Appendix E
Pore Water, Surface Water, and Sediment Sampling Results

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum		Calcium		Iron	
			ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/L		ug/l		ug/l		ug/l		mg/l		ug/l	
Transect A	A1	Q1	2.3	U	5	U	80.2	U	76		52.2	U	167		1420		3.8	J	162		162		81.3		9460	
		Q2	2.3	U	5	U	80.2	U	159		69.5	J	485		1090		5.2		77.6		1420		155		4100	
		Q3	2.3	U	5	U	80.2	U	158		52.2	U	453		728		1.9	J	207	L	4490		170		10500	
		Q4	2.3	U	5	U	80.2	U	121		52.2	U	296		735		2.6	J	68		2,540		119		5,190	
	A2	Q1	2.3	U	5	U	80.2	U	81.4		52.2	U	218		498		1.5	U	19		19		88.2		827	
		Q2	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	4.3	J	5	U	80.2	U	120		52.2	U	307		21.9		1.5	U	2,630		61900		131		169000	
		Q4	2.3	U	5	U	80.2	U	139		52.2	U	332		513		1.5	U	5	J	80.2	U	136		245	
	A3	Q1	2.3	U	5	U	80.2	U	82.3		52.2	U	214		239		1.5	U	33.3		33.3		89.9		3680	
		Q2	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	3.1	J	5	U	80.2	U	123		52.2	U	314		20.8		1.5	U	2.3	U	80.2	U	119		52.2	U
		Q4	2.9	J	5	U	80.2	U	138		54.4	J	324		55.2		1.7	J	32	L	1,480		135		5,590	
	A4	Q1	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q2	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	3.2	J	5	U	80.2	U	122		52.2	U	311		449		1.5	U	509		19500		128		47700	
		Q4	2.3	U	5	U	80.2	U	132		52.2	U	313		44.8		1.5	U	56.7	L	2,360		136		5,710	
Transect B	B1	Q1	2.3	U	5	U	80.2	U	94		52.2	U	207		2860		2.3	J	9.1	J	9.1	J	94.1		671	
		Q2	3.5	J	5	U	80.2	U	156		508		457		1900		3.4	J	44.7		1040		154		4690	
		Q3	2.3	U	5	U	80.2	U	182		75.4	J	488		2420		1.5	U	50.9		2750		151		4410	
		Q4	2.3	U	5	U	80.2	U	91.3		52.2	U	229		1,120		1.7	J	42.9		3,420		93.6		3,500	
	B2	Q1	2.3	U	5	U	80.2	U	87.8		52.2	U	221		1070		1.5	U	13.2	J	13.2	J	91.4		1120	
		Q2	2.3	U	5	U	80.2	U	144		52.2	U	385		2540		8.5		8.7	J	1020		150		2080	
		Q3	2.3	U	5	U	80.2	U	192		135	J	511		3440		1.5	U	74.1		4700		166		7020	
		Q4	2.3	U	5	U	80.2	U	105		65.1	J	256		974		1.5	U	52		3,640		107		4,670	
	B3	Q1	2.3	U	5	U	80.2	U	83.8		637		196		2460		1.5	U	5.6	J	5.6	J	88.3		2810	
		Q2	2.3	U	5	U	80.2	U	150		715		421		3330		2.8	J	4.5	J	104	J	149		4080	
		Q3	2.3	J	5	U	80.2	U	171		507		496		3350		1.5	U	19.1		651		134		4130	
		Q4	2.3	U	5	U	80.2	U	141		3,320		341		3,060		2.4	J	11.6	J	233		139		4,540	
	B4	Q1	2.3*	U	5	U	80.2	U	81.8		692		194		2150		1.8	J	6.2	J	6.2	J	87.6		4120	
		Q1-Dup	5	J	5*	U	86.8	J	86.1		549		204		2230		2.9	J	5.8*	J	5.8	J	85.6		3340	
		Q2	2.3	U	5	U	80.2	U	141		1330		406		2530		2.6	J	10.9	J	284		149		6600	
		Q3	2.3	U	5	U	80.2	U	168		874		467		2630		1.5	U	10	J	725		159		4200	
		Q4	2.3	U	5	U	80.2	U	138		3,430		383		2,590		1.8	J	17.9		1,230		139		6,070	
	B5	Q4	2.3	U	5	U	80.2	U	128		52.2	U	334		492		2.3	J	46.8		4,330		136		6,230	

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved	Manganese, dissolved	Vanadium, dissolved		Chromium		Aluminum		Calcium	Iron
			ug/l		ug/l		ug/l		mg/l		ug/l		mg/l	ug/L	ug/l		ug/l		ug/l		mg/l	ug/l
Transect C	C1	Q1	2.3	U	5	U	80.2	U	80.7		52.2	U	169	110	6.3		21.6		21.6		80.6	345
		Q2	2.3	U	5	U	80.2	U	134		52.2	U	344	557	2.8	J	38.6		404		128	995
		Q3	2.3	U	5	U	80.2	U	165		84.3	J	453	743	3.4	J	222		3240		174	6700
		Q4	2.3	U	5	U	80.2	U	122		52.2	U	271	509	1.5	U	149		970		123	2,340
	C2	Q1	2.3	U	5	U	80.2	U	82.1		52.2	U	171	1150	4.8	J	26.7		26.7		82.5	886
		Q2	2.3	U	5	U	80.2	U	146		52.2	U	393	1320	4.8	J	331		3620		147	8900
		Q3	2.3	U	5	U	80.2	U	172		109	J	469	1620	1.5	U	520		11400		165	18500
		Q4	2.4	J	5	U	80.2	U	113		52.2	U	233	291	3.8	J	632		13,300		119	27,600
	C3	Q1	2.3	U	5	U	80.2	U	91.4		538		181	2550	2.2	J	17.2		17.2		93.1	2630
		Q2	2.3	U	5	U	80.2	U	149		742		402	3130	3.1	J	22		519		146	2750
		Q3	3.4	J	5	U	80.2	U	166		86.9	J	465	2770	1.6	J	53.5		1120		167	4240
		Q4	2.3	U	5	U	80.2	U	131		533		316	1,950	2	J	37.5		728		128	3,180
	C4	Q1	2.3	U	5	U	80.2	U	89.7		230		183	2490	4	J	5.3	J	5.3	J	93.2	2260
		Q2	2.3	U	5	U	80.2	U	162		1620		435	4400	3.3	J	9.5	J	596		153	4710
		Q2-Dup	2.3*	U	5*	U	80.2	U	155		902		417	3510	3	J	2.3*	U	177	J	154	2590
		Q3	3.8	J	5	U	80.2	U	170		1410		488	3590	1.5	U	11.5	J	278		159	4800
		Q4	2.3	U	5	U	80.2	U	143		1,150		351	3,600	1.7	J	6.7	J	498		150	3,100
Transect D	D1	Q1	3.3	J	5	U	80.2	U	124		76.2	J	476	3320	8.4		6.1	J	6.1	J	128	770
		Q2	11	J	5	U	80.2	U	153		191	J	645	7210	9		13	J	318		143	1850
		Q3	11.7	J	5	U	80.2	U	143		161	J	645	6030	6		13.6	J	271		147	1750
		Q4	4.3	J	5	U	80.2	U	76		62.4	J	478*	763	3.2*	J	8.2*	J	672*		76.9*	692*
		Q4-Dup	2.3*	U	5*	U	80.2*	U	75.9*		52.2*	U	527	665*	3.6	J	8.7	J	739		78.8	857
	D2	Q1	3.3	J	5	U	80.2	U	170		89.6	J	452	9430	6.5		11.1	J	11.1	J	154	6550
		Q2	16.2	J	5	U	80.2	U	208		6830		528	25600	4.4	J	13.4	J	245		197	19800
		Q3	9	J	5	U	80.2	U	175		4080		507	20500	1.5	U	23.7		342		184	12200
		Q4	4.4	J	5	U	80.2	U	191		2,480		506	8,520	5		10.7	J	835		193	7,380
	D3	Q1	8.5	J	5	U	80.2	U	142		417		438	8310	4.1	J	11.4	J	11.4	J	163	3890
		Q2	12.4	J	5	U	80.2	U	168		4300		436	16700	4.4	J	16.2		162	J	168	12200
		Q3	6.6	J	5	U	80.2	U	199		6570		538	20600	3.4	J	13.5	J	95.6	J	111	9490
		Q4	3.7	J	5	U	80.2	U	183		8,910		547	23,200	4.1	J	12.9	J	945		184	15,100
	D4	Q1	2.3	U	5	U	80.2	U	81.2		875		202	1650	1.5	U	42.4		42.4		84.7	5760
		Q2	3.1	J	5	U	80.2	U	156		1680		390	2280	1.5	U	9.6	J	350		147	5410
		Q3	2.3	U	5	U	80.2	U	173		1760		507	1910	1.5	U	24.2		NV		174	5800
		Q3-Dup	2.3*	U	5*	U	80.2	U	171		348		503	1730	1.5	U	13.7*	J	NV		177	4070
		Q4	2.3	U	5	U	80.2	U	130		1,350		351	1,600	1.5	U	21.2		1,270		140	5,060

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved	Manganese, dissolved	Vanadium, dissolved		Chromium		Aluminum		Calcium	Iron
			ug/l		ug/l		ug/l		mg/l		ug/l		mg/l	ug/L	ug/l		ug/l		ug/l		mg/l	ug/l
Transect E	E1	Q1	4.8	J	5	U	80.2	U	113		56.5	J	573	3100	5.9		3.4*	J	3.4	J	116	469
		Q1-Dup	4.8*	J	5*	U	80.2	U	103		73.8	J	595	2230	4.9	J	7.1	J	7.1	J	106	496
		Q2	6.5	J	5	U	80.2	U	66.7		107	J	503	1020	5.8		7.5	J	236		61.2	410
		Q3	4	J	5	U	80.2	U	19.7		52.2	U	479	106	1.7	J	118	L	624		20.7	517
		Q4	2.3	U	5	U	80.2	U	29.6		52.2	U	599	253	1.5	U	91.1		984		30.3	1,030
	E2	Q1	2.3	U	5	U	80.2	U	159		3580		481	281	1.5	U	5.9	J	5.9	J	174	9830
		Q2	12.2	J	5	U	80.2	U	187		76.1	J	446	9250	11.1		10.2	J	200	J	164	1380
		Q3	8.1	J	5	U	80.2	U	233		3580		557	13400	1.5	U	10.1	J	NV		233	6060
		Q4	5.7	B	5	U	80.2	U	224		3,350		537	7,700	2.2	J	8.5	B	441		227	5,150
	E3	Q1	3.2	J	5	U	80.2	U	177		699		429	5540	6.2		5.8	J	5.8	J	185	3420
		Q2	13.5	J	5	U	80.2	U	152		301		427	14100	5.6		17.6		264		156	4400
	E4	Q1	2.3	U	5	U	80.2	U	104		52.2	U	258	2310	1.5	U	35.1		35.1		105	6320
		Q2	2.3	U	5	U	40100	U	144		26100	U	391	3330	750	U	4.4	J	223		149	2820
		Q3	2.3	U	5	U	80.2	U	177		52.2	U	514	5090	1.5	U	6.5	J	NV		182	1570
		Q4	2.3	U	5	U	80.2	U	141		1,230		358	2,790	1.5	U	2.3	U	785		141	2,260
Transect F	F1	Q1	3	J	5	U	80.2	U	154		128	J	472	3070	3.6	J	3	J	3	J	152	3260
		Q2	7.4	J	5	U	80.2	U	143		52.2	U	402	4440	5.5		8.8	J	119	J	161	2180
	F2	Q1	2.3	U	5	U	80.2	U	161		3510		460	4360	1.5	J	3.8	J	3.8	J	162	8230
		Q2	3.2	J	5	U	80.2	U	191		9300		428	5550	1.5	U	5.6	J	408		194	19800
		Q3	3.5	J	5	U	80.2	U	188		1910		532	5790	1.5	U	7.4	J	1440		190	5240
		Q4	6.2	J	5	U	80.2	U	187		1,210		533	19,300	4.9	J	10.7	J	518		182	7,040
	F3	Q1	4.7	J	5	U	80.2	U	119		109	J	383	2750	6.4		11.5	J	11.5	J	126	2690
		Q2	10.1	J	5	U	80.2	U	130		106	J	339	2780	10.3		14.5	J	215		132	2640
		Q2-Dup	9.1*	J	5*	U	80.2	U	145		526		376	3590	7.6		10.4*	J	217		135	2770
	F4	Q1	3.2	J	5	U	80.2	U	102		52.2	U	326	5580	3.6	J	4.6	J	4.6	J	109	1820
		Q2	8.2	J	5	U	80.2	U	136		1060		371	5440	7.2		8	J	311		123	3610
		Q3	2.3	U	5	U	80.2	U	159		52.2	U	439	4690	5.8		9.3	J	343		164	1670
		Q4	5.7	J	5	U	80.2	U	152		93.2	J	450	4,710	6.3		9.4	J	638		156	1,240
Transect G	G1	Q1	2.3	U	5	U	80.2	U	157		56.5	J	405	13300	9.7		5	J	5	J	146	349
		Q2	2.3	U	5	U	80.2	U	140		85.1	J	424	2870	6.1		8.2	J	427		151	4740
	G2	Q1	2.3	U	5	U	80.2	U	154		52.2	U	401	3010	6.8		6.3	J	6.3	J	157	1200
		Q2	11.7	J	5	U	80.2	U	157		73.8	J	435	1770	10		14.9	J	374		148	647
		Q3	10.2	J	5	U	80.2	U	155		85.6	J	470	2140	8		14.5	J	619		161	901
		Q4	5	B	5	U	80.2	U	89.6		90.3	J	256	1,420	4.3	J	7.6	B	337		90.5	651
	G3	Q1	2.6	J	5	U	80.2	U	144		1410		458	4230	2.2	J	6.2	J	6.2	J	154	5900
		Q2	10.1	J	5	U	80.2	U	150		97	J	432	2890	10.4		15.3		355		144	1090
	G4	Q1	4.2	J	5	U	80.2	U	128		103	J	394	6030	3.9	J	7.9	J	7.9	J	133	3460
		Q2	13.4	J	5	U	80.2	U	136		159	J	381	6130	8.4		15.1		297		145	1530
		Q3	8.1	J	5	U	80.2	U	153		112	J	482	5700	6.4		9.8	J	209		156	1280
		Q4	3.2	B	5	U	80.2	U	90.5		52.2	U	270	3,130	3.3	J	8	B	285		93.2	818

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Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Chromium, dissolved ug/l		Hexavalent Chromium ug/l		Aluminum, dissolved ug/l		Calcium, dissolved mg/l		Iron, dissolved ug/l		Magnesium, dissolved mg/l		Manganese, dissolved ug/L		Vanadium, dissolved ug/l		Chromium ug/l		Aluminum ug/l		Calcium mg/l		Iron ug/l	
Transect H	H1	Q1	2.8	J	5	U	80.2	U	164		98.5	J	396		4680		7		12.5	J	12.5	J	153		2440	
		Q2	4.4	J	5	U	80.2	U	159		517		432		6090		6.1		19.2		737		165		5750	
		Q3	11	J	5	U	80.2	U	190		114	J	505		7950		6.9		17.4		384		184		3610	
		Q3-Dup	11*	J	5*	U	80.2	U	182		107	J	488		7770		6.2		16.8*		489		180		3230	
		Q4	5.1	J	5	U	80.2	U	187	J	59.5	J	504	J	9,890		6.5		14.4	J	1,420		183	J	4,600	
	H2	Q1	4.3	J	5	U	80.2	U	136		52.2	U	468		7640		4.8	J	9.1	J	9.1	J	146		1910	
		Q2	3.5	J	5	U	80.2	U	152		52.2	U	416		2650		8.6		12	J	330		146		582	
	H3	Q1	5.5	J	5	U	80.2	U	133		60.3	J	432		3600		5.4		10.2	J	10.2	J	138		1280	
		Q2	3.2	J	5	U	80.2	U	179		5280		440		5300		4.8	J	13.2	J	376		182		13700	
	H4	Q1	3.1	J	5	U	80.2	U	134		71.7	J	427		4450		4	J	6.3	J	6.3	J	135		3470	
		Q2	4.8	J	5	U	80.2	U	156		58.4	J	439		11300		6.8		16.2		347		156		2960	
		Q3	12.2	J	5	U	80.2	U	192		4820		517		12700		5.5		14.6	J	184	J	193		15400	
		Q4	6.5*	B	5*	U	80.2*	U	192		1510*		556		15900*		4.4*	J	16.9		988		191		7400*	
		Q4-Dup	10.2	B	5	U	80.2	U	187*		3,780		526*		16,700		7.1		15.7*		630*		184*		8,470	
Transect I	I1	Q1	2.3	U	5	U	80.2	U	86.9		72.7	J	194		174		2.6	J	23.9		23.9		90.7		1590	
		Q2	2.3	U	5	U	80.2	U	139		52.2	U	342		281		4.3	J	10.2	J	204		144		384	
		Q3	3.1	J	5	U	80.2	U	166		52.2	U	458		742		5.1		52.2	L	1840		169		4050	
		Q4	2.3	U	5	U	80.2	U	111		52.2	U	294		1,420		1.5	U	12.5	J	624		118		4,170	
	I2	Q1	2.6	J	5	U	80.2	U	100		52.2	U	248		136		3.2	J	11.2	J	11.2	J	101		149	
		Q2	2.3	U	5	U	80.2	U	132		52.2	U	343		201		3.2	J	14.1	J	459		134		481	
		Q3	3.1	J	5	U	80.2	U	170		68.6	J	473		662		3	J	12.2	J	248		176		754	
		Q4	2.3	U	5	U	80.2	U	126		52.2	U	331		521		5.3		49.8		4,180		130		5,830	
	I3	Q1	2.3	U	5	U	80.2	U	101		52.2	U	253		189		3.1	J	21.3		21.3		103		737	
		Q2	2.7	J	5	U	80.2	U	128		77.1	J	341		224		2.9	J	13.5	J	338		134		535	
		Q3	4.7	J	5	U	80.2	U	171		60.9	J	472		430		3.1	J	15.6		509		180		826	
		Q4	2.3	U	5	U	80.2	U	147	J	52.2	U	397	J	354		3.7	J	16.3		954		146	J	937	
	I4	Q1	2.7	J	5	U	80.2	U	105		63.7	J	243		133		3.5	J	27		27		101		520	
		Q2	5.8	J	5	U	80.2	U	118		64.2	J	307		204		5.5		25		349		119		664	
		Q3	6.7	J	5	U	80.2	U	178		52.2	U	442		372		4.8	J	24.3	L	1030		180		980	
		Q4	2.3	U	5	U	80.2	U	132		52.2	U	356		215		3.9	J	34.7		1,470		135		1,230	
Transect J	J1	Q4	2.3	U	5	U	80.2	U	134		61.7	J	327		162		4	J	96.5		1,580		144		2,590	
	J2	Q4	2.3	U	5	U	80.2	U	127		52.2	U	313		1,140		3.9	J	112		4,930		126		7,720	
	J3	Q4	2.3	U	5	U	80.2	U	132		62.3	J	317		1,530		3	J	61.4		2,870		134		4,770	
	J4	Q4	2.3	U	5	U	80.2	U	110		52.2	U	195		42.9		11.9		1,880		2,340		109		3,730	

