NA	0	0	0
Prien Lake and upper old river channel	4	0.0990	0	95.3	Low	4	0	0
Indian Wells Lagoon	3	0.846	3	38.7	High	0	1	2
Bayou Olsen	5	0.113	1	93.6	Low	5	0	0
Moss Lake	3	0.103	0	93.7	Low	3	0	0
Overall MCR AOC	15	0.160	4	83.1	Low	12	1	2
AOC Subtotal	***75***	***0.159***	***28***	***78.8***	***Low***	***56***	***5***	***14***

Table E2-51. Observed magnitude of toxicity (i.e., % survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests.

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Number of Toxic Samples	Average Survival (%)	Risk to the Benthic Community[1]	*Number of Samples/Risk Category* [1]		
						Low	*Indeterminate*	*High*
Reference								
Bayou Choupique	4	0.138	0	98.5	Low	4	0	0
Grand Bayou	3	0.121	0	89.3	Low	3	0	0
Bayou Bois Connine	2	0.120	0	94.0	Low	2	0	0
Johnson Bayou	3	0.0673	0	97.3	Low	3	0	0
Willow Bayou	2	0.0870	0	88.0	Low	2	0	0
Overall Reference Areas	14	0.106	0	94.1	Low	14	0	0
Entire Estuary	***89***	***0.149***	***28***	***81.2***	***Low***	***70***	***5***	***14***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; LCL = lower confidence limit.

[1]Risk to the benthic community based on observed magnitude of toxicity:

Low: Observed percent survival in toxicity tests is >73.4% (i.e., < 10% change from the 95th LCL of observed percent survival in selected reference samples).

Indeterminate: Observed percent survival in toxicity tests is 65.2 to 73.4% (i.e., 10-20% change from the 95th LCL of observed percent survival in selected reference samples).

High: Observed percent survival in toxicity tests is <65.2% (i.e., > 20% change from the 95th LCL of observed percent survival in selected reference samples).

Table E2-52. Observed magnitude of toxicity (i.e., %survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the fertilization of the sea urchin, *Arbacia punctulata,* in 60-minute 100% pore-water concentration toxicity tests.

Area of Concern (AOC)/Reach	n	Number of Toxic Samples	Average Fertilization (%)	Risk to the Benthic Community[1]	*Number of Samples/Risk Category* [1]		
					Low	*Indeterminate*	*High*
Upper Calcasieu River AOC							
Upper Calcasieu River - Mainstem	4	1	70.5	Low	3	0	1
Clooney Island Loop	3	0	91.3	Low	3	0	0
Contraband Bayou	3	0	51.1	Low	3	0	0
Coon Island Loop	5	0	69.8	Low	5	0	0
Overall UCR AOC	15	1	70.5	Low	14	0	1
Bayou d'Inde AOC							
Upper Bayou d'Inde	2	0	30.6	Low	2	0	0
Middle Bayou d'Inde	3	1	38.4	Low	2	0	1
Lower Bayou d'Inde - Mainstem	2	0	73.3	Low	2	0	0
Lower Bayou d'Inde - Lockport Marsh	6	1	40.3	Low	5	1	0
PPG Canal	2	0	76.5	Low	2	0	0
Overall BI AOC	15	2	47.9	Low	13	1	1
Middle Calcasieu River AOC							
Middle Calcasieu River - Mainstem	0	NA	NA	NA	NA	NA	NA
Prien Lake and upper old river channel	2	0	85.3	Low	2	0	0
Indian Wells Lagoon	2	2	2.9	High	0	0	2
Bayou Olsen	2	0	65.4	Low	2	0	0
Moss Lake	2	0	65.0	Low	2	0	0
Overall MCR AOC	8	2	54.7	Low	6	0	2
AOC Subtotal	***38***	***5***	***58.2***	***Low***	***33***	***1***	***4***

Table E2-52. Observed magnitude of toxicity (i.e., %survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the fertilization of the sea urchin, *Arbacia punctulata,* in 60-minute 100% pore-water concentration toxicity tests.

Area of Concern (AOC)/Reach	n	Number of Toxic Samples	Average Fertilization (%)	Risk to the Benthic Community[1]	*Number of Samples/Risk Category* [1]		
					Low	*Indeterminate*	*High*
Reference							
Bayou Choupique	2	0	74.5	Low	2	0	0
Grand Bayou	2	0	75.4	Low	2	0	0
Bayou Bois Connine	1	0	36.0	Low	1	0	0
Johnson Bayou	1	0	96.0	Low	1	0	0
Willow Bayou	1	0	83.8	Low	1	0	0
Overall Reference Areas	7	0	73.7	Low	7	0	0
Entire Estuary	***45***	***5***	***60.6***	***Low***	***40***	***1***	***4***

n = number of samples; PEC-Q = probable effect concentration-quotient; NA = not applicable; LCL = lower confidence limit.

[1]Risk to the benthic community, based on observed magnitude of toxicity:

Low: Observed percent fertilization in toxicity tests is >13.8% (i.e., < 10% change from the 95th LCL of observed percent survival in selected reference samples).

Indeterminate: Observed percent fertilization in toxicity tests is 8.65 to 13.8% (i.e., 10-20% change from the 95th LCL of observed percent survival in selected reference samples).

High: Observed percent fertilization in toxicity tests is <8.65% (i.e., > 20% change from the 95th LCL of observed percent survival in selected reference samples).

Table E2-53. Predicted magnitude of toxicity (i.e., %survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Predicted Magnitude of Toxicity (%)	Risk to the Benthic Community[2]	*Number of Samples/Risk Category*[2]		
					Low	*Indeterminate*	*High*
Upper Calcasieu River AOC							
Upper Calcasieu River - Mainstem	49	0.145	49.8	Low	45	3	1
Clooney Island Loop	32	0.140	50.4	Low	23	4	5
Contraband Bayou	9	0.126	52.3	Low	7	1	1
Coon Island Loop	56	0.0859	58.0	Low	46	3	7
Overall UCR AOC	146	0.117	53.5	Low	121	11	14
Bayou d'Inde AOC							
Upper Bayou d'Inde	53	0.265	36.8	Indeterminate	30	4	19
Middle Bayou d'Inde	93	0.369	29.0	High	17	10	66
Lower Bayou d'Inde - Mainstem	38	0.198	43.4	Low	21	6	11
Lower Bayou d'Inde - Lockport Marsh	125	0.229	40.1	Low	61	13	51
PPG Canal	6	0.187	44.6	Low	3	0	3
Overall BI AOC	315	0.265	36.8	Indeterminate	132	33	150
Middle Calcasieu River AOC							
Middle Calcasieu River - Mainstem	76	0.147	49.5	Low	64	5	7
Prien Lake and upper old river channel	49	0.114	54.0	Low	47	0	2
Indian Wells Lagoon	10	1.15	9.2	High	2	0	8
Bayou Olsen	11	0.116	53.7	Low	11	0	0
Moss Lake	17	0.159	48.0	Low	14	2	1
Overall MCR AOC	163	0.154	48.6	Low	138	7	18
AOC Subtotal	***624***	***0.189***	***44.4***	***Low***	***391***	***51***	***182***

Table E2-53. Predicted magnitude of toxicity (i.e., %survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Ampelisca abdita,* in 10-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Predicted Magnitude of Toxicity (%)	Risk to the Benthic Community[2]	*Number of Samples/Risk Category* [2]		
					Low	*Indeterminate*	*High*
Reference							
Bayou Choupique	4	0.138	50.7	Low	4	0	0
Grand Bayou	3	0.121	53.0	Low	3	0	0
Bayou Bois Connine	2	0.120	53.1	Low	2	0	0
Johnson Bayou	6	0.0908	57.3	Low	6	0	0
Willow Bayou	2	0.0870	57.8	Low	2	0	0
Overall Reference Areas	17	0.108	54.8	Low	17	0	0
Entire Estuary	***641***	***0.187***	***44.6***	***Low***	***408***	***51***	***182***

n = number of samples; PEC-Q = probable effect concentration-quotient; LCL = lower confidence limit.

[1]Magnitude of toxicity (i.e., % survival) was estimated using the whole-sediment chemistry data and the Calcasieu Estuary-specific concentration-response model (Figure E2-10).

[2]Risk to the benthic community, based on predicted magnitude of toxicity:

Low: Predicted percent survival is >40.0%, as estimated from the Calcasieu Estuary-specific concentration-response model (i.e., < 10% change from the 95th LCL of predicted percent survival in selected reference samples).

Indeterminate: Predicted percent survival is 35.5 to 40.0%, as estimated from the Calcasieu Estuary-specific concentration-response model (i.e., 10 - 20% change from the 95th LCL of predicted percent survival in selected reference samples).

High: Predicted percent survival is <35.5%, as estimated from the Calcasieu Estuary-specific concentration-response model (i.e., > 20% change from the 95th LCL of predicted percent survival in selected reference samples).

Table E2-54. Predicted magnitude of toxicity (i.e., % survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Predicted Magnitude of Toxicity (%)	Risk to the Benthic Community[2]	*Number of Samples/Risk Category*[2]		
					Low	*Indeterminate*	*High*
Upper Calcasieu River AOC							
Upper Calcasieu River - Mainstem	49	0.145	83.8	Low	48	1	0
Clooney Island Loop	32	0.140	84.2	Low	27	2	3
Contraband Bayou	9	0.126	85.4	Low	9	0	0
Coon Island Loop	56	0.0859	89.6	Low	50	5	1
Overall UCR AOC	146	0.117	86.3	Low	134	8	4
Bayou d'Inde AOC							
Upper Bayou d'Inde	53	0.265	75.8	Low	40	9	4
Middle Bayou d'Inde	93	0.369	71.0	Indeterminate	36	38	19
Lower Bayou d'Inde - Mainstem	38	0.198	79.9	Low	31	6	1
Lower Bayou d'Inde - Lockport Marsh	125	0.229	77.9	Low	91	19	15
PPG Canal	6	0.187	80.6	Low	3	1	2
Overall BI AOC	315	0.265	75.8	Low	201	73	41
Middle Calcasieu River AOC							
Middle Calcasieu River - Mainstem	76	0.147	83.6	Low	74	2	0
Prien Lake and upper old river channel	49	0.114	86.6	Low	49	0	0
Indian Wells Lagoon	10	1.15	52.5	High	3	0	7
Bayou Olsen	11	0.116	86.4	Low	11	0	0
Moss Lake	17	0.159	82.7	Low	17	0	0
Overall MCR AOC	163	0.154	83.1	Low	154	2	7
AOC Subtotal	***624***	***0.189***	***80.5***	***Low***	***489***	***83***	***52***

Table E2-54. Predicted magnitude of toxicity (i.e., % survival) to benthic invertebrates exposed to whole sediments from the Calcasieu Estuary, based on the survival of the amphipod, *Hyalella azteca,* in 28-day toxicity tests[1].

Area of Concern (AOC)/Reach	n	Geometric mean of mean PEC-Q	Predicted Magnitude of Toxicity (%)	Risk to the Benthic Community[2]	*Number of Samples/Risk Category*[2]		
					Low	*Indeterminate*	*High*
Reference							
Bayou Choupique	4	0.138	84.4	Low	4	0	0
Grand Bayou	3	0.121	85.9	Low	3	0	0
Bayou Bois Connine	2	0.120	86.0	Low	2	0	0
Johnson Bayou	6	0.0908	89.0	Low	6	0	0
Willow Bayou	2	0.0870	89.4	Low	2	0	0
Overall Reference Areas	17	0.108	87.2	Low	17	0	0
Entire Estuary	***641***	***0.187***	***80.6***	***Low***	***506***	***83***	***52***

n = number of samples; PEC-Q = probable effect concentration-quotient; LCL = lower confidence limit.

[1]Magnitude of toxicity (i.e., % survival) was estimated using the whole-sediment chemistry data and the Calcasieu Estuary-specific concentration-response model (Figure E2-7).

[2]Risk to the benthic community, based on predicted magnitude of toxicity:

Low: Predicted percent survival is >72.5%, as estimated from the Calcasieu Estuary-specific concentration-response model (i.e., < 10% change from the 95th LCL of predicted percent survival in selected reference samples).

Indeterminate: Predicted percent survival is 64.4 to 72.5%, as estimated from the Calcasieu Estuary-specific concentration-response model (i.e., 10 - 20% change from the 95th LCL of predicted percent survival in selected reference samples).

High: Predicted percent survival is <64.4%, as estimated from the Calcasieu Estuary-specific concentration-response model (i.e., > 20% change from the 95th LCL of predicted percent survival in selected reference samples).

Table E2-55. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]								Retained as a Preliminary COC[4]
		UCR[3]		CIL[3]		CI[3]		CB[3]		
Metals (mg/kg DW)										
Chromium	141	28.3	(0%; 41)	**265**	**(10%; 20)**	89.8	(0%; 46)	21.5	(0%; 3)	Y
Copper	94	40.8	(0%; 49)	**144**	**(8%; 26)**	68.2	(2%; 55)	52.6	(0%; 9)	Y
Lead	94	49.5	(4%; 49)	39.0	(0%; 26)	**221**	**(15%; 55)**	51.4	(0%; 9)	Y
Mercury	0.48	0.117	(0%; 49)	**0.778**	**(15%; 26)**	0.220	(0%; 55)	0.210	(0%; 9)	Y
Methyl mercury	NG	0.00120	(NG; 8)	0.00390	(NG; 6)	0.00146	(NG; 9)	0.000782	(NG; 6)	U
Nickel	47	14.4	(0%; 49)	36.8	(4%; 26)	39.4	(5%; 55)	14.5	(0%; 9)	N
Zinc	245	82.6	(0%; 49)	**561**	**(16%; 25)**	101	(0%; 55)	92.2	(0%; 9)	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)										
1,1'-Biphenyl	73	32.7	(0%; 4)	35.3	(0%; 5)	**784**	**(29%; 7)**	30.4	(0%; 2)	Y
1-Methylnaphthalene	94	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	112	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	133	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	128	74.9	(0%; 8)	53.4	(0%; 11)	**2810**	**(22%; 27)**	31.4	(0%; 6)	Y
Acenaphthene	116	54.7	(0%; 9)	**206**	**(25%; 12)**	50.0	(3%; 33)	**147**	**(17%; 6)**	Y
Acenaphthylene	140	67.0	(0%; 9)	92.2	(0%; 12)	60.0	(3%; 33)	31.4	(0%; 6)	N
Anthracene	290	118	(0%; 10)	**343**	**(12%; 17)**	**617**	**(9%; 54)**	31.4	(0%; 6)	Y
Fluorene	114	53.1	(0%; 9)	**133**	**(17%; 12)**	**563**	**(15%; 34)**	31.4	(0%; 6)	Y
Naphthalene	217	40.4	(0%; 8)	61.1	(0%; 11)	39.2	(4%; 54)	31.4	(0%; 6)	N
Phenanthrene	455	328	(6%; 16)	**1050**	**(10%; 20)**	**3300**	**(11%; 54)**	103	(0%; 6)	Y
Total LMW-PAHs	3160	1060	(0%; 42)	1400	(0%; 28)	**6970**	**(9%; 55)**	748	(0%; 9)	Y
Benz(a)anthracene	466	291	(0%; 18)	**576**	**(15%; 20)**	**1660**	**(15%; 54)**	133	(0%; 6)	Y
Benzo(a)pyrene	520	260	(0%; 22)	432	(0%; 22)	**1300**	**(13%; 55)**	173	(0%; 6)	Y
Benzo(b)fluoranthene	1107	500	(0%; 42)	599	(0%; 28)	**1230**	**(7%; 55)**	427	(0%; 9)	Y
Benzo(g,h,i)perylene	497	235	(0%; 19)	235	(0%; 17)	**843**	**(7%; 54)**	102	(0%; 6)	Y
Benzo(k)fluoranthene	537	265	(0%; 24)	320	(5%; 21)	394	(2%; 55)	73.3	(0%; 6)	N

Table E2-55. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]								Retained as a Preliminary COC[4]
		UCR[3]		CIL[3]		CI[3]		CB[3]		
PAHs (µg/kg DW; cont.)										
Benzofluoranthenes	3600	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	650	389	(0%; 29)	**776**	**(9%; 23)**	**2430**	**(22%; 55)**	262	(0%; 7)	Y
Dibenz(a,h)anthracene	113	60.4	(0%; 8)	**120**	**(8%; 12)**	60.5	(4%; 50)	31.4	(0%; 6)	Y
Fluoranthene	1034	500	(0%; 41)	**1520**	**(11%; 28)**	**1260**	**(9%; 55)**	385	(0%; 9)	Y
Indeno(1,2,3-cd)pyrene	488	235	(0%; 18)	232	(0%; 17)	140	(2%; 54)	104	(0%; 6)	N
Perylene	453	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	932	496	(0%; 37)	**1770**	**(19%; 27)**	**3460**	**(18%; 55)**	385	(0%; 9)	Y
Total HMW-PAHs	9600	2500	(0%; 47)	5000	(3%; 29)	**9710**	**(5%; 55)**	1920	(0%; 9)	Y
Total PAHs	16770	2970	(0%; 47)	6370	(0%; 29)	14400	(2%; 55)	2500	(0%; 9)	N
PCB Aroclors (µg/kg DW)										
Aroclor-1016	NG	60.0	(NG; 45)	49.9	(NG; 22)	20.0	(NG; 55)	42.9	(NG; 9)	U
Aroclor-1221	NG	63.5	(NG; 27)	59.8	(NG; 11)	13.5	(NG; 54)	41.7	(NG; 7)	U
Aroclor-1232	NG	60.0	(NG; 45)	49.9	(NG; 22)	20.0	(NG; 55)	42.9	(NG; 9)	U
Aroclor-1242	NG	60.0	(NG; 45)	49.9	(NG; 22)	20.0	(NG; 55)	42.9	(NG; 9)	U
Aroclor-1248	NG	60.0	(NG; 45)	49.9	(NG; 22)	20.0	(NG; 55)	42.9	(NG; 9)	U
Aroclor-1254	NG	60.0	(NG; 45)	499	(NG; 22)	120	(NG; 55)	125	(NG; 9)	U
Aroclor-1260	NG	60.0	(NG; 45)	74.4	(NG; 22)	75.0	(NG; 55)	42.9	(NG; 9)	U
Total PCBs	468	166	(0%; 6)	**937**	**(25%; 12)**	211	(0%; 50)	258	(0%; 3)	Y
PCB Congeners (µg/kg DW)										
PCB 105	NG	NA	NA	30.0	(NG; 5)	2.88	(NG; 2)	NA	NA	U
PCB 108	NG	NA	NA	5.49	(NG; 5)	0.440	(NG; 2)	NA	NA	U
PCB 114	NG	NA	NA	2.11	(NG; 5)	0.160	(NG; 2)	NA	NA	U
PCB 118	NG	NA	NA	75.0	(NG; 5)	7.31	(NG; 2)	NA	NA	U
PCB 126	NG	NA	NA	0.504	(NG; 5)	0.0600	(NG; 2)	NA	NA	U
PCB 127	NG	NA	NA	0.0100	(NG; 5)	0.0200	(NG; 2)	NA	NA	U

Table E2-55. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]								Retained as a Preliminary COC[4]
		UCR[3]		CIL[3]		CI[3]		CB[3]		
PCB Congeners (µg/kg DW; cont.)										
PCB 15	NG	NA	NA	2.04	(NG; 5)	1.03	(NG; 2)	NA	NA	U
PCB 156	NG	NA	NA	11.4	(NG; 5)	0.970	(NG; 2)	NA	NA	U
PCB 157	NG	NA	NA	2.37	(NG; 5)	0.210	(NG; 2)	NA	NA	U
PCB 162	NG	NA	NA	19.8	(NG; 5)	1.17	(NG; 2)	NA	NA	U
PCB 167	NG	NA	NA	4.28	(NG; 5)	0.380	(NG; 2)	NA	NA	U
PCB 169	NG	NA	NA	0.0406	(NG; 5)	0.0200	(NG; 2)	NA	NA	U
PCB 189	NG	NA	NA	1.15	(NG; 5)	0.0800	(NG; 2)	NA	NA	U
PCB 37	NG	NA	NA	1.67	(NG; 5)	0.410	(NG; 2)	NA	NA	U
PCB 58	NG	NA	NA	0.65	(NG; 5)	0.0600	(NG; 2)	NA	NA	U
PCB 60	NG	NA	NA	6.98	(NG; 5)	0.970	(NG; 2)	NA	NA	U
PCB 61/70	NG	NA	NA	44.4	(NG; 5)	4.62	(NG; 2)	NA	NA	U
PCB 66	NG	NA	NA	16.3	(NG; 5)	2.92	(NG; 2)	NA	NA	U
PCB 77	NG	NA	NA	2.24	(NG; 5)	0.264	(NG; 2)	NA	NA	U
PCB 79	NG	NA	NA	0.65	(NG; 5)	0.0681	(NG; 2)	NA	NA	U
PCB 80	NG	NA	NA	0.0025	(NG; 5)	0.00242	(NG; 2)	NA	NA	U
PCB 81	NG	NA	NA	1.17	(NG; 5)	0.139	(NG; 2)	NA	NA	U
Organochlorine Pesticides (µg/kg DW)										
Aldrin	0.44	NA	NA	NA	NA	0.0600	(0%; 31)	NA	NA	U
Dieldrin	2.9	NA	NA	NA	NA	0.250	(2%; 44)	NA	NA	U
Phthalates (µg/kg DW)										
Bis(2-ethylhexyl)phthalate	2647	685	(0%; 47)	**9490**	**(8%; 25)**	**9270**	**(7%; 55)**	427	(0%; 9)	Y
Benzylbutylphthalate	900	71.2	(0%; 5)	29.4	(0%; 2)	26.5	(0%; 21)	30.4	(0%; 2)	N
Diethylphthalate	200	NA	NA	NA	NA	18.5	(0%; 17)	NA	NA	U
Dimethylphthalate	160	33.0	(0%; 5)	35.3	(0%; 5)	33.5	(0%; 29)	30.4	(0%; 2)	N
Di-n-butylphthalate	1400	600	(0%; 45)	473	(0%; 28)	114	(0%; 55)	427	(0%; 9)	N

Table E2-55. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]								Retained as a Preliminary COC[4]
		UCR[3]		CIL[3]		CI[3]		CB[3]		
Phthalates (µg/kg DW; cont.)										
Di-n-octylphthalate	6200	NA	NA	NA	NA	NA	NA	NA	NA	U
Chlorinated Benzenes (µg/kg DW)										
Hexachloro-1,3-butadiene	11	NA	NA	NA	NA	0.700	(0%; 44)	NA	NA	U
Hexachlorobenzene	22	NA	NA	NA	NA	NA	NA	NA	NA	U
Chlorinated Benzenes (µg/kg DW; cont.)										
1,2,3,4-Tetrachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NG	NA	NA	NA	NA	0.250	(NG; 44)	NA	NA	U
1,2,4,5-Tetrachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	51	13.7	(0%; 33)	14.5	(0%; 16)	0.250	(0%; 46)	13.0	(0%; 3)	N
1,2-Dichlorobenzene	50	16.6	(0%; 36)	14.5	(0%; 16)	0.250	(0%; 46)	13.0	(0%; 3)	N
1,3-Dichlorobenzene	>170	20.0	(0%; 41)	16.1	(0%; 17)	0.260	(0%; 46)	13.0	(0%; 3)	N
1,4-Dichlorobenzene	110	20.0	(0%; 41)	16.1	(0%; 17)	0.250	(0%; 46)	13.0	(0%; 3)	N
Pentachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)										
1,1,1-Trichloroethane	170	20.0	(0%; 41)	16.1	(0%; 17)	0.600	(0%; 46)	13.0	(0%; 3)	N
1,2-Dichloroethane	NG	20.0	(NG; 41)	16.1	(NG; 17)	0.500	(NG; 46)	13.0	(NG; 3)	U
PCDDs and PCDFs (ng/kg DW)										
1,2,3,4,6,7,8-HpCDD	NG	995	(NG; 11)	2110	(NG; 7)	350	(NG; 7)	190	(NG; 1)	U
1,2,3,4,7,8-HxCDD	NG	5.23	(NG; 11)	9.25	(NG; 7)	2.35	(NG; 7)	1.10	(NG; 1)	U
1,2,3,6,7,8-HxCDD	NG	25.0	(NG; 11)	57.5	(NG; 7)	19.5	(NG; 7)	8.60	(NG; 1)	U
1,2,3,7,8,9-HxCDD	NG	157	(NG; 11)	27.7	(NG; 7)	17.8	(NG; 7)	11.0	(NG; 1)	U
1,2,3,7,8-PeCDD	NG	3.82	(NG; 11)	4.50	(NG; 7)	2.10	(NG; 7)	1.50	(NG; 1)	U
2,3,7,8-TCDD	NG	1.74	(NG; 11)	1.07	(NG; 7)	1.16	(NG; 7)	0.900	(NG; 1)	U

Table E2-55. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]								Retained as a Preliminary COC[4]
		UCR[3]		CIL[3]		CI[3]		CB[3]		
PCDDs and PCDFs (ng/kg DW; cont.)										
OCDD	NG	11100	(NG; 11)	2510	(NG; 7)	6430	(NG; 7)	2800	(NG; 1)	U
Total TCDD	NG	30.0	(NG; 11)	16.1	(NG; 7)	21.1	(NG; 7)	8.80	(NG; 1)	U
Total HpCDD	NG	1440	(NG; 11)	4910	(NG; 7)	1000	(NG; 7)	520	(NG; 1)	U
Total HxCDD	NG	575	(NG; 11)	805	(NG; 7)	280	(NG; 7)	110	(NG; 1)	U
Total PeCDD	NG	88.3	(NG; 11)	68.2	(NG; 7)	62.4	(NG; 7)	7.10	(NG; 1)	U
1,2,3,4,6,7,8-HpCDF	NG	61.8	(NG; 11)	259	(NG; 7)	280	(NG; 7)	21.0	(NG; 1)	U
1,2,3,4,7,8,9-HpCDF	NG	6.17	(NG; 11)	32.4	(NG; 7)	38.6	(NG; 7)	0.800	(NG; 1)	U
1,2,3,4,7,8-HxCDF	NG	16.3	(NG; 11)	45.2	(NG; 7)	58.9	(NG; 7)	1.25	(NG; 1)	U
1,2,3,6,7,8-HxCDF	NG	4.68	(NG; 11)	20.2	(NG; 7)	25.0	(NG; 7)	0.950	(NG; 1)	U
1,2,3,7,8,9-HxCDF	NG	2.83	(NG; 11)	6.9	(NG; 7)	7.87	(NG; 7)	0.900	(NG; 1)	U
1,2,3,7,8-PeCDF	NG	3.91	(NG; 11)	12.1	(NG; 7)	10.9	(NG; 7)	1.05	(NG; 1)	U
2,3,4,6,7,8-HxCDF	NG	2.46	(NG; 11)	15.5	(NG; 7)	8.86	(NG; 7)	0.800	(NG; 1)	U
2,3,4,7,8-PeCDF	NG	2.98	(NG; 11)	13.0	(NG; 7)	7.62	(NG; 7)	1.05	(NG; 1)	U
2,3,7,8-TCDF	NG	5.23	(NG; 11)	16.1	(NG; 7)	8.80	(NG; 7)	0.550	(NG; 1)	U
OCDF	NG	290	(NG; 11)	1300	(NG; 7)	591	(NG; 7)	48.0	(NG; 1)	U
Total TCDF	NG	40.0	(NG; 11)	193	(NG; 7)	158	(NG; 7)	53.0	(NG; 1)	U
Total HpCDF	NG	124	(NG; 11)	930	(NG; 7)	482	(NG; 7)	56.0	(NG; 1)	U
Total HxCDF	NG	63.7	(NG; 11)	376	(NG; 7)	251	(NG; 7)	21.0	(NG; 1)	U
Total PeCDF	NG	33.0	(NG; 11)	188	(NG; 7)	125	(NG; 7)	16.0	(NG; 1)	U
Total Toxic Equivalents (TEQs)	21.5	14.1	(0%; 11)	**33.3**	**(43%; 7)**	**24.2**	**(14%; 7)**	4.83	(0%; 1)	Y
Other COPCs (µg/kg DW)										
Acetone	NG	55.0	(NG; 41)	152	(NG; 17)	18.9	(NG; 2)	13.0	(NG; 3)	U
Carbon disulfide	NG	26.0	(NG; 41)	28.6	(NG; 17)	13.6	(NG; 2)	13.0	(NG; 3)	U

NG = no guideline available; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); COC = contaminant of concern.

Table E2-55. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Upper Calcasieu River Area of Concern (UCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]				Retained as a Preliminary COC[4]
		UCR[3]	CIL[3]	CI[3]	CB[3]	

[1]Refer to Table E2-3 for a complete description of the selected benchmarks.

[2]Substances for which the 95th percentile concentration for a reach is higher than the selected benchmark (highlighted with bold and underline) were retained as the preliminary COCs for the UCR AOC.

[3]UCR = Upper Calcasieu River; CIL = Clooney Island Loop; CI = Coon Island Loop; CB = Contraband Bayou.

[4]Y =Yes, whole-sediment chemistry data for one or more reaches indicated that the substance should be retained as a preliminary COC for the UCR AOC.
N = No, whole-sediment chemistry data for all reaches indicated that the substance should not be retained as a preliminary COC for the UCR AOC.
U = Uncertain, insufficient information is available to conclude that the substance should not be retained as a preliminary COC for the UCR AOC.

Table E2-56. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 10-d toxicity tests with the amphipod, *Ampelisca abdita,* based on survival).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Metals (mg/kg DW)						
Chromium	0	ND	0	ND	ND	ND
Copper	61	53.7	39	17.2	3.1	Y
Lead	61	43.0	39	26.9	1.6	N
Mercury	61	0.823	39	0.0983	8.4	Y
Methyl mercury	61	0.00448	39	0.00107	4.2	Y
Nickel	61	25.3	39	19.4	1.3	N
Zinc	61	241	39	77.2	3.1	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)						
1,1'-Biphenyl	20	35.1	9	33.0	1.1	N
1-Methylnaphthalene	0	ND	0	ND	ND	ND
1-Methylphenanthrene	0	ND	0	ND	ND	ND
2,6-Dimethylnaphthalene	0	ND	0	ND	ND	ND
2-Methylnaphthalene	60	110	39	27.7	4.0	Y
Acenaphthene	58	55.2	38	30.7	1.8	N
Acenaphthylene	61	111	39	27.7	4.0	Y
Anthracene	61	229	39	30.2	7.6	Y
Fluorene	59	75.8	38	27.0	2.8	Y
Naphthalene	60	51.6	39	27.7	1.9	N
Phenanthrene	61	550	39	37.2	14.8	Y
Total LMW-PAHs	61	1590	39	238	6.7	Y
Benz(a)anthracene	61	563	39	51.2	11.0	Y
Benzo(a)pyrene	61	568	39	52.1	10.9	Y
Benzo(b)fluoranthene	61	843	39	77.5	10.9	Y
Benzo(g,h,i)perylene	61	262	39	34.0	7.7	Y
Benzo(k)fluoranthene	61	177	39	34.0	5.2	Y
Benzofluoranthenes	0	ND	0	ND	ND	ND
Chrysene	61	1270	39	59.5	21.3	Y
Dibenz(a,h)anthracene	57	177	38	31.9	5.6	Y
Fluoranthene	61	794	39	106	7.5	Y
Indeno(1,2,3-cd)pyrene	60	296	39	35.3	8.4	Y
Perylene	0	ND	0	ND	ND	ND
Pyrene	61	1550	39	147	10.5	Y
Total HMW-PAHs	61	4660	39	487	9.6	Y
Total PAHs	61	6190	39	687	9.0	Y

Table E2-56. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 10-d toxicity tests with the amphipod, *Ampelisca abdita,* based on survival).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PCB Aroclors (µg/kg DW)						
Aroclor-1016	55	15.5	36	16.5	0.9	N
Aroclor-1221	55	15.5	36	16.5	0.9	N
Aroclor-1232	55	15.5	36	16.5	0.9	N
Aroclor-1242	55	15.5	36	16.5	0.9	N
Aroclor-1248	55	15.5	36	16.5	0.9	N
Aroclor-1254	55	24.0	36	17.2	1.4	N
Aroclor-1260	55	15.5	36	16.5	0.9	N
Total PCBs	26	145	14	129	1.1	N
PCB Congeners (µg/kg DW)						
PCB 105	16	12.7	3	4.96	2.6	Y
PCB 108	16	4.18	3	1.71	2.4	Y
PCB 114	16	0.746	3	0.577	1.3	N
PCB 118	16	46.8	3	15.3	3.1	Y
PCB 126	16	0.507	3	0.143	3.6	Y
PCB 127	16	0.0150	3	0.00248	6.1	Y
PCB 15	16	4.31	3	0.262	16.5	Y
PCB 156	16	7.00	3	2.83	2.5	Y
PCB 157	16	1.44	3	0.959	1.5	N
PCB 162	16	8.18	3	3.70	2.2	Y
PCB 167	16	3.94	3	1.42	2.8	Y
PCB 169	16	0.0373	3	0.00393	9.5	Y
PCB 189	16	0.768	3	0.270	2.8	Y
PCB 37	16	1.23	3	0.203	6.1	Y
PCB 58	16	0.311	3	0.226	1.4	N
PCB 60	16	4.03	3	1.02	3.9	Y
PCB 61/70	16	20.2	3	6.46	3.1	Y
PCB 66	16	16.9	3	4.78	3.5	Y
PCB 77	16	2.09	3	0.425	4.9	Y
PCB 79	16	0.577	3	0.262	2.2	Y
PCB 80	16	0.0122	3	0.00249	4.9	Y
PCB 81	16	0.937	3	0.321	2.9	Y
Organochlorine Pesticides (µg/kg DW)						
Aldrin	2	291	0	NA	NA	Y
Dieldrin	4	35.7	0	NA	NA	Y

Table E2-56. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 10-d toxicity tests with the amphipod, *Ampelisca abdita,* based on survival).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Phthalates (µg/kg DW)						
Bis(2-ethylhexyl)phthalate	61	200	39	93.8	2.1	Y
Benzylbutylphthalate	10	31.0	6	29.1	1.1	N
Diethylphthalate	0	NA	1	400	NA	U
Dimethylphthalate	17	33.0	9	33.0	1.0	N
Di-n-butylphthalate	61	80.0	39	65.0	1.2	N
Di-n-octylphthalate	0	NA	0	NA	NA	U
Chlorinated Benzenes (µg/kg DW)						
Hexachloro-1,3-butadiene	4	385	0	NA	NA	Y
Hexachlorobenzene	4	968	0	NA	NA	Y
1,2,3,4-Tetrachlorobenzene	0	ND	0	ND	ND	ND
1,2,3-Trichlorobenzene	0	ND	0	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	0	ND	0	ND	ND	ND
1,2,4-Trichlorobenzene	0	ND	0	ND	ND	ND
1,2-Dichlorobenzene	0	ND	0	ND	ND	ND
1,3-Dichlorobenzene	0	ND	0	ND	ND	ND
1,4-Dichlorobenzene	0	ND	0	ND	ND	ND
Pentachlorobenzene	0	ND	0	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)						
1,1,1-Trichloroethane	0	ND	0	ND	ND	ND
1,2-Dichloroethane	0	ND	0	ND	ND	ND
PCDDs and PCDFs (ng/kg DW)						
1,2,3,4,6,7,8-HpCDD	16	415	3	75.6	5.5	Y
1,2,3,4,7,8-HxCDD	16	6.63	3	1.25	5.3	Y
1,2,3,6,7,8-HxCDD	16	26.4	3	2.98	8.9	Y
1,2,3,7,8,9-HxCDD	16	12.3	3	3.56	3.5	Y
1,2,3,7,8-PeCDD	16	4.20	3	0.553	7.6	Y
2,3,7,8-TCDD	16	1.00	3	0.323	3.1	Y
OCDD	16	5920	3	1820	3.3	Y
Total TCDD	16	16.5	3	28.0	0.6	N
Total HpCDD	16	1060	3	259	4.1	Y
Total HxCDD	16	287	3	114	2.5	Y
Total PeCDD	16	33.9	3	15.5	2.2	Y

Table E2-56. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 10-d toxicity tests with the amphipod, *Ampelisca abdita,* based on survival).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PCDDs and PCDFs (ng/kg DW; cont.)						
1,2,3,4,6,7,8-HpCDF	16	395	3	8.34	47.3	Y
1,2,3,4,7,8,9-HpCDF	16	76.9	3	1.07	72.1	Y
1,2,3,4,7,8-HxCDF	16	267	3	2.82	94.6	Y
1,2,3,6,7,8-HxCDF	16	63.3	3	1.05	60.2	Y
1,2,3,7,8,9-HxCDF	16	32.8	3	0.498	65.9	Y
1,2,3,7,8-PeCDF	16	82.0	3	1.71	48.0	Y
2,3,4,6,7,8-HxCDF	16	26.0	3	0.880	29.6	Y
2,3,4,7,8-PeCDF	16	63.5	3	2.21	28.7	Y
2,3,7,8-TCDF	16	53.6	3	5.71	9.4	Y
OCDF	16	1840	3	25.8	71.2	Y
Total TCDF	16	357	3	95.4	3.7	Y
Total HpCDF	16	766	3	18.9	40.6	Y
Total HxCDF	16	654	3	13.5	48.3	Y
Total PeCDF	16	463	3	19.8	23.3	Y
Total Toxic Equivalents (TEQs)	16	88.1	3	4.66	18.9	Y
Other COPCs (µg/kg DW)						
Acetone	0	ND	0	ND	ND	ND
Carbon disulfide	0	ND	0	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured in the Phase II sampling program); n = number of samples; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans.

[1]Includes all samples that were designated as toxic to marine amphipods using the reference envelope approach.

[2]Includes all samples that were designated as not toxic to marine amphipods using the reference envelope approach.

[3]Y = Yes, the ratio of the effects to no effects data is greater than two; if a 75th percentile concentration could not be calculated for the no effects dataset because of high non-detect data (i.e., NA in table), the substance was considered to have a ratio greater than two.

N = No, the ratio of the effects to no effects data is not greater than two.

U = Uncertain; if a 75th percentile concentration could not be calculated for the effects dataset (or both the effects and no effects datasets), because of high non-detect data (i.e., NA in table), the substance was considered to be Uncertain.

Table E2-57. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 28-d toxicity tests with the amphipod, *Hyalella azteca,* based on survival.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Metals (mg/kg DW)						
Chromium	0	ND	0	ND	ND	ND
Copper	33	97.7	67	18.3	5.3	Y
Lead	33	56.6	67	27.4	2.1	Y
Mercury	33	1.58	67	0.140	11.3	Y
Methyl mercury	33	0.00664	67	0.00121	5.5	Y
Nickel	33	27.8	67	19.4	1.4	N
Zinc	33	242	67	82.8	2.9	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)						
1,1'-Biphenyl	9	35.5	20	33.5	1.1	N
1-Methylnaphthalene	0	ND	0	ND	ND	ND
1-Methylphenanthrene	0	ND	0	ND	ND	ND
2,6-Dimethylnaphthalene	0	ND	0	ND	ND	ND
2-Methylnaphthalene	32	125	67	33.5	3.7	Y
Acenaphthene	32	73.8	64	31.6	2.3	Y
Acenaphthylene	33	286	67	34.5	8.3	Y
Anthracene	33	254	67	37.2	6.8	Y
Fluorene	33	84.3	64	31.6	2.7	Y
Naphthalene	32	50.5	67	34.0	1.5	N
Phenanthrene	33	734	67	60.8	12.1	Y
Total LMW-PAHs	33	1870	67	302	6.2	Y
Benz(a)anthracene	33	1030	67	66.0	15.6	Y
Benzo(a)pyrene	33	931	67	69.5	13.4	Y
Benzo(b)fluoranthene	33	1440	67	111	13.0	Y
Benzo(g,h,i)perylene	33	338	67	50.7	6.7	Y
Benzo(k)fluoranthene	33	179	67	42.8	4.2	Y
Benzofluoranthenes	0	ND	0	ND	ND	ND
Chrysene	33	1570	67	85.0	18.5	Y
Dibenz(a,h)anthracene	31	339	64	34.2	9.9	Y
Fluoranthene	33	1130	67	156	7.2	Y
Indeno(1,2,3-cd)pyrene	32	340	67	60.7	5.6	Y
Perylene	0	ND	0	ND	ND	ND
Pyrene	33	2410	67	175	13.8	Y
Total HMW-PAHs	33	7550	67	521	14.5	Y
Total PAHs	33	10600	67	787	13.5	Y

Table E2-57. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 28-d toxicity tests with the amphipod, *Hyalella azteca,* based on survival.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PCB Aroclors (µg/kg DW)						
Aroclor-1016	28	20.6	63	16.0	1.3	N
Aroclor-1221	28	20.6	63	16.0	1.3	N
Aroclor-1232	28	20.6	63	16.0	1.3	N
Aroclor-1242	28	20.6	63	16.0	1.3	N
Aroclor-1248	28	20.6	63	16.0	1.3	N
Aroclor-1254	28	35.0	63	16.7	2.1	Y
Aroclor-1260	28	20.6	63	16.0	1.3	N
Total PCBs	13	242	27	63.0	3.8	Y
PCB Congeners (µg/kg DW)						
PCB 105	10	19.7	9	2.82	7.0	Y
PCB 108	10	6.29	9	0.767	8.2	Y
PCB 114	10	1.37	9	0.123	11.1	Y
PCB 118	10	68.9	9	9.44	7.3	Y
PCB 126	10	0.626	9	0.0729	8.6	Y
PCB 127	10	0.0385	9	0.00458	8.4	Y
PCB 15	10	23.3	9	0.483	48.3	Y
PCB 156	10	8.26	9	1.19	6.9	Y
PCB 157	10	2.65	9	0.362	7.3	Y
PCB 162	10	14.4	9	2.84	5.1	Y
PCB 167	10	4.82	9	0.705	6.8	Y
PCB 169	10	0.139	9	0.0175	7.9	Y
PCB 189	10	1.03	9	0.206	5.0	Y
PCB 37	10	3.05	9	0.384	7.9	Y
PCB 58	10	0.687	9	0.0821	8.4	Y
PCB 60	10	6.86	9	0.932	7.4	Y
PCB 61/70	10	44.5	9	3.49	12.8	Y
PCB 66	10	18.5	9	2.25	8.2	Y
PCB 77	10	2.47	9	0.290	8.5	Y
PCB 79	10	0.832	9	0.114	7.3	Y
PCB 80	10	0.0848	9	0.00249	34.0	Y
PCB 81	10	1.03	9	0.139	7.4	Y
Organochlorine Pesticides (µg/kg DW)						
Aldrin	2	291	0	NA	NA	Y
Dieldrin	2	41.7	2	29.5	1.4	N

Table E2-57. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 28-d toxicity tests with the amphipod, *Hyalella azteca,* based on survival.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Phthalates (µg/kg DW)						
Bis(2-ethylhexyl)phthalate	33	210	67	105	2.0	Y
Benzylbutylphthalate	3	28.9	13	30.5	0.9	N
Diethylphthalate	0	NA	1	400	NA	U
Dimethylphthalate	8	33.5	18	32.6	1.0	N
Di-n-butylphthalate	33	90.0	67	65.0	1.4	N
Di-n-octylphthalate	0	NA	0	NA	NA	U
Chlorinated Benzenes (µg/kg DW)						
Hexachloro-1,3-butadiene	2	557	2	162	3.4	Y
Hexachlorobenzene	3	1230	1	630	2.0	N
1,2,3,4-Tetrachlorobenzene	0	ND	0	ND	ND	ND
1,2,3-Trichlorobenzene	0	ND	0	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	0	ND	0	ND	ND	ND
1,2,4-Trichlorobenzene	0	ND	0	ND	ND	ND
1,2-Dichlorobenzene	0	ND	0	ND	ND	ND
1,3-Dichlorobenzene	0	ND	0	ND	ND	ND
1,4-Dichlorobenzene	0	ND	0	ND	ND	ND
Pentachlorobenzene	0	ND	0	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)						
1,1,1-Trichloroethane	0	ND	0	ND	ND	ND
1,2-Dichloroethane	0	ND	0	ND	ND	ND
PCDDs and PCDFs (ng/kg DW)						
1,2,3,4,6,7,8-HpCDD	10	559	9	162	3.5	Y
1,2,3,4,7,8-HxCDD	10	15.8	9	3.11	5.1	Y
1,2,3,6,7,8-HxCDD	10	36.0	9	11.0	3.3	Y
1,2,3,7,8,9-HxCDD	10	18.4	9	6.67	2.8	Y
1,2,3,7,8-PeCDD	10	12.5	9	2.52	5.0	Y
2,3,7,8-TCDD	10	2.17	9	0.969	2.2	Y
OCDD	10	6570	9	3430	1.9	N
Total TCDD	10	35.5	9	18.6	1.9	N
Total HpCDD	10	1240	9	339	3.7	Y
Total HxCDD	10	552	9	128	4.3	Y
Total PeCDD	10	71.2	9	17.8	4.0	Y

Table E2-57. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of 28-d toxicity tests with the amphipod, *Hyalella azteca,* based on survival.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PCDDs and PCDFs (ng/kg DW)						
1,2,3,4,6,7,8-HpCDF	10	1270	9	312	4.1	Y
1,2,3,4,7,8,9-HpCDF	10	221	9	62.8	3.5	Y
1,2,3,4,7,8-HxCDF	10	692	9	75.1	9.2	Y
1,2,3,6,7,8-HxCDF	10	204	9	43.5	4.7	Y
1,2,3,7,8,9-HxCDF	10	81.6	9	16.9	4.8	Y
1,2,3,7,8-PeCDF	10	256	9	14.2	18.0	Y
2,3,4,6,7,8-HxCDF	10	88.0	9	21.7	4.1	Y
2,3,4,7,8-PeCDF	10	191	9	13.3	14.3	Y
2,3,7,8-TCDF	10	235	9	18.5	12.7	Y
OCDF	10	4980	9	1050	4.7	Y
Total TCDF	10	1280	9	113	11.3	Y
Total HpCDF	10	2270	9	628	3.6	Y
Total HxCDF	10	2060	9	454	4.5	Y
Total PeCDF	10	1680	9	185	9.1	Y
Total Toxic Equivalents (TEQs)	10	268	9	38.5	7.0	Y
Other COPCs (µg/kg DW)						
Acetone	0	ND	0	ND	ND	ND
Carbon disulfide	0	ND	0	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured in the Phase II sampling program); n = number of samples; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans.

[1]Includes all samples that were designated as toxic to freshwater amphipods using the reference envelope approach.

[2]Includes all samples that were designated as not toxic to freshwater amphipods using the reference envelope approach.

[3]Y = Yes, the ratio of the effects to no effects data is greater than two; if a 75th percentile concentration could not be calculated for the no effects dataset because of high non-detect data (i.e., NA in table), the substance was considered to have a ratio greater than two.

N = No, the ratio of the effects to no effects data is not greater than two.

U = Uncertain; if a 75th percentile concentration could not be calculated for the effects dataset (or both the effects and no effects datasets), because of high non-detect data (i.e., NA in table), the substance was considered to be Uncertain.