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Magnesium		Manganese		Vanadium		Acidity As CaCO3, Dissolved		Ammonia-Nitrogen, dissolved		Ferrous Iron, dissolved		Hardness, total dissolved		Organic Carbon, dissolved		Oxidation Reduction Potential		pH		Sulfide	
			mg/l		ug/L		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l		mv		SU		mg/l	
Transect A	A1	Q1	178		1770		26.8		NV		NV		0.053	J	NV		NV		NV		NV		NV	
		Q2	471		1150		14		NV		NV		0.2	U	2,560		16.1		NV		NV		NV	
		Q3	476		1040		31		2,500		NV		1.3		NV		29.6		556		7.8		NV	
		Q4	292		859		16.6		NV		NV		0.04	J	1,620		8.2		593		9		NV	
	A2	Q1	231		638		3.1	J	NV		NV		NV		NV		23.8		NV		8		NV	
		Q2	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	331		7350		350		NV		NV		0.012	J	NV		11.2		610		7.8		NV	
		Q4	322		506		2.6	J	NV		NV		0.013	J	NV		4.3		668		7.6		NV	
	A3	Q1	233		578		8.7		NV		NV		NV		NV		23.6		NV		NV		NV	
		Q2	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	305		18.4		1.5	U	NV		NV		0.016	U	NV		12.1		609		7.8		NV	
		Q4	316		126		9.2		NV		NV		0.08	U	NV		5		684		7.8		NV	
	A4	Q1	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q2	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	325		2340		108		NV		NV		0.019	J	NV		7.3		605		7.7		NV	
		Q4	322		233		15.1		NV		NV		0.008	U	NV		17.3		698		7.8		NV	
Transect B	B1	Q1	207		2890		3.5	J	NV		NV		0.019	J	NV		NV		NV		NV		NV	
		Q2	475		1960		9		NV		2.6		0.5		2,470		8.4		640		7.9		0.054	U
		Q3	435		1900		11.6		2,810		NV		0.079	J	NV		18.6		521		7.7		NV	
		Q4	236		1,210		11.1		NV		NV		0.047	J	1,320		5.8		591		7.9		NV	
	B2	Q1	227		1150		3.4	J	NV		0.54		0.011	J	NV		13.5		NV		7.9		NV	
		Q2	418		2730		11.4		NV		2.9		0.019	J	NV		13.1		557		8		0.054	U
		Q3	469		2800		15.9		NV		NV		0.12		NV		12.7		524		7.7		NV	
		Q4	260		1,070		12.8		NV		NV		0.11		NV		5.6		587		7.9		NV	
	B3	Q1	188		2680		2.1	J	NV		1.1		0.55		NV		19.6		NV		8.1		54	U
		Q2	430		3390		3.3	J	NV		2.1		0.44		NV		16.5		634		7.8		0.054	U
		Q3	412		2420		4.3	J	NV		NV		0.48		NV		13.2		521		7.7		NV	
		Q4	335		3,040		4.1	J	NV		NV		3.6		NV		6.1		571		7.8		NV	
	B4	Q1	187		2340		3.9	J	NV		2.3*		0.095	J	NV		25.3*		NV		8		54	U
		Q1-Dup	184		2250		3.8	J	NV		2.4		0.31		NV		33.6		NV		8*		54*	U
		Q2	435		2720		4.8	J	NV		3.1		1.2		NV		17		617		7.9		0.054	U
		Q3	466		2280		4.1	J	NV		NV		0.74		NV		14.7		518		7.6		NV	
		Q4	386		2,650		6.4		NV		NV		3.6		NV		7.3		619		7.8		NV	
	B5	Q4	355		731		17.3		NV		NV		0.0095	J	NV		14.3		601		7.9		NV	

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Magnesium		Manganese		Vanadium		Acidity As CaCO3, Dissolved		Ammonia-Nitrogen, dissolved		Ferrous Iron, dissolved		Hardness, total dissolved		Organic Carbon, dissolved		Oxidation Reduction Potential		pH		Sulfide	
			mg/l		ug/L		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l		mv		SU		mg/l	
Transect C	C1	Q1	170		116		8		NV		11.7		0.12		NV		19.8		NV		8.4		54	U
		Q2	344		594		4.8	J	NV		8.6		0.078	J	1,820		8.7		624		8.4		0.054	U
		Q3	467		1260		20.6		2,560		NV		0.042	J	NV		15.3		557		8.1		NV	
		Q4	268		586		9.7		NV		NV		0.082	J	1,660		9.5		623		8.1		NV	
	C2	Q1	171		1190		8.7		NV		2.7		0.043	J	NV		21		NV		8.3		54	U
		Q2	412		1600		31.2		NV		NV		0.18		NV		11.1		NV		8.2		0.054	U
		Q3	463		1880		51.5		NV		NV		2.3		NV		11.3		595		7.9		NV	
		Q4	239		1,240		63.9		NV		NV		NV		NV		NV		644		7.8		NV	
	C3	Q1	183		2630		8.9		NV		1		0.4		NV		22.9		NV		7.8		54	U
		Q2	415		3170		4.9	J	NV		3.8		0.91		NV		8.9		646		8		0.054	U
		Q3	467		2850		7.4		NV		NV		0.13		NV		16.2		642		7.9		NV	
		Q4	304		1,950		5.7		NV		NV		0.64		NV		8.8		574		8		NV	
	C4	Q1	190		2620		6.4		NV		1		0.14		NV		42		NV		7.9		54	U
		Q2	434		4330		4.8	J	NV		2.9		1.2		NV		11.2		646*		7.8		0.054	U
		Q2-Dup	435		3590		3.6	J	NV		2.5*		0.99*		NV		10.3*		648		7.8*		0.054*	U
		Q3	457		3410		2.7	J	NV		NV		1.3		NV		14.1		636		7.7		NV	
		Q4	358		3,800		3.3	J	NV		NV		1.3		NV		9		558		7.9		NV	
Transect D	D1	Q1	408		3570		9.5		NV		21.2		0.12		NV		22.1		NV		8.4		54	U
		Q2	598		7080		12.3		NV		48.4		0.13	J	2,890		36.6		557		8.1		0.054	U
		Q3	626		6390		6.2		3,230		NV		0.19	J	NV		38.5		551		8.1		NV	
		Q4	484*		812		5.9*		NV		NV		0.13		2210*		20.5		643		8.4*		NV	
		Q4-Dup	545		737*		6.2		NV		NV		0.13*		2,450		18.1*		628*		8.5		NV	
	D2	Q1	465		9540		8		NV		26.4	J	0.0092	J	NV		23.1	J	NV		8		54	U
		Q2	562		28400		8.3		NV		68.8		4.7	J	NV		25.8		544		7.8		0.054	U
		Q3	593		23600		4.9	J	NV		NV		4.7		NV		24.1		439		8		NV	
		Q4	511		8,890		7.3		NV		NV		3		NV		14.2		636		7.8		NV	
	D3	Q1	415		9860		7.1		NV		27.7		0.44		NV		20.5		NV		8		54	U
		Q2	432		16900		5.5		NV		39.5		2.8		NV		24.6		394		7.7		0.054	U
		Q3	304		16700		2.5	J	NV		NV		10.5		NV		21		618		7.7		NV	
		Q4	546		24,200		7.5		NV		NV		10.3		NV		16.9		634		7.7		NV	
	D4	Q1	206		1790		9.7		NV		0.91		0.78		NV		32.1		NV		7.9		54	U
		Q2	367		2180		3.7	J	NV		1.5		1.4		NV		19.1		603		7.8		0.054	U
		Q3	489		2020		3.6	J	NV		NV		0.39		NV		20.1		548		7.8*		NV	
		Q3-Dup	494		1870		2.9	J	NV		NV		0.36*		NV		16.8*		462*		7.9		NV	
		Q4	378		1,750		6.3		NV		NV		1.4		NV		8.1		630		7.7		NV	

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Magnesium		Manganese		Vanadium		Acidity As CaCO3, Dissolved		Ammonia-Nitrogen, dissolved		Ferrous Iron, dissolved		Hardness, total dissolved		Organic Carbon, dissolved		Oxidation Reduction Potential		pH		Sulfide	
			mg/l		ug/L		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l		mv		SU		mg/l	
Transect E	E1	Q1	577		3100		9.2		NV		47.4*		0.09	J	NV		35*		NV		8.4		54	U
		Q1-Dup	613		2320		5.3		NV		67.8		0.09	J	NV		35.5		NV		8.3*		54*	U
		Q2	534		995		7.5		NV		74.3		0.087	J	2,290		42		531		8.8		0.054	U
		Q3	509		212		7.4		2,010		NV		0.091	J	NV		36.8		382		9.5		NV	
		Q4	677		355		10		NV		NV		0.085	J	2,750		25.2		395		9.3		NV	
	E2	Q1	434		14200		5	J	NV		3.8		0.041	J	NV		16.1		NV		7.7		54	U
		Q2	446		8530		12.5		NV		16.8		0.1	J	NV		23.4		548		7.9		0.054	U
		Q3	560		13600		4.8	J	NV		NV		3.9		NV		12.9		590		7.8		NV	
		Q4	544		7,850		4.4	J	NV		NV		3.4		NV		4.9		557		7.5		NV	
	E3	Q1	445		5900		7		NV		16.8		0.6		NV		12.2		NV		7.9		54	U
		Q2	415		12400		8.6		NV		31.5		0.28		NV		24.6		448		7.8		0.054	U
	E4	Q1	259		2460		13.1		NV		1.3		0.029	J	NV		29.8		NV		8		54	U
		Q2	408		3230		4.2	J	NV		3.6		0.28		NV		23.7		638		7.9		0.054	U
		Q3	510		5310		3.5	J	NV		NV		0.08	J	NV		13.9		593		8		NV	
		Q4	358		2,810		3.6	J	NV		NV		1.2		NV		17.3		626		7.7		NV	
Transect F	F1	Q1	383		3110		4.6	J	NV		16.4		0.26		NV		18.5		NV		7.9		54	U
		Q2	407		4570		7.1		NV		23.9		0.11		2,420		21.3		603		8		0.054	U
	F2	Q1	381		4460		3.8	J	NV		6.1		3.8		NV		14.8		NV		7.7		54	U
		Q2	435		5660		2.3	J	NV		NV		7.4		NV		NV		NV		NV		0.054	U
		Q3	537		5920		4.3	J	NV		NV		1.9		NV		14.8		593		7.6		NV	
		Q4	517		3,850		7.8		NV		NV		1.3		2,890		13.8		570		7.9		NV	
	F3	Q1	348		2990		9.8		NV		13.4		0.18		NV		17.4		NV		8		74	J
		Q2	342		2900		11.4		NV		15.6		0.065*	J	NV		23.5		596		8		0.054	U
		Q2-Dup	350		3410		8.3		NV		13.1*		0.46		NV		22.5*		595*		8*		0.054*	U
	F4	Q1	348		6050		4.6	J	NV		11.6		0.081	J	NV		10.6		NV		8.1		54	U
		Q2	377		5160		10.2		NV		12.6		0.84		NV		20.4		539		7.9		0.054	U
		Q3	465		5160		5.1		NV		NV		0.076	J	NV		15.6		625		8		NV	
		Q4	459		4,840		6.7		NV		NV		0.15		NV		10		565		8		NV	
Transect G	G1	Q1	384		12400		9.5		NV		19.4	J	0.15		NV		20	J	NV		8.2		54	U
		Q2	438		3030		9.5		NV		33.4		0.13		2,230		21.9		363		8.2		0.054	U
	G2	Q1	405		3210		7.7		NV		10.3	J	0.14		NV		16.4	J	NV		8		54	U
		Q2	407		1680		11.4		NV		10.8		0.067	J	NV		16.2		423		8.1		0.061	J
		Q3	486		2250		10.3		NV		NV		0.083	J	NV		20.1		607		8.1		NV	
		Q4	258		1,440		4.1	J	NV		NV		0.16		2,650		9.1		601		8		NV	
	G3	Q1	481		4590		4.3	J	NV		4.4		1.4		NV		26.4		NV		7.8		54	U
		Q2	412		2790		12		NV		13.8		0.069	J	NV		21.2		439		8		0.054	U
	G4	Q1	402		6380		5.6		NV		12.5		0.19		NV		29.1		NV		7.8		54	U
		Q2	406		6630		10.2		NV		14.3		0.14		NV		20.5		404		7.9		0.054	U
		Q3	487		5830		7.1		NV		NV		0.094	J	NV		14.6		603		7.8		NV	
		Q4	279		3,350		4.7	J	NV		NV		0.15		NV		8.8		609		7.9		NV	

Appendix E-1a
Data from Pore Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Magnesium		Manganese		Vanadium		Acidity As CaCO3, Dissolved		Ammonia-Nitrogen, dissolved		Ferrous Iron, dissolved		Hardness, total dissolved		Organic Carbon, dissolved		Oxidation Reduction Potential		pH		Sulfide	
			mg/l		ug/L		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l		mv		SU		mg/l	
Transect H	H1	Q1	372		4670		9.7		NV		21.1		0.2	K	NV		31.6		NV		7.8		54	U
		Q2	450		6490		9.7		NV		51.8		0.45		2,580		29.2		414		8		0.054	U
		Q3	488		7900		8.1		2580*		NV		0.1*		NV		23.6		567		7.9		NV	
		Q3-Dup	481		7830		8.5		2,640		NV		0.12		NV		22.8*		567*		7.7*		NV	
		Q4	489	J	10,900		9.8		NV		NV		0.19		2,800		26.3		675		7.8		NV	
	H2	Q1	488		8240		7.1		NV		34.3		0.1		NV		31.3		NV		8.1		54	U
		Q2	406		2580		10.1		NV		28.6		0.12		NV		18.9		406		8.1		0.054	U
	H3	Q1	441		3770		7.5		NV		22.2		0.16		NV		34.1		NV		7.9		300	
		Q2	459		5620		9.8		NV		42.8		4.3		NV		24.8		410		7.8		0.054	U
	H4	Q1	423		4640		6.1		NV		8.5		0.18		NV		21		NV		7.9		54	U
		Q2	423		11000		9.2		NV		36.5		0.098	J	NV		23.8		411		8		0.054	U
		Q3	513		12900		7.8		2,790		NV		5.2		NV		24.1		566		7.5		NV	
		Q4	549		15600*		11.3		NV		NV		1.5		NV		12.9*		665		7.5*		NV	
		Q4-Dup	514*		16,800		9.1*		NV		NV		4.2		NV		15.1		645*		7.5		NV	
Transect I	I1	Q1	199		204		8.5		NV		2		0.1	K	NV		20.6		NV		8.1		54	U
		Q2	349		288		7.1		NV		6.8		0.079	J	1,880		12		427		8.2		0.077	J
		Q3	455		821		19.2		2,480		NV		0.069	J	NV		10		555		8.1		NV	
		Q4	302		1,520		5.2		NV		NV		0.074	J	1,670		15.2		676		7.9		NV	
	I2	Q1	246		145		6.8		NV		12.5		0.11	K	NV		49.4		NV		8.1		160	
		Q2	364		217		8.9		NV		19.4		0.062	J	NV		14.9		361		8.1		0.76	
		Q3	489		696		4.9	J	NV		NV		0.12		NV		13.2		563		7.9		NV	
		Q4	335		607		22.4		NV		NV		0.1		NV		15		681		8		NV	
	I3	Q1	254		210		9.2		NV		16.7		0.11	K	NV		35.9		NV		8.1		54	U
		Q2	324		228		7.2		NV		14.7		0.093	J	NV		19.1		342		8.1		0.42	
		Q3	490		460		7.2		NV		NV		0.063	J	NV		18.4		567		7.6		NV	
		Q4	393	J	363		9.8		NV		NV		0.13		NV		19.4		681		8		NV	
	I4	Q1	233		140		11.5		NV		13.3		0.073	J	NV		42.3		NV		8.1		63	J
		Q2	294		229		7.8		NV		27		0.081	J	NV		10.1		351		8.1		0.47	
		Q3	447		395		9.4		2,380		NV		0.071	J	NV		20.4		554		8		NV	
		Q4	361		235		18		NV		NV		0.18		NV		18.6		677		8		NV	
Transect J	J1	Q4	347		652		8.6		NV		NV		0.008	U	1,910		5.5		569		8		NV	
	J2	Q4	310		1,440		21.3		NV		NV		0.011	J	NV		10.9		551		8		NV	
	J3	Q4	323		1,650		13.9		NV		NV		0.027	J	NV		18.5		594		7.8		NV	
	J4	Q4	195		451		23.6		NV		NV		0.055	J	NV		14.7		603		8.8		NV	

Laboratory ORP data are suspect because they are inconsistent with field measurements of ORP
* = datum not used (because it is the lower pair of a duplicate, or the datum was rejected

B = Bottom sample
$CaCO_3$ = Calcium carbonate
mg/l = Milligram per Liter
mv = Millivolt
NV = No Value, no analysis performed
SU = Standard Units
ug/l = Microgram per Liter

Qualifiers:
J = Estimated value
L = Off-scale high. Actual value is known to be greater than value given
U = Not detected

Appendix E-1b
Data from Pore Water Reference Location Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved	
			ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l	
Transect 37	37	Q1	5	J	5	U	80.2	U	148		523		451		12400		9.7	
		Q2	9.7	J	5	U	80.2	U	167		91.9	J	470		11900		8.7	
		Q3	2.3	U	5	U	80.2	U	179		590		483		14000		3.8	J
		Q4	9.6	B	5	U	80.2	U	178		122	J	514		15,700		9.8	
	37A	Q1	4.1	J	5	U	80.2	U	143		6110		413		11000		8.5	
		Q2	11.4	J	5	U	80.2	U	160		138	J	433		17500		11.3	
		Q3	4.8	J	5	U	80.2	U	161		1290		488		7210		5.7	
		Q4	6.1	J	5	U	80.2	U	166		187	J	484		14,600		5.4	
	37B	Q1	8.4	J	5	U	80.2	U	152		8040		446		24600		10.9	
		Q2	11.6	J	5	U	80.2	U	162		5820		442		18700		6.9	
		Q3	2.3	U	5	U	80.2	U	176		89	J	481		13700		5.5	
		Q4	5	J	5	U	80.2	U	186		1,870		547		8,300		5.6	