Table E2-58. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of cluster analysis of benthic invertebrate community structure (BICS).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Metals (mg/kg DW)						
Chromium	0	ND	0	ND	ND	ND
Copper	57	53.7	43	19.5	2.8	Y
Lead	57	43.0	43	27.2	1.6	N
Mercury	57	0.823	43	0.130	6.3	Y
Methyl mercury	57	0.00411	43	0.00147	2.8	Y
Nickel	57	25.8	43	19.2	1.3	N
Zinc	57	191	43	82.8	2.3	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)						
1,1'-Biphenyl	14	32.5	15	35.2	0.9	N
1-Methylnaphthalene	0	ND	0	ND	ND	ND
1-Methylphenanthrene	0	ND	0	ND	ND	ND
2,6-Dimethylnaphthalene	0	ND	0	ND	ND	ND
2-Methylnaphthalene	56	65.3	43	44.2	1.5	N
Acenaphthene	56	46.4	40	34.2	1.4	N
Acenaphthylene	57	87.2	43	46.0	1.9	N
Anthracene	57	105	43	47.2	2.2	Y
Fluorene	57	46.0	40	35.5	1.3	N
Naphthalene	56	39.3	43	43.0	0.9	N
Phenanthrene	57	261	43	64.5	4.0	Y
Total LMW-PAHs	57	805	43	351	2.3	Y
Benz(a)anthracene	57	442	43	93.9	4.7	Y
Benzo(a)pyrene	57	363	43	112	3.2	Y
Benzo(b)fluoranthene	57	569	43	150	3.8	Y
Benzo(g,h,i)perylene	57	164	43	64.1	2.6	Y
Benzo(k)fluoranthene	57	126	43	52.2	2.4	Y
Benzofluoranthenes	0	ND	0	ND	ND	ND
Chrysene	57	823	43	121	6.8	Y
Dibenz(a,h)anthracene	56	128	39	42.0	3.1	Y
Fluoranthene	57	621	43	159	3.9	Y
Indeno(1,2,3-cd)pyrene	56	212	43	61.7	3.4	Y
Perylene	0	ND	0	ND	ND	ND
Pyrene	57	1420	43	214	6.6	Y
Total HMW-PAHs	57	4440	43	688	6.5	Y
Total PAHs	57	4900	43	1010	4.9	Y

Table E2-58. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of cluster analysis of benthic invertebrate community structure (BICS).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PCB Aroclors (µg/kg DW)						
Aroclor-1016	52	16.0	39	19.0	0.8	N
Aroclor-1221	52	16.0	39	19.0	0.8	N
Aroclor-1232	52	16.0	39	19.0	0.8	N
Aroclor-1242	52	16.0	39	19.0	0.8	N
Aroclor-1248	52	16.0	39	19.0	0.8	N
Aroclor-1254	52	16.6	39	25.9	0.6	N
Aroclor-1260	52	16.0	39	19.0	0.8	N
Total PCBs	21	119	19	177	0.7	N
PCB Congeners (µg/kg DW)						
PCB 105	14	10.1	5	22.5	0.4	N
PCB 108	14	3.35	5	4.77	0.7	N
PCB 114	14	0.645	5	1.46	0.4	N
PCB 118	14	30.1	5	62.9	0.5	N
PCB 126	14	0.426	5	0.436	1.0	N
PCB 127	14	0.0157	5	0.00250	6.3	Y
PCB 15	14	4.42	5	0.483	9.2	Y
PCB 156	14	3.92	5	10.8	0.4	N
PCB 157	14	1.08	5	2.83	0.4	N
PCB 162	14	5.99	5	21.1	0.3	N
PCB 167	14	2.52	5	4.95	0.5	N
PCB 169	14	0.0358	5	0.0165	2.2	Y
PCB 189	14	0.476	5	0.739	0.6	N
PCB 37	14	1.01	5	0.384	2.6	Y
PCB 58	14	0.421	5	0.232	1.8	N
PCB 60	14	3.39	5	2.39	1.4	N
PCB 61/70	14	16.3	5	20.1	0.8	N
PCB 66	14	14.5	5	12.4	1.2	N
PCB 77	14	1.76	5	1.18	1.5	N
PCB 79	14	0.496	5	0.528	0.9	N
PCB 80	14	0.00250	5	0.00250	1.0	N
PCB 81	14	0.734	5	0.926	0.8	N
Organochlorine Pesticides (µg/kg DW)						
Aldrin	1	320	1	220	1.5	N
Dieldrin	3	36.8	1	33.0	1.1	N

Table E2-58. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of cluster analysis of benthic invertebrate community structure (BICS).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Phthalates (µg/kg DW)						
Bis(2-ethylhexyl)phthalate	57	190	43	127	1.5	N
Benzylbutylphthalate	10	30.2	6	29.9	1.0	N
Diethylphthalate	0	NA	1	400	NA	U
Dimethylphthalate	13	31.0	13	33.5	0.9	N
Di-n-butylphthalate	57	70.0	43	67.5	1.0	N
Di-n-octylphthalate	0	ND	0	ND	ND	ND
Chlorinated Benzenes (µg/kg DW)						
Hexachloro-1,3-butadiene	3	247	1	670	0.4	N
Hexachlorobenzene	2	725	2	1480	0.5	N
1,2,3,4-Tetrachlorobenzene	0	ND	0	ND	ND	ND
1,2,3-Trichlorobenzene	0	ND	0	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	0	ND	0	ND	ND	ND
1,2,4-Trichlorobenzene	0	ND	0	ND	ND	ND
1,2-Dichlorobenzene	0	ND	0	ND	ND	ND
1,3-Dichlorobenzene	0	ND	0	ND	ND	ND
1,4-Dichlorobenzene	0	ND	0	ND	ND	ND
Pentachlorobenzene	0	ND	0	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)						
1,1,1-Trichloroethane	0	ND	0	ND	ND	ND
1,2-Dichloroethane	0	ND	0	ND	ND	ND
PCDDs and PCDFs (ng/kg DW)						
1,2,3,4,6,7,8-HpCDD	14	388	5	318	1.2	N
1,2,3,4,7,8-HxCDD	14	6.07	5	5.84	1.0	N
1,2,3,6,7,8-HxCDD	14	21.6	5	24.0	0.9	N
1,2,3,7,8,9-HxCDD	14	10.9	5	11.3	1.0	N
1,2,3,7,8-PeCDD	14	4.26	5	2.82	1.5	N
2,3,7,8-TCDD	14	1.03	5	0.463	2.2	Y
OCDD	14	5580	5	3800	1.5	N
Total TCDD	14	32.3	5	18.6	1.7	N
Total HpCDD	14	1020	5	635	1.6	N
Total HxCDD	14	245	5	200	1.2	N
Total PeCDD	14	27.3	5	19.9	1.4	N
1,2,3,4,6,7,8-HpCDF	14	441	5	95.1	4.6	Y
1,2,3,4,7,8,9-HpCDF	14	91.6	5	9.81	9.3	Y
1,2,3,4,7,8-HxCDF	14	332	5	17.9	18.6	Y

Table E2-58. Comparison of the distributions of the effects and no effects data for whole-sediment samples from the Calcasieu Estuary, based on the results of cluster analysis of benthic invertebrate community structure (BICS).

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PCDDs and PCDFs (ng/kg DW; cont.)						
1,2,3,6,7,8-HxCDF	14	74.1	5	6.88	10.8	Y
1,2,3,7,8,9-HxCDF	14	45.6	5	2.98	15.3	Y
1,2,3,7,8-PeCDF	14	167	5	5.00	33.5	Y
2,3,4,6,7,8-HxCDF	14	26.7	5	7.73	3.5	Y
2,3,4,7,8-PeCDF	14	91.6	5	6.35	14.4	Y
2,3,7,8-TCDF	14	80.2	5	8.14	9.9	Y
OCDF	14	2320	5	340	6.8	Y
Total TCDF	14	381	5	80.6	4.7	Y
Total HpCDF	14	828	5	310	2.7	Y
Total HxCDF	14	702	5	135	5.2	Y
Total PeCDF	14	595	5	59.3	10.0	Y
Total Toxic Equivalents (TEQs)	14	116	5	24.0	4.9	Y
Other COPCs (µg/kg DW)						
Acetone	0	ND	0	ND	ND	ND
Carbon disulfide	0	ND	0	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured in the Phase II sampling program); n = number of samples; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans.

[1]Includes all samples that were designated as toxic to the BICS using a cluster analysis.

[2]Includes all samples that were designated as not toxic to the BICS using a cluster analysis.

[3]Y = Yes, the ratio of the effects to no effects data is greater than two; if a 75th percentile concentration could not be calculated for the no effects dataset because of high non-detect data (i.e., NA in table), the substance was considered to have a ratio greater than two.

N = No, the ratio of the effects to no effects data is not greater than two.

U = Uncertain; if a 75th percentile concentration could not be calculated for the effects dataset (or both the effects and no effects datasets), because of high non-detect data (i.e., NA in table), the substance was considered to be Uncertain.

Table E2-59. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
Metals (mg/kg DW)							
Chromium	Y	Y	ND	ND	ND	ND	Y
Copper	Y	Y	Y	Y	Y	Y	Y
Lead	Y	Y	N	Y	N	Y	Y
Mercury	Y	Y	Y	Y	Y	Y	Y
Methyl mercury	Y	U	Y	Y	Y	Y	U
Nickel	N	N	N	N	N	N	N
Zinc	Y	Y	Y	Y	Y	Y	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)							
1,1'-Biphenyl	Y	Y	N	N	N	N	N
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	Y	Y	Y	Y	N	Y	Y
Acenaphthene	Y	Y	N	Y	N	Y	Y
Acenaphthylene	Y	N	Y	Y	N	Y	N
Anthracene	Y	Y	Y	Y	Y	Y	Y
Fluorene	Y	Y	Y	Y	N	Y	Y
Naphthalene	Y	N	N	N	N	N	N
Phenanthrene	Y	Y	Y	Y	Y	Y	Y
Total LMW-PAHs	Y	Y	Y	Y	Y	Y	Y
Benz(a)anthracene	Y	Y	Y	Y	Y	Y	Y
Benzo(a)pyrene	Y	Y	Y	Y	Y	Y	Y
Benzo(b)fluoranthene	Y	Y	Y	Y	Y	Y	Y
Benzo(g,h,i)perylene	Y	Y	Y	Y	Y	Y	Y
Benzo(k)fluoranthene	Y	N	Y	Y	Y	Y	N
Benzofluoranthenes	ND	ND	ND	ND	ND	ND	ND

Table E2-59. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PAHs (µg/kg DW; cont.)							
Chrysene	Y	Y	Y	Y	Y	Y	Y
Dibenz(a,h)anthracene	Y	Y	Y	Y	Y	Y	Y
Fluoranthene	Y	Y	Y	Y	Y	Y	Y
Indeno(1,2,3-cd)pyrene	N	N	Y	Y	Y	Y	N
Perylene	ND	ND	ND	ND	ND	ND	ND
Pyrene	Y	Y	Y	Y	Y	Y	Y
Total HMW-PAHs	Y	Y	Y	Y	Y	Y	Y
Total PAHs	Y	N	Y	Y	Y	Y	N
PCB Aroclors (µg/kg DW)							
Aroclor-1016	Y	U	N	N	N	N	N
Aroclor-1221	N	U	N	N	N	N	N
Aroclor-1232	Y	U	N	N	N	N	N
Aroclor-1242	Y	U	N	N	N	N	N
Aroclor-1248	Y	U	N	N	N	N	N
Aroclor-1254	Y	U	N	Y	N	Y	U
Aroclor-1260	Y	U	N	N	N	N	N
Total PCBs	Y	Y	N	Y	N	Y	Y
PCB Congeners (µg/kg DW)							
PCB 105	Y	U	Y	Y	N	Y	U
PCB 108	Y	U	Y	Y	N	Y	U
PCB 114	Y	U	N	Y	N	Y	U
PCB 118	Y	U	Y	Y	N	Y	U
PCB 126	Y	U	Y	Y	N	Y	U
PCB 127	Y	U	Y	Y	Y	Y	U
PCB 15	Y	U	Y	Y	Y	Y	U

Table E2-59. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PCB Congeners (µg/kg DW; cont.)							
PCB 156	Y	U	Y	Y	N	Y	U
PCB 157	Y	U	N	Y	N	Y	U
PCB 162	Y	U	Y	Y	N	Y	U
PCB 167	Y	U	Y	Y	N	Y	U
PCB 169	Y	U	Y	Y	Y	Y	U
PCB 189	Y	U	Y	Y	N	Y	U
PCB 37	Y	U	Y	Y	Y	Y	U
PCB 58	Y	U	N	Y	N	Y	U
PCB 60	Y	U	Y	Y	N	Y	U
PCB 61/70	Y	U	Y	Y	N	Y	U
PCB 66	Y	U	Y	Y	N	Y	U
PCB 77	Y	U	Y	Y	N	Y	U
PCB 79	Y	U	Y	Y	N	Y	U
PCB 80	N	U	Y	Y	N	Y	N
PCB 81	Y	U	Y	Y	N	Y	U
Organochlorine Pesticides (µg/kg DW)							
Aldrin	U	U	Y	Y	N	Y	U
Dieldrin	U	U	Y	N	N	Y	U
Phthalates (µg/kg DW)							
Bis(2-ethylhexyl)phthalate	Y	Y	Y	Y	N	Y	Y
Benzylbutylphthalate	U	N	N	N	N	N	N
Diethylphthalate	U	U	U	U	U	U	U
Dimethylphthalate	N	N	N	N	N	N	N
Di-n-butylphthalate	Y	N	N	N	N	N	N
Di-n-octylphthalate	U	U	U	U	ND	U	U

Table E2-59. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
Chlorinated Benzenes (µg/kg DW)							
Hexachloro-1,3-butadiene	U	U	Y	Y	N	Y	U
Hexachlorobenzene	U	U	Y	N	N	Y	U
1,2,3,4-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	U	U	ND	ND	ND	ND	U
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	N	N	ND	ND	ND	ND	N
1,2-Dichlorobenzene	N	N	ND	ND	ND	ND	N
1,3-Dichlorobenzene	Y	N	ND	ND	ND	ND	N
1,4-Dichlorobenzene	Y	N	ND	ND	ND	ND	N
Pentachlorobenzene	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)							
1,1,1-Trichloroethane	Y	N	ND	ND	ND	ND	N
1,2-Dichloroethane	Y	U	ND	ND	ND	ND	U
PCDDs and PCDFs (ng/kg DW)							
1,2,3,4,6,7,8-HpCDD	Y	U	Y	Y	N	Y	U
1,2,3,4,7,8-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,6,7,8-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,7,8,9-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,7,8-PeCDD	Y	U	Y	Y	N	Y	U
2,3,7,8-TCDD	N	U	Y	Y	Y	Y	N
OCDD	Y	U	Y	N	N	Y	U
Total TCDD	N	U	N	N	N	N	N
Total HpCDD	Y	U	Y	Y	N	Y	U
Total HxCDD	Y	U	Y	Y	N	Y	U
Total PeCDD	Y	U	Y	Y	N	Y	U

Table E2-59. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PCDDs and PCDFs (ng/kg DW; cont.)							
1,2,3,4,6,7,8-HpCDF	Y	U	Y	Y	Y	Y	U
1,2,3,4,7,8,9-HpCDF	Y	U	Y	Y	Y	Y	U
1,2,3,4,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,6,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,7,8,9-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,7,8-PeCDF	Y	U	Y	Y	Y	Y	U
2,3,4,6,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
2,3,4,7,8-PeCDF	Y	U	Y	Y	Y	Y	U
2,3,7,8-TCDF	Y	U	Y	Y	Y	Y	U
OCDF	Y	U	Y	Y	Y	Y	U
Total TCDF	Y	U	Y	Y	Y	Y	U
Total HpCDF	Y	U	Y	Y	Y	Y	U
Total HxCDF	Y	U	Y	Y	Y	Y	U
Total PeCDF	Y	U	Y	Y	Y	Y	U
Total Toxic Equivalents (TEQs)	Y	Y	Y	Y	Y	Y	Y
Other COPCs (µg/kg DW)							
Acetone	Y	U	ND	ND	ND	ND	U
Carbon disulfide	Y	U	ND	ND	ND	ND	U

ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; COC = contaminant of concern; BICS = benthic invertebrate community

[1]See Table E2-30 for a description of the procedures used to evaluate COPC concentrations relative to reference areas.

[2]See Table E2-55 for a description of the procedures used to evaluate COPC concentrations relative to selected toxicity thresholds.

[3]See Tables E2-56, E2-57 and E2-58 for descriptions of the procedures used to evaluate the distributions of the effects and no effects data.

Table E2-59. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	

[4]Based on the results of 10-d toxicity tests with *Ampelisca abdita,* (endpoint: survival).

[5]Based on the results of 28-d toxicity tests with *Hyalella azteca,* (endpoint: survival).

[6]Based on the results of cluster analyses of benthic invertebrate community structure data.

[7]Y = Yes, COPCs were retained as preliminary COCs if one or more biological metrics indicated concordance between whole sediment chemistry and biological effects.
N = No, COPCs were not retained as preliminary COCs if none of the biological metrics indicated concordance between whole sediment chemistry and biological effects.
U = Uncertain; insufficient information is available to conclude that the substance should not be retained as a preliminary COC.

[8]See Table E2-73 for an explanation of the criteria that were used to designate a COPC as a COC.
Y = Yes, retained as a COC for whole sediment.
N = No, not retained as a COC for whole sediment.
U = Uncertain, insufficient data are available to determine if the COPC should be retained as a COC for whole sediments.

Table E2-60. Comparison of the concentrations of chemicals of potential concern in pore water from each area of concern (AOC) to the selected benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]					
		Upper Calcasieu River AOC		Bayou d'Inde AOC		Middle Calcasieu River AOC	
Conventionals (mg/L)							
Hydrogen sulfide	0.002	**0.0191**	**(46%; 39)**	**0.0102**	**(87%; 31)**	**0.00580**	**(47%; 15)**
Total dissolved sulfide	NG	0.163	(0%; 39)	0.0760	(0%; 31)	0.106	(0%; 15)
Nitrogen, as ammonia	See Table E2-4b	0.659	(0%; 39)	0.849	(0%; 31)	0.400	(0%; 15)
Ammonia - toxic units (no units)	1	0.320	(3%; 39)	0.349	(0%; 31)	0.144	(0%; 15)
Metals (µg/L)							
Chromium, total	103	ND	ND	ND	ND	ND	ND
Chromium, dissolved	103	ND	ND	ND	ND	ND	ND
Copper, total	3.63	**11.8**	**(80%; 5)**	**11.6**	**(100%; 7)**	**15.7**	**(100%; 2)**
Copper, dissolved	3.63	**11.7**	**(60%; 20)**	**8.84**	**(100%; 15)**	**7.48**	**(88%; 8)**
Lead, total	8.08	0.958	(0%; 20)	1.10	(0%; 15)	1.03	(0%; 8)
Lead, dissolved	8.08	0.399	(0%; 20)	0.847	(0%; 15)	0.386	(0%; 8)
Mercury, total	0.94	ND	ND	ND	ND	ND	ND
Mercury, dissolved	0.94	ND	ND	ND	ND	ND	ND
Methyl mercury	0.0028	ND	ND	ND	ND	ND	ND
Nickel, total	8.2	5.62	(0%; 18)	**18.0**	**(27%; 15)**	7.48	(0%; 3)
Nickel, dissolved	8.2	6.12	(0%; 20)	**11.3**	**(20%; 15)**	7.51	(13%; 8)
Zinc, total	81	8.36	(0%; 7)	**91.4**	**(17%; 6)**	12.1	(0%; 7)
Zinc, dissolved	81	**753**	**(70%; 20)**	**1380**	**(93%; 15)**	**1100**	**(100%; 8)**
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)							
1,1'-Biphenyl	14	0.00391	(0%; 20)	0.00793	(0%; 15)	0.0213	(0%; 8)
1-Methylnaphthalene	2.1	0.0102	(0%; 20)	0.0238	(0%; 15)	**4.46**	**(13%; 8)**

Table E2-60. Comparison of the concentrations of chemicals of potential concern in pore water from each area of concern (AOC) to the selected benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]					
		Upper Calcasieu River AOC		Bayou d'Inde AOC		Middle Calcasieu River AOC	
PAHs (µg/L; cont.)							
1-Methylphenanthrene	NG	0.00188	(0%; 20)	0.0350	(0%; 15)	0.561	(0%; 8)
2,6-Dimethylnaphthalene	NG	0.00752	(0%; 20)	0.0183	(0%; 15)	2.52	(0%; 8)
2-Methylnaphthalene	4.2	0.0111	(0%; 20)	0.0231	(0%; 15)	0.910	(0%; 8)
Acenaphthene	40	0.100	(0%; 20)	0.0958	(0%; 15)	0.533	(0%; 8)
Acenaphthylene	NG	0.00324	(0%; 20)	0.0147	(0%; 15)	0.222	(0%; 8)
Anthracene	0.73	0.00561	(0%; 20)	0.0391	(0%; 15)	0.189	(0%; 8)
Fluorene	3.9	0.0146	(0%; 20)	0.0382	(0%; 15)	0.613	(0%; 8)
Naphthalene	16	0.0269	(0%; 20)	0.0613	(0%; 15)	0.177	(0%; 8)
Phenanthrene	8.3	0.0335	(0%; 20)	0.0639	(0%; 15)	0.747	(0%; 8)
Benz(a)anthracene	0.027	0.00315	(0%; 20)	0.00886	(0%; 15)	**0.199**	**(13%; 8)**
Benzo(a)pyrene	0.014	0.00533	(0%; 20)	0.00590	(0%; 15)	**0.116**	**(13%; 8)**
Benzo(b)fluoranthene	60	0.00643	(0%; 20)	0.00824	(0%; 15)	0.0771	(0%; 8)
Benzo(g,h,i)perylene	60	0.00519	(0%; 20)	0.00673	(0%; 15)	0.0579	(0%; 8)
Benzo(k)fluoranthene	60	0.00161	(0%; 20)	0.00129	(0%; 15)	0.0149	(0%; 8)
Chrysene	60	0.00368	(0%; 20)	0.0652	(0%; 15)	0.366	(0%; 8)
Dibenz(a,h)anthracene	60	0.00185	(0%; 20)	0.00248	(0%; 15)	0.0306	(0%; 8)
Fluoranthene	11	0.0201	(0%; 20)	0.0251	(0%; 15)	0.0805	(0%; 8)
Indeno(1,2,3-cd)pyrene	60	0.00243	(0%; 20)	0.00155	(0%; 15)	0.0185	(0%; 8)
Perylene	NG	0.0125	(0%; 20)	0.00870	(0%; 15)	0.0178	(0%; 8)
Pyrene	60	0.0226	(0%; 20)	0.0790	(0%; 15)	0.377	(0%; 8)

Table E2-60. Comparison of the concentrations of chemicals of potential concern in pore water from each area of concern (AOC) to the selected benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]					
		Upper Calcasieu River AOC		Bayou d'Inde AOC		Middle Calcasieu River AOC	
PCB Aroclors (µg/L)							
Aroclor-1016	0.03	NA	NA	NA	NA	NA	NA
Aroclor-1221	0.28	0.0500	(0%; 20)	0.0500	(0%; 15)	0.0500	(0%; 7)
Aroclor-1232	0.58	0.0500	(0%; 20)	0.0500	(0%; 15)	0.0500	(0%; 7)
Aroclor-1242	0.53	0.0500	(0%; 20)	0.0500	(0%; 15)	0.0500	(0%; 7)
Aroclor-1248	0.081	NA	NA	NA	NA	NA	NA
Aroclor-1254	0.033	NA	NA	NA	NA	NA	NA
Aroclor-1260	94	0.0500	(0%; 20)	0.0500	(0%; 15)	0.0500	(0%; 7)
PCB Congeners (µg/L)							
PCB 105	NG	0.00496	(0%; 20)	0.0207	(0%; 15)	0.00107	(0%; 8)
PCB 118	NG	0.000982	(0%; 20)	0.00293	(0%; 15)	0.00775	(0%; 8)
PCB 128	NG	0.0000935	(0%; 20)	0.000289	(0%; 15)	0.00109	(0%; 8)
PCB 132/153	NG	0.000302	(0%; 20)	0.000425	(0%; 15)	0.00650	(0%; 8)
PCB 138/160	NG	0.0234	(0%; 20)	0.0629	(0%; 15)	0.0361	(0%; 8)
PCB 170/190	NG	0.000518	(0%; 20)	0.000270	(0%; 15)	0.0301	(0%; 8)
PCB 18/17	NG	0.00491	(0%; 20)	0.0199	(0%; 15)	0.0159	(0%; 8)
PCB 180	NG	0.00139	(0%; 20)	0.00189	(0%; 15)	0.00382	(0%; 8)
PCB 187	NG	0.00191	(0%; 20)	0.00332	(0%; 15)	0.00565	(0%; 8)
PCB 195/208	NG	0.0000985	(0%; 20)	0.000175	(0%; 15)	0.000130	(0%; 8)
PCB 206	NG	0.000134	(0%; 20)	0.000205	(0%; 15)	0.000961	(0%; 8)
PCB 209	NG	0.000287	(0%; 20)	0.00118	(0%; 15)	0.000155	(0%; 8)
PCB 28	NG	0.00346	(0%; 20)	0.00106	(0%; 15)	0.0279	(0%; 8)
PCB 29	NG	0.00265	(0%; 20)	0.000715	(0%; 15)	0.00282	(0%; 8)
PCB 44	NG	0.00261	(0%; 20)	0.00129	(0%; 15)	0.00204	(0%; 8)

Table E2-60. Comparison of the concentrations of chemicals of potential concern in pore water from each area of concern (AOC) to the selected benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]					
		Upper Calcasieu River AOC		Bayou d'Inde AOC		Middle Calcasieu River AOC	
PCB Congeners (µg/L)							
PCB 5/8	NG	0.0242	(0%; 20)	0.0154	(0%; 15)	0.120	(0%; 8)
PCB 52	NG	0.00571	(0%; 20)	0.00434	(0%; 15)	0.0190	(0%; 8)
PCB 66	NG	0.0000985	(0%; 20)	0.000907	(0%; 15)	0.000747	(0%; 8)
PCB 77/110	NG	0.000391	(0%; 20)	0.00120	(0%; 15)	0.023	(0%; 8)
PCB 87/115	NG	0.00339	(0%; 20)	0.00125	(0%; 15)	0.000892	(0%; 8)
PCB 90/101	NG	0.000288	(0%; 20)	0.000863	(0%; 15)	0.00197	(0%; 8)
PCB 201/157/173	NG	0.000121	(0%; 20)	0.000210	(0%; 15)	0.000257	(0%; 8)
Total PCBs	0.14	0.0515	(0%; 20)	0.125	(0%; 15)	**0.263**	**(25%; 8)**
Organochlorine Pesticides (µg/L)							
Aldrin	0.26	0.0000510	(0%; 20)	0.000815	(0%; 15)	0.0151	(0%; 8)
Dieldrin	0.11	0.0000740	(0%; 20)	0.000297	(0%; 15)	0.0000950	(0%; 8)
Phthalates (µg/L)							
Bis(2-ethylhexyl)phthalate	3.0	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)							
Hexachloro-1,3-butadiene	0.32	0.0750	(0%; 20)	0.0750	(0%; 15)	0.0750	(0%; 8)
Hexachlorobenzene	129	0.00412	(0%; 20)	0.00841	(0%; 15)	0.0104	(0%; 8)
1,2,3,4-Tetrachlorobenzene	NG	0.0209	(0%; 20)	0.0182	(0%; 15)	0.0364	(0%; 8)
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	129	0.0144	(0%; 20)	0.00741	(0%; 15)	0.0194	(0%; 8)
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND

Table E2-60. Comparison of the concentrations of chemicals of potential concern in pore water from each area of concern (AOC) to the selected benchmarks for assessing pore-water chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Benchmarks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]					
		Upper Calcasieu River AOC		Bayou d'Inde AOC		Middle Calcasieu River AOC	
Chlorinated Benzenes (µg/L; cont.)							
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	129	0.00303	(0%; 20)	0.00392	(0%; 15)	0.0103	(0%; 8)
Chlorinated Ethanes (µg/L)							
1,1,1-Trichloroethane	1560	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5650	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)							
Acetone	1500	ND	ND	ND	ND	ND	ND
Carbon disulfide	0.92	ND	ND	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); NG = no guideline available; PCBs = polychlorinated biphenyls; COC = contaminant of concern.