Appendix E-1b
Data from Pore Water Reference Location Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Chromium		Aluminum		Calcium		Iron		Magnesium		Manganese		Vanadium		Acidity As CaCO3, Dissolved	
			ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		mg/l	
Transect 37	37	Q1	6.2	J	149	J	153		4680		462		17,000		10.7		NV	
		Q2	7.9	J	215		152		2100		487		12,465		10.7		NV	
		Q3	14.7	J	229		192		12300		531		23,000		7.1		2,810	
		Q4	14.3	J	1,260		175		4,360		504		16,400		13.6		NV	
	37A	Q1	2.9	J	123	J	146		11800		418		15,000		8.9		NV	
		Q2	10.8	J	370		151		2860		465		18,216		15.1		NV	
		Q3	8.9	J	338		167		4550		506		7,640		7.3		NV	
		Q4	10.2	J	852		167		6,650		483		15,100		8		NV	
	37B	Q1	8.1	J	80.2	U	155		15800		455		26,000		12.1		NV	
		Q2	8	J	195	J	154		12600		478		20,561		10.6		NV	
		Q3	13.7	J	483		196		4740		551		15,700		7.8		NV	
		Q4	12.6	J	1,380		184		6,490		538		8,320		9.7		NV	

Appendix E-1b
Data from Pore Water Reference Location Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Ammonia-Nitrogen, dissolved		Ferrous Iron, dissolved		Hardness, total dissolved		Organic Carbon, dissolved		Oxidation Reduction Potential		pH		Sulfide	
			mg/l		mg/l		mg/l		mg/l		mv		SU		mg/l	
Transect 37	37	Q1	19.1		0.46		NV		17.2		NV		8		54	U
		Q2	20.6		0.088	J	2,350		23.4		548		8		0.054	U
		Q3	NV		4.1		NV		19.9		615		7.8		NV	
		Q4	NV		0.21		2,700		13.2		599		7.9		NV	
	37A	Q1	7.9		6.2		NV		12.1		NV		7.7		54	U
		Q2	17.3		0.12		2,150		23.8		557		7.9		0.054	U
		Q3	NV		1.4		NV		15.7		642		7.9		NV	
		Q4	NV		0.24		NV		12.8		558		7.9		NV	
	37B	Q1	13.7		7.6		NV		18.7		NV		7.9		54	U
		Q2	20.6		4.2		2,270		25		553		7.8		0.054	U
		Q3	NV		0.16		NV		19.1		627		8		NV	
		Q4	NV		2		NV		10.8		578		7.8		NV	

B = Bottom sample
$CaCO_3$ = Calcium carbonate
mg/l = Milligram per Liter
mv = Millivolt
SU = Standard Units
ug/l = Microgram per Liter

Qualifiers:
J = Estimated value
U = Not detected

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect A	A1	Q1	2	2.3	U	5	U	80.2	U	71.3		52.2	U	188		18.2		1.5	U	6.8	J	347	
		Q2	2	2.3	U	5	U	80.2	U	155		52.2	U	469		38.6		1.5	U	2.3	U	80.2	U
		Q2	4	2.3	U	5	U	80.2	U	154		52.2	U	464		56.4		3	J	2.8	J	97.5	J
		Q3	1.5	5.6	J	5	U	80.2	U	165		52.2	U	462		8.5		1.5	U	9.8	J	231	
		Q4	1.5	2.3	U	5	U	80.2	U	103		52.2	U	286		28.7		1.5	U	2.3	U	129	J
		Q4	4	2.3	U	5	U	80.2	U	106		62.4	J	295		30		1.5	U	2.3	U	171	J
	A2	Q1	2	2.3*	U	5	U	80.2	U	70.4		52.2	U	185		21.6		1.5	U	3.4*	J	144	J
		Q1-Dup	2	2.5	B	5*	U	80.2	U	73.2		52.2	U	185		25.1		1.5	U	4.2	J	134	J
		Q2	1.5	2.3	U	5	U	80.2	U	156		52.2	U	473		44		2.9	J	2.3	U	80.2	U
		Q2	3.5	2.3	U	5	U	80.2	U	154		52.2	U	467		45.4		2.4	J	2.3	U	82.4	J
		Q3	2	2.3	U	5	U	80.2	U	106		52.2	U	277		3.8	J	1.5	U	2.3	U	88.7	J
		Q4	2.4	2.4	J	5	U	80.2	U	115		52.2	U	321		40.9		1.5	U	2.3	U	84.8	J
	A3	Q1	2	2.3	U	5	U	80.2	U	74.3		52.2	U	201		30.1		1.5	U	3.5	J	203	
		Q2	2.5	2.3	U	5	U	80.2	U	153		52.2	U	463		29.4		2.2	J	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	109		52.2	U	291		4.1	J	1.5	U	2.3	U	130	J
		Q4	2.3	2.3	U	5	U	80.2	U	117		52.2	U	328		41.6*		1.5	U	2.3	U	80.2*	U
		Q4-Dup	2.3	2.3*	U	5*	U	80.2*	U	117*		52.2*	U	328*		41.7		1.5*	U	2.3*	U	99.2	J
	A4	Q1	2	2.3	U	5	U	80.2	U	74		55.7	J	196		47.3		1.5	U	3	J	98.9	J
		Q2	2.2	2.3	U	5	U	80.2	U	155		52.2	U	471		47.5		2.6	J	2.3	U	80.2	U
		Q2 - Dup	2.2	2.3*	U	5*	U	80.2	U	155		52.2	U	470		47.6		2.8	J	2.3*	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	109		52.2	U	296		4.4	J	1.5	U	2.3	U	127	J
		Q4	2.5	2.3	U	5	U	80.2	U	111		52.2	U	312		38.6		1.5	U	2.3	U	83.5	J
Transect B	B1	Q1	2.5	2.3	U	5	U	80.2	U	79.4		52.2	U	201		25.6		1.5	U	2.3	U	89.5	J
		Q2	2	3.8	J	5	U	80.2	U	157		52.2	U	458		35.7		2.3	J	5.8	J	80.2	U
		Q2	5	5.2	J	5	U	80.2	U	158		52.2	U	463		65.8		1.6	J	11.1	J	439	
		Q3	2	2.3	U	5	U	80.2	U	152		52.2	U	452		10.9		1.5	U	2.3	U	102	J
		Q3	6.5	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3-Dup	6.5	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	7	2.3	U	5	U	80.2	U	153		52.2	U	461		11.8		1.5	U	2.3	U	101	J
		Q4	3	2.3	U	5	U	80.2	U	65.7		52.2	U	163		17		1.5	U	2.3	U	182	J
		Q4	7	4.2	J	5	U	80.2	U	96.9		52.2	U	261		33.7		1.5	U	4	J	153	J
	B2	Q1	3	2.3	U	5	U	80.2	U	83.5		261	U	211		56.7		1.5	U	2.6	J	111	J
		Q1	7	2.3	U	5	U	80.2	U	86.3		261	U	219		61.4		1.6	J	2.6	J	101	J
		Q2	3	5.7	J	5	U	80.2	U	157		52.2	U	458		24		1.8	J	7.4	J	80.2	U
		Q2	6	7.3	J	5	U	80.2	U	157		52.2	U	460		30.5		1.7	J	10.2	J	106	J
		Q3	2	2.3	U	5	U	80.2	U	151		52.2	U	448		9.7		1.5	U	2.3	U	103	J
		Q3	8	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	9	3.3	J	5	U	80.2	U	151		52.2	U	453		11.5		1.5	U	3.3	J	81.1	J
		Q4	3	2.3	U	5	U	80.2	U	72		52.2	U	155		18.9		1.6	J	2.3	U	257	
		Q4	9	2.3	U	5	U	89.6	J	115		52.2	U	294		43.2		2.5	J	5.5	J	467	
	B3	Q1	3	2.3	U	5	U	80.2	U	73.9		52.2	U	183		18.6		1.5	U	6.2	J	135	J
		Q1	7	2.3	U	5	U	80.2	U	74.9		52.2	U	186		21.2		1.5	U	4	J	234	
		Q2	3	6.1	J	6	J	80.2	U	163		52.2	U	469		13.6		2.7	J	9.4	J	88.4	J
		Q2	7	6	J	5	U	80.2	U	167		52.2	U	478		11		1.5	U	7.3	J	87.6	J
		Q3	1.5	2.3	U	5	U	80.2	U	168		52.2	U	483		10.7		1.5	U	2.3	U	80.2	U
		Q3	10	2.3	U	5	U	80.2	U	179		52.2	U	506		15.2		1.5	U	3.2	J	80.2	U
		Q3	5.5	2.3	U	5	U	80.2	U	176		52.2	U	500		14.9		1.5	U	2.3	U	80.2	U
		Q4	3	2.3	U	5	U	80.2	U	71.1		52.2	U	150		18.8		1.5	U	2.3	U	296	
		Q4	9.5	2.3	U	5	U	80.2	U	122		52.2	U	301		54.5		2.2	J	2.3	U	213	

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect B	B4	Q1	3	2.3	U	5	U	80.2	U	77.1		52.2	U	191		23.6		1.5	U	2.3	U	80.2	U
		Q1	6	2.3	U	5	U	80.2	U	72.5		52.2	U	178		19		1.5	U	2.3	U	162	J
		Q1-Dup	6	2.3*	U	5*	U	80.2	U	77.1		52.2	U	192		22.6		1.5	U	2.3*	U	198	J
		Q2	3	29.7		34.9		80.2	U	159		52.2	U	471		10.9		4.4	J	35.1		80.2	U
		Q2	5.5	26*	J	32.9		80.2	U	159		52.2	U	472		13.1		3.6	J	31.3		94.1	J
		Q2-Dup	5.5	30.8	J	30.7*		80.2	U	160		52.2	U	471		12.8		3.1	J	29.8*		80.2	U
		Q2	8.5	29		32		80.2	U	162		52.2	U	486		8.6		3	J	32.9		90.7	J
		Q3	1.5	2.3	U	5	U	80.2	U	174		52.2	U	487		12.7		1.5	U	2.3	U	80.2	U
		Q3	10.4	3.1	J	5	U	80.2	U	180		52.2	U	504		16.2		1.5	U	5	J	92.2	J
		Q3	5.5	2.3	U	5	U	80.2	U	181		52.2	U	509		17.7		1.5	U	4.2	J	80.2	U
		Q4	1.5	2.3	U	5	U	80.2	U	81		52.2	U	213		23.1		1.5	U	2.3	U	106	J
		Q4	5.5	2.3	U	5	U	80.2	U	89.6		52.2	U	242		28.4		1.5	U	3.7	J	152	J
		Q4	10	2.3	U	5	U	80.2	U	112		52.2	U	315		43.1		1.5	U	2.7	J	102	J
	B5	Q4	2.5	2.3	U	5	U	80.2	U	125		52.2	U	322		41.3		1.5	U	2.3	U	174	J
		Q4	7	2.3	U	5	U	80.2	U	124		52.2	U	320		40.6		1.5	U	2.3	U	235	
Transect C	C1	Q1	2	2.3	U	5	U	80.2	U	72.9		52.2	U	174		5.3		1.5	U	3.2	J	236	
		Q2	2	7.6	J	5	U	80.2	U	172		52.2	U	481		55.6		2	J	12.2	J	294	
		Q2	4	8.4	J	5	U	80.2	U	168		52.2	U	482		54.8		2.1	J	14.1	J	322	
		Q2-Dup	4	7.9*	J	5*	U	80.2	U	172		52.2	U	478		56.9		1.9	J	12.5*	J	148	J
		Q3	2	6.6*	J	7	J	80.2	U	182		52.2	U	499		15.2		1.5	U	8.6	J	80.2	U
		Q3-Dup	2	9.4	J	6.9*	J	80.2	U	179		52.2	U	492		15.2		1.5	U	7.9*	J	80.2	U
		Q4	2.2	2.3	U	5	U	80.2	U	64.1		52.2	U	138		19.6		1.5	U	2.3	U	251	
	C2	Q1	2	2.3	U	5	U	80.2	U	71.9		52.2	U	171		5.4		1.5	U	2.3	U	80.2	U
		Q1	4	2.3	U	5	U	80.2	U	72.2		52.2	U	172		5.8		1.5	U	2.3	U	93	J
		Q2	2	4.2	J	5	U	80.2	U	175		52.2	U	483		44.3		1.5	J	8.9	J	112	J
		Q2	5	5.6	J	5	U	80.2	U	175		52.2	U	482		47		1.5	J	9.3	J	205	
		Q3	2	2.3	U	5	U	80.2	U	152		52.2	U	460		10.7		1.5	U	2.3	U	122	J
		Q3	5.5	NV		NV		NV		NV		NV		NV		NV		NV		NV		NV	
		Q3	6	2.3	U	5	U	80.2	U	159		52.2	U	478		11.8		1.5	U	2.3	U	88.6	J
		Q4	3	2.3	U	5	U	118	J	62.9		52.2	U	143		19.1		1.7	J	2.3	U	354	
	C3	Q1	3	2.3	U	5	U	80.2	U	71.1		52.2	U	168		6.8		1.5	U	2.3	U	105	J
		Q1	6	2.3	U	5	U	80.2	U	73.5		52.2	U	175		9.1		1.5	U	2.3	U	92.5	J
		Q2	2	5.6	J	5	U	80.2	U	165		52.2	U	456		18.2		1.5	U	5.7	J	114	J
		Q2	5	4.5	J	5	U	80.2	U	168		52.2	U	466		16.9		1.6	J	5.2	J	91.7	J
		Q2	8	5.8	J	5	U	80.2	U	166		52.2	U	459		16.6		2.2	J	7.5	J	129	J
		Q3	2	2.9	J	5	U	80.2	U	110		52.2	U	283		4.4	J	1.5	U	2.3	U	120	J
		Q3	8	2.3	U	5	U	80.2	U	122		52.2	U	342		5.8		1.5	U	2.3	U	143	J
		Q4	2	2.3	U	5	U	117	J	61.3		52.2	U	144		19.1		1.9	J	2.3	U	331	
		Q4	8.5	2.3	U	5	U	102	J	105		52.2	U	258		44.6		1.5	U	2.3	U	353	
	C4	Q1	3	2.3	U	5	U	80.2	U	74		52.2	U	175		5.8		1.5	U	2.3	U	80.2	U
		Q1	7	2.3	U	5	U	80.2	U	71.8		52.2	U	171		6.2		1.5	J	2.3	U	80.2	U
		Q2	2	5.5	J	5	U	80.2	U	164		52.2	U	457		9.7		2	J	5	J	80.2	U
		Q2	5.5	6.2	J	5	U	80.2	U	176		52.2	U	489		9.7		1.5	U	5.1	J	80.6	J
		Q2	9	2.6		5	U	80.2	U	179		52.2	U	499		17		1.6	J	2.3	U	96.7	J
		Q3	2	2.3	U	5	U	80.2	U	109		52.2	U	294		4.2	J	1.5	U	2.3*	U	80.2	U
		Q3-Dup	2	2.3*	U	5*	U	80.2	U	110		52.2	U	300		4.5	J	1.5	U	3.1	J	107	J
		Q3	8	2.3	J	5	U	80.2	U	121		52.2	U	341		5.2		1.5	U	2.3	U	113	J
		Q4	3	2.3	U	5	U	101	J	65.6		52.2	U	147		20		1.5	U	2.3	U	649	
		Q4	9	2.3	U	5	U	94	J	112		52.2	U	275		55.9		1.5	U	2.3	U	297	