[1]Refer to Table E2-4 for a complete description of the selected benchmarks.

[2]Substances for which the 95th percentile concentration for an AOC is higher than the selected benchmark (highlighted with bold and underline) were retained as preliminary COCs.

Table E2-61. Comparison of the distributions of the effects and no effects data for pore-water samples from the Calcasieu Estuary, based on the results of 60-minute or 48-hour toxicity tests with the sea urchin, *Arbacia punctulata*, based on fertilization or development.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Conventionals (mg/L)						
Hydrogen sulfide	6	0.00350	44	0.00399	0.9	N
Nitrogen, as ammonia	6	0.547	44	0.400	1.4	N
Total dissolved sulfide	6	0.0482	44	0.0420	1.1	N
Ammonia - toxic units (no units)	6	0.181	44	0.168	1.1	N
Metals (µg/L)						
Chromium, total	ND	ND	ND	ND	ND	ND
Chromium, dissolved	ND	ND	ND	ND	ND	ND
Copper, total	4	14.3	13	8.71	1.6	N
Copper, dissolved	6	7.03	44	6.38	1.1	N
Lead, total	6	1.10	44	0.900	1.2	N
Lead, dissolved	6	0.390	44	0.332	1.2	N
Mercury, total	ND	ND	ND	ND	ND	ND
Mercury, dissolved	ND	ND	ND	ND	ND	ND
Methyl mercury	ND	ND	ND	ND	ND	ND
Nickel, total	5	54.3	34	6.60	8.2	Y
Nickel, dissolved	6	11.4	44	6.04	1.9	N
Zinc, total	5	15.6	19	7.43	2.1	Y
Zinc, dissolved	6	565	44	630	0.9	N
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)						
1,1'-Biphenyl	6	0.0238	44	0.00372	6.4	Y
1-Methylnaphthalene	6	3.47	44	0.00932	372.5	Y
1-Methylphenanthrene	6	0.278	44	0.00340	81.8	Y
2,6-Dimethylnaphthalene	6	1.00	44	0.00540	185.2	Y
2-Methylnaphthalene	6	1.08	44	0.0105	102.9	Y
Acenaphthene	6	0.149	44	0.0243	6.1	Y
Acenaphthylene	6	0.0316	44	0.00315	10.0	Y
Anthracene	6	0.115	44	0.00435	26.4	Y
Fluorene	6	0.262	44	0.0160	16.4	Y
Naphthalene	6	0.201	44	0.0208	9.7	Y
Phenanthrene	6	0.896	44	0.0340	26.3	Y
Benz(a)anthracene	6	0.0310	44	0.00132	23.4	Y
Benzo(a)pyrene	6	0.0111	44	0.00112	9.9	Y
Benzo(b)fluoranthene	6	0.0111	44	0.00185	6.0	Y
Benzo(g,h,i)perylene	6	0.0116	44	0.000925	12.6	Y
Benzo(k)fluoranthene	6	0.00167	44	0.000800	2.1	Y
Chrysene	6	0.0747	44	0.00262	28.5	Y
Dibenz(a,h)anthracene	6	0.00597	44	0.000600	10.0	Y

Table E2-61. Comparison of the distributions of the effects and no effects data for pore-water samples from the Calcasieu Estuary, based on the results of 60-minute or 48-hour toxicity tests with the sea urchin, *Arbacia punctulata*, based on fertilization or development.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
PAHs (µg/L; cont.)						
Fluoranthene	6	0.0867	44	0.0128	6.8	Y
Indeno(1,2,3-cd)pyrene	6	0.00592	44	0.000700	8.5	Y
Perylene	6	0.00465	44	0.00297	1.6	N
Pyrene	6	0.326	44	0.0100	32.5	Y
PCB Aroclors (µg/L)						
Aroclor-1016	0	NA	0	NA	NA	U
Aroclor-1221	6	0.0500	43	0.0500	1.0	N
Aroclor-1232	6	0.0500	43	0.0500	1.0	N
Aroclor-1242	6	0.0500	43	0.0500	1.0	N
Aroclor-1248	0	NA	0	NA	NA	U
Aroclor-1254	0	NA	0	NA	NA	U
Aroclor-1260	6	0.0500	43	0.0500	1.0	N
PCB Congeners (µg/L)						
PCB 105	6	0.000464	44	0.00144	0.3	N
PCB 118	6	0.00178	44	0.000570	3.1	Y
PCB 128	6	0.000111	44	0.0000700	1.6	N
PCB 132/153	6	0.000261	44	0.000100	2.6	Y
PCB 138/160	6	0.0142	44	0.0119	1.2	N
PCB 170/190	6	0.000205	44	0.000115	1.8	N
PCB 18/17	6	0.000316	44	0.00413	0.1	N
PCB 180	6	0.000940	44	0.000850	1.1	N
PCB 187	6	0.000190	44	0.000590	0.3	N
PCB 195/208	6	0.000116	44	0.0000750	1.5	N
PCB 206	6	0.000145	44	0.000132	1.1	N
PCB 209	6	0.000155	44	0.000117	1.3	N
PCB 28	6	0.000120	44	0.00293	0.04	N
PCB 29	6	0.0000700	44	0.000362	0.2	N
PCB 44	6	0.000520	44	0.000837	0.6	N
PCB 5/8	6	0.00706	44	0.0119	0.6	N
PCB 52	6	0.00285	44	0.00239	1.2	N
PCB 66	6	0.000130	44	0.0000750	1.7	N
PCB 77/110	6	0.00296	44	0.000315	9.4	Y
PCB 87/115	6	0.00055	44	0.000077	7.0	Y
PCB 90/101	6	0.00132	44	0.000164	8.1	Y
PCB 201/157/173	6	0.000160	44	0.0000900	1.8	N
Total PCBs	6	0.0631	44	0.0469	1.3	N

Table E2-61. Comparison of the distributions of the effects and no effects data for pore-water samples from the Calcasieu Estuary, based on the results of 60-minute or 48-hour toxicity tests with the sea urchin, *Arbacia punctulata*, based on fertilization or development.

Chemical of Potential Concern (COPCs)	Effects Distribution[1]		No Effects Distribution[2]		Ratio of Effects to No Effects	Ratio > 2?[3]
	n	75th Percentile Concentration	n	75th Percentile Concentration		
Organochlorine Pesticides (µg/L)						
Aldrin	6	0.0000575	44	0.0000500	1.1	N
Dieldrin	6	0.000339	44	0.0000550	6.2	Y
Phthalates (µg/L)						
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)						
Hexachloro-1,3-butadiene	6	0.0750	44	0.0750	1.0	N
Hexachlorobenzene	6	0.000815	44	0.00338	0.2	N
1,2,3,4-Tetrachlorobenzene	6	0.00131	44	0.0137	0.1	N
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	6	0.00408	44	0.00387	1.1	N
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND
Pentachlorobenzene	6	0.00102	44	0.00185	0.5	N
Chlorinated Ethanes (µg/L)						
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Other COPCs (µg/L)						
Acetone	ND	ND	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND	ND	ND

ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; COC = contaminant of concern; n = number of samples.

[1]Includes all samples that were designated as toxic to the sea urchin using the reference envelope approach.

[2]Includes all samples that were designated as not toxic to the sea urchin using the reference envelope approach.

[3]Y = Yes, the ratio of the effects to no effects data is greater than two; if a 75th percentile concentration could not be calculated for the no effects dataset because of high non-detect data (i.e., NA in table), the substance was considered to have a ratio greater than two.

N = No, the ratio of the effects to no effects data is not greater than two.

U = Uncertain; if a 75th percentile concentration could not be calculated for the effects dataset (or both the effects and no effects datasets), because of high non-detect data (i.e., NA in table), the substance was considered to be Uncertain.

Table E2-62. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as COC?[4]
Conventionals (mg/L)				
Hydrogen sulfide	Y	Y	Y[5]	Y
Total dissolved sulfide	Y	U	N	N
Nitrogen, as ammonia	N	U	N	N
Ammonia - toxic units (no units)	N	N	N	N
Metals (µg/L)				
Chromium, total	ND	ND	ND	ND
Chromium, dissolved	ND	ND	ND	ND
Copper, total	N	Y	N	N
Copper, dissolved	N	Y	N	N
Lead, total	N	N	N	N
Lead, dissolved	N	N	N	N
Mercury, total	ND	ND	ND	ND
Mercury, dissolved	ND	ND	ND	ND
Methyl mercury	ND	ND	ND	ND
Nickel, total	N	N	Y	N
Nickel, dissolved	N	N	N	N
Zinc, total	N	N	Y	N
Zinc, dissolved	N	Y	N	N
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)				
1,1'-Biphenyl	N	N	Y	N
1-Methylnaphthalene	N	N	Y	N
1-Methylphenanthrene	N	U	Y	N
2,6-Dimethylnaphthalene	N	U	Y	N
2-Methylnaphthalene	N	N	Y	N
Acenaphthene	Y	N	Y	N
Acenaphthylene	N	U	Y	N
Anthracene	Y	N	Y	N
Fluorene	N	N	Y	N
Naphthalene	N	N	Y	N
Phenanthrene	N	N	Y	N
Benz(a)anthracene	Y	N	Y	N
Benzo(a)pyrene	Y	N	Y	N
Benzo(b)fluoranthene	N	N	Y	N
Benzo(g,h,i)perylene	Y	N	Y	N
Benzo(k)fluoranthene	N	N	Y	N
Chrysene	N	N	Y	N

Table E2-62. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as COC?[4]
PAHs (µg/L; cont.)				
Dibenz(a,h)anthracene	Y	N	Y	N
Fluoranthene	N	N	Y	N
Indeno(1,2,3-cd)pyrene	N	N	Y	N
Perylene	Y	U	N	N
Pyrene	Y	N	Y	N
PCB Aroclors (µg/L)				
Aroclor-1016	U	U	U	U
Aroclor-1221	N	N	N	N
Aroclor-1232	N	N	N	N
Aroclor-1242	N	N	N	N
Aroclor-1248	U	U	U	U
Aroclor-1254	U	U	U	U
Aroclor-1260	N	N	N	N
PCB Congeners (µg/L)				
PCB 105	Y	U	N	N
PCB 118	Y	U	Y	U
PCB 128	N	U	N	N
PCB 132/153	Y	U	Y	U
PCB 138/160	Y	U	N	N
PCB 170/190	Y	U	N	N
PCB 18/17	Y	U	N	N
PCB 180	N	U	N	N
PCB 187	Y	U	N	N
PCB 195/208	N	U	N	N
PCB 206	N	U	N	N
PCB 209	N	U	N	N
PCB 28	N	U	N	N
PCB 29	Y	U	N	N
PCB 44	Y	U	N	N
PCB 5/8	N	U	N	N
PCB 52	Y	U	N	N
PCB 66	N	U	N	N
PCB 77/110	N	U	Y	N
PCB 87/115	Y	U	Y	U
PCB 90/101	N	U	Y	N
PCB 201/157/173	N	U	N	N
Total PCBs	N	N	N	N

Table E2-62. Identification of contaminants of concern in the Upper Calcasieu River Area of Concern (UCR AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as COC?[4]
Organochlorine Pesticides (µg/L)				
Aldrin	N	N	N	N
Dieldrin	N	N	Y	N
Phthalates (µg/L)				
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)				
Hexachloro-1,3-butadiene	N	N	N	N
Hexachlorobenzene	N	N	N	N
1,2,3,4-Tetrachlorobenzene	N	U	N	N
1,2,3-Trichlorobenzene	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	Y	N	N	N
1,2,4-Trichlorobenzene	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Pentachlorobenzene	N	N	N	N
Chlorinated Ethanes (µg/L)				
1,1,1-Trichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Other COPCs (µg/L)				
Acetone	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls; COC = contaminant of concern.

[1]See Table E2-32 for a description of the procedures used to evaluate COPC concentrations relative to reference areas.
[2]See Table E2-60 for a description of the procedures used to evaluate COPC concentrations relative to selected toxicity thresholds.
[3]See Table E2-61 for a description of the procedures used to evaluate the distributions of the effects and no effects data.
[4]See Table E2-73 for an explanation of the criteria that were used to designate a COPC as a COC.
Y = Yes, retained as a COC for pore water.
N = No, not retained as a COC for pore water.
U = Uncertain, insufficient data are available to determine if the COPC should be retained as a COC for pore water.
[5]Y = Yes, based on the results of 10-d whole-sediment toxicity tests with *Ampelisca abdita.*

Table E2-63. Summary of the results of 28-d bioaccumulation tests with the polychaete, *Nereis virens*.

Chemicals of Potential Concern (COPCs)	Mean Concentration (Standard Deviation; Number of Samples)[1,2]			
	Reference Areas	UCR AOC	BI AOC	MCR AOC
Metals (mg/kg)				
Chromium	0.09 (0.01; 7)	0.07 (0.02; 8)	0.12 (0.08; 20)	0.23 (0.21; 4)
Copper	1.37 (0.22; 7)	1.92 (0.58; 8)	1.88 (0.72; 20)	1.29 (0.08; 4)
Lead	0.27 (0.04; 7)	0.47 (0.17; 8)	0.38 (0.09; 20)	0.34 (0.03; 4)
Mercury	0.01 (0.002; 7)	0.01 (0.001; 8)	0.01 (0.003; 21)	0.01 (0.002; 4)
Methyl mercury	0.01 (0.002; 7)	0.00 (0.0002; 8)	0.00 (0.001; 21)	0.00 (0.001; 4)
Nickel	0.10 (0.01; 7)	0.31 (0.23; 8)	0.29 (0.22; 20)	0.20 (0.11; 4)
Zinc	15.40 (0.34; 7)	14.44 (0.53; 8)	13.48 (0.38; 20)	11.62 (0.25; 4)
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)				
1,1'-Biphenyl	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
2-Methylnaphthalene	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Acenaphthene	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Acenaphthylene	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Anthracene	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Fluorene	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Naphthalene	25.00 (0; 7)	27.89 (0.10; 8)	25.56 (0.07; 21)	25.00 (0; 4)
Phenanthrene	25.00 (0; 7)	25.00 (0; 8)	30.08 (1.26; 21)	31.82 (0.59; 4)
Benz(a)anthracene	25.00 (0; 7)	35.40 (0.52; 8)	25.00 (0; 21)	25.00 (0; 4)
Benzo(a)pyrene	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Benzo(b)fluoranthene	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Benzo(g,h,i)perylene	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Benzo(k)fluoranthene	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Chrysene	25.00 (0; 7)	94.37 (3.16; 8)	25.00 (0; 21)	31.18 (0.53; 4)
Dibenz(a,h)anthracene	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Fluoranthene	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Indeno(1,2,3-cd)pyrene	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Pyrene	25.00 (0; 7)	25.00 (0; 8)	29.35 (1.03; 21)	25.00 (0; 4)
PCB Aroclors (µg/kg)				
Aroclor-1016	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Aroclor-1221	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Aroclor-1232	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Aroclor-1242	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Aroclor-1248	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Aroclor-1254	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Aroclor-1260	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)

Table E2-63. Summary of the results of 28-d bioaccumulation tests with the polychaete, *Nereis virens*.

Chemicals of Potential Concern (COPCs)	Mean Concentration (Standard Deviation; Number of Samples)[1,2]			
	Reference Areas	UCR AOC	BI AOC	MCR AOC
PCB Congeners (ng/kg)				
PCB 105	225.04 (1.51; 2)	260.96 (0.24; 2)	483.14 (0.77; 6)	471.00 (NA; 1)
PCB 108	44.95 (2.13; 2)	86.59 (0.88; 2)	141.63 (1.40; 6)	76.10 (NA; 1)
PCB 114	9.80 (0.76; 2)	13.33 (0.32; 2)	39.53 (1.49; 6)	25.80 (NA; 1)
PCB 118	366.35 (3.54; 2)	617.35 (0.65; 2)	896.64 (1.30; 6)	918.00 (NA; 1)
PCB 126	10.36 (0.70; 2)	7.31 (0.45; 2)	15.45 (0.56; 6)	5.91 (NA; 1)
PCB 127	11.91 (0.41; 2)	20.87 (1.26; 2)	12.07 (0.04; 6)	7.85 (NA; 1)
PCB 15	51.54 (0.34; 2)	108.43 (0.35; 2)	810.75 (7.49; 6)	123.00 (NA; 1)
PCB 156	72.97 (0.98; 2)	84.58 (0.28; 2)	192.22 (0.85; 6)	132.00 (NA; 1)
PCB 157	23.35 (0.83; 2)	20.67 (0.13; 2)	55.16 (0.67; 6)	35.30 (NA; 1)
PCB 162	148.53 (1.35; 2)	158.47 (0.25; 2)	314.82 (0.69; 6)	238.00 (NA; 1)
PCB 167	48.17 (0.80; 2)	46.52 (0.24; 2)	126.45 (0.89; 6)	58.40 (NA; 1)
PCB 169	11.91 (0.41; 2)	20.87 (1.26; 2)	12.07 (0.04; 6)	7.85 (NA; 1)
PCB 189	6.15 (0.16; 2)	9.45 (0.53; 2)	32.11 (1.64; 6)	8.63 (NA; 1)
PCB 37	22.54 (0.21; 2)	34.44 (0.17; 2)	147.96 (5.69; 6)	48.90 (NA; 1)
PCB 58	9.32 (0.94; 2)	2.36 (0.83; 2)	8.45 (1.89; 6)	7.85 (NA; 1)
PCB 60	46.09 (0.67; 2)	75.34 (0.08; 2)	188.46 (2.25; 6)	80.80 (NA; 1)
PCB 61/70	76.15 (2.47; 2)	121.45 (0.29; 2)	158.95 (3.69; 6)	137.00 (NA; 1)
PCB 66	108.20 (7.02; 2)	207.34 (0.47; 2)	545.49 (3.20; 6)	196.00 (NA; 1)
PCB 77	13.73 (0.66; 2)	23.50 (0.01; 2)	76.28 (1.76; 6)	28.90 (NA; 1)
PCB 79	9.00 (3.64; 2)	16.52 (2.31; 2)	20.27 (1.64; 6)	9.30 (NA; 1)
PCB 80	3.92 (4.53; 2)	20.87 (1.26; 2)	13.14 (0.21; 6)	7.85 (NA; 1)
PCB 81	7.91 (1.39; 2)	5.11 (0.18; 2)	13.82 (0.97; 6)	7.11 (NA; 1)
Organochlorine Pesticides (µg/kg)				
Aldrin	5.00 (0; 7)	5.00 (0; 8)	5.64 (0.38; 21)	5.00 (0; 4)
Dieldrin	5.00 (0; 7)	5.00 (0; 8)	5.00 (0; 21)	5.00 (0; 4)
Phthalates (µg/kg)				
Benzylbutylphthalate	25.00 (0; 7)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Bis(2-ethylhexyl)phthalate	128.39 (2.08; 7)	107.24 (2.31; 8)	127.17 (2.27; 21)	257.50 (1.53; 4)
Diethylphthalate	29.66 (0.29; 7)	60.64 (0.30; 8)	66.66 (0.76; 21)	56.53 (1.52; 4)
Dimethylphthalate	25.00 (0; 7)	26.08 (0.12; 8)	25.00 (0; 21)	25.00 (0; 4)
Di-n-butylphthalate	41.63 (0.86; 7)	45.13 (2.03; 8)	70.90 (1.28; 21)	53.32 (1.34; 4)
Di-n-octylphthalate	25.00 (0; 6)	25.00 (0; 8)	25.00 (0; 21)	25.00 (0; 4)
Chlorinated Benzenes (µg/kg)				
Hexachloro-1,3-butadiene	25.00 (0; 7)	58.07 (0.38; 8)	55.29 (0.55; 21)	44.76 (1.22; 4)
Hexachlorobenzene	26.65 (0.18; 7)	25.00 (0.00; 8)	25.00 (0.00; 21)	25.00 (0; 4)

Table E2-63. Summary of the results of 28-d bioaccumulation tests with the polychaete, *Nereis virens*.

Chemicals of Potential Concern (COPCs)	Mean Concentration (Standard Deviation; Number of Samples)[1,2]			
	Reference Areas	UCR AOC	BI AOC	MCR AOC
PCDDs and PCDFs (pg/g)				
1,2,3,4,6,7,8-HpCDD	0.27 (0.02; 2)	1.14 (0.05; 2)	1.40 (0.60; 6)	0.39 (NA; 1)
1,2,3,4,7,8-HxCDD	0.05 (0.01; 2)	0.25 (0.13; 2)	0.17 (0.14; 6)	0.05 (NA; 1)
1,2,3,6,7,8-HxCDD	0.05 (0.01; 2)	0.29 (0.13; 2)	0.35 (0.15; 6)	0.17 (NA; 1)
1,2,3,7,8,9-HxCDD	0.05 (0.01; 2)	0.28 (0.17; 2)	0.12 (0.07; 6)	0.06 (NA; 1)
1,2,3,7,8-PeCDD	0.03 (0; 2)	0.26 (0.13; 2)	0.34 (0.27; 6)	0.04 (NA; 1)
2,3,7,8-TCDD	0.03 (0.01; 2)	0.09 (0.02; 2)	0.20 (0.21; 6)	0.03 (NA; 1)
OCDD	3.34 (0.85; 2)	6.97 (0.58; 2)	10.75 (1.43; 6)	5.76 (NA; 1)
Total HpCDD	0.96 (0.43; 2)	2.18 (0.14; 2)	2.74 (0.70; 6)	0.73 (NA; 1)
Total HxCDD	0.48 (0.31; 2)	1.28 (0.80; 2)	1.87 (0.54; 6)	1.10 (NA; 1)
Total PeCDD	0.03 (0; 2)	0.34 (0.23; 2)	0.69 (0.70; 6)	0.04 (NA; 1)
Total TCDD	0.23 (0.27; 2)	0.27 (0.27; 2)	0.63 (0.65; 6)	0.28 (NA; 1)
1,2,3,4,6,7,8-HpCDF	0.11 (0.01; 2)	0.64 (0.32; 2)	4.16 (1.76; 6)	0.34 (NA; 1)
1,2,3,4,7,8,9-HpCDF	0.02 (0; 2)	0.31 (0.28; 2)	1.18 (1.14; 6)	0.06 (NA; 1)
1,2,3,4,7,8-HxCDF	0.06 (0.06; 2)	0.30 (0.29; 2)	4.98 (3.07; 6)	0.35 (NA; 1)
1,2,3,6,7,8-HxCDF	0.11 (0.04; 2)	0.26 (0.24; 2)	2.47 (1.72; 6)	0.16 (NA; 1)
1,2,3,7,8,9-HxCDF	0.03 (0.01; 2)	0.31 (0.20; 2)	0.69 (0.69; 6)	0.02 (NA; 1)
1,2,3,7,8-PeCDF	0.06 (0.04; 2)	0.27 (0.18; 2)	4.10 (2.49; 6)	0.25 (NA; 1)
2,3,4,6,7,8-HxCDF	0.02 (0; 2)	0.27 (0.23; 2)	0.96 (0.80; 6)	0.09 (NA; 1)
2,3,4,7,8-PeCDF	0.11 (0.03; 2)	0.33 (0.27; 2)	3.66 (2.20; 6)	0.27 (NA; 1)
2,3,7,8-TCDF	0.46 (0.08; 2)	0.71 (0.32; 2)	6.63 (2.57; 6)	0.73 (NA; 1)
OCDF	0.25 (0.19; 2)	0.89 (0.47; 2)	11.23 (4.48; 6)	0.46 (NA; 1)
Total HpCDF	0.11 (0.01; 2)	0.93 (0.66; 2)	7.40 (2.08; 6)	0.34 (NA; 1)
Total HxCDF	1.03 (0.18; 2)	1.25 (1.76; 2)	17.72 (3.63; 6)	1.79 (NA; 1)
Total PeCDF	1.29 (0.27; 2)	2.22 (2.26; 2)	22.20 (4.22; 6)	1.96 (NA; 1)
Total TCDF	2.44 (0.29; 2)	3.62 (1.76; 2)	30.29 (4.24; 6)	6.75 (NA; 1)

UCR AOC = Upper Calcasieu River Area of Concern; BI AOC = Bayou d'Inde Area of Concern;
MCR AOC = Middle Calcasieu River Area of Concern; PCDDs = polychlorinated dibenzo-*p*-dioxins;
PCDFs = polychlorinated dibenzofurans; PCBs = polychlorinated biphenyls.

[1]If the result is <DL, the value of 1/2 the detection limit was assigned.
[2]The arithmetic mean and standard deviation were calculated using $\log_e$ transformed data.

Table E2-64. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		UBI[3]		MBI[3]		LBI-MS[3]		LBI-LM[3]		PPGC[3]		
Metals (mg/kg DW)												
Chromium	141	133	(7%; 43)	**412**	**(34%; 87)**	81.7	(0%; 35)	**161**	**(8%; 106)**	NA	NA	Y
Copper	94	85.6	(2%; 48)	**170**	**(29%; 92)**	**219**	**(39%; 38)**	**387**	**(37%; 118)**	**538**	**(50%; 6)**	Y
Lead	94	49.5	(2%; 48)	83.8	(2%; 92)	82.8	(3%; 38)	**312**	**(33%; 118)**	**420**	**(50%; 6)**	Y
Mercury	0.48	0.439	(4%; 48)	**3.44**	**(69%; 91)**	**3.16**	**(71%; 38)**	**8.10**	**(69%; 111)**	**8.80**	**(100%; 6)**	Y
Methyl mercury	NG	0.000649	(NG; 5)	0.00157	(NG; 5)	0.00581	(NG; 3)	0.01683	(NG; 12)	0.01695	(NG; 6)	U
Nickel	47	23.1	(2%; 48)	27.7	(0%; 91)	42.0	(0%; 37)	**55.4**	**(11%; 118)**	**92.4**	**(33%; 6)**	Y
Zinc	245	243	(4%; 48)	**450**	**(21%; 85)**	201	(0%; 38)	**321**	**(14%; 118)**	**284**	**(17%; 6)**	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)												
1,1'-Biphenyl	73	33.0	(0%; 1)	34.5	(0%; 2)	**474**	**(93%; 14)**	ND	ND	**90**	**(25%; 4)**	Y
1-Methylnaphthalene	94	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	112	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	133	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	128	70.1	(0%; 10)	68.7	(0%; 10)	111	(9%; 11)	109	(0%; 13)	**379**	**(17%; 6)**	Y
Acenaphthene	116	105	(9%; 11)	**140**	**(18%; 11)**	44.3	(14%; 7)	**684**	**(27%; 11)**	31.5	(0%; 6)	Y
Acenaphthylene	140	**169**	**(8%; 12)**	**225**	**(17%; 12)**	**185**	**(0%; 10)**	**653**	**(36%; 14)**	83	(0%; 6)	Y
Anthracene	290	172	(0%; 12)	185	(6%; 16)	163	(0%; 15)	**694**	**(22%; 18)**	168	(0%; 6)	Y
Fluorene	114	69.6	(0%; 10)	**143**	**(10%; 10)**	44.3	(0%; 7)	**286**	**(25%; 12)**	54.9	(0%; 6)	Y
Naphthalene	217	97.5	(0%; 11)	93.9	(0%; 13)	82.2	(0%; 11)	98.2	(6%; 16)	116.7	(0%; 6)	N
Phenanthrene	455	420	(8%; 13)	**507**	**(6%; 17)**	255	(0%; 19)	**17700**	**(30%; 27)**	**548**	**(17%; 6)**	Y
Total LMW-PAHs	3160	808	(0%; 32)	976	(1%; 68)	828	(0%; 33)	3080	(5%; 78)	1400	(0%; 6)	N
Benz(a)anthracene	466	**543**	**(15%; 13)**	363	(6%; 18)	270	(0%; 21)	**1270**	**(21%; 29)**	**732**	**(17%; 6)**	Y
Benzo(a)pyrene	520	348	(0%; 13)	250	(5%; 21)	241	(0%; 18)	**1160**	**(18%; 28)**	**696**	**(17%; 6)**	Y
Benzo(b)fluoranthene	1107	550	(0%; 31)	550	(1%; 68)	476	(0%; 33)	588	(3%; 77)	**1110**	**(17%; 6)**	Y
Benzo(g,h,i)perylene	497	181	(0%; 12)	158	(6%; 17)	142	(0%; 14)	**610**	**(9%; 23)**	**598**	**(17%; 6)**	Y

Table E2-64. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		UBI[3]		MBI[3]		LBI-MS[3]		LBI-LM[3]		PPGC[3]		
PAHs (µg/kg DW; cont.)												
Benzo(k)fluoranthene	537	173	(0%; 12)	379	(5%; 20)	187	(0%; 16)	**849**	**(8%; 26)**	125	(0%; 6)	Y
Benzofluoranthenes	3600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	650	**831**	**(13%; 16)**	525	(4%; 25)	472	(0%; 26)	**1410**	**(20%; 40)**	**1740**	**(33%; 6)**	Y
Dibenz(a,h)anthracene	113	78.5	(0%; 10)	**143**	**(11%; 9)**	46.4	(0%; 7)	**315**	**(40%; 10)**	**300**	**(33%; 6)**	Y
Fluoranthene	1034	893	(7%; 30)	500	(2%; 62)	476	(0%; 33)	**1830**	**(10%; 63)**	638	(0%; 6)	Y
Indeno(1,2,3-cd)pyrene	488	175	(0%; 12)	144	(6%; 18)	131	(0%; 15)	**565**	**(8%; 24)**	284	(0%; 6)	Y
Perylene	453	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	932	**1190**	**(7%; 28)**	487	(2%; 53)	526	(0%; 32)	**1750**	**(11%; 64)**	**2560**	**(33%; 6)**	Y
Total HMW-PAHs	9600	2400	(0%; 41)	2500	(1%; 88)	2400	(0%; 37)	4390	(1%; 108)	6670	(0%; 6)	N
Total PAHs	44792	2900	(0%; 41)	3000	(0%; 88)	2920	(0%; 37)	7030	(2%; 110)	8070	(0%; 6)	N
PCB Aroclors (µg/kg DW)												
Aroclor-1016	NG	59.2	(NG; 44)	65.0	(NG; 78)	55.8	(NG; 27)	62.2	(NG; 52)	13.0	(NG; 5)	U
Aroclor-1221	NG	65.0	(NG; 17)	60.2	(NG; 20)	41.1	(NG; 14)	65.0	(NG; 21)	13.0	(NG; 5)	U
Aroclor-1232	NG	59.2	(NG; 44)	65.0	(NG; 78)	55.8	(NG; 27)	62.2	(NG; 52)	13.0	(NG; 5)	U
Aroclor-1242	NG	59.2	(NG; 44)	65.0	(NG; 78)	55.8	(NG; 27)	62.2	(NG; 52)	13.0	(NG; 5)	U
Aroclor-1248	NG	59.2	(NG; 44)	65.0	(NG; 78)	55.8	(NG; 27)	62.2	(NG; 52)	13.0	(NG; 5)	U
Aroclor-1254	NG	738	(NG; 45)	1030	(NG; 88)	234	(NG; 29)	84	(NG; 55)	13	(NG; 5)	U
Aroclor-1260	NG	65.0	(NG; 45)	65.0	(NG; 78)	60.0	(NG; 27)	65.0	(NG; 52)	13.0	(NG; 5)	U
Total PCBs	468	**26800**	**(26%; 23)**	**1250**	**(53%; 72)**	**690**	**(38%; 13)**	**617**	**(18%; 17)**	49	(0%; 3)	Y
PCB Congeners (µg/kg DW)												
PCB 105	NG	19.2	(NG; 2)	62.3	(NG; 12)	6.47	(NG; 10)	8.47	(NG; 7)	22.1	(NG; 3)	U
PCB 108	NG	5.67	(NG; 2)	15.6	(NG; 12)	1.97	(NG; 10)	2.58	(NG; 7)	14.0	(NG; 3)	U
PCB 114	NG	0.614	(NG; 2)	2.54	(NG; 12)	1.69	(NG; 10)	0.83	(NG; 7)	5.34	(NG; 3)	U
PCB 118	NG	62.1	(NG; 2)	171	(NG; 12)	21.8	(NG; 10)	24.4	(NG; 7)	85.6	(NG; 3)	U

Table E2-64. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		UBI[3]		MBI[3]		LBI-MS[3]		LBI-LM[3]		PPGC[3]		
PCB Congeners (µg/kg DW; cont.)												
PCB 126	NG	0.607	(NG; 2)	1.95	(NG; 12)	0.35	(NG; 10)	0.43	(NG; 7)	12.7	(NG; 3)	U
PCB 127	NG	0.00250	(NG; 2)	0.0237	(NG; 12)	0.0693	(NG; 10)	0.0397	(NG; 7)	0.462	(NG; 3)	U
PCB 15	NG	2.36	(NG; 2)	46.8	(NG; 12)	32.6	(NG; 10)	28.0	(NG; 7)	428.6	(NG; 3)	U
PCB 156	NG	7.08	(NG; 2)	18.0	(NG; 12)	3.92	(NG; 10)	3.40	(NG; 7)	21.0	(NG; 3)	U
PCB 157	NG	2.04	(NG; 2)	4.73	(NG; 12)	1.00	(NG; 10)	0.96	(NG; 7)	4.72	(NG; 3)	U
PCB 162	NG	14.2	(NG; 2)	31.2	(NG; 12)	4.53	(NG; 10)	5.34	(NG; 7)	10.9	(NG; 3)	U
PCB 167	NG	3.55	(NG; 2)	7.88	(NG; 12)	3.23	(NG; 10)	2.33	(NG; 7)	17.3	(NG; 3)	U
PCB 169	NG	0.0340	(NG; 2)	0.070	(NG; 12)	0.295	(NG; 10)	0.161	(NG; 7)	0.954	(NG; 3)	U
PCB 189	NG	0.487	(NG; 2)	1.17	(NG; 12)	2.39	(NG; 10)	1.04	(NG; 7)	11.1	(NG; 3)	U
PCB 37	NG	0.750	(NG; 2)	2.48	(NG; 12)	4.92	(NG; 10)	3.35	(NG; 7)	70.6	(NG; 3)	U
PCB 58	NG	0.453	(NG; 2)	2.39	(NG; 12)	0.94	(NG; 10)	0.68	(NG; 7)	4.35	(NG; 3)	U
PCB 60	NG	3.34	(NG; 2)	13.2	(NG; 12)	3.23	(NG; 10)	7.20	(NG; 7)	32.1	(NG; 3)	U
PCB 61/70	NG	26.3	(NG; 2)	86.9	(NG; 12)	17.8	(NG; 10)	16.2	(NG; 7)	96.9	(NG; 3)	U
PCB 66	NG	16.4	(NG; 2)	39.2	(NG; 12)	15.4	(NG; 10)	17.7	(NG; 7)	130	(NG; 3)	U
PCB 77	NG	2.22	(NG; 2)	8.36	(NG; 12)	1.09	(NG; 10)	2.03	(NG; 7)	9.35	(NG; 3)	U
PCB 79	NG	0.833	(NG; 2)	2.44	(NG; 12)	0.426	(NG; 10)	0.410	(NG; 7)	3.12	(NG; 3)	U
PCB 80	NG	0.00250	(NG; 2)	0.0200	(NG; 12)	0.155	(NG; 10)	0.089	(NG; 7)	0.773	(NG; 3)	U
PCB 81	NG	0.991	(NG; 2)	2.93	(NG; 12)	0.395	(NG; 10)	0.682	(NG; 7)	2.05	(NG; 3)	U
Organochlorine Pesticides (µg/kg DW)												
Aldrin	0.44	NA	NA	**7.00**	**(100%; 15)**	**319**	**(100%; 15)**	**35**	**(93%; 14)**	**320**	**(100%; 1)**	Y
Dieldrin	2.9	NA	NA	1.96	(0%; 10)	**30.9**	**(56%; 9)**	**19.2**	**(60%; 5)**	**44.1**	**(100%; 2)**	Y

Table E2-64. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		UBI[3]		MBI[3]		LBI-MS[3]		LBI-LM[3]		PPGC[3]		
Phthalates (µg/kg DW)												
Bis(2-ethylhexyl)phthalate	2647	860	(0%; 41)	1040	(1%; 88)	**39700**	**(8%; 37)**	1050	(3%; 109)	361	(0%; 6)	Y
Benzylbutylphthalate	900	NA	NA	316	(0%; 2)	155	(0%; 2)	130	(0%; 1)	27	(0%; 3)	U
Diethylphthalate	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
Dimethylphthalate	160	33.0	(0%; 1)	84.6	(0%; 4)	25.5	(0%; 1)	NA	NA	27.4	(0%; 3)	U
Di-n-butylphthalate	1400	700	(0%; 37)	650	(0%; 83)	660	(0%; 37)	650	(0%; 90)	148	(0%; 6)	N
Di-n-octylphthalate	6200	NA	NA	811	(0%; 5)	910	(0%; 1)	270	(0%; 1)	NA	NA	U
Chlorinated Benzenes (µg/kg DW)												
Hexachloro-1,3-butadiene	11	NA	NA	NA	NA	**1710**	**(100%; 16)**	**751**	**(100%; 3)**	**312**	**(100%; 2)**	Y
Hexachlorobenzene	22	NA	NA	NA	NA	**20700**	**(100%; 22)**	**717**	**(100%; 8)**	**760**	**(100%; 1)**	Y
1,2,3,4-Tetrachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
1,2,4,5-Tetrachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	51	13.9	(0%; 24)	15.5	(0%; 43)	14.0	(0%; 22)	15.5	(0%; 26)	NA	NA	U
1,2-Dichlorobenzene	50	16.3	(0%; 28)	17.0	(0%; 54)	14.0	(0%; 22)	17.0	(0%; 32)	NA	NA	U
1,3-Dichlorobenzene	>170	21.0	(0%; 37)	21.9	(0%; 78)	39.5	(0%; 26)	47.7	(0%; 51)	NA	NA	U
1,4-Dichlorobenzene	110	21.0	(0%; 37)	22.7	(0%; 78)	40.6	(0%; 26)	47.7	(0%; 51)	NA	NA	U
Pentachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)												
1,1,1-Trichloroethane	170	21.0	(0%; 37)	22.7	(0%; 78)	20.5	(0%; 26)	47.7	(0%; 51)	NA	NA	U
1,2-Dichloroethane	NG	21.0	(NG; 37)	22.7	(NG; 78)	20.5	(NG; 26)	50.0	(NG; 52)	NA	NA	U

Table E2-64. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		UBI[3]		MBI[3]		LBI-MS[3]		LBI-LM[3]		PPGC[3]		
PCDDs and PCDFs (ng/kg DW)												
1,2,3,4,6,7,8-HpCDD	NG	1020	(NG; 10)	882	(NG; 27)	778	(NG; 14)	966	(NG; 17)	1370	(NG; 3)	U
1,2,3,4,7,8-HxCDD	NG	24.6	(NG; 10)	17.7	(NG; 27)	44.9	(NG; 14)	46.1	(NG; 17)	93.5	(NG; 3)	U
1,2,3,6,7,8-HxCDD	NG	63.5	(NG; 10)	120	(NG; 27)	56.6	(NG; 14)	50.0	(NG; 17)	113	(NG; 3)	U
1,2,3,7,8,9-HxCDD	NG	30.2	(NG; 10)	45.1	(NG; 27)	33.6	(NG; 14)	42.5	(NG; 17)	31.9	(NG; 3)	U
1,2,3,7,8-PeCDD	NG	4.09	(NG; 10)	22.4	(NG; 27)	29.8	(NG; 14)	26.1	(NG; 17)	96.0	(NG; 3)	U
2,3,7,8-TCDD	NG	0.73	(NG; 10)	2.88	(NG; 27)	17.3	(NG; 14)	8.5	(NG; 17)	22.7	(NG; 3)	U
OCDD	NG	14700	(NG; 10)	8170	(NG; 27)	8430	(NG; 14)	8590	(NG; 17)	10900	(NG; 3)	U
Total TCDD	NG	12.0	(NG; 10)	42.4	(NG; 27)	91.5	(NG; 14)	71.1	(NG; 17)	159.1	(NG; 3)	U
Total HpCDD	NG	2590	(NG; 10)	2110	(NG; 27)	1560	(NG; 14)	1940	(NG; 17)	2640	(NG; 3)	U
Total HxCDD	NG	615	(NG; 10)	1040	(NG; 27)	438	(NG; 14)	498	(NG; 17)	938	(NG; 3)	U
Total PeCDD	NG	18.3	(NG; 10)	157	(NG; 27)	64.9	(NG; 14)	84.6	(NG; 17)	255	(NG; 3)	U
1,2,3,4,6,7,8-HpCDF	NG	921	(NG; 10)	1120	(NG; 27)	16300	(NG; 14)	4180	(NG; 17)	6430	(NG; 3)	U
1,2,3,4,7,8,9-HpCDF	NG	46.6	(NG; 10)	227	(NG; 27)	3510	(NG; 14)	886	(NG; 17)	2430	(NG; 3)	U
1,2,3,4,7,8-HxCDF	NG	73.4	(NG; 10)	483	(NG; 27)	4130	(NG; 14)	1990	(NG; 17)	7580	(NG; 3)	U
1,2,3,6,7,8-HxCDF	NG	25.4	(NG; 10)	149	(NG; 27)	1380	(NG; 14)	470	(NG; 17)	1210	(NG; 3)	U
1,2,3,7,8,9-HxCDF	NG	6.00	(NG; 10)	31.0	(NG; 27)	162	(NG; 14)	88	(NG; 17)	917	(NG; 3)	U
1,2,3,7,8-PeCDF	NG	21.6	(NG; 10)	137	(NG; 27)	1070	(NG; 14)	577	(NG; 17)	1410	(NG; 3)	U
2,3,4,6,7,8-HxCDF	NG	16.7	(NG; 10)	56.3	(NG; 27)	325	(NG; 14)	140	(NG; 17)	645	(NG; 3)	U
2,3,4,7,8-PeCDF	NG	20.3	(NG; 10)	97.5	(NG; 27)	717	(NG; 14)	302	(NG; 17)	1280	(NG; 3)	U
2,3,7,8-TCDF	NG	21.1	(NG; 10)	193	(NG; 27)	303	(NG; 14)	440	(NG; 17)	1350	(NG; 3)	U
OCDF	NG	1500	(NG; 10)	6630	(NG; 27)	163000	(NG; 14)	29800	(NG; 17)	51800	(NG; 3)	U
Total TCDF	NG	176	(NG; 10)	1480	(NG; 27)	6060	(NG; 14)	2680	(NG; 17)	9970	(NG; 3)	U
Total HpCDF	NG	2100	(NG; 10)	2160	(NG; 27)	30100	(NG; 14)	7830	(NG; 17)	14900	(NG; 3)	U
Total HxCDF	NG	785	(NG; 10)	1800	(NG; 27)	18600	(NG; 14)	5740	(NG; 17)	18400	(NG; 3)	U
Total PeCDF	NG	248	(NG; 10)	1230	(NG; 27)	12800	(NG; 14)	3860	(NG; 17)	13600	(NG; 3)	U
Total Toxic Equivalents (TEQs)	21.5	**67.1**	**(20%; 10)**	**172**	**(74%; 27)**	**1320**	**(71%; 14)**	**583**	**(53%; 17)**	**2010**	**(100%; 3)**	Y

Table E2-64. Comparison of the concentrations of chemicals of potential concern in whole sediments from the Bayou d'Inde Area of Concern (BI AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		UBI[3]		MBI[3]		LBI-MS[3]		LBI-LM[3]		PPGC[3]		
Other COPCs (µg/kg DW)												
Acetone	NG	680	(NG; 37)	213	(NG; 78)	262	(NG; 26)	60	(NG; 52)	NA	NA	U
Carbon disulfide	NG	86.0	(NG; 37)	21.1	(NG; 78)	14.0	(NG; 26)	50.0	(NG; 52)	NA	NA	U

NG = no guideline available; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p* -dioxins; PCDFs = polychlorinated dibenzofurans; NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); COC = contaminant of concern.

[1]Refer to Table E2-3 for a complete description of the selected benchmarks.

[2]Substances for which the 95th percentile concentration for a reach is higher than the selected benchmark (highlighted with bold and underline) were retained as the preliminary COCs for the BI AOC.

[3]UBI = Upper Bayou d'Inde; MBI = Middle Bayou d'Inde; LBI-MS = Lower Bayou d'Inde - Mainstem; LBI-LM = Lower Bayou d'Inde - Lockport Marsh; PPGC = PPG Canal.

[4]Y = Yes, whole-sediment chemistry data for one or more reaches indicated that the substance should be retained as a preliminary COC for the BI AOC.
N = No, whole-sediment chemistry data for all reaches indicated that the substance should not be retained as a preliminary COC for the BI AOC.
U = Uncertain, insufficient information is available to conclude that the substance should not be retained as a preliminary COC for the BI AOC.