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect D	D1	Q1	3	2.3	U	5	U	80.2	U	84.7		52.2	U	204		14.9		1.5	U	3.1	J	140	J
		Q1	18	2.3	U	5	U	80.2	U	138		52.2	U	372		171		1.5	U	2.3	U	150	J
		Q1	34	2.3	U	5	U	80.2	U	167		52.2	U	477		268		1.5	U	2.3	U	151	J
		Q2	0.3	2.3	U	5	U	80.2	U	160		52.2	U	481		10.2		2.2	J	2.3	U	80.2	U
		Q2	20	2.3	U	5	U	80.2	U	171		52.2	U	528		258		1.5	U	2.3	U	80.2	U
		Q2	40	2.3	U	5	U	80.2	U	201		52.2	U	579		560		1.5	U	2.3	U	80.2	U
		Q3	1.5	6.5	J	5	U	80.2	U	175		52.2	U	486		15.1		1.5	U	7.9	J	80.2	U
		Q3	19	4.8	J	5	U	80.2	U	175		52.2	U	486		14		1.5	U	4.4	J	80.2	U
		Q3	37.5	2.5	J	5	U	80.2	U	186		52.2	U	523		9.2		1.5	U	4.2	J	181	J
		Q4	2.5	17.3	J	10.5		80.2	U	82.5		52.2	U	219		25		1.5	U	16.6	J	153	J
		Q4	20	2.3	U	5	U	80.2	U	143		52.2	U	419		117		1.5	U	2.3	U	98.6	J
		Q4	40.5	2.7	J	5	U	80.2	U	167		71.2	J	501		263		2	J	2.3	U	240	
	D2	Q1	3	2.3	U	5	U	80.2	U	56.7		52.2	U	133		1.1	J	1.6	J	2.3	U	80.2	U
		Q1	22	2.3	U	5	U	80.2	U	99		52.2	U	278		96		2.1	J	2.3	U	80.2	U
		Q1	42	2.3	U	5	U	80.2	U	178		52.2	U	547		331		2.3	J	2.3	U	80.2	U
		Q2	22	2.3	U	5	U	80.2	U	165		52.2	U	499		4.8	J	1.6	J	2.3	U	112	J
		Q2	3	2.3	U	5	U	80.2	U	161		52.2	U	486		26.2		2.6	J	6	J	310	
		Q2	42	2.3	U	5	U	80.2	U	211		52.2	U	518		956		2.2	J	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	133		52.2	U	352		3.6	J	1.5	U	2.3	U	198	J
		Q3	22	2.3	U	5	U	80.2	U	184		52.2	U	524		16.9		1.5	U	2.3	U	181	J
		Q3	42	2.5	J	5	U	80.2	U	207		52.2	U	598		46.7		1.5	U	2.3	U	301	
		Q4	2.5	2.8	J	5	U	80.2	U	109		52.2	U	305		59.2		1.5	U	3.8	J	187	J
		Q4	21	2.3	U	5	U	80.2	U	147		52.2	U	432		133		1.5	U	2.3	U	117	J
		Q4	43.5	2.3	U	5	U	80.2	U	173		52.2	U	520		356		1.5	U	2.3	U	275	
	D3	Q1	3	2.3	U	5	U	80.2	U	70.8		52.2	U	173		9.2		1.5	U	6.2	J	107	J
		Q1	23	2.3	U	5	U	80.2	U	114		52.2	U	314		105		1.5	U	2.3	U	145	J
		Q1	40	2.3	U	5	U	80.2	U	176		52.2	U	511		455		1.5	U	2.3	U	127	J
		Q2	25	2.3	U	5	U	80.2	U	172		52.2	U	507		1	J	2.1	J	2.5	J	80.2	U
		Q2	3	3.2	J	5	U	80.2	U	156		52.2	U	454		1.1	J	1.9	J	3.9	J	80.2	U
		Q2	39	2.3	U	5	U	80.2	U	195		52.2	U	581		489		1.5	U	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	105		52.2	U	289		4.1	J	1.7	J	2.9	J	80.2	U
		Q3	22	2.3	U	5	U	80.2	U	165		52.2	U	510		21.3		1.5	U	2.3	U	80.2	U
		Q3	40	2.3	U	5	U	80.2	U	211		52.2	U	588		17.5		2.1	J	3.7	J	80.2	U
		Q4	2.5	9.4	J	6.3*	J	145	J	82.7		235		217		35.7		1.5	U	9.7*	J	80.2*	U
		Q4-Dup	2.5	8.9*	J	6.7	J	80.2*	U	78.7*		52.2*	U	207*		22.1*		1.5*	U	10.7	J	126	J
		Q4	21	2.3	U	5	U	80.2	U	145		52.2	U	425		129		1.5	U	2.3	U	88.1	J
		Q4	42.5	2.3	U	5	U	80.2	U	171		52.2	U	512		251		1.5	U	2.3	U	151	J
	D4	Q1	3	2.3	U	5	U	80.2	U	79.1		261	U	202		35		2.2	J	2.3	U	80.2	U
		Q1	5	2.3	U	5	U	80.2	U	78.1		261	U	200		34.6		2.2	J	2.3	U	81.8	J
		Q1-Dup	5	2.3*	U	5*	U	80.2	U	79.3		261	U	202		34.6		1.8	J	2.3*	U	82.3	J
		Q1	8	2.3	U	5	U	80.2	U	80.6		261	U	204		43.1		2.1	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	131		52.2	U	407		10.9		1.6	J	3.6	J	144	J
		Q2	5	2.3	U	5	U	80.2	U	126		52.2	U	415		10.4		1.9	J	5.9	J	276	
		Q2	8.5	2.3	U	5	U	80.2	U	128		52.2	U	399		14.4		2.1	J	4.1	J	124	J
		Q3	2	2.7	J	5	U	80.2	U	121		52.2	U	359		3.1	J	1.5	U	2.3	U	80.2	U
		Q3	9	4.5	J	5	U	80.2	U	171		52.2	U	491		17.3		1.5	U	2.3	U	178	J
		Q3-Dup	9	2.9*	J	5*	U	80.2	U	170		52.2	U	480		16.7		1.5	U	2.3*	U	260	
		Q4	1.5	2.3	U	5	U	80.2	U	79.7		52.2	U	211		23.1		1.5	U	2.3	U	155	J
		Q4	5	2.3	U	5	U	80.2	U	84		52.2	U	222		24.3		1.5	U	2.6	J	115	J
		Q4	10	2.3	U	5	U	80.2	U	121		52.2	U	342		55.5		1.5	U	3.2	J	128	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect E	E1	Q1	21.5	2.3	U	5	U	80.2	U	90.8		52.2	U	246		49.8		1.5	U	2.3	U	80.2	U
		Q1	41	2.3	U	5	U	80.2	U	166		52.2	U	496		272		1.5	U	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	49.5		52.2	U	111		1.9	J	1.5	U	2.3	U	80.2	U
		Q1-Dup	3	2.3*	U	5*	U	80.2	U	47.3		52.2	U	105		2.3	J	1.5	U	2.3*	U	80.2	U
		Q2	22	2.3	U	5	U	80.2	U	153		52.2	U	462		8.4		2	J	2.3	U	136	J
		Q2	3	21.3		25.7		80.2	U	146		52.2	U	435		4.2	U	2.2	J	37.5		197	J
		Q2	42	2.3	U	5	U	80.2	U	197		52.2	U	618		1,160		1.5	U	2.3	U	80.2	U
		Q3	1.5	37.6		30.4		80.2	U	176		52.2	U	484		13.9		1.5	U	44.4		80.2	U
		Q3	17	5.5	J	5	U	80.2	U	177		52.2	U	487		12.5		1.5	U	5.4	J	80.2	U
		Q3	37	2.7	J	5	U	80.2	U	197		52.2	U	546		6.4		1.5	U	3	J	80.2	U
		Q4	2.5	6.1	J	8.1	J	80.2	U	103		52.2	U	279		26.7		1.5	U	11.8	J	80.2	U
		Q4	19	2.4	J	5	U	80.2	U	137		127	J	388		99.3		2.2	J	3.1	J	130	J
		Q4	43.5	2.3	U	5	U	80.2	U	167		52.2	U	488		234		1.5	U	2.3	U	186	J
	E2	Q1	3	2.3	U	5	U	80.2	U	68.1		52.2	U	170		5.1		1.5	U	2.3	U	80.2	U
		Q1	22	2.3	U	5	U	80.2	U	123		52.2	U	354		193		1.5	U	2.3	U	80.2	U
		Q1	42	2.3	U	5	U	80.2	U	158		52.2	U	473		546		1.5	U	2.3	U	80.2	U
		Q2	22	2.3	U	5	U	80.2	U	162		52.2	U	500		8.4	U	1.8	J	2.3	U	120	J
		Q2	3	2.3	U	5	U	80.2	U	153		52.2	U	459		6.4		3.4	J	4.4	J	279	
		Q2	42	2.3	U	5	U	80.2	U	184		52.2	U	583		708		2	J	2.3	U	80.2	U
		Q3	2	10.2	J	11	J	80.2	U	126		52.2	U	348		3.8	J	1.5	U	5.2	J	80.2	U
		Q3	22	3	J	5	U	80.2	U	184		52.2	U	539		18.9		1.5	U	3.7	J	80.2	U
		Q3	42	2.3	U	5	U	80.2	U	201		52.2	U	599		41.5		1.5	U	2.3	U	102	J
		Q4	2.5	2.3	U	5	U	80.2	U	102		72.6	J	279		31.4		1.5	U	2.3	U	126	J
		Q4-Dup	2.5	2.3*	U	5*	U	80.2*	U	98.6*		52.2*	U	271*		26.8*		1.5*	U	2.3*	U	122*	J
		Q4	19	2.7	B	5	U	80.2	U	130		97.7	J	376		78.7		1.5	U	2.3	U	146	J
		Q4	41	2.3	U	5	U	80.2	U	164		98.5	J	487		199		1.5	U	2.3	U	154	J
	E3	Q1	3	2.3	U	5	U	80.2	U	72.4		52.2	U	177		4.3	J	1.5	U	2.3	U	80.2	U
		Q1	25	2.3	U	5	U	80.2	U	120		52.2	U	343		211		1.5	U	2.3	U	80.2	U
		Q1	39	2.3	U	5	U	80.2	U	155		52.2	U	470		404		1.5	U	2.3	U	80.2	U
		Q2	28	2.3	U	5	U	80.2	U	174		52.2	U	517		1.4	J	1.5	U	2.4	J	80.2	U
		Q2	3	3.1	J	5	U	80.2	U	155		52.2	U	453		9.7		2	J	3.8	J	80.2	U
		Q2	40	2.3	U	5	U	80.2	U	194		52.2	U	579		595		1.5	U	2.3	U	80.2	U
	E4	Q1	3	3.3	J	5	U	80.2	U	83.6		261	U	208		28.9		1.9	J	2.3	U	80.2	U
		Q1	6	3.2	J	5	U	80.2	U	87.7		261	U	220		36.7		1.5	U	2.6	J	91.8	J
		Q1	11	2.3	U	5	U	80.2	U	96.5		261	U	250		96.5		1.5	U	3.9	J	151	J
		Q2	12	2.3	U	5	U	80.2	U	165		52.2	U	477		23.2		3	J	5.6	J	390	
		Q2	3	2.4	J	5	U	80.2	U	162		52.2	U	464		6		1.7	J	3.3	J	210	
		Q2	7	2.3	U	5	U	80.2	U	165		52.2	U	475		24.6		2.2	J	NV		99.9	J
		Q3	13	2.3	U	5	U	80.2	U	169		52.2	U	523		22.8		1.5	U	3.1	J	80.2	U
		Q3	2	3.6	J	5	U	80.2	U	123		52.2	U	359		3.7	J	1.5	U	3.4	J	80.2	U
		Q3	9	2.3	U	5	U	80.2	U	152		52.2	U	463		10.1		1.5	U	2.5	J	80.2	U
		Q4	2	2.3	U	5	U	80.2	U	79.3		52.2	U	208		22.5		1.5	U	2.3	U	177	J
		Q4	9	2.3	U	5	U	80.2	U	94.9		52.2	U	259		37.6		1.5	U	2.3	U	169	J
		Q4	15.5	2.8	J	5	U	80.2	U	131		52.2	U	379		81		1.5	U	5.6	J	174	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect F	F1	Q1	3	2.3	U	5	U	80.2	U	75.4		52.2	U	175		14.8		1.5	U	2.3	U	80.2	U
		Q1	18	2.3	U	5	U	80.2	U	120		52.2	U	328		143		1.5	U	2.3	U	80.2	U
		Q1	34	2.3	U	5	U	80.2	U	147		52.2	U	426		307		1.5	U	2.3	U	187	J
		Q2	25	2.3	U	5	U	80.2	U	164		52.2	U	494		37.1		3.3	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	148		52.2	U	435		4.1	J	3.1	J	2.3	U	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	166		52.2	U	496		63		2.7	J	2.3	U	80.2	U
		Q2-Dup	35	2.3	U	5	U	80.2	U	171		52.2	U	511		73.9		2.7	J	NV		80.2	U
	F2	Q1	3	2.3	U	5	U	80.2	U	69.4		52.2	U	176		8		2	J	2.3	U	80.2	U
		Q1	15	2.3	U	5	U	80.2	U	103		52.2	U	264		88.3		1.5	U	2.3	U	94.1	J
		Q1	42	2.3	U	5	U	80.2	U	182		52.2	U	522		384		1.5	U	2.3	U	299	
		Q2	25	2.3	U	5	U	80.2	U	168		52.2	U	504		11.9		1.8	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	147		52.2	U	433		1.7	J	2.6	J	2.3	U	80.2	U
		Q2	43	2.3	U	5	U	80.2	U	185		52.2	U	566		259		2.4	J	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	182		52.2	U	509		11.5		1.5	U	2.3	U	80.2	U
		Q3	20	2.3	U	5	U	80.2	U	166		52.2	U	508		23.6		1.5	U	2.3	U	80.2	U
		Q3	40	2.3	U	5	U	80.2	U	198		52.2	U	608		4.9	J	1.5	U	2.3	U	80.2	U
		Q4	2.5	2.3	U	5	U	80.2	U	123		52.2	U	348		48.7		1.5	U	2.3	U	152	J
		Q4	22	2.3	U	5	U	80.2	U	158		54.6	J	469		75.3		1.5	U	3.8	J	357	
		Q4	43	2.3	U	5	U	80.2	U	170		52.2	U	509		81.8		1.5	U	2.3	U	395	
	F3	Q1	3	2.3	U	5	U	80.2	U	67.8		52.2	U	167		8.9		1.5	U	2.3	U	80.2	U
		Q1	16	2.3	U	5	U	80.2	U	109		52.2	U	305		158		1.5	U	2.3	U	88.2	J
		Q1	30	2.3	U	5	U	80.2	U	156		52.2	U	459		317		1.5	U	2.3	U	117	J
		Q2	20	2.3	U	5	U	80.2	U	163		52.2	U	485		2.3	J	2.3	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	146		52.2	U	427		4.1	J	3	J	2.3	U	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	169		52.2	U	512		3.1	J	2.4	J	2.3	U	80.2	U
	F4	Q1	3	2.3	U	5	U	80.2	U	74.1		52.2	U	201		23.3		1.5	U	2.3	U	88.3	J
		Q1	15	2.3	U	5	U	80.2	U	78.1		52.2	U	221		48.2		1.5	U	2.3	U	135	J
		Q1-Dup	15	2.3*	U	5*	U	80.2	U	76.7		52.2	U	212		42.7		1.5	U	2.3*	U	153	J
		Q1	24	2.3	U	5	U	80.2	U	91.8		68.5	J	277		148		1.5	U	3.8	J	291	
		Q2	10	2.3	U	5	U	80.2	U	150		52.2	U	465		4.4	J	3.4	J	2.3	U	103	J
		Q2	24	2.3	U	5	U	80.2	U	172		52.2	U	544		10.3		2.1	J	2.3	U	164	J
		Q2	3	2.3	U	5	U	80.2	U	147		52.2	U	456		2.3	J	2.7	J	2.3	U	80.2	U
		Q3	15	2.3	U	5	U	80.2	U	173		52.2	U	459		23.1		1.5	U	2.3	U	131	J
		Q3	2	2.3	U	5	U	80.2	U	113		52.2	U	279		3.7	J	1.5	U	2.3	U	122	J
		Q3	25	2.3	U	5	U	80.2	U	192		52.2	U	516		35		1.5	U	2.3	U	157	J
		Q4	2.5	2.3	U	5	U	80.2	U	119		81.1	J	354		51.2		1.7	J	2.3	U	99.9	J
		Q4	15	2.3	U	5	U	80.2	U	133		52.2	U	412		65.7		1.5	U	2.3	U	111	J
		Q4	26	2.3	U	5	U	80.2	U	159		52.2	U	512		70.8		1.5	U	2.3	U	240	
Transect G	G1	Q1	17	2.3	U	5	U	80.2	U	83.8		52.2	U	222		26.3		2.1	J	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	58.1		52.2	U	136		0.76	J	1.9	J	2.3	U	80.2	U
		Q1	32	2.3	U	5	U	80.2	U	141		52.2	U	419		188		2.1	J	2.3	U	80.2	U
		Q2	20	2.3	U	5	U	80.2	U	159		52.2	U	501		27.7		2.1	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	134		52.2	U	412		3.6	J	2.7	J	3	J	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	170		52.2	U	536		173		1.9	J	3.3	J	80.2	U
	G2	Q1	19.5	2.3	U	5	U	80.2	U	97.6		52.2	U	272		74.3		3	J	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	64.9		52.2	U	160		1.4	J	1.5	J	2.3	U	80.2	U
		Q1	37	2.3	U	5	U	80.2	U	164		52.2	U	498		214		1.5	U	2.3	U	80.2	U
		Q2	20	2.3	U	5	U	80.2	U	136		52.2	U	445		0.84	U	1.6	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	130		52.2	U	410		0.84	U	1.6	J	2.3	U	80.2	U
		Q2	37	2.3	U	5	U	80.2	U	153		52.2	U	521		386		1.5	U	2.3	U	80.2	U
		Q3	18	2.3	U	5	U	80.2	U	231		52.2	U	411		37.5		1.5	U	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	138		52.2	U	384		10.7		1.5	U	3.5	J	80.2	U
		Q3	38	2.3	U	5	U	80.2	U	273		52.2	U	472		17.5		1.5	U	4.6	J	678	
		Q4	2.5	2.3	U	5	U	80.2	U	102		52.2	U	281		28.4		1.5	U	2.3	U	132	J
		Q4	20	2.3	U	5	U	80.2	U	140		52.2	U	404		84.7		1.5	U	2.3	U	120	J
		Q4	39	2.6	J	5	U	80.2	U	160		52.2	U	473		146		1.5	U	2.3	U	113	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect G	G3	Q1	22	2.3	U	5	U	80.2	U	92.5		52.2	U	249		113		1.5	U	2.3	U	140	J
		Q1	2	2.3	U	5	U	80.2	U	49.1		52.2	U	110		0.62	J	1.5	U	2.3	U	80.2	U
		Q1	41.5	2.3	U	5	U	80.2	U	174		52.2	U	516		240		2.3	J	2.3	U	131	J
		Q2	25	2.3	U	5	U	80.2	U	145		52.2	U	466		17.5		1.5	U	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	131		52.2	U	414		0.84	U	1.5	U	2.3	U	80.2	U
		Q2	40	2.3	U	5	U	80.2	U	156		52.2	U	512		661		1.5	U	2.3	U	80.2	U
	G4	Q1	14.5	2.3	U	5	U	80.2	U	78.9		52.2	U	206		30.7		1.5	U	2.3	U	80.2	U
		Q1	27	2.3	U	5	U	80.2	U	123		52.2	U	355		143		1.5	U	2.3	U	114	J
		Q1	3	2.3	U	5	U	80.2	U	55.8		52.2	U	129		1.2	J	1.5	U	2.3	U	80.2	U
		Q2	13	2.3	U	5	U	80.2	U	166		52.2	U	463		0.84	U	2.7	J	2.3	U	80.2	U
		Q2	24	2.3	U	5	U	80.2	U	184		52.2	U	525		50.1		2.9	J	4	J	382	
		Q2	3	2.3	U	5	U	80.2	U	156		52.2	U	435		0.84	U	3	J	2.3	U	80.2	U
		Q3	17	2.3	U	5	U	80.2	U	203		52.2	U	594		31.6		1.5	U	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	114		52.2	U	304		6.7		1.5	U	3.8	J	80.2	U
		Q3	34	2.3	U	5	U	80.2	U	333		52.2	U	417		21.6		1.5	U	2.3	U	80.2	U
		Q4	2.5	2.3	U	5	U	80.2	U	106		52.2	U	294		31.6		1.5	U	2.3	U	131	J
		Q4	17	2.3	U	5	U	80.2	U	132		52.2	U	376		63.2		1.5	U	2.3	U	107	J
		Q4	35	2.3	U	5	U	80.2	U	155		52.2	U	457		132		1.5	U	2.3	U	156	J
Transect H	H1	Q1	15	2.3	U	5	U	80.2	U	83.7		52.2	U	221		50		1.5	U	2.3	U	80.2	U
		Q1	28	2.3	U	5	U	80.2	U	140		52.2	U	409		220		1.5	U	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	59.1		52.2	U	141		2	J	1.9	J	2.3	U	80.2	U
		Q2	22	2.3	U	5	U	80.2	U	148		52.2	U	453		1.6	J	2.8	J	2.3	U	86	J
		Q2	3	2.3	U	5	U	80.2	U	143		52.2	U	439		5.6		3.3	J	2.3	U	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	166		52.2	U	518		309		3.5	J	2.3	U	80.2	U
		Q3	1.5	3.6	J	5	U	80.2	U	182		52.2	U	498		33.6		1.5	U	2.5	J	80.2	U
		Q3	16.5	2.7	J	5	U	80.2	U	185		52.2	U	510		25.5		1.5	U	2.3	U	80.2	U
		Q3-Dup	16.5	2.6*	J	5*	U	80.2	U	181		52.2	U	499		25		1.5	U	2.3*	U	80.2	U
		Q3	32.5	2.3	U	5	U	80.2	U	180		52.2	U	524		34.7		1.5	U	2.3	U	80.2	U
		Q4	2.5	2.3	J	5	U	80.2	U	94.5	J	75.9	J	253	J	35.8		1.8	B	4.2	J	109	J
		Q4	18	2.3	U	5	U	80.2	U	132	J	52.2	U	368	J	49.4		1.5	U	2.3	U	147	J
		Q4	34.5	2.3	U	5	U	80.2	U	181	J	52.2	U	530	J	93.5		1.5	U	2.3	U	255	
	H2	Q1	16	2.3	U	5	U	80.2	U	86.7		52.2	U	234		45.1		1.5	U	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	60		52.2	U	144		2.8	J	1.5	U	2.3	U	80.2	U
		Q1	30	2.3	U	5	U	80.2	U	153		52.2	U	457		171		1.5	U	2.3	U	80.2	U
		Q2	25	2.3	U	5	U	80.2	U	154		52.2	U	479		10.5		2.2	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	140		52.2	U	425		1.8	J	2.9	J	2.3	U	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	173		52.2	U	546		597		2.7	J	2.3	U	80.2	U
	H3	Q1	16	2.3	U	5	U	80.2	U	91.4		52.2	U	240		35.5		1.5	U	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	66.1		52.2	U	157		2.7	J	1.5	U	2.3	U	80.2	U
		Q1	30	2.3	U	5	U	80.2	U	141		52.2	U	419		163		1.5	U	2.3	U	80.2	U
		Q2	22	2.3	U	5	U	80.2	U	154		52.2	U	474		17.1		1.5	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	141		52.2	U	425		6.1		3.1	J	2.3	U	80.2	U
		Q2	36	2.3	U	5	U	80.2	U	175		52.2	U	540		295		3.5	J	2.3	U	80.2	U
	H4	Q1	18	2.3	U	5	U	80.2	U	91.3		52.2	U	247		81.7		1.5	U	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	57.5		52.2	U	143		1.4	J	1.5	U	2.3	U	80.2	U
		Q1	34	2.3	U	5	U	80.2	U	157		52.2	U	479		151		1.5	U	2.6	J	80.2	U
		Q2	20	2.3	U	5	U	80.2	U	158		52.2	U	484		4.8	J	1.8	J	2.3	U	255	
		Q2	3	2.3	U	5	U	80.2	U	146		52.2	U	436		3.2	J	2	J	2.3	U	80.2	U
		Q2	38	2.3	U	5	U	80.2	U	188		52.2	U	583		657		1.5	U	2.3	U	178	J
		Q3	19	2.3	U	5	U	80.2	U	180		52.2	U	499		26.1		1.5	U	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	180		52.2	U	497		24.5		1.5	U	2.3	U	80.2	U
		Q3	38	2.3	U	5	U	80.2	U	191		52.2	U	537		24.5		1.5	U	2.7	J	85.8	J
		Q4	2.5	2.3	U	5	U	80.2	U	111		52.2	U	302		30.8		1.5	U	2.3	U	80.2	U
		Q4	19	2.3	U	5	U	80.2	U	125		52.2	U	353		45.1		1.5	U	2.3	U	80.2	U
		Q4	40	2.3	U	5	U	80.2	U	154		66.7	J	448		84.5		3.1	J	2.3	U	80.2	U