Table E2-65. Identification of contaminants of concern in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
Metals (mg/kg DW)							
Chromium	Y	Y	ND	ND	ND	ND	Y
Copper	Y	Y	Y	Y	Y	Y	Y
Lead	Y	Y	N	Y	N	Y	Y
Mercury	Y	Y	Y	Y	Y	Y	Y
Methyl mercury	Y	U	Y	Y	Y	Y	U
Nickel	Y	Y	N	N	N	N	N
Zinc	Y	Y	Y	Y	Y	Y	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)							
1,1'-Biphenyl	Y	Y	N	N	N	N	N
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	Y	Y	Y	Y	N	Y	Y
Acenaphthene	Y	Y	N	Y	N	Y	Y
Acenaphthylene	Y	Y	Y	Y	N	Y	Y
Anthracene	Y	Y	Y	Y	Y	Y	Y
Fluorene	Y	Y	Y	Y	N	Y	Y
Naphthalene	Y	N	N	N	N	N	N
Phenanthrene	Y	Y	Y	Y	Y	Y	Y
Total LMW-PAHs	Y	N	Y	Y	Y	Y	N
Benz(a)anthracene	Y	Y	Y	Y	Y	Y	Y
Benzo(a)pyrene	Y	Y	Y	Y	Y	Y	Y
Benzo(b)fluoranthene	Y	Y	Y	Y	Y	Y	Y
Benzo(g,h,i)perylene	Y	Y	Y	Y	Y	Y	Y
Benzo(k)fluoranthene	Y	Y	Y	Y	Y	Y	Y
Benzofluoranthenes	ND	ND	ND	ND	ND	ND	ND

Table E2-65. Identification of contaminants of concern in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PAHs (µg/kg DW; cont.)							
Chrysene	Y	Y	Y	Y	Y	Y	Y
Dibenz(a,h)anthracene	Y	Y	Y	Y	Y	Y	Y
Fluoranthene	Y	Y	Y	Y	Y	Y	Y
Indeno(1,2,3-cd)pyrene	Y	Y	Y	Y	Y	Y	Y
Perylene	ND	ND	ND	ND	ND	ND	ND
Pyrene	Y	Y	Y	Y	Y	Y	Y
Total HMW-PAHs	Y	N	Y	Y	Y	Y	N
Total PAHs	Y	N	Y	Y	Y	Y	N
PCB Aroclors (µg/kg DW)							
Aroclor-1016	Y	U	N	N	N	N	N
Aroclor-1221	Y	U	N	N	N	N	N
Aroclor-1232	Y	U	N	N	N	N	N
Aroclor-1242	Y	U	N	N	N	N	N
Aroclor-1248	Y	U	N	N	N	N	N
Aroclor-1254	Y	U	N	Y	N	Y	U
Aroclor-1260	Y	U	N	N	N	N	N
Total PCBs	Y	Y	N	Y	N	Y	Y
PCB Congeners (µg/kg DW)							
PCB 105	Y	U	Y	Y	N	Y	U
PCB 108	Y	U	Y	Y	N	Y	U
PCB 114	Y	U	N	Y	N	Y	U
PCB 118	Y	U	Y	Y	N	Y	U
PCB 126	Y	U	Y	Y	N	Y	U
PCB 127	Y	U	Y	Y	Y	Y	U
PCB 15	Y	U	Y	Y	Y	Y	U

Table E2-65. Identification of contaminants of concern in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PCB Congeners (µg/kg DW; cont.)							
PCB 156	Y	U	Y	Y	N	Y	U
PCB 157	Y	U	N	Y	N	Y	U
PCB 162	Y	U	Y	Y	N	Y	U
PCB 167	Y	U	Y	Y	N	Y	U
PCB 169	Y	U	Y	Y	Y	Y	U
PCB 189	Y	U	Y	Y	N	Y	U
PCB 37	Y	U	Y	Y	Y	Y	U
PCB 58	Y	U	N	Y	N	Y	U
PCB 60	Y	U	Y	Y	N	Y	U
PCB 61/70	Y	U	Y	Y	N	Y	U
PCB 66	Y	U	Y	Y	N	Y	U
PCB 77	Y	U	Y	Y	N	Y	U
PCB 79	Y	U	Y	Y	N	Y	U
PCB 80	Y	U	Y	Y	N	Y	U
PCB 81	Y	U	Y	Y	N	Y	U
Organochlorine Pesticides (µg/kg DW)							
Aldrin	U	Y	Y	Y	N	Y	Y
Dieldrin	Y	Y	Y	N	N	Y	Y
Phthalates (µg/kg DW)							
Bis(2-ethylhexyl)phthalate	Y	Y	Y	Y	N	Y	Y
Benzylbutylphthalate	U	U	N	N	N	N	N
Diethylphthalate	U	U	U	U	U	U	U
Dimethylphthalate	Y	U	N	N	N	N	N
Di-n-butylphthalate	Y	N	N	N	N	N	N
Di-n-octylphthalate	U	U	U	U	ND	U	U

Table E2-65. Identification of contaminants of concern in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
Chlorinated Benzenes (µg/kg DW)							
Hexachloro-1,3-butadiene	U	Y	Y	Y	N	Y	Y
Hexachlorobenzene	U	Y	Y	N	N	Y	Y
1,2,3,4-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	U	U	ND	ND	ND	ND	U
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	U	U	ND	ND	ND	ND	U
1,2-Dichlorobenzene	U	U	ND	ND	ND	ND	U
1,3-Dichlorobenzene	Y	U	ND	ND	ND	ND	U
1,4-Dichlorobenzene	Y	U	ND	ND	ND	ND	U
Pentachlorobenzene	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)							
1,1,1-Trichloroethane	Y	U	ND	ND	ND	ND	U
1,2-Dichloroethane	Y	U	ND	ND	ND	ND	U
PCDDs and PCDFs (ng/kg DW)							
1,2,3,4,6,7,8-HpCDD	Y	U	Y	Y	N	Y	U
1,2,3,4,7,8-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,6,7,8-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,7,8,9-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,7,8-PeCDD	Y	U	Y	Y	N	Y	U
2,3,7,8-TCDD	Y	U	Y	Y	Y	Y	U
OCDD	Y	U	Y	N	N	Y	U
Total TCDD	Y	U	N	N	N	N	N
Total HpCDD	Y	U	Y	Y	N	Y	U
Total HxCDD	Y	U	Y	Y	N	Y	U
Total PeCDD	Y	U	Y	Y	N	Y	U

Table E2-65. Identification of contaminants of concern in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PCDDs and PCDFs (ng/kg DW; cont.)							
1,2,3,4,6,7,8-HpCDF	Y	U	Y	Y	Y	Y	U
1,2,3,4,7,8,9-HpCDF	Y	U	Y	Y	Y	Y	U
1,2,3,4,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,6,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,7,8,9-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,7,8-PeCDF	Y	U	Y	Y	Y	Y	U
2,3,4,6,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
2,3,4,7,8-PeCDF	Y	U	Y	Y	Y	Y	U
2,3,7,8-TCDF	Y	U	Y	Y	Y	Y	U
OCDF	Y	U	Y	Y	Y	Y	U
Total TCDF	Y	U	Y	Y	Y	Y	U
Total HpCDF	Y	U	Y	Y	Y	Y	U
Total HxCDF	Y	U	Y	Y	Y	Y	U
Total PeCDF	Y	U	Y	Y	Y	Y	U
Total Toxic Equivalents (TEQs)	Y	Y	Y	Y	Y	Y	Y
Other COPCs (µg/kg DW)							
Acetone	Y	U	ND	ND	ND	ND	U
Carbon disulfide	Y	U	ND	ND	ND	ND	U

ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; COC = contaminant of concern; BICS = benthic invertebrate community structure.

[1]See Table E2-34 for a description of the procedures used to evaluate COPC concentrations relative to reference areas.

[2]See Table E2-64 for a description of the procedures used to evaluate COPC concentrations relative to selected toxicity thresholds.

[3]See Tables E2-56, E2-57 and E2-58 for descriptions of the procedures used to evaluate the distributions of the effects and no effects data.

Table E2-65. Identification of contaminants of concern in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	

[4]Based on the results of 10-d toxicity tests with *Ampelisca abdita,* (endpoint: survival).

[5]Based on the results of 28-d toxicity tests with *Hyalella azteca,* (endpoint: survival).

[6]Based on the results of cluster analyses of benthic invertebrate community structure data.

[7]Y = Yes, COPCs were retained as preliminary COCs if one or more biological metrics indicated concordance between whole sediment chemistry and biological effects.
N = No, COPCs were not retained as preliminary COCs if none of the biological metrics indicated concordance between whole sediment chemistry and biological effects.
U = Uncertain; insufficient information is available to conclude that the substance should not be retained as a preliminary COC.

[8]See Table E2-73 for an explanation of the criteria that were used to designate a COPC as a COC.
Y = Yes, retained as a COC for whole sediment.
N = No, not retained as a COC for whole sediment.
U = Uncertain, insufficient data are available to determine if the COPC should be retained as a COC for whole sediments.

Table E2-66. Identification of contaminants of concern (COCs) in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as a COC?[4]
Conventionals (mg/L)				
Hydrogen sulfide	Y	Y	Y[5]	Y
Nitrogen, as ammonia	Y	U	N	N
Total dissolved sulfide	N	U	N	N
Ammonia - toxic units (no units)	N	N	N	N
Metals (µg/L)				
Chromium, total	ND	ND	ND	ND
Chromium, dissolved	ND	ND	ND	ND
Copper, total	N	Y	N	N
Copper, dissolved	N	Y	N	N
Lead, total	N	N	N	N
Lead, dissolved	Y	N	N	N
Mercury, total	ND	ND	ND	ND
Mercury, dissolved	ND	ND	ND	ND
Methyl mercury	ND	ND	ND	ND
Nickel, total	Y	Y	Y	Y
Nickel, dissolved	Y	Y	N	N
Zinc, total	Y	Y	Y	Y
Zinc, dissolved	Y	Y	N	N
Polycyclic Aromatic Hydrocarbons (PAHs; µg/L)				
1,1'-Biphenyl	Y	N	Y	N
1-Methylnaphthalene	N	N	Y	N
1-Methylphenanthrene	Y	U	Y	U
2,6-Dimethylnaphthalene	Y	U	Y	U
2-Methylnaphthalene	N	N	Y	N
Acenaphthene	Y	N	Y	N
Acenaphthylene	Y	U	Y	U
Anthracene	Y	N	Y	N
Fluorene	Y	N	Y	N
Naphthalene	Y	N	Y	N
Phenanthrene	N	N	Y	N
Benz(a)anthracene	Y	N	Y	N
Benzo(a)pyrene	Y	N	Y	N
Benzo(b)fluoranthene	N	N	Y	N
Benzo(g,h,i)perylene	Y	N	Y	N
Benzo(k)fluoranthene	N	N	Y	N
Fluoranthene	N	N	Y	N
Indeno(1,2,3-cd)pyrene	N	N	Y	N

Table E2-66. Identification of contaminants of concern (COCs) in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as a COC?[4]
PAHs (µg/L; cont.)				
Chrysene	Y	N	Y	N
Dibenz(a,h)anthracene	Y	N	Y	N
Perylene	Y	U	N	N
Pyrene	Y	N	Y	N
PCB Aroclors (µg/L)				
Aroclor-1016	U	U	U	U
Aroclor-1221	N	N	N	N
Aroclor-1232	N	N	N	N
Aroclor-1242	N	N	N	N
Aroclor-1248	U	U	U	U
Aroclor-1254	U	U	U	U
Aroclor-1260	N	N	N	N
PCB Congeners (µg/L)				
PCB 105	Y	U	N	N
PCB 118	Y	U	Y	U
PCB 128	Y	U	N	N
PCB 132/153	Y	U	Y	U
PCB 138/160	Y	U	N	N
PCB 170/190	Y	U	N	N
PCB 18/17	Y	U	N	N
PCB 180	N	U	N	N
PCB 187	Y	U	N	N
PCB 195/208	Y	U	N	N
PCB 206	N	U	N	N
PCB 209	Y	U	N	N
PCB 28	N	U	N	N
PCB 29	Y	U	N	N
PCB 44	Y	U	N	N
PCB 5/8	N	U	N	N
PCB 52	N	U	N	N
PCB 66	Y	U	N	N
PCB 77/110	N	U	Y	N
PCB 87/115	Y	U	Y	U
PCB 90/101	N	U	Y	N
PCB 201/157/173	Y	U	N	N
Total PCBs	Y	N	N	N

Table E2-66. Identification of contaminants of concern (COCs) in the Bayou d'Inde Area of Concern (BI AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as a COC?[4]
Organochlorine Pesticides (µg/L)				
Aldrin	Y	N	N	N
Dieldrin	Y	N	Y	N
Phthalates (µg/L)				
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)				
Hexachloro-1,3-butadiene	N	N	N	N
Hexachlorobenzene	Y	N	N	N
1,2,3,4-Tetrachlorobenzene	N	U	N	N
1,2,3-Trichlorobenzene	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	N	N	N	N
1,2,4-Trichlorobenzene	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Pentachlorobenzene	N	N	N	N
Chlorinated Ethanes (µg/L)				
1,1,1-Trichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Other COPCs (µg/L)				
Acetone	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls.

[1]See Table E2-32 for a description of the procedures used to evaluate COPC concentrations relative to reference areas.
[2]See Table E2-60 for a description of the procedures used to evaluate COPC concentrations relative to selected toxicity thresholds.
[3]See Table E2-61 for a description of the procedures used to evaluate the distributions of the effects and no effects data.
[4]See Table E2-73 for an explanation of the criteria that were used to designate a COPC as a COC.
Y = Yes, retained as a COC for pore water.
N = No, not retained as a COC for pore water.
U = Uncertain, insufficient data are available to determine if the COPC should be retained as a COC for pore water.
[5]Y = Yes, based on the results of 10-d whole-sediment toxicity tests with *Ampelisca abdita.*

Table E2-67. Comparison of the 95th percentile concentrations of chemicals of potential concern in whole sediments from Middle Calcasieu River Area of Concern (MCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		MCR-MS[3]		PL[3]		IWL[3]		BO[3]		ML[3]		
Metals (mg/kg DW)												
Chromium	141	35.9	(0%; 76)	31.1	(0%; 39)	**174**	**(14%; 7)**	23.0	(0%; 6)	36.7	(0%; 14)	Y
Copper	94	65.7	(0%; 76)	54.0	(0%; 43)	**359**	**(60%; 10)**	23.3	(0%; 11)	42.5	(0%; 17)	Y
Lead	94	59.2	(1%; 76)	47.6	(0%; 43)	**711**	**(70%; 10)**	25.7	(0%; 11)	43.6	(0%; 17)	Y
Mercury	0.48	0.400	(1%; 76)	0.190	(2%; 42)	**1.71**	**(60%; 10)**	0.109	(0%; 11)	**0.608**	**(12%; 17)**	Y
Methyl mercury	NG	NA	NA	0.00207	(NG; 4)	0.0180	(NG; 3)	0.00204	(NG; 5)	0.00225	(NG; 3)	U
Nickel	47	20.0	(0%; 75)	17.5	(0%; 43)	23.2	(0%; 9)	20.0	(0%; 11)	25.9	(0%; 17)	N
Zinc	245	90.0	(0%; 76)	103	(0%; 43)	**274**	**(10%; 10)**	78.2	(0%; 11)	102	(0%; 17)	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)												
1,1'-Biphenyl	73	NA	NA	30.8	(0%; 2)	NA	NA	NA	NA	NA	NA	U
1-Methylnaphthalene	94	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	112	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	133	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	128	**167**	**(67%; 3)**	55.8	(0%; 9)	**88900**	**(88%; 8)**	44.3	(0%; 5)	57.6	(0%; 3)	Y
Acenaphthene	116	**2020**	**(100%; 3)**	49.1	(0%; 8)	**13300**	**(86%; 7)**	44.3	(0%; 5)	31.8	(0%; 2)	Y
Acenaphthylene	140	NA	NA	87.8	(0%; 11)	**6510**	**(60%; 5)**	44.3	(0%; 5)	57.6	(0%; 3)	Y
Anthracene	290	**1030**	**(33%; 6)**	77.6	(0%; 11)	**18100**	**(75%; 8)**	44.3	(0%; 5)	55.8	(0%; 4)	Y
Fluorene	114	**915**	**(100%; 2)**	49.1	(0%; 8)	**12600**	**(86%; 7)**	44.3	(0%; 5)	31.8	(0%; 2)	Y
Naphthalene	217	217	(33%; 3)	65.3	(0%; 10)	**17800**	**(50%; 6)**	44.3	(0%; 5)	57.6	(0%; 3)	Y
Phenanthrene	455	**494**	**(13%; 16)**	214	(0%; 17)	**94100**	**(88%; 8)**	166	(0%; 5)	131	(0%; 4)	Y
Total LMW-PAHs	3160	1050	(2%; 50)	926	(0%; 38)	**212000**	**(60%; 10)**	527	(0%; 10)	885	(0%; 15)	Y
Benz(a)anthracene	466	**822**	**(10%; 20)**	249	(5%; 19)	**25000**	**(88%; 8)**	107	(0%; 5)	57.6	(0%; 3)	Y
Benzo(a)pyrene	520	469	(4%; 24)	260	(5%; 21)	**16700**	**(90%; 10)**	112	(0%; 5)	203	(0%; 4)	Y

Table E2-67. Comparison of the 95th percentile concentrations of chemicals of potential concern in whole sediments from Middle Calcasieu River Area of Concern (MCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		MCR-MS[3]		PL[3]		IWL[3]		BO[3]		ML[3]		
PAHs (µg/kg DW; cont.)												
Benzo(b)fluoranthene	1107	550	(2%; 49)	550	(0%; 38)	**12900**	**(78%; 9)**	527	(0%; 10)	481	(0%; 15)	Y
Benzo(g,h,i)perylene	497	235	(0%; 20)	259	(5%; 19)	**11500**	**(71%; 7)**	82.5	(0%; 5)	57.6	(0%; 3)	Y
Benzo(k)fluoranthene	537	279	(0%; 22)	275	(0%; 19)	**4830**	**(43%; 7)**	44.3	(0%; 5)	203	(0%; 4)	Y
Benzofluoranthenes	3600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	650	516	(6%; 31)	323	(0%; 30)	**41800**	**(90%; 10)**	153	(0%; 5)	322	(0%; 6)	Y
Dibenz(a,h)anthracene	113	**156**	**(33%; 3)**	96.8	(9%; 11)	**7850**	**(100%; 4)**	44.3	(0%; 5)	31.8	(0%; 2)	Y
Fluoranthene	1034	711	(4%; 48)	440	(0%; 38)	**13600**	**(56%; 9)**	494	(0%; 9)	481	(0%; 15)	Y
Indeno(1,2,3-cd)pyrene	488	245	(0%; 19)	260	(0%; 18)	**840**	**(33%; 3)**	44.3	(0%; 5)	57.6	(0%; 3)	Y
Perylene	453	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	932	**1410**	**(7%; 43)**	425	(0%; 39)	**65500**	**(90%; 10)**	395	(0%; 6)	445	(0%; 11)	Y
Total HMW-PAHs	9600	2500	(1%; 69)	2330	(0%; 46)	**160000**	**(80%; 10)**	2460	(0%; 11)	2410	(0%; 16)	Y
Total PAHs	44792	3000	(0%; 69)	2610	(0%; 46)	**376000**	**(50%; 10)**	2950	(0%; 11)	2920	(0%; 16)	Y
PCB Aroclors (µg/kg DW)												
Aroclor-1016	NG	65.0	(NG; 62)	60.0	(NG; 39)	55.1	(NG; 8)	52.9	(NG; 9)	48.2	(NG; 13)	U
Aroclor-1221	NG	65.0	(NG; 32)	65.0	(NG; 20)	65.0	(NG; 7)	19.4	(NG; 4)	65.0	(NG; 4)	U
Aroclor-1232	NG	65.0	(NG; 62)	60.0	(NG; 39)	55.1	(NG; 8)	52.9	(NG; 9)	48.2	(NG; 13)	U
Aroclor-1242	NG	65.0	(NG; 62)	60.0	(NG; 39)	55.1	(NG; 8)	52.9	(NG; 9)	48.2	(NG; 13)	U
Aroclor-1248	NG	65.0	(NG; 62)	60.0	(NG; 39)	55.1	(NG; 8)	52.9	(NG; 9)	48.2	(NG; 13)	U
Aroclor-1254	NG	65.0	(NG; 62)	60.5	(NG; 39)	516	(NG; 9)	52.9	(NG; 9)	48.2	(NG; 13)	U
Aroclor-1260	NG	65.0	(NG; 62)	60.0	(NG; 39)	55.1	(NG; 8)	52.9	(NG; 9)	48.2	(NG; 13)	U
Total PCBs	468	**585**	**(14%; 7)**	372	(0%; 2)	**1060**	**(40%; 5)**	NA	NA	338	(0%; 3)	Y

Table E2-67. Comparison of the 95th percentile concentrations of chemicals of potential concern in whole sediments from Middle Calcasieu River Area of Concern (MCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		MCR-MS[3]		PL[3]		IWL[3]		BO[3]		ML[3]		
PCB Congeners (µg/kg DW)												
PCB 105	NG	NA	NA	0.514	(NG; 1)	19.5	(NG; 4)	NA	NA	NA	NA	U
PCB 108	NG	NA	NA	0.277	(NG; 1)	2.40	(NG; 4)	NA	NA	NA	NA	U
PCB 114	NG	NA	NA	0.0105	(NG; 1)	1.12	(NG; 4)	NA	NA	NA	NA	U
PCB 118	NG	NA	NA	3.14	(NG; 1)	46.6	(NG; 4)	NA	NA	NA	NA	U
PCB 126	NG	NA	NA	0.0103	(NG; 1)	0.466	(NG; 4)	NA	NA	NA	NA	U
PCB 127	NG	NA	NA	0.00248	(NG; 1)	0.0246	(NG; 4)	NA	NA	NA	NA	U
PCB 15	NG	NA	NA	0.0634	(NG; 1)	4.14	(NG; 4)	NA	NA	NA	NA	U
PCB 156	NG	NA	NA	0.241	(NG; 1)	6.39	(NG; 4)	NA	NA	NA	NA	U
PCB 157	NG	NA	NA	0.0604	(NG; 1)	1.55	(NG; 4)	NA	NA	NA	NA	U
PCB 162	NG	NA	NA	0.397	(NG; 1)	15.4	(NG; 4)	NA	NA	NA	NA	U
PCB 167	NG	NA	NA	0.115	(NG; 1)	2.42	(NG; 4)	NA	NA	NA	NA	U
PCB 169	NG	NA	NA	0.00248	(NG; 1)	0.246	(NG; 4)	NA	NA	NA	NA	U
PCB 189	NG	NA	NA	0.0236	(NG; 1)	0.339	(NG; 4)	NA	NA	NA	NA	U
PCB 37	NG	NA	NA	0.0420	(NG; 1)	0.988	(NG; 4)	NA	NA	NA	NA	U
PCB 58	NG	NA	NA	0.0821	(NG; 1)	0.240	(NG; 4)	NA	NA	NA	NA	U
PCB 60	NG	NA	NA	0.209	(NG; 1)	3.83	(NG; 4)	NA	NA	NA	NA	U
PCB 61/70	NG	NA	NA	1.64	(NG; 1)	17.7	(NG; 4)	NA	NA	NA	NA	U
PCB 66	NG	NA	NA	1.49	(NG; 1)	7.39	(NG; 4)	NA	NA	NA	NA	U
PCB 77	NG	NA	NA	0.0681	(NG; 1)	0.997	(NG; 4)	NA	NA	NA	NA	U
PCB 79	NG	NA	NA	0.0426	(NG; 1)	0.213	(NG; 4)	NA	NA	NA	NA	U
PCB 80	NG	NA	NA	0.00248	(NG; 1)	0.0246	(NG; 4)	NA	NA	NA	NA	U
PCB 81	NG	NA	NA	0.00741	(NG; 1)	0.610	(NG; 4)	NA	NA	NA	NA	U
Organochlorine Pesticides (µg/kg DW)												
Aldrin	0.44	NA	NA	**1.20**	**(100%; 1)**	NA	NA	NA	NA	NA	NA	Y
Dieldrin	2.9	1.15	(0%; 1)	1.15	(0%; 1)	NA	NA	0.870	(0%; 1)	NA	NA	U

Table E2-67. Comparison of the 95th percentile concentrations of chemicals of potential concern in whole sediments from Middle Calcasieu River Area of Concern (MCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		MCR-MS[3]		PL[3]		IWL[3]		BO[3]		ML[3]		
Phthalates (µg/kg DW)												
Bis(2-ethylhexyl)phthalate	2647	850	(1%; 70)	**3120**	**(7%; 45)**	832	(0%; 8)	1040	(0%; 11)	1930	(7%; 15)	Y
Benzylbutylphthalate	900	NA	NA	121	(0%; 3)	NA	NA	NA	NA	NA	NA	U
Diethylphthalate	200	NA	NA	42.0	(0%; 1)	NA	NA	NA	NA	NA	NA	U
Dimethylphthalate	160	NA	NA	30.8	(0%; 2)	32.0	(0%; 1)	NA	NA	NA	NA	U
Di-n-butylphthalate	1400	650	(0%; 61)	600	(0%; 44)	640	(0%; 5)	620	(0%; 11)	474	(0%; 15)	N
Di-n-octylphthalate	6200	3700	(0%; 1)	130	(0%; 1)	NA	NA	NA	NA	NA	NA	U
Chlorinated Benzenes (µg/kg DW)												
Hexachloro-1,3-butadiene	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
Hexachlorobenzene	22	**550**	**(100%; 1)**	NA	NA	NA	NA	NA	NA	NA	NA	Y
1,2,3,4-Tetrachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	U
1,2,4,5-Tetrachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	51	15.3	(0%; 47)	14.5	(0%; 29)	11.4	(0%; 2)	14.5	(0%; 4)	14.5	(0%; 12)	N
1,2-Dichlorobenzene	50	16.2	(0%; 54)	16.2	(0%; 33)	11.4	(0%; 2)	16.1	(0%; 5)	14.5	(0%; 12)	N
1,3-Dichlorobenzene	>170	29.2	(0%; 74)	21.0	(0%; 39)	43.3	(0%; 4)	19.8	(0%; 6)	23.3	(0%; 14)	N
1,4-Dichlorobenzene	110	29.2	(0%; 74)	20.1	(0%; 38)	43.3	(0%; 4)	19.8	(0%; 6)	23.3	(0%; 14)	N
Pentachlorobenzene	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)												
1,1,1-Trichloroethane	170	29.2	(0%; 74)	21.0	(0%; 39)	43.3	(0%; 4)	19.8	(0%; 6)	23.3	(0%; 14)	N
1,2-Dichloroethane	NG	29.2	(NG; 74)	21.0	(NG; 39)	43.3	(NG; 4)	19.8	(NG; 6)	23.3	(NG; 14)	U