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect I	I1	Q1	2.1	2.3	U	5	U	80.2	U	59.8		52.2	U	145		3.5	J	1.5	U	21.3		460	
		Q2	2	2.3	U	5	U	80.2	U	147		52.2	U	439		4.5	J	1.6	J	2.3	U	80.2	U
		Q2	4	2.3	U	5	U	80.2	U	145		52.2	U	434		5.3		1.8	J	2.3	U	80.2	U
		Q3	1.5	2.3	J	5	U	80.2	U	171		52.2	U	484		20.2		1.5	U	3	J	80.2	U
		Q4	2.1	2.3	U	5	U	80.2	U	92*	J	52.2	U	234*	J	44.3*		1.5	U	2.8	J	202*	
		Q4-Dup	2.1	2.3*	U	5*	U	80.2*	U	97.5	J	52.2*	U	246	J	46		1.5*	U	2.7*	J	218	
	I2	Q1	3	2.3	U	5	U	80.2	U	60.1		52.2	U	146		2.2	J	1.5	U	2.3	U	125	J
		Q1	7	2.3	U	5	U	80.2	U	61.4		52.2	U	148		3.5	J	1.5	U	2.3	U	145	J
		Q2	3	2.3	U	5	U	80.2	U	147		52.2	U	441		3.7	J	2.1	J	2.3	U	80.2	U
		Q2	5.5	2.3	U	5	U	80.2	U	145		52.2	U	438		4.4	J	1.7	J	2.3	U	80.2	U
		Q2	9	2.3	U	5	U	80.2	U	146		52.2	U	436		5.1		1.8	J	2.3	U	80.2	U
		Q3	2	2.9	J	5	U	80.2	U	181		52.2	U	506		28.6		1.5	U	2.3	U	80.2	U
		Q3	6	2.3	U	5	U	80.2	U	181		52.2	U	502		27.2		1.9	J	2.3	J	80.2	U
		Q4	2.5	2.3	U	5	U	80.2	U	99.2	J	52.2	U	254	J	42.5		1.5	U	2.3	U	201	
		Q4	7	2.3	U	5	U	87.7	J	105		52.2	U	281	J	33.2		1.5	U	2.3	U	170	J
	I3	Q1	3	2.3	U	5	U	80.2	U	59.7		52.2	U	143		2.8	J	1.5	U	2.3	U	159	J
		Q1	5.3	2.3	U	5	U	80.2	U	60.2		52.2	U	145		4.3	J	1.5	U	2.3	U	135	J
		Q1	8.5	2.3	U	5	U	80.2	U	68.2		52.2	U	168		27.8		1.5	U	3.7	J	289	
		Q2	3	2.3	U	5	U	80.2	U	140		52.2	U	422		19		2.3	J	3.3	J	80.2	U
		Q2	5.5	2.3	U	5	U	80.2	U	137		52.2	U	418		20.4		2.3	J	2.3	U	80.2	U
		Q2	9	2.3	U	5	U	80.2	U	139		52.2	U	423		4.4	J	2.3	J	2.3	U	80.2	U
		Q3	2	2.3	U	5	U	80.2	U	182		52.9	J	504		28		1.5	U	2.3	U	80.2	U
		Q3	6.5	2.3	U	5	U	80.2	U	182		52.2	U	504		24.9		1.5	U	2.3	U	80.2	U
		Q4	2.5	2.3	U	5	U	80.2	U	97	J	52.2	U	249		32.2		1.5	U	2.3	U	211	
		Q4	7.5	2.3	U	5	U	80.2	U	102	J	52.2	U	274	J	34.9		1.5	U	2.3	U	187	J
	I4	Q1	3	2.3	U	5	U	80.2	U	60.7		52.2	U	145		1.8	J	1.5	U	2.3	U	103	J
		Q1	6	2.3	U	5	U	80.2	U	60.8		52.2	U	147		1.6	J	1.5	U	2.3	U	97	J
		Q2	3	2.3	U	5	U	80.2	U	134		52.2	U	404		19.5		1.7	J	2.3	U	90.8	J
		Q2	5.5	2.3	U	5	U	80.2	U	134		52.2	U	405		20		2.6	J	3	J	109	J
		Q2	9	2.3	U	5	U	80.2	U	138		52.2	U	413		27.4		1.5	U	4.1	J	165	J
		Q3	1.5	2.3	U	5	U	80.2	U	175		54.4	J	489		26.9		1.5	U	2.8	J	80.2	U
		Q3	6.5	2.3	U	5	U	80.2	U	174		52.2	U	485		27.9		1.5	U	4	J	97.4	J
		Q4	2.5	2.3	U	5	U	80.2	U	95.1	J	52.2	U	238	J	41.5		1.5	U	2.3	U	189	J
		Q4	7.5	2.3	U	5	U	80.2	U	99.3		52.2	U	267		29.1		1.5	U	2.3	U	187	J
Transect J	J1	Q4	0.8	2.3	U	5	U	80.2	U	127		52.2	U	320		31.2		1.8	J	22.8		805	
	J2	Q4	2	2.3	U	5	U	80.2	U	129		52.2	U	325		45.3		1.5	U	2.7	J	216	
	J3	Q4	2.2	2.3	U	5	U	80.2	U	129		52.2	U	324		43.3		1.5	U	2.8	J	274	
	J4	Q4	1	2.3	U	5	U	80.2	U	120		52.2	U	301		32.2		2.4	J	16.9		299	

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium		Iron		Magnesium		Manganese		Vanadium		Acidity As CaCO3		Ferrous Iron		Hardness, total		Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l		ug/l		mg/l		ug/l		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l	
Transect A	A1	Q1	2	71.1		556		192		66.4		1.7	J	NV		0.023	J	NV		1.7	J	2.1	
		Q2	2	160		174	J	488		NV		4.5	J	NV		NV		NV		3.8		2.6	
		Q2	4	159		254		485		525	U	3.6	J	NV		0.011	J	2,620		3.7		2.7	
		Q3	1.5	165		490		471		54.8		1.5	U	2,530		0.026	J	2,530		1.7	J	2.6	
		Q4	1.5	112		52.2	U	277		40.1		1.5	U	NV		NV		NV		1.4	J	1.8	J
		Q4	4	104		52.2	U	289		36.7		1.6	J	NV		0.014	J	1,660		1.2	J	1.8	J
	A2	Q1	2	70.6		263		191		57.8		1.5	U	NV		0.008	U	NV		1.9	J	2.1*	
		Q1-Dup	2	71.9		236		178		51.4		1.5	U	NV		.008*	U	NV		1.6*	J	2.4	
		Q2	1.5	164		207		506		NV		3.9	J	NV		NV		NV		3.6		2.5	
		Q2	3.5	161		222		493		525	U	3.6	J	NV		0.0089	J	NV		3.5		2.8	
		Q3	2	108		52.2	U	267		11.9		1.5	U	NV		0.008	U	NV		2	J	2.8	
		Q4	2.4	116		52.2	U	311		50.9		1.5	J	NV		0.015	J	NV		1.4	J	1.7	J
	A3	Q1	2	74.1		362		197		73.5		1.6	J	NV		0.01	J	NV		1.8	J	2.3	
		Q2	2.5	157		202		482		525	U	2.5	J	NV		0.008	U	NV		3.4		2.6	
		Q3	2	120		52.2	U	299		13.4		1.5	U	NV		0.0095	J	NV		1.6	J	2.9	
		Q4	2.3	115*		52.2	U	304		52.4*		1.5*	U	NV		0.012	J	NV		1.5	J	1.7	J
		Q4-Dup	2.3	117		52.2*	U	301*		53		2.8	J	NV		0.0095*	J	NV		1.2*	J	1.7*	J
	A4	Q1	2	73		229		194		86		1.5	U	NV		0.008	U	NV		1.8	J	2.3	
		Q2	2.2	162		213		500		525	U	3.4	J	NV		0.008*	U	NV		3.7		2.9	
		Q2 - Dup	2.2	160		213		490		525*	U	2.5	J	NV		0.0089	J	NV		3.3*		2.3*	
		Q3	2	119		52.2	U	300		13		1.5	U	NV		0.023	J	NV		1.8	J	2.8	
		Q4	2.5	115		52.2	U	314		50.9		1.5	U	NV		0.0095	J	NV		1.3	J	1.7	J
Transect B	B1	Q1	2.5	75.4		167	J	199		63		1.5	U	NV		0.008	U	NV		1.8	J	2.2	
		Q2	2	157		218		460		NV		2.7	J	NV		NV		NV		1.7	J	3.2	
		Q2	5	159		790		464		525	U	3.2	J	NV		0.02	J	2,480		1.7	J	2.7	
		Q3	2	153		86.8	J	457		17.7		1.5	U	NV		NV		NV		1	U	2.2	
		Q3	6.5	NV		NV		NV		NV		NV		2700*		0.008	U	2,700		1*	U	2.3	
		Q3-Dup	6.5	NV		NV		NV		NV		NV		2,700		0.008*	U	2,700		1	U	2.2*	
		Q3	7	152		83.2	J	459		18.3		1.5	U	NV		NV		NV		NV		NV	
		Q4	3	69		302		171		30.9		1.5	U	NV		NV		NV		1.5	J	2	
		Q4	7	90.9		270		244		40.3		1.5	U	NV		0.014	J	1,260		1.1	J	1.9	J
	B2	Q1	3	79.2		163	J	210		90.8		1.5	U	NV		NV		NV		1.9	J	1.9	J
		Q1	7	82.2		173	J	224		105		1.5	U	NV		0.008	U	NV		1.6	J	2	
		Q2	3	156		232		456		NV		3	J	NV		NV		NV		1.6	J	2.7	
		Q2	6	161		343		473		525	U	2.2	J	NV		0.008	U	NV		1.6	J	2.7	
		Q3	2	155		84.1	J	459		17		1.5	U	NV		NV		NV		1	U	2.2	
		Q3	8	NV		NV		NV		NV		NV		NV		0.008	U	NV		1	U	2.3	
		Q3	9	154		80.3	J	463		19.4		1.5	U	NV		NV		NV		NV		NV	
		Q4	3	71.9		170	J	155		31.4		1.5	U	NV		NV		NV		1.8	J	2.1	
		Q4	9	119		436		268		69.4		3.9	J	NV		0.027	J	NV		1.3	J	1.7	J
	B3	Q1	3	76.3		247		184		63.3		1.5	U	NV		NV		NV		1.9	J	2	
		Q1	7	70.8		460		196		71.5		1.5	U	NV		0.52		NV		1	U	1.9	J
		Q2	3	159		253		457		NV		3.6	J	NV		NV		NV		1.7	J	2.9	
		Q2	7	168		251		479		525	U	3.1	J	NV		0.008	U	NV		1.7	J	3	
		Q3	1.5	168		157	J	485		22.1		1.5	U	NV		NV		NV		1.5	J	2.5	
		Q3	10	179		135	J	508		25.4		1.5	U	NV		NV		NV		1.4	J	2.4	
		Q3	5.5	174		124	J	497		24		1.5	U	NV		0.021	J	NV		1.6	J	2.3	
		Q4	3	72.9		181	J	157		34.2		2.2	J	NV		NV		NV		1.4	J	2	J
		Q4	9.5	120		124	J	297		64.7		1.8	J	NV		0.014	J	NV		1.3	J	1.7	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium	Iron		Magnesium	Manganese		Vanadium		Acidity As CaCO3	Ferrous Iron		Hardness, total	Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l	ug/l		mg/l	ug/l		ug/l		mg/l	mg/l		mg/l	mg/l		mg/l	
Transect B	B4	Q1	3	75.5	52.2	U	179	22.9		1.5	U	NV	NV		NV	1.7	J	1.6	J
		Q1	6	73.6	284		180	70.9		1.5	U	NV	0.041	J	NV	2.7		2.4	
		Q1-Dup	6	74	363		181	74.1		1.5	U	NV	.035*	J	NV	2.4*		2.1*	
		Q2	3	157	180	J	468	NV		3.2	J	NV	NV		NV	1.8	J	3.3	
		Q2	5.5	159	211		472	525	U	4.7	J	NV	0.008*	U	NV	1.9	J	4.1	
		Q2-Dup	5.5	158	204		465	525*	U	4.2	J	NV	0.014	J	NV	1.7*	J	2.9*	
		Q2	8.5	159	249		476	NV		4.4	J	NV	NV		NV	1.5	J	3.4	
		Q3	1.5	174	125	J	490	21.5		1.5	U	NV	NV		NV	1.2	J	2.3	
		Q3	10.4	184	344		519	42.1		1.5	U	NV	NV		NV	1.4	J	2.3	
		Q3	5.5	177	151	J	503	30.1		1.5	U	NV	0.019	J	NV	1.2	J	2.3	
		Q4	1.5	80.3	224		211	34.1		1.5	U	NV	NV		NV	1.7	J	2.1	
		Q4	5.5	97.7	277		264	43.1		2	J	NV	0.008	U	NV	1.2	J	1.8	J
		Q4	10	118	226		332	56.9		1.5	U	NV	NV		NV	1.2	J	1.8	J
	B5	Q4	2.5	123	203		325	49.7		1.5	U	NV	NV		NV	1.2	J	1.7	J
		Q4	7	121	108	J	326	50.4		1.8	J	NV	0.008	U	NV	1.2	J	1.6	J
Transect C	C1	Q1	2	71.8	269		173	43.3		1.5	U	NV	0.027	J	NV	2.7		3.1	
		Q2	2	149	572		480	NV		4.2	J	NV	NV		NV	1.7	J	2.2	
		Q2	4	158	652		499	525	U	4.9	J	NV	0.017	J	2,580	1.6	J	2.1	
		Q2-Dup	4	156	344		502	525*	U	3.6	J	NV	0.017*	J	2570*	1.5*	J	2*	J
		Q3	2	179	112	J	492	26		1.5	U	2,760	0.008	U	2,760	1.5	J	2.1*	
		Q3-Dup	2	178	101	J	490	25.8		1.5	U	2760*	0.008*	U	2,760	1.3*	J	2.3	
		Q4	2.2	65.2	121	J	142	32.2		1.5	U	NV	0.0095	J	802	1.5	J	1.9	J
	C2	Q1	2	73	120	J	175	42		1.5	U	NV	NV		NV	2.3		3.4	
		Q1	4	71.5	121	J	170	41.3		1.5	U	NV	0.019	J	NV	2.4		3.4	
		Q2	2	155	251		495	NV		3.6	J	NV	NV		NV	1.4	J	2.2	
		Q2	5	154	466		494	525	U	3.5	J	NV	0.008	U	NV	1.8	J	2.5	
		Q3	2	156	101	J	475	18.3		1.5	U	NV	NV		NV	1	U	2.4	
		Q3	5.5	NV	NV		NV	NV		NV		NV	0.008	U	NV	1	U	2.5	
		Q3	6	155	81.5	J	466	18.4		1.5	U	NV	NV		NV	NV		NV	
		Q4	3	61	162	J	143	32.9		2.5	J	NV	0.008	U	NV	1.5	J	1.9	J
	C3	Q1	3	71	125	J	170	41.3		1.5	U	NV	NV		NV	2.9		3.2	
		Q1	6	71.5	106	J	171	42.2		1.5	U	NV	0.049	J	NV	3.3		3.2	
		Q2	2	156	250		500	NV		2.8	J	NV	NV		NV	1.3	J	1.9	J
		Q2	5	154	195	J	494	525	U	3.5	J	NV	0.008	U	NV	1.5	J	2.3	
		Q2	8	154	283		494	NV		3.7	J	NV	NV		NV	1.5	J	2.2	
		Q3	2	104	52.2	U	263	11.1		1.5	U	NV	NV		NV	1.8	J	2.5	
		Q3	8	138	95	J	357	16.9		1.5	U	NV	0.0085	J	NV	1.3	J	2.4	
		Q4	2	64.4	170	J	141	33.2		1.5	J	NV	NV		NV	1.5	J	1.9	J
		Q4	8.5	97.6	163	J	249	55.8		1.5	U	NV	0.017	J	NV	1.2	J	1.8	J
	C4	Q1	3	73.5	102	J	174	40.7		1.5	U	NV	NV		NV	2.2		3.5	
		Q1	7	71.4	119	J	174	40.4		1.5	U	NV	0.051	J	NV	2.5		3.4	
		Q2	2	155	153	J	498	NV		3.4	J	NV	NV		NV	1.4	J	2.3	
		Q2	5.5	152	153	J	493	525	U	3.5	J	NV	0.008	U	NV	1.5	J	2.2	
		Q2	9	163	223		529	NV		3.6	J	NV	NV		NV	1.9	J	2.6	
		Q3	2	109	52.2	U	270	11.7		1.5	U	NV	NV		NV	2		2.8	
		Q3-Dup	2	108	52.2	U	284	12.3		2.1	J	NV	NV		NV	1.7*	J	2.7*	
		Q3	8	130	52.2	U	336	14.7		1.5	U	NV	0.008	U	NV	1.4	J	2.4	
		Q4	3	71.1	137	J	160	34.8		4.5	J	NV	NV		NV	1.4	J	2	
		Q4	9	112	144	J	277	67.8		3.3	J	NV	0.022	J	NV	1.3	J	1.8	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium		Iron		Magnesium		Manganese		Vanadium		Acidity As CaCO3		Ferrous Iron		Hardness, total		Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l		ug/l		mg/l		ug/l		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l	
Transect D	D1	Q1	3	87.7		179	J	211		52.3		1.5	U	NV		NV		NV		2.5		1.7	J
		Q1	18	154		229		422		218		1.5	U	NV		0.032	J	NV		1	J	1.8	J
		Q1	34	218		250		347		362		1.5	U	NV		NV		NV		1	U	1.7	J
		Q2	0.3	182		128	J	542		NV		3	J	NV		NV		NV		2.2		4.3	
		Q2	20	176		134	J	533		525	U	2.5	J	NV		0.019	J	NV		1.5	J	3.5	
		Q2	40	194		74.3	J	616		NV		1.7	J	NV		NV		2,790		1	U	2.6	
		Q3	1.5	178		149	J	495		30.7		1.5	U	NV		NV		NV		1.4	J	2.3	
		Q3	19	175		204		486		36.3		1.5	U	NV		0.008	U	NV		1.2	J	2.1	
		Q3	37.5	194		362		541		42.8		1.5	U	2,830		NV		2,830		1.1	J	2.1	
		Q4	2.5	82.5		251		218		36.2		1.5	U	NV		NV		NV		1.5	J	2	J
		Q4	20	144		180	J	420		115		1.5	U	NV		0.008	U	NV		1	U	1.5	J
		Q4	40.5	178		379		533		327		1.5	U	NV		NV		2,870		1	U	1.4	J
	D2	Q1	3	52.9		80	J	129		25.1		1.5	U	NV		NV		NV		1	U	2.2	
		Q1	22	102		217		273		129		1.5	U	NV		0.041	J	NV		1	U	2.3	
		Q1	42	168		178	J	516		316		1.5	U	NV		NV		NV		1	U	2.6	
		Q2	22	167		196	J	510		525	U	2.6	J	NV		0.019	J	NV		1.2	J	3.3	
		Q2	3	154		443		463		NV		5.2		NV		NV		NV		1.7	J	4.3	
		Q2	42	207		60.2	J	539		NV		1.6	J	NV		NV		NV		1.7	J	3.7	
		Q3	2	118		61.9	J	314		12.2		1.5	U	NV		NV		NV		1.1	J	2.6	
		Q3	22	184		92	J	525		32.6		1.7	J	NV		0.008	U	NV		1	U	2	J
		Q3	42	200		243		573		69		1.8	J	NV		NV		NV		1	U	1.9	J
		Q4	2.5	79.6		293		208		35.7		1.5	U	NV		NV		NV		1.5	J	2	
		Q4	21	145		225		422		109		1.5	U	NV		0.0095	J	NV		1	J	1.7	J
		Q4	43.5	176		458		529		361		2	J	NV		NV		NV		1	U	1.4	J
	D3	Q1	3	77.4		199	J	172		53.9		1.5	U	NV		NV		NV		2.3		1.9	J
		Q1	23	114		232		303		142		1.5	U	NV		0.054	J	NV		1.5	J	1.5	J
		Q1	40	169		273		477		410		1.5	U	NV		NV		NV		1	U	2	J
		Q2	25	174		109	J	512		525	U	2.1	J	NV		0.008	U	NV		1.6	J	2.1	
		Q2	3	155		153	J	453		NV		1.8	J	NV		NV		NV		1.8	J	2.5	
		Q2	39	198		138	J	592		NV		1.5	U	NV		NV		NV		1	J	1.7	J
		Q3	2	116		106	J	308		13.9		1.5	U	NV		NV		NV		1.1	J	2.7	
		Q3	22	177		158	J	528		32.5		1.5	U	NV		0.016	J	NV		1	U	1.8	J
		Q3	40	187		137	J	564		28.4		1.5	U	NV		NV		NV		1	U	2.2	
		Q4	2.5	78.9*		52.2*	U	206*		22.3*		1.5	U	NV		NV		NV		2	J	2.1*	
		Q4-Dup	2.5	90.6		237		241		39		1.5*	U	NV		NV		NV		1.7*	J	2.2	
		Q4	21	140		201		404		98.9		1.8	J	NV		0.024	J	NV		1.1	J	1.7	J
		Q4	42.5	176		287		529		315		1.5	U	NV		NV		NV		1	U	1.5	J
	D4	Q1	3	80		111	J	207		79		1.5	U	NV		NV		NV		1.6	J	2.2	
		Q1	5	77.6		115	J	203		76.5		1.5	U	NV		0.008	U	NV		2.1		2.2	
		Q1-Dup	5	79		112	J	206		78.3		1.5	U	NV		.008*	U	NV		1.4*	J	2.1*	
		Q1	8	79.9		87.1	J	212		81.3		1.5	U	NV		NV		NV		1.8	J	2.1	
		Q2	3	131		279		410		NV		2.8	J	NV		NV		NV		2.5		3.3	
		Q2	5	127		510		423		525	U	3.1	J	NV		0.084	J	NV		1.5	J	2.5	
		Q2	8.5	128		280		407		NV		3.2	J	NV		NV		NV		1.6	J	2.6	
		Q3	2	122		77.9	J	360		11.3		1.5	U	NV		NV		NV		1.2	J	2.5	
		Q3	9	160		134	J	482		27.4		1.5	U	NV		0.011*	J	NV		1	U	2.1*	
		Q3-Dup	9	166		143	J	471		27.1		1.5	U	NV		0.015	J	NV		1*	U	2.2	
		Q4	1.5	81		278		214		35.3		2.3	J	NV		NV		NV		1.7	J	2	
		Q4	5	89.3		227		240		38.7		1.5	U	NV		0.008	U	NV		1.5	J	1.9	J
		Q4	10	128		255		364		77.7		2.1	J	NV		NV		NV		1.4	J	1.7	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium	Iron		Magnesium	Manganese		Vanadium		Acidity As CaCO3	Ferrous Iron		Hardness, total	Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l	ug/l		mg/l	ug/l		ug/l		mg/l	mg/l		mg/l	mg/l		mg/l	
Transect E	E1	Q1	21.5	93	173	J	252	96		1.5	U	NV	0.008	U	NV	1	J	1.8	J
		Q1	41	168	140	J	503	283		1.5	U	NV	NV		NV	1	U	2	
		Q1	3	48.7	52.2	U	109	19.8		1.5	U	NV	NV		NV	2.1		1.9	J
		Q1-Dup	3	49.5	52.2	U	111	20		1.5	U	NV	NV		NV	2*	J	1.7*	J
		Q2	22	155	253		468	525	U	2.8	J	NV	0.033	J	NV	1.5	J	3.2	
		Q2	3	183	316		551	NV		3.6	J	NV	NV		NV	1.8	J	3.9	
		Q2	42	199	103	J	628	NV		1.5	U	NV	NV		2,950	1	J	2.7	
		Q3	1.5	175	141	J	483	29.9		1.5	U	NV	NV		NV	1.4	J	2.3	
		Q3	17	178	157	J	494	29.4		1.5	U	NV	0.008	U	NV	1.4	J	2	
		Q3	37	193	182	J	537	35.6		1.5	U	2,870	NV		2,870	1.4	J	2.1	
		Q4	2.5	103	242		279	37.1		2	J	NV	NV		NV	1.1	J	1.7	J
		Q4	19	140	408		396,000	108		2	J	NV	0.053	J	NV	1	U	1.7	J
		Q4	43.5	166	451		485	242		2.8	J	NV	NV		2,520	1	U	1.5	J
	E2	Q1	3	65.9	69.9	J	164	34.8		1.5	U	NV	NV		NV	2.6	B	2.5	B
		Q1	22	121	156	J	348	203		1.5	U	NV	0.032	J	NV	1	U	1.5	B
		Q1	42	165	139	J	493	498		1.5	U	NV	NV		NV	1	U	1.7	B
		Q2	22	163	167	J	504	525	U	3.2	J	NV	0.021	J	NV	1.6	J	3.4	
		Q2	3	151	404		450	NV		4.5	J	NV	NV		NV	1	J	4.7	
		Q2	42	197	54.8	J	567	NV		2.4	J	NV	NV		NV	1	U	2.3	
		Q3	2	150	144	J	433	19.7		1.5	U	NV	NV		NV	1.1	J	2.7	
		Q3	22	185	139	J	545	32.1		1.5	U	NV	0.015	J	NV	1	U	1.9	J
		Q3	42	203	250		580	61.9		1.5	U	NV	NV		NV	1	U	1.8	J
		Q4	2.5	98.6*	207		272*	37.1*		1.5	U	NV	NV		NV	1.1	J	1.8*	J
		Q4-Dup	2.5	102	195*	J	282	38.1		1.5*	U	NV	NV		NV	1.1*	J	1.9	J
		Q4	19	130	249		379	87.8		1.5	U	NV	0.02	J	NV	1	U	1.7	J
		Q4	41	161	262		479	190		1.5	U	NV	NV		NV	1	U	1.5	J
	E3	Q1	3	71.7	231		175	44.7		1.6	J	NV	NV		NV	2.2		3.3	
		Q1	25	116	192	J	334	233		1.5	U	NV	0.008	U	NV	1	U	1.3	J
		Q1	39	156	204		477	418		1.5	U	NV	NV		NV	1	U	1.7	J
		Q2	28	172	124	J	510	525	U	1.5	U	NV	0.008	U	NV	1.2	J	1.9	J
		Q2	3	155	199	J	451	NV		2.5	J	NV	NV		NV	1.9	J	2.6	
		Q2	40	196	147	J	587	NV		1.5	U	NV	NV		NV	1.2	J	1.7	J
	E4	Q1	3	76.8	58.9	J	205	69.4		1.5	U	NV	NV		NV	1.6	J	2.1	
		Q1	6	76.2	102	J	216	71.9		1.5	U	NV	0.008	U	NV	1.4	J	2	J
		Q1	11	87.8	288		251	132		1.5	U	NV	NV		NV	1.1	J	1.7	J
		Q2	12	164	740		473	NV		5.3		NV	NV		NV	1.5	J	2.8	
		Q2	3	155	415		460	NV		4.3	J	NV	NV		NV	1.7	J	2.7	
		Q2	7	166	314		479	525	U	3.2	J	NV	0.0099	J	NV	1.7	J	2.8	
		Q3	13	180	340		554	44.7		1.5	U	NV	NV		NV	1	U	2	J
		Q3	2	124	116	J	357	12.6		1.5	U	NV	NV		NV	1.1	J	2.6	
		Q3	9	152	191	J	462	18.3		1.5	U	NV	0.011	J	NV	1.1	J	2.2	
		Q4	2	79.3	276		209	35.8		1.5	U	NV	NV		NV	1.5	J	1.9	J
		Q4	9	82.9	272		220	37.2		1.5	U	NV	0.008	U	NV	1.5	J	1.9	J
		Q4	15.5	126	282		360	79.8		1.5	U	NV	NV		NV	1	U	1.5	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium	Iron		Magnesium	Manganese		Vanadium		Acidity As CaCO3	Ferrous Iron		Hardness, total	Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l	ug/l		mg/l	ug/l		ug/l		mg/l	mg/l		mg/l	mg/l		mg/l	
Transect F	F1	Q1	3	69.2	98.5	J	164	45.2		1.5	U	NV	NV		NV	2.4		1.9	J
		Q1	18	119	186	J	329	168		1.5	U	NV	0.019	J	NV	1.3	J	1.6	J
		Q1	34	195	333		545	408		1.5	U	NV	NV		NV	1	U	1.6	J
		Q2	25	165	159	J	513	525	U	1.5	J	NV	0.034	J	NV	1.3	J	1.8	J
		Q2	3	150	58.2	J	457	NV		1.5	J	NV	NV		NV	1.6	J	2.3	
		Q2	35	171	217		535	NV		2.5	J	NV	NV		2,850	1.2	J	2	J
		Q2-Dup	35	172	238		544	NV		1.9	J	NV	NV		NV	NV		NV	
	F2	Q1	3	79.6	59.1	J	184	44.9		1.5	U	NV	NV		NV	2.4		1.9	J
		Q1	15	104	146	J	267	124		1.5	U	NV	0.028	J	NV	1.6	J	1.4	J
		Q1	42	181	343		517	407		1.5	U	NV	NV		NV	1	U	1.6	J
		Q2	25	163	141	J	510	525	U	1.7	J	NV	0.027	J	NV	1.5	J	2	
		Q2	3	147	52.2	U	449	NV		1.8	J	NV	NV		NV	1.9	J	2.4	
		Q2	43	180	113	J	572	NV		1.5	U	NV	NV		NV	1.1	J	1.9	J
		Q3	2	105	60.1	J	296	13.5		1.5	U	NV	NV		NV	1.8	J	3	
		Q3	20	167	136	J	524	32		1.5	U	NV	0.02	J	NV	1	U	2	J
		Q3	40	193	170	J	586	23.8		1.9	J	1,560	NV		1,560	1.2	J	2.6	
		Q4	2.5	123	260		346	60		1.5	U	NV	NV		NV	1.4	J	1.9	J
		Q4	22	151	498		445	92.7		2.4	J	NV	0.008	U	NV	1.1	J	1.7	J
		Q4	43	167	510		500	113		1.5	U	NV	NV		2,750	1	U	1.5	J
	F3	Q1	3	68	84.3	J	167	39.8		1.5	U	NV	NV		NV	2.4	B	2.6	B
		Q1	16	105	310		291	174		1.5	U	NV	0.068	J	NV	1.3	B	1.6	B
		Q1	30	157	274		462	344		1.5	U	NV	NV		NV	1	U	1.5	J
		Q2	20	157	136	J	483	525	U	2	J	NV	0.024	J	NV	1.6	J	2.1	
		Q2	3	150	75.1	J	457	NV		1.8	J	NV	NV		NV	1.9	J	2.4	
		Q2	35	172	135	J	540	NV		1.5	J	NV	NV		NV	1.7	J	1.9	J
	F4	Q1	3	73.4	169	J	200	70.4		1.5	U	NV	NV		NV	1.7	J	2	J
		Q1	15	79.2	261		227	105		1.5	U	NV	.008*	U	NV	1.3*	J	1.9	J
		Q1-Dup	15	80.8	273		230	111		1.5	U	NV	0.012	J	NV	1.8	J	1.9*	J
		Q1	24	91.8	520		276	167		1.5	U	NV	NV		NV	1.2	J	1.7	J
		Q2	10	158	127	J	493	525	U	3.4	J	NV	0.048	J	NV	2	J	2.6	
		Q2	24	166	255		522	NV		2.4	J	NV	NV		NV	1.1	J	1.9	J
		Q2	3	146	52.2	U	454	NV		2.6	J	NV	NV		NV	1.8	J	2.4	
		Q3	15	183	135	J	484	36.9		1.5	U	NV	0.008	U	NV	1	U	2.3	
		Q3	2	112	72.3	J	277	12.3		1.5	U	NV	NV		NV	1.4	J	3	
		Q3	25	186	140	J	505	42.2		1.5	U	NV	NV		NV	1	U	2.2	
		Q4	2.5	130	276		358	63		1.5	U	NV	NV		NV	1.4	J	2	J
		Q4	15	140	264		392	75.2		1.5	U	NV	0.008	U	NV	1.1	J	1.8	J
		Q4	26	174	498		505	99.5		1.5	U	NV	NV		NV	1	U	1.4	J
Transect G	G1	Q1	17	79.4	118	J	215	69.3		1.5	U	NV	0.012	J	NV	1	U	2	
		Q1	3	54.3	71.8	J	129	22.5		1.5	U	NV	NV		NV	1.1	J	2.2	
		Q1	32	133	142	J	396	182		1.5	U	NV	NV		NV	1	U	2.4	
		Q2	20	197	222		586	525	U	2.9	J	NV	0.02	J	NV	1.3	J	2.7	
		Q2	3	180	99.2	J	524	NV		1.6	J	NV	NV		NV	1.8	J	4	
		Q2	35	265	214		492	NV		1.7	J	NV	NV		2,910	1	J	2.8	
	G2	Q1	19.5	92.7	98.2	J	249	104		1.5	U	NV	0.021	J	NV	1	U	1.7	J
		Q1	3	58.4	85.4	J	156	30.1		1.5	U	NV	NV		NV	1	U	2	J
		Q1	37	155	183	J	460	217		1.5	U	NV	NV		NV	1	U	2.3	
		Q2	20	133	123	J	438	525	U	1.7	J	NV	0.008	U	NV	1.2	J	2.2	
		Q2	3	128	90.3	J	415	NV		1.7	J	NV	NV		NV	1.5	J	2.2	
		Q2	37	150	96.7	J	514	NV		1.5	U	NV	NV		NV	1	U	1.7	J
		Q3	18	161	176	J	497	38.8		1.5	U	NV	0.028	J	NV	1	J	2.2	
		Q3	2	104	107	J	291	13.2		1.5	U	NV	NV		NV	1.6	J	2.8	
		Q3	38	195	1,460		585	146		5.2		1,540	NV		1,540	1	U	2	J
		Q4	2.5	101	208		281	38.4		1.5	U	NV	NV		NV	1.1	J	1.8	J
		Q4	20	133	249		388	89.4		1.6	J	NV	0.0085	J	NV	1	U	1.6	J
		Q4	39	161	164	J	479	158		1.5	U	NV	NV		2,620	1	U	1.6	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium		Iron		Magnesium		Manganese		Vanadium		Acidity As CaCO3	Ferrous Iron		Hardness, total	Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l		ug/l		mg/l		ug/l		ug/l		mg/l	mg/l		mg/l	mg/l		mg/l	
Transect G	G3	Q1	22	92.9		243		249		153		1.5	U	NV	0.02	J	NV	1.4	J	1.8	J
		Q1	2	49.5		77.2	J	110		21.7		1.5	U	NV	NV		NV	2.8		1.8	J
		Q1	41.5	174		208		516		245		1.5	U	NV	NV		NV	1	U	1.9	J
		Q2	25	145		94	J	467		525	U	1.6	J	NV	0.008	U	NV	1	J	1.8	J
		Q2	3	128		73.1	J	407		NV		1.6	J	NV	NV		NV	1.7	J	2.4	
		Q2	40	157		89.3	J	525		NV		1.5	U	NV	NV		NV	1	U	1.7	J
	G4	Q1	14.5	76.6		169	J	196		72.7		1.5	U	NV	0.027	J	NV	2.4		1.6	J
		Q1	27	124		243		356		173		1.5	U	NV	NV		NV	1	U	1.7	J
		Q1	3	53		52.2	U	122		25.1		1.5	U	NV	NV		NV	2.1		1.6	J
		Q2	13	159		57	J	443		525	U	3.7	J	NV	0.012	J	NV	1.4	J	2.2	
		Q2	24	191		856		547		NV		5.5		NV	NV		NV	1.2	J	1.9	J
		Q2	3	154		52.2	U	433		NV		3.4	J	NV	NV		NV	2	J	2.9	
		Q3	17	156		172	J	475		35.7		1.5	U	NV	0.024	J	NV	1	U	2.7	
		Q3	2	104		104	J	290		13.4		1.5	U	NV	NV		NV	1.5	J	2.8	
		Q3	34	192		109	J	572		31.4		1.5	U	NV	NV		NV	1	U	1.9	J
		Q4	2.5	103		217		288		40		1.5	U	NV	NV		NV	1.3	J	2	J
		Q4	17	126		233		364		68.2		1.9	J	NV	0.011	J	NV	1	U	1.6	J
		Q4	35	150		265		446		144		2	J	NV	NV		NV	1	U	1.6	J
Transect H	H1	Q1	15	86.7		171	J	229		91		1.5	U	NV	0.014	K	NV	2.5	J	1.9	J
		Q1	28	136		160	J	398		225		1.5	U	NV	NV		NV	2.6	J	1.5	J
		Q1	3	59.1		68.5	J	141		23.9		1.5	U	NV	NV		NV	2.9	J	2.3	J
		Q2	22	146		123	J	442		525	U	2.3	J	NV	0.012	J	NV	1.3	J	3.2	
		Q2	3	142		82.9	J	426		NV		2.3	J	NV	NV		NV	2.1		3.8	
		Q2	35	170		76.3	J	520		NV		2	J	NV	NV		2,640	5.1		8.9	
		Q3	1.5	174		189	J	478		43		1.5	U	NV	NV		NV	1.4	J	2.2	
		Q3	16.5	182		157	J	507		36.7		1.5	U	NV	0.0092	J	NV	1	U	2.1	
		Q3-Dup	16.5	179		148	J	496		35.3		1.5	U	NV	0.008*	U	NV	1*	U	2.1*	
		Q3	32.5	182		150	J	525		46.9		1.5	U	2,890	NV		2,890	1	J	2	
		Q4	2.5	91.8	J	219		246	J	40.4		2.1	B	NV	NV		NV	1.9	J	2	J
		Q4	18	127	J	52.2	U	354	J	54.7		1.5	U	NV	0.0095	J	NV	1.3	J	1.6	J
		Q4	34.5	177	J	140	J	520	J	103		1.5	U	NV	NV		3,020	1	U	1.5	J
	H2	Q1	16	87.8		164	J	237		88.9		1.5	U	NV	0.04	K	NV	2.6	J	1.7	J
		Q1	3	66.1		94.2	J	157		26.3		1.5	U	NV	NV		NV	3.2	J	1.7	J
		Q1	30	138		114	J	410		160		1.5	U	NV	NV		NV	2.5	J	1.7	J
		Q2	25	160		92.1	J	487		525	U	1.8	J	NV	0.008	U	NV	1.5	J	3.8	
		Q2	3	153		99.8	J	454		NV		2.7	J	NV	NV		3.6	1.7	J	NV	
		Q2	35	181		67.8	J	552		NV		1.7	J	NV	NV		NV	1.6	J	5.1	
	H3	Q1	16	87.4		204		233		79.6		1.5	U	NV	0.022	K	NV	2.5	J	1.7	J
		Q1	3	66.2		73.6	J	157		20.9		1.5	U	NV	NV		NV	2.5	J	1.7	J
		Q1	30	137		245		408		167		1.5	U	NV	NV		NV	2.4	J	1.7	J
		Q2	22	163		118	J	495		525	U	2	J	NV	0.008	U	NV	1.1	J	3	
		Q2	3	143		57	J	424		NV		2.1	J	NV	NV		NV	1.8	J	3.4	
		Q2	36	180		119	J	548		NV		2.1	J	NV	NV		NV	1.2	J	2.6	
	H4	Q1	18	88.9		135	J	236		99.8		1.5	U	NV	0.023	J	NV	1.9	J	1.6	J
		Q1	3	57		95.9	J	141		22.5		1.5	U	NV	NV		NV	2.5		1.9	J
		Q1	34	156		200		488		168		1.5	U	NV	NV		NV	2.2		1.6	J
		Q2	20	154		326		471		525	U	2.8	J	NV	0.008	U	NV	1.5	J	3.1	
		Q2	3	141		96.9	J	424		NV		1.9	J	NV	NV		NV	1.5	J	3.3	
		Q2	38	184		350		574		NV		1.9	J	NV	NV		NV	1.5	J	4.7	
		Q3	19	184		143	J	508		38		1.8	J	NV	0.0092	J	NV	1.2	J	2	
		Q3	2	179		139	J	495		34.2		2	J	NV	NV		NV	1.2	J	2.3	
		Q3	38	192		234		533		39.7		1.5	U	NV	NV		NV	1.1	J	2	J
		Q4	2.5	107		209		292		39.1		1.5	U	NV	NV		NV	1	J	1.8	J
		Q4	19	127		177	J	358		52.9		1.9	J	NV	0.018	J	NV	1	U	1.6	J
		Q4	40	160		198	J	470		98.9		1.5	J	NV	NV		NV	1	U	1.5	J