Table E2-67. Comparison of the 95th percentile concentrations of chemicals of potential concern in whole sediments from Middle Calcasieu River Area of Concern (MCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		MCR-MS[3]		PL[3]		IWL[3]		BO[3]		ML[3]		
PCDDs and PCDFs (ng/kg DW)												
1,2,3,4,6,7,8-HpCDD	NG	223	(NG; 14)	296	(NG; 9)	478	(NG; 4)	NA	NA	150	(NG; 3)	U
1,2,3,4,7,8-HxCDD	NG	2.10	(NG; 14)	1.85	(NG; 9)	5.90	(NG; 4)	NA	NA	2.46	(NG; 3)	U
1,2,3,6,7,8-HxCDD	NG	6.92	(NG; 14)	6.66	(NG; 9)	25.5	(NG; 4)	NA	NA	2.52	(NG; 3)	U
1,2,3,7,8,9-HxCDD	NG	11.3	(NG; 14)	10.6	(NG; 9)	13.7	(NG; 4)	NA	NA	3.04	(NG; 3)	U
1,2,3,7,8-PeCDD	NG	1.21	(NG; 14)	0.989	(NG; 9)	5.13	(NG; 4)	NA	NA	1.78	(NG; 3)	U
2,3,7,8-TCDD	NG	1.25	(NG; 14)	0.572	(NG; 9)	1.83	(NG; 4)	NA	NA	1.43	(NG; 3)	U
OCDD	NG	5500	(NG; 14)	7900	(NG; 9)	5940	(NG; 4)	NA	NA	3180	(NG; 3)	U
Total TCDD	NG	30.3	(NG; 14)	24.8	(NG; 9)	27.1	(NG; 4)	NA	NA	30.8	(NG; 3)	U
Total HpCDD	NG	740	(NG; 14)	880	(NG; 9)	1020	(NG; 4)	NA	NA	465	(NG; 3)	U
Total HxCDD	NG	167	(NG; 14)	214	(NG; 9)	221	(NG; 4)	NA	NA	108	(NG; 3)	U
Total PeCDD	NG	27.3	(NG; 14)	20.5	(NG; 9)	57.9	(NG; 4)	NA	NA	21.4	(NG; 3)	U
1,2,3,4,6,7,8-HpCDF	NG	163	(NG; 14)	209	(NG; 9)	518	(NG; 4)	NA	NA	58.1	(NG; 3)	U
1,2,3,4,7,8,9-HpCDF	NG	36.4	(NG; 14)	50.0	(NG; 9)	16.3	(NG; 4)	NA	NA	9.10	(NG; 3)	U
1,2,3,4,7,8-HxCDF	NG	72.3	(NG; 14)	86.6	(NG; 9)	30.8	(NG; 4)	NA	NA	26.5	(NG; 3)	U
1,2,3,6,7,8-HxCDF	NG	18.0	(NG; 14)	21.4	(NG; 9)	11.3	(NG; 4)	NA	NA	8.39	(NG; 3)	U
1,2,3,7,8,9-HxCDF	NG	1.88	(NG; 14)	2.00	(NG; 9)	4.95	(NG; 4)	NA	NA	1.39	(NG; 3)	U
1,2,3,7,8-PeCDF	NG	15.6	(NG; 14)	14.8	(NG; 9)	11.6	(NG; 4)	NA	NA	7.32	(NG; 3)	U
2,3,4,6,7,8-HxCDF	NG	2.51	(NG; 14)	2.22	(NG; 9)	11.7	(NG; 4)	NA	NA	1.44	(NG; 3)	U
2,3,4,7,8-PeCDF	NG	5.88	(NG; 14)	6.67	(NG; 9)	13.9	(NG; 4)	NA	NA	2.24	(NG; 3)	U
2,3,7,8-TCDF	NG	16.7	(NG; 14)	20.6	(NG; 9)	24.8	(NG; 4)	NA	NA	7.85	(NG; 3)	U
OCDF	NG	1100	(NG; 14)	1630	(NG; 9)	486	(NG; 4)	NA	NA	204	(NG; 3)	U
Total TCDF	NG	229	(NG; 14)	288	(NG; 9)	248	(NG; 4)	NA	NA	347	(NG; 3)	U
Total HpCDF	NG	346	(NG; 14)	466	(NG; 9)	957	(NG; 4)	NA	NA	127	(NG; 3)	U
Total HxCDF	NG	203	(NG; 14)	228	(NG; 9)	311	(NG; 4)	NA	NA	66.7	(NG; 3)	U

Table E2-67. Comparison of the 95th percentile concentrations of chemicals of potential concern in whole sediments from Middle Calcasieu River Area of Concern (MCR AOC) to the selected benchmarks for assessing whole-sediment chemistry relative to the potential for adverse effects on benthic invertebrates.

Chemicals of Potential Concern (COPCs)	Selected Bench-marks[1]	95th Percentile Concentration (% Samples Exceeding Benchmark; Number of Samples)[2]										Retained as a Preliminary COC[4]
		MCR-MS[3]		PL[3]		IWL[3]		BO[3]		ML[3]		
PCDDs and PCDFs (ng/kg DW; cont.)												
Total PeCDF	NG	108	(NG; 14)	94.5	(NG; 9)	132	(NG; 4)	NA	NA	38.2	(NG; 3)	U
Total Toxic Equivalents (TEQs)	21.5	19.1	(7%; 14)	**22.7**	**(11%; 9)**	**30.9**	**(25%; 4)**	NA	NA	9.65	(0%; 3)	Y
Other COPCs (µg/kg DW)												
Acetone	NG	91.6	(NG; 74)	76.3	(NG; 39)	596	(NG; 4)	34.1	(NG; 6)	169	(NG; 14)	U
Carbon disulfide	NG	29.3	(NG; 74)	33.9	(NG; 39)	25.3	(NG; 4)	18.6	(NG; 6)	21.9	(NG; 14)	U

NG = no guideline available; LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); COC = contaminant of concern.

[1]Refer to Table E2-3 for a complete description of the selected benchmarks.

[2]Substances for which the 95th percentile concentration for a reach is higher than the selected benchmark (highlighted with bold and underline) were retained as the preliminary COCs for the MCR AOC

[3]MCR-MS = Middle Calcasieu River - Mainstem; PL = Prien Lake and upper old river channel; IWL = Indian Wells Lagoon; BO = Bayou Olsen; ML = Moss Lake.

[4]Y = Yes, whole-sediment chemistry data for one or more reaches indicated that the substance should be retained as a preliminary COC for the MCR AOC.
N = No, whole-sediment chemistry data for all reaches indicated that the substance should not be retained as a preliminary COC for the MCR AOC.
U = Uncertain, insufficient information is available to conclude that the substance should not be retained as a preliminary COC for the MCR AOC.

Table E2-68. Identification of contaminants of concern in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
Metals (mg/kg DW)							
Chromium	Y	Y	ND	ND	ND	ND	Y
Copper	Y	Y	Y	Y	Y	Y	Y
Lead	Y	Y	N	Y	N	Y	Y
Mercury	Y	Y	Y	Y	Y	Y	Y
Methyl mercury	Y	U	Y	Y	Y	Y	U
Nickel	N	N	N	N	N	N	N
Zinc	Y	Y	Y	Y	Y	Y	Y
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)							
1,1'-Biphenyl	U	U	N	N	N	N	N
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	Y	Y	Y	Y	N	Y	Y
Acenaphthene	Y	Y	N	Y	N	Y	Y
Acenaphthylene	Y	Y	Y	Y	N	Y	Y
Anthracene	Y	Y	Y	Y	Y	Y	Y
Fluorene	Y	Y	Y	Y	N	Y	Y
Naphthalene	Y	Y	N	N	N	N	N
Phenanthrene	Y	Y	Y	Y	Y	Y	Y
Total LMW-PAHs	Y	Y	Y	Y	Y	Y	Y
Benz(a)anthracene	Y	Y	Y	Y	Y	Y	Y
Benzo(a)pyrene	Y	Y	Y	Y	Y	Y	Y
Benzo(b)fluoranthene	Y	Y	Y	Y	Y	Y	Y
Benzo(g,h,i)perylene	Y	Y	Y	Y	Y	Y	Y
Benzo(k)fluoranthene	Y	Y	Y	Y	Y	Y	Y
Benzofluoranthenes	ND	ND	ND	ND	ND	ND	ND

Table E2-68. Identification of contaminants of concern in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PAHs (µg/kg DW; cont.)							
Chrysene	Y	Y	Y	Y	Y	Y	Y
Dibenz(a,h)anthracene	Y	Y	Y	Y	Y	Y	Y
Fluoranthene	Y	Y	Y	Y	Y	Y	Y
Indeno(1,2,3-cd)pyrene	Y	Y	Y	Y	Y	Y	Y
Perylene	ND	ND	ND	ND	ND	ND	ND
Pyrene	Y	Y	Y	Y	Y	Y	Y
Total HMW-PAHs	Y	Y	Y	Y	Y	Y	Y
Total PAHs	Y	Y	Y	Y	Y	Y	Y
PCB Aroclors (µg/kg DW)							
Aroclor-1016	Y	U	N	N	N	N	N
Aroclor-1221	Y	U	N	N	N	N	N
Aroclor-1232	Y	U	N	N	N	N	N
Aroclor-1242	Y	U	N	N	N	N	N
Aroclor-1248	Y	U	N	N	N	N	N
Aroclor-1254	Y	U	N	Y	N	Y	U
Aroclor-1260	Y	U	N	N	N	N	N
Total PCBs	Y	Y	N	Y	N	Y	Y
PCB Congeners (µg/kg DW)							
PCB 105	Y	U	Y	Y	N	Y	U
PCB 108	Y	U	Y	Y	N	Y	U
PCB 114	Y	U	N	Y	N	Y	U
PCB 118	Y	U	Y	Y	N	Y	U
PCB 126	Y	U	Y	Y	N	Y	U
PCB 127	Y	U	Y	Y	Y	Y	U
PCB 15	Y	U	Y	Y	Y	Y	U

Table E2-68. Identification of contaminants of concern in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PCB Congeners (µg/kg DW; cont.)							
PCB 156	Y	U	Y	Y	N	Y	U
PCB 157	Y	U	N	Y	N	Y	U
PCB 162	Y	U	Y	Y	N	Y	U
PCB 167	Y	U	Y	Y	N	Y	U
PCB 169	Y	U	Y	Y	Y	Y	U
PCB 189	Y	U	Y	Y	N	Y	U
PCB 37	Y	U	Y	Y	Y	Y	U
PCB 58	Y	U	N	Y	N	Y	U
PCB 60	Y	U	Y	Y	N	Y	U
PCB 61/70	Y	U	Y	Y	N	Y	U
PCB 66	Y	U	Y	Y	N	Y	U
PCB 77	Y	U	Y	Y	N	Y	U
PCB 79	Y	U	Y	Y	N	Y	U
PCB 80	Y	U	Y	Y	N	Y	U
PCB 81	Y	U	Y	Y	N	Y	U
Organochlorine Pesticides (µg/kg DW)							
Aldrin	U	Y	Y	Y	N	Y	Y
Dieldrin	U	U	Y	N	N	Y	U
Phthalates (µg/kg DW)							
Bis(2-ethylhexyl)phthalate	Y	Y	Y	Y	N	Y	Y
Benzylbutylphthalate	U	U	N	N	N	N	N
Diethylphthalate	U	U	U	U	U	U	U
Dimethylphthalate	U	U	N	N	N	N	N
Di-n-butylphthalate	Y	N	N	N	N	N	N
Di-n-octylphthalate	U	U	U	U	ND	U	U

Table E2-68. Identification of contaminants of concern in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
Chlorinated Benzenes (µg/kg DW)							
Hexachloro-1,3-butadiene	U	U	Y	Y	N	Y	U
Hexachlorobenzene	U	Y	Y	N	N	Y	Y
1,2,3,4-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	U	U	ND	ND	ND	ND	U
1,2,4,5-Tetrachlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	N	N	ND	ND	ND	ND	N
1,2-Dichlorobenzene	N	N	ND	ND	ND	ND	N
1,3-Dichlorobenzene	Y	N	ND	ND	ND	ND	N
1,4-Dichlorobenzene	Y	N	ND	ND	ND	ND	N
Pentachlorobenzene	ND	ND	ND	ND	ND	ND	ND
Chlorinated Ethanes (µg/kg DW)							
1,1,1-Trichloroethane	Y	N	ND	ND	ND	ND	N
1,2-Dichloroethane	Y	U	ND	ND	ND	ND	U
PCDDs and PCDFs (ng/kg DW)							
1,2,3,4,6,7,8-HpCDD	Y	U	Y	Y	N	Y	U
1,2,3,4,7,8-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,6,7,8-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,7,8,9-HxCDD	Y	U	Y	Y	N	Y	U
1,2,3,7,8-PeCDD	Y	U	Y	Y	N	Y	U
2,3,7,8-TCDD	U	U	Y	Y	Y	Y	U
OCDD	Y	U	Y	N	N	Y	U
Total TCDD	U	U	N	N	N	N	N
Total HpCDD	Y	U	Y	Y	N	Y	U
Total HxCDD	U	U	Y	Y	N	Y	U
Total PeCDD	U	U	Y	Y	N	Y	U

Table E2-68. Identification of contaminants of concern in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	
PCDDs and PCDFs (ng/kg DW; cont.)							
1,2,3,4,6,7,8-HpCDF	Y	U	Y	Y	Y	Y	U
1,2,3,4,7,8,9-HpCDF	Y	U	Y	Y	Y	Y	U
1,2,3,4,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,6,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,7,8,9-HxCDF	Y	U	Y	Y	Y	Y	U
1,2,3,7,8-PeCDF	Y	U	Y	Y	Y	Y	U
2,3,4,6,7,8-HxCDF	Y	U	Y	Y	Y	Y	U
2,3,4,7,8-PeCDF	Y	U	Y	Y	Y	Y	U
2,3,7,8-TCDF	Y	U	Y	Y	Y	Y	U
OCDF	Y	U	Y	Y	Y	Y	U
Total TCDF	Y	U	Y	Y	Y	Y	U
Total HpCDF	Y	U	Y	Y	Y	Y	U
Total HxCDF	Y	U	Y	Y	Y	Y	U
Total PeCDF	Y	U	Y	Y	Y	Y	U
Total Toxic Equivalents (TEQs)	Y	Y	Y	Y	Y	Y	Y
Other COPCs (µg/kg DW)							
Acetone	Y	U	ND	ND	ND	ND	U
Carbon disulfide	Y	U	ND	ND	ND	ND	U

ND = no data (i.e., the substance was not measured at all in the estuary); LMW-PAHs = low molecular weight-PAHs; HMW-PAHs = high molecular weight-PAHs; PCBs = polychlorinated biphenyls; PCDDs = polychlorinated dibenzo-*p*-dioxins; PCDFs = polychlorinated dibenzofurans; COC = contaminant of concern; BICS = benthic invertebrate community structure.

[1]See Table E2-37 for a description of the procedures used to evaluate COPC concentrations relative to reference areas.

[2]See Table E2-67 for a description of the procedures used to evaluate COPC concentrations relative to selected toxicity thresholds.

[3]See Tables E2-56, E2-57 and E2-58 for descriptions of the procedures used to evaluate the distributions of the effects and no effects data.

Table E2-68. Identification of contaminants of concern in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to whole sediment.

Chemical of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Selected Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]				Identified as a COC?[8]
			Marine Amphipods[4]	Freshwater Amphipods[5]	BICS[6]	All Biological Endpoints[7]	

[4]Based on the results of 10-d toxicity tests with *Ampelisca abdita,* (endpoint: survival).

[5]Based on the results of 28-d toxicity tests with *Hyalella azteca,* (endpoint: survival).

[6]Based on the results of cluster analyses of benthic invertebrate community structure data.

[7]Y = Yes, COPCs were retained as preliminary COCs if one or more biological metrics indicated concordance between whole sediment chemistry and biological effects.

N = No, COPCs were not retained as preliminary COCs if none of the biological metrics indicated concordance between whole sediment chemistry and biological effects.

U = Uncertain; insufficient information is available to conclude that the substance should not be retained as a preliminary COC.

[8]See Table E2-73 for an explanation of the criteria that were used to designate a COPC as a COC.

Y = Yes, retained as a COC for whole sediment.

N = No, not retained as a COC for whole sediment.

U = Uncertain, insufficient data are available to determine if the COPC should be retained as a COC for whole sediments.

Table E2-69. Identification of contaminants of concern (COCs) in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as COC?[4]
Conventionals (mg/L)				
Hydrogen sulfide	N	Y	Y[5]	Y
Nitrogen, as ammonia	N	U	N	N
Total dissolved sulfide	Y	U	N	N
Ammonia - toxic units (no units)	N	N	N	N
Metals (µg/L)				
Chromium, total	ND	ND	ND	ND
Chromium, dissolved	ND	ND	ND	ND
Copper, total	N	Y	N	N
Copper, dissolved	N	Y	N	N
Lead, total	N	N	N	N
Lead, dissolved	N	N	N	N
Mercury, total	ND	ND	ND	ND
Mercury, dissolved	ND	ND	ND	ND
Methyl mercury	ND	ND	ND	ND
Nickel, total	N	N	Y	N
Nickel, dissolved	N	N	N	N
Zinc, total	N	N	Y	N
Zinc, dissolved	N	Y	N	N
Polycyclic Aromatic Hydrocarbons (PAHs; µg/kg DW)				
1,1'-Biphenyl	Y	N	Y	N
1-Methylnaphthalene	Y	Y	Y	Y
1-Methylphenanthrene	Y	U	Y	U
2,6-Dimethylnaphthalene	Y	U	Y	U
2-Methylnaphthalene	Y	N	Y	N
Acenaphthene	Y	N	Y	N
Acenaphthylene	Y	U	Y	U
Anthracene	Y	N	Y	N
Fluorene	Y	N	Y	N
Naphthalene	Y	N	Y	N
Phenanthrene	Y	N	Y	N
Benz(a)anthracene	Y	Y	Y	Y
Benzo(a)pyrene	Y	Y	Y	Y
Benzo(b)fluoranthene	Y	N	Y	N
Benzo(g,h,i)perylene	Y	N	Y	N
Benzo(k)fluoranthene	Y	N	Y	N
Fluoranthene	Y	N	Y	N

Table E2-69. Identification of contaminants of concern (COCs) in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as COC?[4]
PAHs (µg/L; cont.)				
Indeno(1,2,3-cd)pyrene	Y	N	Y	N
Chrysene	Y	N	Y	N
Dibenz(a,h)anthracene	Y	N	Y	N
Perylene	Y	U	N	N
Pyrene	Y	N	Y	N
PCB Aroclors (µg/L)				
Aroclor-1016	U	U	U	U
Aroclor-1221	N	N	N	N
Aroclor-1232	N	N	N	N
Aroclor-1242	N	N	N	N
Aroclor-1248	U	U	U	U
Aroclor-1254	U	U	U	U
Aroclor-1260	N	N	N	N
PCB Congeners (µg/L)				
PCB 105	Y	U	N	N
PCB 118	Y	U	Y	U
PCB 128	Y	U	N	N
PCB 132/153	Y	U	Y	U
PCB 138/160	Y	U	N	N
PCB 170/190	Y	U	N	N
PCB 18/17	Y	U	N	N
PCB 180	Y	U	N	N
PCB 187	Y	U	N	N
PCB 195/208	Y	U	N	N
PCB 206	Y	U	N	N
PCB 209	N	U	N	N
PCB 28	Y	U	N	N
PCB 29	Y	U	N	N
PCB 44	Y	U	N	N
PCB 5/8	Y	U	N	N
PCB 52	Y	U	N	N
PCB 66	N	U	N	N
PCB 77/110	Y	U	Y	U
PCB 87/115	Y	U	Y	U
PCB 90/101	N	U	Y	N
PCB 201/157/173	Y	U	N	N
Total PCBs	Y	Y	N	N

Table E2-69. Identification of contaminants of concern (COCs) in the Middle Calcasieu River Area of Concern (MCR AOC) relative to risks to the benthic invertebrate community due to exposure to pore water.

Chemicals of Potential Concern (COPCs)	Comparison to Reference Areas[1]	Comparison to Benchmarks[2]	Comparison of Effects and No Effects Distributions[3]	Identified as COC?[4]
Organochlorine Pesticides (µg/L)				
Aldrin	Y	N	N	N
Dieldrin	Y	N	Y	N
Phthalates (µg/L)				
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND
Chlorinated Benzenes (µg/L)				
Hexachloro-1,3-butadiene	N	N	N	N
Hexachlorobenzene	Y	N	N	N
1,2,3,4-Tetrachlorobenzene	Y	U	N	N
1,2,3-Trichlorobenzene	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	Y	N	N	N
1,2,4-Trichlorobenzene	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Pentachlorobenzene	Y	N	N	N
Chlorinated Ethanes (µg/L)				
1,1,1-Trichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Other COPCs (µg/L)				
Acetone	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND

NA = not applicable (was measured but all values were screened out or was not measured in the reach); ND = no data (i.e., the substance was not measured at all in the estuary); PCBs = polychlorinated biphenyls.

[1]See Table E2-32 for a description of the procedures used to evaluate COPC concentrations relative to reference areas.
[2]See Table E2-60 for a description of the procedures used to evaluate COPC concentrations relative to selected toxicity thresholds.
[3]See Table E2-61 for a description of the procedures used to evaluate the distributions of the effects and no effects data.
[4]See Table E2-73 for an explanation of the criteria that were used to designate a COPC as a COC.
Y = Yes, retained as a COC for pore water.
N = No, not retained as a COC for pore water.
U = Uncertain, insufficient data are available to determine if the COPC should be retained as a COC for pore water.
[5]Y = Yes, based on the results of 10-d whole-sediment toxicity tests with *Ampelisca abdita.*

Table E2-70. Contingency table for assessing impacts of contaminated sediments on aquatic life based on three separate indicators of sediment quality (sediment quality triad adapted from Chapman 1992 and Canfield *et al.* 1996).

Possible Outcome	Sediment Chemistry	Toxicity Test	Benthic Community	Possible Conclusions
1	+	+	+	Impact highly likely: Contaminant-induced degradation of sediment-dwelling organisms evident.
2	-	-	-	Impact highly unlikely: Contaminant-induced degradation of sediment dwelling organisms not evident.
3	+	-	-	Impact unlikely: Contaminants unavailable to sediment-dwelling organisms.
4	-	+	-	Impacts possible: Unmeasured contaminants or conditions exist that have the potential to cause degradation.
5	-	-	+	Impacts unlikely: No degradation of sediment-dwelling organisms in the field apparent relative to sediment contamination; physical factors may be influencing benthic community.
6	+	+	-	Impact likely: Toxic chemicals probably stressing the system.
7	-	+	+	Impact likely: Unmeasured toxic chemicals are probably contributing to the toxicity.
8	+	-	+	Impact likely: Sediment-dwelling organisms degraded by toxic chemicals, but toxicity tests not sensitive to chemicals present.

+ = Indicator classified as affected; as determined based on comparison to the established target.
- = Indicator not classified as affected; as determined based on comparison to the established target.

Table E2-71. Evaluation of the uncertainty associated with the lines of evidence used to assess risks to the benthic invertebrate community.

		Conceptual Model			Exposure Assessment				Effects Assessment						
Medium	**Line of Evidence**	**Relevance of Exposure Pathway**	**Relevance of Measurement Endpoint**	***Conceptual Model Score***	**Level of Standardization**	**Quality of Data**	**Quantity of Data**	***Exposure Assessment Score***	**Level of Standardization**	**Meets Acceptability Criteria**	**Demonstrated Concentration-Response Relationship**	**Relevance of Exposure Medium**	**Level of Validation**	***Effects Assessment Score***	***Total Evaluation Score***
Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)[1]	3	2	2.5	2	2	2.5	2.2	NA	NA	1	3	3	2.3	2.3
	P-MOT (10-d *A. abdita* - S)	3	2	2.5	2	2	2.5	2.2	NA	NA	2	2.5	3	2.5	2.4
	P-IOT (28-d *H. azteca* - S)[2]	3	2	2.5	2	2	2.5	2.2	NA	NA	3	3	3	3.0	2.6
	P-MOT (28-d *H. azteca* - S)	3	2	2.5	2	2	2.5	2.2	NA	NA	3	2.5	3	2.8	2.5
Pore-Water Chemistry	P-IOT (PW conventionals)	3	2	2.5	3	3	2.5	2.8	NA	NA	1.5	2	1	1.5	2.3
	P-IOT (PW metals)	3	2	2.5	3	3	2.5	2.8	NA	NA	1.5	2	1	1.5	2.3
	P-IOT (PW organics)	3	2	2.5	3	3	2.5	2.8	NA	NA	1.5	2	1	1.5	2.3
Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	3	2.5	2.8	NA	NA	NA	NA	2.5	3	1	3	3	2.5	2.6
	O-MOT (10-d *A. abdita* - S)	3	3	3.0	NA	NA	NA	NA	2.5	3	2	3	3	2.7	2.9
	O-IOT (28-d *H. azteca* - S)	3	2.5	2.8	NA	NA	NA	NA	3	3	3	2.5	3	2.9	2.8
	O-MOT (28-d *H. azteca* - S)	3	3	3.0	NA	NA	NA	NA	3	3	3	2.5	3	2.9	3.0
Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[3]	3	2	2.5	NA	NA	NA	NA	1.5	2.5	2	2	1.5	1.9	2.2
	O-MOT (60-m *A. punctulata* - F)	3	2	2.5	NA	NA	NA	NA	1.5	2.5	1	2	1.5	1.7	2.1
Benthic Invertebrate	O-IOT (Benthic CS)	3	3	3.0	NA	NA	NA	NA	1	2	1	2.5	2	1.7	2.4

S = survival; F or D = fertilization or development; CS = community structure; d = day; m = minute; PW = pore water; NA = not applicable; P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity.