Appendix E-2a
Data from Surface Water Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium		Iron		Magnesium		Manganese		Vanadium		Acidity As CaCO3	Ferrous Iron		Hardness, total		Organic Carbon, dissolved		Organic Carbon, total	
			feet	mg/l		ug/l		mg/l		ug/l		ug/l		mg/l	mg/l		mg/l		mg/l		mg/l	
Transect I	I1	Q1	2.1	60.4		989		147		46.8		4	J	NV	0.098	J	NV		2.8		1.9	J
		Q2	2	146		77.3	J	436		NV		1.8	J	NV	NV		NV		2.1		5.2	
		Q2	4	142		76.3	J	427		525	U	2.6	J	NV	0.016	J	2,300		1.8	J	3.7	
		Q3	1.5	177		146	J	496		31.2		1.5	U	2,680	0.0082	J	2,680		1.5	J	2.9	
		Q4	2.1	90.5*	J	103*	J	228*	J	51.8*		1.5	U	NV	0.029	J	1,330		2.3*		2.2*	
		Q4-Dup	2.1	94.5	J	134	J	233	J	54.7		1.5*	U	NV	0.015*	J	1330*		2.4		2.3	
	I2	Q1	3	60.2		148	J	146		25.4		1.5	U	NV	NV		NV		2.6		1.8	J
		Q1	7	61.6		181	J	152		28.2		1.5	U	NV	0.035	J	NV		2.7		1.7	J
		Q2	3	146		74.3	J	438		NV		2.6	J	NV	NV		NV		2		3.6	
		Q2	5.5	146		55.6	J	436		525	U	2	J	NV	0.019	J	NV		1.7	J	3.2	
		Q2	9	148		79.4	J	442		NV		2.3	J	NV	NV		NV		1.8	J	4.9	
		Q3	2	178		180	J	499		36.5		1.5	U	NV	NV		NV		1	J	2.5	
		Q3	6	179		172	J	501		35.6		1.7	J	NV	0.011	J	NV		1.1	J	2.3	
		Q4	2.5	94.4	J	81.8	J	240	J	46.7		1.5	U	NV	NV		NV		1.7	J	2.1	
		Q4	7	105		52.2	U	280	J	38.6		1.5	U	NV	0.024	J	NV		1.3	J	1.6	J
	I3	Q1	3	61.3		219		148		27.6		1.5	U	NV	NV		NV		2.7		1.9	J
		Q1	5.3	61.2		166	J	147		26.3		1.5	U	NV	0.041	J	NV		2.7		2	J
		Q1	8.5	62.4		429		153		39.2		2.3	J	NV	NV		NV		2.5		2	
		Q2	3	198		175	J	573		NV		2.3	J	NV	NV		NV		1.5	J	3.8	
		Q2	5.5	176		147	J	512		525	U	2.1	J	NV	0.03	J	NV		1.7	J	3.2	
		Q2	9	156		82	J	452		NV		1.5	U	NV	NV		NV		1.7	J	3.8	
		Q3	2	177		147	J	498		36.4		1.5	U	NV	NV		NV		1.2	J	2.3	
		Q3	6.5	177		165	J	494		34.2		1.5	U	NV	0.011	J	NV		1	U	2.1	
		Q4	2.5	95.7	J	84.7	J	253		35.9		1.5	U	NV	NV		NV		1.5	J	1.9	J
		Q4	7.5	101	J	74.4	J	272	J	40.2		1.5	U	NV	0.016	J	NV		1.4	J	1.8	J
	I4	Q1	3	60.9		110	J	145		23.4		1.5	U	NV	NV		NV		2.4		1.8	J
		Q1	6	60.9		112	J	146		23.2		1.5	U	NV	0.014	J	NV		3		1.9	J
		Q2	3	197		232		569		NV		2.7	J	NV	NV		NV		1.8	J	3.1	
		Q2	5.5	197		228		567		525	U	2.2	J	NV	0.031	J	NV		1.7	J	4.6	
		Q2	9	184		422		532		NV		3.5	J	NV	NV		NV		1.7	J	3.3	
		Q3	1.5	172		229		484		33.1		1.5	U	NV	NV		NV		1.6	J	2.4	
		Q3	6.5	174		439		487		51.4		1.7	J	NV	0.11		NV		1.3	J	2.4	
		Q4	2.5	89.9	J	55.7	J	226	J	46.2		1.5	U	NV	NV		NV		1.8	J	2	J
		Q4	7.5	106		52.2	U	284		39.7		1.5	U	NV	0.012	J	NV		1.6	J	1.8	J
Transect J	J1	Q4	0.8	128		834		320		118		3.8	J	NV	0.008	U	2,030		1.1	J	1.9	J
	J2	Q4	2	132		101	J	334		54.2		1.5	U	NV	0.008	U	NV		1	U	1.7	J
	J3	Q4	2.2	122		143	J	324		53		1.5	U	NV	0.008	U	NV		1.1	J	1.8	J
	J4	Q4	1	121		292		304		57		3.6	J	NV	0.013	J	NV		1.2	J	2.1	

* = datum not used (because it is the lower pair of a duplicate, or the datum was rejected)

B = Bottom sample
$CaCO_3$ = Calcium carbonate
mg/l = Milligram per Liter
NV = No Value, no analysis performed
ug/l = Microgram per Liter

Qualifiers:
J = Estimated value
U = Not detected

Appendix E-2b
Data from Surface Water Reference Location Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium, dissolved		Hexavalent Chromium		Aluminum, dissolved		Calcium, dissolved		Iron, dissolved		Magnesium, dissolved		Manganese, dissolved		Vanadium, dissolved		Chromium		Aluminum	
			feet	ug/l		ug/l		ug/l		mg/l		ug/l		mg/l		ug/l		ug/l		ug/l		ug/l	
Transect 37	37	Q1	22	2.3	U	5	U	80.2	U	103		52.2	U	281		132		1.5	U	2.3	U	82.4	J
		Q1	3	2.3	U	5	U	80.2	U	79.1		52.2	U	193		15.1		1.5	U	2.3	U	80.2	U
		Q1	37	2.3	U	5	U	80.2	U	159		52.2	U	465		347		1.5	U	2.3	U	91.7	J
		Q2	14	2.3	U	5	U	80.2	U	154		52.2	U	440		4.3	J	2.5	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	156		52.2	U	441		1.2	J	3	J	2.3	U	80.2	U
		Q2	37	2.3	U	5	U	80.2	U	196		52.2	U	580		440		3.3	J	2.3	U	80.2	U
		Q3	17	2.3	U	5	U	80.2	U	152		52.2	U	478		29.8		1.5	U	3.4	J	99.8	J
		Q3	2	2.3	U	5	U	80.2	U	100		52.2	U	286		4.2	J	1.8	J	2.9	J	80.2	U
		Q3	37	2.3	U	5	U	80.2	U	181		52.2	U	571		40		2.5	J	3	J	178	J
		Q4	2.5	2.3	U	5	U	80.2	U	113		52.2	U	317		54.7		1.5	U	2.3	U	80.2	U
		Q4	19	2.3	U	5	U	80.2	U	134		52.2	U	386		75.7		1.5	U	2.3	U	133	J
		Q4	38	2.3	U	5	U	80.2	U	172		52.2	U	515		86.7		1.5	U	2.3	U	227	
	37A	Q1	20	2.3	U	5	U	80.2	U	91.5		52.2	U	236		80.5		1.5	U	2.3	U	91.8	J
		Q1	3	2.3	U	5	U	80.2	U	79.4		52.2	U	195		10.1		1.5	U	2.3	U	80.2	U
		Q1	35	2.3	U	5	U	80.2	U	144		52.2	U	422		298		1.5	U	2.3	U	113	J
		Q2	19	2.3	U	5	U	80.2	U	164		52.2	U	472		2	J	3.9	J	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	157		52.2	U	449		0.84	U	3.1	J	2.3	U	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	199		52.2	U	542		512		2.9	J	2.3	U	107	J
		Q3	18	2.7	J	5	U	80.2	U	166		52.2	U	470		23.7		1.5	U	2.3	U	200	
		Q3	2	3.4	J	5	U	80.2	U	121		52.2	U	319		8.6		1.5	U	2.3	U	154	J
		Q3	36	2.3	U	5	U	80.2	U	184		52.2	U	538		24.9		1.5	U	2.3	U	307	
		Q4	2.5	3.3	J	5	U	80.2	U	125		52.2	U	376		50.4		1.5	U	3.5	J	104	J
		Q4	18	2.3	U	5	U	80.2	U	155		52.2	U	460		41.1		1.5	U	2.3	U	387	
		Q4	36	2.3	U	5	U	80.2	U	155		52.2	U	462		37.8		1.5	U	2.7	J	327	
	37B	Q1	20	2.3	U	5	U	80.2	U	89.2		52.2	U	228		66.3		1.5	U	2.3	U	80.2	U
		Q1	3	2.3	U	5	U	80.2	U	78.3		52.2	U	197		15.8		1.5	U	2.3	U	80.2	U
		Q1	34	2.3	U	5	U	80.2	U	152		52.2	U	428		292		1.5	U	2.3	U	80.2	U
		Q2	19	2.3	U	5	U	80.2	U	97.8		52.2	U	302		159		1.5	U	2.3	U	80.2	U
		Q2	3	2.3	U	5	U	80.2	U	153		52.2	U	460		0.84	U	1.5	U	2.3	U	80.2	U
		Q2	35	2.3	U	5	U	80.2	U	167		52.2	U	522		91.8		1.5	U	2.3	U	98.1	J
		Q3	17	2.3	U	5	U	80.2	U	162		52.2	U	498		25.2		1.5	U	3	J	135	J
		Q3	2	2.3*	U	5	U	80.2	U	113		52.2	U	318		8.1		1.5	U	2.3*	U	80.2	U
		Q3-Dup	2	2.6	J	5*	U	80.2	U	108		52.2	U	310		8.6		2.8	J	2.6	J	80.2	U
		Q3	35	2.3	U	5	U	80.2	U	183		52.2	U	542		29.8		1.5	U	4.5	J	95.5	J
		Q4	2.5	2.3*	U	5	U	80.2	U	116		52.2	U	346*		46.3*		1.5	U	3.2	J	80.2*	U
		Q4-Dup	2.5	3.1	J	5*	U	80.2*	U	115*		52.2*	U	347		46.5		1.5*	U	2.3*	U	85.4	J
		Q4	19	2.3	U	5	U	80.2	U	163		52.2	U	508		59.6		1.5	U	2.3	U	179	J
		Q4	37	2.3	U	5	U	80.2	U	163		52.2	U	511		55.2		1.5	U	3.4	J	205	