[1] *A. abdita* = amphipod, *Ampelisca abdita.*

[2] *H. azteca* = amphipod, *Hyalella azteca.*

[3] *A. punctulata* = sea urchin, *Arbacia punctulata.*

Table E2-72. Summary of risks to the benthic invertebrate community estimated from multiple lines of evidence in the Calcasieu Estuary.

Area of Concern (AOC)/Reach	n	Average mean Risk Score	Predicted Risk *Percent (n) of Samples/Risk Category*		
			Low	*Indeterminate*	*High*
Upper Calcasieu River AOC					
Upper Calcasieu River - Mainstem	49	0.519	94% (46)	4% (2)	2% (1)
Clooney Island Loop	32	1.25	78% (25)	3% (1)	19% (6)
Contraband Bayou	9	1.23	89% (8)	11% (1)	0% (0)
Coon Island Loop	56	0.816	84% (47)	4% (2)	13% (7)
Overall UCR AOC	146	0.838	86% (126)	4% (6)	10% (14)
Bayou d'Inde AOC					
Upper Bayou d'Inde	53	1.86	58% (31)	15% (8)	26% (14)
Middle Bayou d'Inde	93	3.01	26% (24)	13% (12)	61% (57)
Lower Bayou d'Inde - Mainstem	38	1.53	68% (26)	13% (5)	18% (7)
Lower Bayou d'Inde - Lockport Marsh	125	1.90	57% (71)	14% (17)	30% (37)
PPG Canal	6	3.24	17% (1)	33% (2)	50% (3)
Overall BI AOC	315	2.20	49% (153)	14% (44)	37% (118)
Middle Calcasieu River AOC					
Middle Calcasieu River - Mainstem	76	0.475	91% (69)	7% (5)	3% (2)
Prien Lake and upper old river channel	49	0.270	96% (47)	4% (2)	0% (0)
Indian Wells Lagoon	10	4.33	10% (1)	0% (0)	90% (9)
Bayou Olsen	11	0.512	100% (11)	0% (0)	0% (0)
Moss Lake	17	0.691	94% (16)	6% (1)	0% (0)
Overall MCR AOC	163	0.674	88% (144)	5% (8)	7% (11)
AOC Subtotal	***624***	***1.48***	***68% (423)***	***9% (58)***	***23% (143)***
Reference					
Bayou Choupique	4	0.515	100% (4)	0% (0)	0% (0)
Grand Bayou	3	1.63	67% (2)	33% (1)	0% (0)
Bayou Bois Connine	2	1.36	100% (2)	0% (0)	0% (0)
Johnson Bayou	6	0.051	100% (6)	0% (0)	0% (0)
Willow Bayou	2	0.153	100% (2)	0% (0)	0% (0)
Overall Reference Areas	17	0.605	94% (16)	6% (1)	0% (0)
Entire Estuary	***641***	***1.46***	***68% (439)***	***9% (59)***	***22% (143)***

n = number of samples.

Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

Table E2-73. Biological conditions that occur within the three categories of risk to the benthic invertebrate community in the Calcasieu Estuary, identified using the risk designations assigned to each sample.

Benthic Metric/Toxicity Test	Endpoint Measured	Low mean ± SD (n)	Indeterminate mean ± SD (n)	High mean ± SD (n)
Sediment Toxicity				
28-d *Hyalella azteca*	% survival	91.6 ± 7.03 (54)	80.5 ± 19.5 (15)	53.6 ± 28.6 (20)
28-d *Hyalella azteca*	length (mm)	3.82 ± 0.487 (54)	3.80 ± 0.625 (15)	3.76 ± 0.555 (19)
10-d *Ampelisca abdita*	% survival	62.4 ± 17.3 (54)	43.1 ± 23.6 (15)	15.5 ± 17.6 (20)
60-m *Arbacia punctulata*	% fertilization	68.4 ± 25.8 (30)	56.2 ± 36.2 (10)	23.0 ± 29.1 (5)
Benthic Invertebrate Community Structure				
Mean total abundance (H/H)	#/35.4 cm sq.	3.94 ± 3.38 (54)	1.48 ± 1.54 (15)	1.52 ± 2.63 (20)
Mean total abundance (H/M)	#/35.4 cm sq.	3.53 ± 5.04 (54)	0.787 ± 0.955 (15)	0.420 ± 0.908 (20)
Mean total abundance (L/L)	#/35.4 cm sq.	0.300 ± 1.18 (54)	0.760 ± 2.94 (15)	0 ± 0 (20)
Mean total abundance (M/H)	#/35.4 cm sq.	0.0667 ± 0.145 (54)	0.0667 ± 0.209 (15)	0.0200 ± 0.0894 (20)
Mean total abundance (M/L)	#/35.4 cm sq.	0.633 ± 1.78 (54)	0.587 ± 2.27 (15)	0 ± 0 (20)
Mean total abundance (M/M)	#/35.4 cm sq.	0.548 ± 0.734 (54)	0.293 ± 0.506 (15)	0.0800 ± 0.151 (20)
Nonnormalized mIBI	no units	9.15 ± 8.59 (54)	6.88 ± 14.0 (15)	2.56 ± 2.07 (20)
Normalized mIBI	no units	0.495 ± 0.177 (54)	0.354 ± 0.136 (15)	0.299 ± 0.058 (20)
Pollution Indicator Spp. (H/H + H/M + M/H)	#/35.4 cm sq.	7.54 ± 7.65 (54)	2.33 ± 2.00 (15)	1.96 ± 3.03 (20)
Pollution Sensitive (L/L + M/L)	#/35.4 cm sq.	0.933 ± 2.32 (54)	1.35 ± 5.22 (15)	0 ± 0 (20)
Richness = total # sp.	# species/35.4 cm sq.	6.72 ± 4.38 (54)	3.87 ± 3.64 (15)	2.45 ± 1.93 (20)
Total Abundance	#/35.4 cm sq.	9.03 ± 8.38 (54)	4.00 ± 7.35 (15)	2.07 ± 3.14 (20)

SD = standard deviation; n = number of samples; d = day; m = minute; H = high; M = medium; L = low; sp. = species; mIBI = macroinvertebrate index of biotic integrity; cm sq. = squared centimeters.

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R1001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R1002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R1003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R1007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00UC1-R2012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00UC1-R2019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2022-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00UC1-R2024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2027-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00UC1-R2035-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2036-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2037-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00UC1-R3001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00UC1-R3002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R3003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00UC1-R3004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00UC1-R3006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00UC1-R3008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R3009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R3015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00UC1-R3018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R3019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-ST001-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST001 (cont.)	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**1.40**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.89**	LOW
00UC2-ST003-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	2	4.40	**4.30**		
		O-MOT (60-m *A. punctulata* - F)	2.1	2	4.20			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.13**	INDETERMINATE

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST004-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.66**	LOW
00UC2-ST005-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST005 (cont.)	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**2.40**	INDETERMINATE
00UC2-ST013-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.70**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.15**	LOW
00UC2-ST014-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST014 (cont.)	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW
00UC2-ST030-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW
00UC2-ST031-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		

Table E2-74. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Calcasieu River - Mainstem Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST031 (cont.)	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00UC1-R2006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00UC1-R2007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00UC1-R2010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00UC1-R2025-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00UC1-R2026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00UC1-R2028-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00UC1-R2029-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00UC1-R2031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00UC1-R2032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00UC1-R2033-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2038-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00UC2-R2026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-R2026-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-R2026-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-R2030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-R2030-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-R2030-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-R2100-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-R2101-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-R2102-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-ST007-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.12**	INDETERMINATE
00UC2-ST008-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST008 (cont.)	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**3.04**	HIGH
00UC2-ST010-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.66**	LOW
00UC2-ST011-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST011 (cont.)	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**3.43**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.99**	LOW
00UC2-ST012-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**3.79**	HIGH
00UC2-ST037-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		

Table E2-75. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Clooney Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST037 (cont.)	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**4.15**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.50**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-76. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Contraband Bayou Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R2001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00UC1-R2002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R2003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-ST015-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.94**	LOW

Table E2-76. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Contraband Bayou Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST016-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW
00UC2-ST017-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.57**	LOW

Table E2-76. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Contraband Bayou Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST018-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW
00UC2-ST019-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.57**	LOW

Table E2-76. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Contraband Bayou Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST020-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC1-R1030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC1-R1032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00UC2-R1034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00UC2-ST021-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**4.18**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	1	3.00		**1.45**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST022-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**3.76**	HIGH
00UC2-ST023-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.61**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST024-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW
00UC2-ST025-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.16**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST026-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**1.30**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.48**	LOW
00UC2-ST027-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**1.30**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.87**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00UC2-ST028-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**4.99**	HIGH
00UC2-ST029-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.12**	INDETERMINATE

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-04-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-05-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-06-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-08-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-09-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-10-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-11-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-11-SD-N Whole-Sediment Chemistry (cont.)		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-12-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-13-SD4-8-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
R1-13-SD8-12-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
R1-13-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-14-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-15-SD4-8-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-15-SD8-12-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-15-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-16-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-17-SD4-8-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
R1-17-SD8-12-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
R1-17-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
R1-18-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-18-SD-N Whole-Sediment Chemistry (cont.)		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-19-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-20-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-21-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-22-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-23-SD4-8-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-23-SD8-12-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-23-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
R1-24-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-25-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-26-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-27-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-28-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-29-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-29-SD-N Whole-Sediment Chemistry (cont.)		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-30-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-31-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-32-SD4-8-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-32-SD8-12-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
R1-32-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-33-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-77. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Coon Island Loop Reach of the Upper Calcasieu River Area of Concern (UCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
R1-34-SD4-8-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
R1-34-SD8-12-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
R1-34-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
R1-35-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
R1-36-SD-N	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita = Ampelisca abdita; H. azteca = Hyalella azteca; A. punctulata = Arbacia punctulata.*

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R4001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R4002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R4003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R4004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R4005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R4007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R4009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R4010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R4013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R4014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R4015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R4016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R4017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R4018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R4019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R4020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R4021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R4022-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R4023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R4024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R4025-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R4026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R4027-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4028-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R5001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R5002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R5003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R5004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R5005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R5006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R5007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R5008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R5009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI2-R4015-ESD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI2-R4015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R4015-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI2-R4015-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R4017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-R4017-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R4017-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R4018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R4100-ESD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R4100-ESD-060	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R4101-ESD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST001-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.86**	INDETERMINATE
00BI2-ST002-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.12**	INDETERMINATE

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST003-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**4.15**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**3.39**	HIGH
00BI2-ST004-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.98**	LOW

Table E2-78. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Upper Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST005-NSD2-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**4.15**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**4.46**	HIGH

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R1001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R1002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R3007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R3012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3022-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R3024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3025-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3027-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R3028-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3029-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3033-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R3034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3035-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3036-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3037-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3038-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R3039-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3040-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3041-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3042-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3043-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3044-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R3045-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3046-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3047-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3048-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3049-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3050-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R3051-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3052-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3053-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3054-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3055-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3056-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R3057-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3058-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3059-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3060-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3061-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R3062-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R3063-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3064-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3065-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3066-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R3067-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R3068-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R3069-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R4029-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R4030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R4031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R4032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4033-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R4034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R4035-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-R3018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R3018-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R3018-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI2-R3024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI2-R3024-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R3024-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-R3046-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R3046-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI2-R3046-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI2-R3067-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-ST006-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST006 (cont.)	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.53**	LOW
00BI2-ST007-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.86**	INDETERMINATE
00BI2-ST008-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST008 (cont.)	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.83**	INDETERMINATE
00BI2-ST010-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	2	4.40	**4.30**		
		O-MOT (60-m *A. punctulata* - F)	2.1	2	4.20			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.68**	INDETERMINATE

Table E2-79. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Bayou d'Inde Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST041-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**3.31**	HIGH

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita = Ampelisca abdita; H. azteca = Hyalella azteca; A. punctulata = Arbacia punctulata.*

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R1003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R1003-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R1003-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R1004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R1005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R1006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R1007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R1008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R1009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R1010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R1010-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R1010-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R1011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R1012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R1013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R1014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R1014-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R1014-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R1015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R3070-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3071-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R3072-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R3073-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R3074-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R3075-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1003-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1003-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1010-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-R1010-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1012-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R1012-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-ST024-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST024 (cont.)	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**4.90**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	1	3.00		**1.59**	LOW
00BI2-ST025-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.89**	LOW
00BI2-ST026-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			

Table E2-80. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Mainstem Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST026 (cont.)	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**2.83**	INDETERMINATE
00ECO-014-NSD-BI01	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R2003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R2015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R2018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2022-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R2023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2025-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2027-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R2028-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R2029-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R2032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2033-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2035-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2036-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2037-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2038-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2039-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2040-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R2041-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2042-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2043-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R2044-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2045-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R2046-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2047-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R2048-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2049-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2050-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2051-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00BI1-R2052-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R2053-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00BI1-R2054-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2055-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2057-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2058-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI1-R2059-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2060-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI1-R2061-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2062-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2063-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R2064-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2065-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2066-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2070-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2071-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2072-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.70**	HIGH
00BI1-R2073-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2074-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**3.05**	HIGH
00BI1-R2075-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2076-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2077-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2078-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2081-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2082-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2083-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2084-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2085-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2090-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00BI1-R2091-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2092-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2093-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2094-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI1-R2095-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2097-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2098-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00BI1-R2099-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI1-R2100-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-R2016-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2016-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2019-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI2-R2020-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-R2020-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2053-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00BI2-R2062-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00BI2-R2072-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI2-R2072-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00BI2-R2072-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST012-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**4.15**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.10**	INDETERMINATE
00BI2-ST013-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**3.76**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST014-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**3.19**	HIGH
00BI2-ST015-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**4.15**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**4.15**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST016-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	2	4.40	**3.25**		
		O-MOT (60-m *A. punctulata* - F)	2.1	1	2.10			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**4.21**	HIGH
00BI2-ST017-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**4.99**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST018-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**3.19**	HIGH
00BI2-ST019-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.70**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**4.69**	HIGH

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST020-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.82**	LOW
00BI2-ST021-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**2.56**	INDETERMINATE

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST022-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.71**	LOW
00BI2-ST023-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.66**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
99BI1-R2056-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2067-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2068-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2069-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2079-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2080-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
99BI1-R2086-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
99BI1-R2087-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2088-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2089-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
99BI1-R2096-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

Table E2-81. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Lower Bayou d'Inde - Lockport Marsh Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-82. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the PPG Canal Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST011-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**4.90**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	1	3.00		**4.80**	HIGH
00BI2-ST027-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**4.90**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	1	3.00		**4.80**	HIGH
00BI2-ST028-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			

Table E2-82. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the PPG Canal Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST028 (cont.)	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.57**	LOW
00BI2-ST029-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**3.05**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**3.80**	HIGH
00BI2-ST030-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			

Table E2-82. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the PPG Canal Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00BI2-ST030 (cont.)	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.12**	INDETERMINATE
00BI2-ST031-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.35**	INDETERMINATE

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

Table E2-82. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the PPG Canal Reach of the Bayou d'Inde Area of Concern (BI AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00ECO-007-NSD-LC02	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R1003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R1013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R1015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00LC1-R1020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1022-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1025-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00LC1-R1026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00LC1-R1027-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1033-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1035-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00LC1-R1036-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00LC1-R1037-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1038-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1039-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1040-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1041-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00LC1-R1042-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00LC1-R1043-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00LC1-R1044-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1045-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00LC1-R1046-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1047-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00LC1-R1048-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1049-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1050-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1051-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1052-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1053-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00LC1-R1054-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00LC1-R1055-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.28**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	1	2.50		**4.28**	HIGH
00LC1-R1056-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2001-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2039-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2040-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2041-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2042-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00LC1-R2043-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2044-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2045-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2046-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2047-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2048-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2049-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2050-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2051-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2052-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2053-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2054-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2055-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2056-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2057-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-83. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Middle Calcasieu River - Mainstem Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2062-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2067-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R1100-ESD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R1101-ESD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca.*

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00ECO-004-NSD-UC01	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R1021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2002-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2003-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2004-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2005-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2006-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2007-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2008-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2009-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00LC1-R2010-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2011-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2012-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2013-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2014-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2015-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2016-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2017-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2018-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2019-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00LC1-R2020-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R2021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2022-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2024-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R2025-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R2026-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2027-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE
00LC1-R2028-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2029-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2032-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2033-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2034-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2035-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2036-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2037-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2038-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R2021-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R2023-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R2031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-R2100-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R2101-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-R2102-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-ST001-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST001 (cont.)	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.31**	LOW
00LC2-ST002-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.66**	LOW
00LC2-ST003-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			

Table E2-84. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Prien Lake and upper old river channel Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST003 (cont.)	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.75**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.86**	LOW
00LC2-ST004-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-85. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Indian Wells Lagoon Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R1028-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R1029-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00LC1-R1030-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00LC1-R1031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00LC2-R1031-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00LC2-R1031-NSD-020	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH

Table E2-85. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Indian Wells Lagoon Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-R1031-NSD-030	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00		**4.90**	HIGH
00LC2-ST005-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	2	4.60			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	2	4.40	**4.30**		
		O-MOT (60-m *A. punctulata* - F)	2.1	2	4.20			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	2	4.60	**4.90**		
		P-IOT (28-d *H. azteca* - S)	2.6	2	5.20			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	2	5.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**4.85**	HIGH
00LC2-ST006-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			

Table E2-85. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Indian Wells Lagoon Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST006 (cont.)	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**5.65**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	2	6.00		**4.37**	HIGH
00LC2-ST007-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	2	4.40	**4.30**		
		O-MOT (60-m *A. punctulata* - F)	2.1	2	4.20			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**4.90**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	2	5.80			
		O-MOT (28-d *H. azteca* - S)	3	1	3.00		**3.41**	HIGH

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-86. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Olsen Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2068-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2069-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2076-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2077-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2078-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2079-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-86. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Olsen Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST008-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW
00LC2-ST009-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	2	4.60			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**1.40**		
		O-IOT (28-d *H. azteca* - S)	2.8	2	5.60			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW

Table E2-86. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Olsen Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST010-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.71**	LOW
00LC2-ST011-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**1.30**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.53**	LOW

Table E2-86. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Olsen Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST012-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-87. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Moss Lake Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2058-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2059-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00LC1-R2060-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2061-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R2063-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2064-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**2.43**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	2	4.80			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**2.43**	INDETERMINATE

Table E2-87. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Moss Lake Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2065-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.65**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.65**	LOW
00LC1-R2066-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.23**	LOW
00LC1-R2070-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2071-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.83**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	1	2.40			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**1.83**	LOW
00LC1-R2072-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2073-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW

Table E2-87. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Moss Lake Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC1-R2074-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC1-R2075-NSD-010	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00LC2-ST013-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.31**	LOW

Table E2-87. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Moss Lake Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST014-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	2	5.20	**2.03**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	1	2.90			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.66**	LOW
00LC2-ST027-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			

Table E2-87. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Moss Lake Reach of the Middle Calcasieu River Area of Concern (MCR AOC).

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00LC2-ST027 (cont.)	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.61**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-88. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Choupique Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST012-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	1	2.30	**1.23**		
		P-IOT (28-d *H. azteca* - S)	2.6	1	2.60			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.55**	LOW
00SN2-ST013-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.20**	LOW

Table E2-88. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Choupique Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST014-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.31**	LOW
00SN2-ST015-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW

Table E2-88. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Choupique Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita = Ampelisca abdita; H. azteca = Hyalella azteca; A. punctulata = Arbacia punctulata.*

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-89. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Grand Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST008-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.27**	LOW
00SN2-ST009-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**2.35**	INDETERMINATE

Table E2-89. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Grand Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST038-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.27**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure; d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.

[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.

[3]Calculated by multiplying the TES by the Raw Risk Score.

[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.

[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-90. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Bois Connine Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST006-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	2	4.80	**4.80**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**3.07**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00			
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.57**	LOW
00SN2-ST035-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	2	4.60	**4.60**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**1.15**	LOW

Table E2-90. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Bayou Bois Connine Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita = Ampelisca abdita; H. azteca = Hyalella azteca; A. punctulata = Arbacia punctulata.*

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-91. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Johnson Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00ECO-001-NSD-SNWR	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00ECO-002-NSD-SNWR	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00ECO-003-NSD-SNWR	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00		**0.00**	LOW
00SN2-ST003-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW

Table E2-91. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Johnson Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST004-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.31**	LOW
00SN2-ST005-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			

Table E2-91. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Johnson Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST005 (cont.)	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita* = *Ampelisca abdita*; *H. azteca* = *Hyalella azteca*; *A. punctulata* = *Arbacia punctulata*.

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.

Table E2-92. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Willow Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]
00SN2-ST001-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**0.00**		
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)[5]	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)[5]	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.00**	LOW
00SN2-ST002-NSD-010	Benthic Invertebrate CS	O-IOT (Benthic CS)	2.4	0	0.00	**0.00**		
	Pore-Water Chemistry	P-IOT (PW conventionals)	2.3	0	0.00	**1.53**		
		P-IOT (PW metals)	2.3	2	4.60			
		P-IOT (PW organics)	2.3	0	0.00			
	Pore-Water Toxicity	O-IOT (60-m/48-h *A. punctulata* - F or D)[5]	2.2	0	0.00	**0.00**		
		O-MOT (60-m *A. punctulata* - F)	2.1	0	0.00			
	Whole-Sediment Chemistry	P-IOT (10-d *A. abdita* - S)	2.3	0	0.00	**0.00**		
		P-IOT (28-d *H. azteca* - S)	2.6	0	0.00			
		P-MOT (10-d *A. abdita* - S)	2.4	0	0.00			
		P-MOT (28-d *H. azteca* - S)	2.5	0	0.00			
	Whole-Sediment Toxicity	O-IOT (10-d *A. abdita* - S)	2.6	0	0.00	**0.00**		
		O-IOT (28-d *H. azteca* - S)	2.8	0	0.00			
		O-MOT (10-d *A. abdita* - S)	2.9	0	0.00			
		O-MOT (28-d *H. azteca* - S)	3	0	0.00		**0.31**	LOW

Table E2-92. Final risk scores and overall assessment of risks to benthic communities posed by exposure to whole sediment and pore water in the Willow Bayou Reach of the Reference Area.

Station	Line of Evidence (LOE)	Measurement Endpoint	TES[1]	Raw Risk Score[2]	Endpoint Risk Score[3]	Average LOE Risk Score	Final Risk Score (All LOEs)	Overall Risk to the Benthic Invertebrate Community[4]

P-IOT = predicted incidence of toxicity; P-MOT = predicted magnitude of toxicity; O-IOT = observed incidence of toxicity; O-MOT = observed magnitude of toxicity; CS = community structure;
d = day; m = minute; S = survival; F = fertilization; D = development; *A. abdita = Ampelisca abdita; H. azteca = Hyalella azteca; A. punctulata = Arbacia punctulata.*

[1]TES = Total evalaution score; see Table E2-74.
[2]Refer to Table E2-5 for classifications for assessing risks to benthic invertebrate communities: High Risk is assigned a score of 2; Indeterminate Risk is assigned a score of 1; Low Risk is assigned a score of 0.
[3]Calculated by multiplying the TES by the Raw Risk Score.
[4]Overall risk of High assigned for samples with a final risk score of >3; overall risk of Indeterminate assigned for samples with a final risk score of 2 - 3; overall risk of Low assigned for samples with a final risk score of 0 to <2.
[5]Based on the toxicity designation determined using the reference envelope approach; toxic samples assigned High Risk; not toxic samples assigned Low Risk.