Appendix E-2b
Data from Surface Water Reference Location Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Calcium		Iron		Magnesium		Manganese		Vanadium		Acidity As CaCO3		Ferrous Iron		Hardness, total		Organic carbon, dissolved		Organic carbon, total	
			feet	mg/l		ug/l		mg/l		ug/l		ug/l		mg/l		mg/l		mg/l		mg/l		mg/l	
Transect 37	37	Q1	22	98.8		149	J	278		200	J	2.3	J	NV		0.013	J	NV		1.3	J	1.9	J
		Q1	3	73.9		74.7	J	193		NV		1.5	U	NV		NV		NV		2.1		2.4	
		Q1	37	151		196	J	452		NV		2.7	J	NV		NV		NV		1	U	2.4	
		Q2	14	154		52.2	U	438		525	U	3.2	J	NV		0.008	U	NV		1.4	J	2.3	
		Q2	3	156		52.2	U	443		NV		3.8	J	NV		NV		NV		1.5	J	2.3	
		Q2	37	205		60.8	J	586		NV		2.1	J	NV		NV		2,990		1	U	1.7	J
		Q3	17	179		205		499		41.4		1.5	U	NV		0.012	J	NV		1	U	2.3	
		Q3	2	111		80.4	J	289		11.3		1.5	U	NV		NV		NV		1.4	J	2.7	
		Q3	37	191		248		545		59		1.5	U	2,990		NV		2,990		1	U	2.2	
		Q4	2.5	123		52.2	U	312		70		1.7	J	NV		NV		NV		1.9	J	2	J
		Q4	19	139		98.7	J	385		97		2.3	J	NV		0.025	J	NV		1.3	J	1.6	J
		Q4	38	175		252		510		118		1.5	U	NV		NV		2,830		1	U	1.4	J
	37A	Q1	20	95		146	J	259		1,000	U	1.5	U	NV		0.011	J	NV		1.1	J	2	
		Q1	3	74.6		76.8	J	192		NV		1.5	U	NV		NV		NV		2.1		2.8	
		Q1	35	140		217		415		NV		2	J	NV		NV		NV		1	U	2.3	
		Q2	19	157		53.2	J	458		525	U	3.5	J	NV		0.018	J	NV		1.2	J	2.1	
		Q2	3	154		52.2	U	443		NV		3.3	J	NV		NV		NV		1.7	J	2.3	
		Q2	35	186		146	J	572		NV		3.5	J	NV		NV		2,860		1	U	1.6	J
		Q3	18	175		169	J	484		37.1		1.5	U	NV		0.008	U	NV		1.2	J	2.2	
		Q3	2	132		52.2	U	352		22.3		1.5	U	NV		NV		NV		1.5	J	2.7	
		Q3	36	199		305		555		54.3		1.6	J	NV		NV		NV		1	U	2.4	
		Q4	2.5	123		268		349		61.5		1.5	U	NV		NV		NV		1.2	J	1.7	J
		Q4	18	151		427		444		66.5		1.5	U	NV		0.008	U	NV		1	U	1.4	J
		Q4	36	168		466		502		67.7		1.5	U	NV		NV		NV		1	U	1.6	J
	37B	Q1	20	88.6		93.7	J	241		1,000	U	2.2	J	NV		0.008	U	NV		1.9	J	2	
		Q1	3	75.2		74.4	J	197		NV		1.5	U	NV		NV		NV		2.1		2.2	
		Q1	34	140		183	J	414		NV		2.8	J	NV		NV		NV		1	U	1.7	J
		Q2	19	124		58.9	J	376		525	U	1.8	J	NV		0.008	U	NV		1.3	J	2	
		Q2	3	148		52.2	U	447		NV		2	J	NV		NV		NV		1.7	J	2.5	
		Q2	35	184		164	J	568		NV		2	J	NV		NV		2,830		1.1	J	1.7	J
		Q3	17	167		175	J	481		33.7		1.5	U	NV		0.0095	J	NV		1	U	2.4	
		Q3	2	112		98.5	J	293		13		1.5	U	NV		NV		NV		1	J	2.8	
		Q3-Dup	2	117		88.5	J	303		12.9		1.5	U	NV		NV		NV		1*	U	2.7*	
		Q3	35	214		141	J	542		43.1		1.5	U	NV		NV		NV		1	U	2.1	
		Q4	2.5	124*		259		338*		58.7*		1.5	U	NV		NV		NV		1.3*	J	1.9	J
		Q4-Dup	2.5	125		249*		342		59.4		1.5*	U	NV		NV		NV		1.4	J	1.8*	J
		Q4	19	165		289		477		68.4		1.5	U	NV		0.008	U	NV		1	U	1.6	J
		Q4	37	171		424		501		94.7		1.5	U	NV		NV		NV		1	J	1.4	J

* = datum not used (because it is the lower pair of a duplicate, or the datum was rejected)

$CaCO_3$ = Calcium carbonate
mg/l = Milligram per Liter
NV = No Value, no analysis performed
ug/l = Microgram per Liter

Qualifiers:
J = Estimated value
U = Not detected

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium		Calcium		Ferrous Iron		Iron		TOC		Aluminum		Magnesium		Manganese		Manganese, Divalent		Vanadium		Sulfide		Acid Volatile Sulfide	
			feet	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		umoles/g	
Transect A	A1	Q1	0.0-0.5	698		12,900		600		30,800		17,000		4,390		4,830		406		0.5	U	42.7		33.2	U	0.44	J
		Q2	0.0-0.5	1,200		5,500		5,140		36,800		480	U	7,410		5,550		438		2.237	U	69.7		328		12.1	
		Q2	0.9-1.4	1,330	K	1,280		4,130		35,700		4,900		6,450		1,930		145		1.464	U	75		603		NV	
		Q2	2.5-3.0	17	K	10.3		85.8		1,570		260	U	227		24.1		1.89		1.478	U	1.42		23.4	U	NV	
	A2	Q1	0.0-0.5	363		317		85.1		7,410		390	J	1,470		372		134		0.5	U	15		25.6	U	0.39	U
		Q2	0.0-0.5	347		275		500		6,950		270	U	1,420		422		70.9		2.181	U	14.8		45.3		0.57	J
		Q2	0.9-1.4	315	K	374		NV		33,600		NV		11,400		1,470		83.1		NV		32		NV		NV	
		Q2	2.5-3.0	78.3	K	10.5		NV		316		NV		272		16.2		1.69		NV		2.02		NV		NV	
	A3	Q1	0.0-0.5	96.6		341		334		6,240		710	J	1,140		269		177		0.5	U	9.4		41.3		0.52	J
		Q2	0.0-0.5	110		198		250		6,180		270	U	1,200		378		120		2.144	U	9.71		200		0.99	J
		Q2	1.0-1.5	2.91	K	89.3		NV		20,400		NV		1,200		233		15.1		NV		2.98		NV		NV	
		Q2	2.5-3.0	3.94	K	51.2		NV		5,110		NV		1,530		200		2.96		NV		3.28		NV		NV	
	A4	Q1	0.0-0.5	89.6		416		103		37,600		200	U	1,770		305		185		0.5	U	13.4		25.7	U	0.39	U
		Q2	0.0-0.5	97.4		294		129		25,600		260	U	1,520		423		116		2.194	U	12.3		386		1.4	J
		Q2	1.0-1.5	12.8	K	88.1		NV		8,240		NV		3,250		344		8.08		NV		12.5		NV		NV	
		Q2	2.5-3.0	34.1	K	150		NV		6,030		NV		12,700		953		25.3		NV		32.3		NV		NV	
Transect B	B1	Q1	0.0-0.5	640		3,280		NA		25,900		15,000		6,930		3,880		618		0.5	U	50.3		33.8	U	0.44	J
		Q2	0.0-0.5	595		5,310		4,280		25,200		11,000		5,650		3,830		275		2.252	U	48.6		77.3		10.4	
		Q2	0.8-1.3	80.9		3,380		1,990		19,100		6,800		12,200		2,610		221		1.612	U	33.8		67.3		NV	
		Q2	2.5-3.0	29.4		341		655		15,500		490	J	18,500		2,920		76.4		4.793		40.8		24.9		NV	
	B2	Q1	0.0-0.5	369		13,100		802		24,300		12,000		7,310		2,540		383		0.5	U	38		401		0.53	J
		Q2	0.0-0.5	236		1,990		2,220		20,600		6,600		6,260		1,940		254		2.224	U	29.5		92		3.2	
		Q2	0.6-1.1	22.7		299		NV		12,700		NV		18,100		2,620		61.3		NV		31.4		NV		NV	
		Q2	1.9-2.4	1.97		59.2		NV		1,600		NV		889		177		3.86		NV		2.3		NV		NV	
	B3	Q1	0.0-0.5	683		3,110		731		39,300		18,000	J	19,700		5,030		559		2.55	U	86.2		65		7.7	J
		Q2	0.0-0.5	637	K	2,240		2,030		48,400		24,000		28,400		6,710		807		2.211	U	90.2		1,420		11.6	
		Q2	1.0-1.5	94		1,470		NV		14,100		NV		9,440		2,420		203		NV		22.5		NV		NV	
		Q2	2.5-3.0	1.15	J	41.5		NV		274		NV		227		98.3		3.01		NV		1.26		NV		NV	
	B4	Q1	0.0-0.5	424		2,210		29.2*	U	36,500		14,000	J	17,200		4,050		462		0.5*	U	90		142*		3.4*	J
		Q1-Dup	0.0-0.5	355*		3,770		657		31,300		10000*	J	16,500		3,660		457		0.823		78.9		145		4.3	J
		Q2	0.0-0.5	404	K	2,510		1,850		34,600		11,000		16,800		4,070		463		2.345	U	88.2		528		3.8	
		Q2	1.0-1.5	2,290		2,570		NV		129,000		NV		27,400		4,900		357		NV		367		NV		NV	
		Q2	2.5-3.0	690		1,650		NV		50,400		NV		31,900		7,110		516		NV		78.1		NV		NV	
	B5	Q4	0.0 - 0.5	54.3*		5,510		410		10800*		838		3110*		863*		156		NV	U	22.9*		NV		0.63*	
		Q4-Dup	0.0 - 0.5	58.2		3340*		238*		11,100		614*		3,190		951		125*		NV		23.5		NV		0.74	
		Q4	0.5-1.0	43.6	J	920		589		12,900		672	U	3,840		794	J	78		NV		24.7	J	NV		0.63	UJ
		Q4	2.3-2.9	37.9	J	229		221		14,700		670	U	4,690		939		84.8		NV		24.9		NV		0.63	U

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium		Calcium		Ferrous Iron		Iron		TOC		Aluminum		Magnesium		Manganese		Manganese, Divalent		Vanadium		Sulfide		Acid Volatile Sulfide	
			feet	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		umoles/g	
Transect C	C1	Q1	0.0-0.5	1,160		49,100		5,840		25,100		17,000		10,300		21,500		1,100		0.5	U	61.8		1,090		12.6	
		Q2	0.0-0.5	1,310		45,100		10,600		29,800		25,000		11,200		22,500		1,120		2.298	U	67.9		1,780		14.3	
		Q2	0.8-1.3	2,090		23,300		24,400		47,800		24,000		19,000		NV		546		1.544	U	112		1,300		NV	
		Q2	0.8-1.3	NV		NV		21300*		NV		NV		NV		15,300		NV		NV		NV		NV		NV	
		Q2	2.3-2.8	1440*		29,500		21,300		46,200		9,800		8,560		15,500		249		1.485	U	86.5		1,910		NV	
		Q2-Dup	2.3-2.8	1,800		29,200		NV		23,300		2500*		9,740		19,000		566		NV		107		NV		NV	
	C2	Q1	0.0-0.5	1,080		23,000		4,670		24,300		25,000		9,230		11,700		717		0.5	U	62.4		73.5		13.1	
		Q2	0.0-0.5	1,070		24,000		5,570		22,900		20,000		8,200		12,500		652		2.267	U	62.6		509		16	
		Q2	1.0-1.5	91.5		137		NV		2,390		NV		955		270		19.7		NV		6.77		NV		NV	
		Q2	2.0-2.5	3.62		90.6		NV		1,390		NV		440		171		9.02		NV		1.65		NV		NV	
	C3	Q1	0.0-0.5	582		4,640		3,430		27,500		9,500		11,400		4,440		420		0.5	U	57.9		96.4		9.8	
		Q2	0.0-0.5	618		2,900		6,470		29,500		18,000		12,800		4,830		465		2.272	U	58.4		313		6.5	
		Q2	1.0-1.5	250		1,740		NV		30,300		NV		24,300		5,200		533		NV		48.1		NV		NV	
		Q2	2.4-2.9	78.3		1,200		NV		23,400		NV		18,700		3,710		305		NV		38.2		NV		NV	
	C4	Q1	0.0-0.5	357		3,210		3,150		31,400		9,700		13,700		3,730		477		0.5	U	61.3		33.8		4.9	
		Q2	0.0-0.5	315*		2,810		6,500		31,200		14,000		14,200		4,290		600		2.346	U	57.6		54.4*		3.3*	
		Q2-Dup	0.0-0.5	328		2,060		6370*		36,300		14000*		16,500		5,280		738		2.313*	U	66.6		158		7.1	
		Q2	1.0-1.5	57		1,930		NV		48,800		NV		37,600		10,500		2,010		NV		74.6		NV		NV	
		Q2	2.5-3.0	2.32		56.4		NV		865		NV		1,120		201		7.94		NV		2.05		NV		NV	
Transect D	D1	Q1	0.0-0.5	304		18,500		9,770		44,100		25,000		27,600		17,800		2,010		5.924		89		1,880		28.8	
		Q2	0.0-0.5	310		9,750		14,400		46,100		29,000		27,500		10,700		1,800		19.578		85.6		2,040		18.7	
		Q2	1.0-1.5	372		21,200		16,400		36,400		51,000		23,700		55,000		2,760		10.285		85.6		2,330		NV	
		Q2	2.5-3.0	251		79,700		10,500		36,800		32,000		23,400		10,200		1,540		2.496	U	71.3		418		NV	
	D2	Q1	0.0-0.5	239	J	4,030		13,000		42,200		29,000		24,900		7,390		1,900		7.75		76.4		2,020		16.6	
		Q2	0.0-0.5	258		4,910		8,830		49,300		34,000		28,000		7,940		3,550		10.47		91.6		2,760		32.7	
		Q2	1.0-1.5	237		4,030		NV		45,000		NV		28,400		6,950		1,420		NV		86.9		NV		NV	
		Q2	2.5-3.0	66.1		2,850		NV		50,600		NV		28,500		5,950		770		NV		65.8		NV		NV	
	D3	Q1	0.0-0.5	306		3,680		1,290		48,600		25,000	J	29,400		7,890		1,940		2.678		91		476		15.3	J
		Q2	0.0-0.5	253		3,730		5,870		52,900		28,000		30,500		8,010		2,260		34.002		93.5		2,090		11.4	
		Q2	1.0-1.5	218		3,510		NV		44,600		NV		28,400		7,180		1,360		NV		85		NV		NV	
		Q2	2.5-3.0	95.8		2,870		NV		52,400		NV		31,100		6,760		1,200		NV		60.6		NV		NV	
	D4	Q1	0.0-0.5	198		7,690		5,120		28,700		13,000		12,000		3,110		428		0.5	U	48		36.5	U	13.2	
		Q2	0.0-0.5	214		1,470		3,060		36,300		15,000		19,600		4,310		415		2.318		59.5		261		10.3	
		Q2	0.8-1.3	78.1		2,060		NV		47,500		NV		42,600		7,790		675		NV		82.5		NV		NV	
		Q2	2.5-3.0	60.2		2,010		NV		51,000		NV		39,200		10,600		2,280		NV		79.3		NV		NV	

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium		Calcium		Ferrous Iron		Iron		TOC		Aluminum		Magnesium		Manganese		Manganese, Divalent		Vanadium		Sulfide		Acid Volatile Sulfide	
			feet	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		umoles/g	
Transect E	E1	Q1	0.0-0.5	223	K	25,600		82.6		37,100		30,000		20,600		11,300		2,600		2.785		67.2		658		22.9	
		Q1-Dup	0.0-0.5	200*	K	10,500		41.1*		36,300		20000*		19,800		12,300		2,150		0.5*	U	63.5		305*		12.1*	
		Q2	0.0-0.5	253		22,800		10,700		48,400		23,000		28,500		25,900		1,620		2.449	U	86.6		1,680		19	
		Q2	1.0-1.5	217		9,650		11,200		42,600		41,000		27,500		12,100		1,780		2.494	U	80.8		1,210		NV	
		Q2	2.5-3.0	68.2		2,500		4,700		48,800		30,000		27,700		7,180		911		2.244	U	59.9		125		NV	
	E2	Q1	0.0-0.5	66.9		2,010		5,320		53,400		19,000		30,200		7,660		1,250		4.848		57.9		708		6.8	
		Q2	0.0-0.5	64.9		1,550		5,910		56,700		25,000		30,200		7,550		1,050		7.304		61.3		1,900		20.1	
		Q2	1.0-1.5	61.4		2,880		NV		55,900		NV		31,600		6,800		879		NV		60.3		NV		NV	
		Q2	2.5-3.0	62.1		2,940		NV		56,500		NV		30,800		6,350		839		NV		61.2		NV		NV	
	E3	Q1	0.0-0.5	238		3,770		13,600		47,300		18,000		29,100		7,500		1,020		8.539		97.3		1,320		27.5	
		Q2	0.0-0.5	197		3,100		11,200		45,900		21,000		26,800		7,210		1,220		10.258		83.1		2,120		25.1	
		Q2	1.0-1.5	262		3,260		NV		45,300		NV		25,400		6,680		2,050		NV		90.2		NV		NV	
		Q2	2.5-3.0	259		3,550		NV		46,400		NV		28,200		7,290		1,850		NV		106		NV		NV	
	E4	Q1	0.0-0.5	61.2		1,770		1,010		14,800		7,300		6,890		1,840		253		0.5	U	26		28.5	U	0.93	J
		Q2	0.0-0.5	114	K	3,290		1,150		23,400		16,000		12,300		3,850		374		2.18	U	40.9		361		7.6	
		Q2	1.0-1.5	52.1		2,200		NV		31,900		NV		27,800		4,920		532		NV		55.3		NV		NV	
		Q2	2.5-3.0	125		1,750		NV		37,500		NV		30,100		5,290		325		NV		65.7		NV		NV	
Transect F	F1	Q1	0.0-0.5	97.9		10,300		5,810		39,500		15,000		19,200		4,640		591		3.225		64.1		570		12.9	
		Q2	0.0-0.5	117		4,220		4,840		38,100		20,000		19,200		5,130		725		2.372	U	66.2		1,160		19.9	
		Q2	1.0-1.5	76.7		82,400		8,810		20,400		15,000		13,100		3,740		524		2.807	U	40.6		1,050		NV	
		Q2	2.5-3.0	159		10,800		15,200		40,900		30,000		25,300		6,090		1,210		1.651	U	94.9		2,380		NV	
	F2	Q1	0.0-0.5	65.8		1,190		3,640		54,800		20,000		30,400		6,170		803		1.483		68.5		38.2	U	9.5	
		Q2	0.0-0.5	33.1		515		808		30,000		3,000		12,600		2,080		471		2.219	U	33.9		224		4.2	
		Q2	1.0-1.5	49.3	K	794		NV		28,300		NV		17,600		1,920		41.5		NV		61.1		NV		NV	
		Q2	2.5-3.0	36.9	K	782		NV		18,300		NV		15,100		1,590		36.1		NV		41.8		NV		NV	
	F3	Q1	0.0-0.5	152		2,410		13,400		52,000		25,000		35,600		8,890		1,350		0.5	U	94.9		1,720		22	
		Q2	0.0-0.5	211*		2,510		8890*		55,900		24000*		31,700		8,340		1,240		2.418	U	107		1050*		41.5	
		Q2-Dup	0.0-0.5	261		2,530		11,500		61,900		25,000		34,600		8,520		1,280		4.005		118		2,350		21.5*	
		Q2	1.2-1.7	56		2,020		NV		46,800		NV		36,500		10,700		1,960		NV		70.3		NV		NV	
		Q2	2.5-3.0	56.2		1,980		NV		45,700		NV		36,800		10,700		1,640		NV		67.7		NV		NV	
	F4	Q1	0.0-0.5	211		3,090		7,580		54,200		26,000		32,300		8,180		1,790		0.778		105		555		20.6	
		Q2	0.0-0.5	190		3,950		11,300		55,100		20,000		34,600		8,570		1,420		2.431	U	105		2,000		8.4	
		Q2	1.0-1.5	120*		1,890		NV		47,100		NV		38,500		8,260		1,260		NV		85.7		NV		NV	
		Q2-Dup	1.0-1.5	159		2,650		NV		64,500		NV		50,500		11,700		1,860		NV		115		NV		NV	
		Q2	2.5-3.0	55.1		1,830		NV		44,600		NV		33,700		9,230		1,390		NV		65.5		NV		NV	
		Q2-Dup	2.5-3.0	54*		1,880		NV		45,000		NV	J	34,600		9,280		1,410		NV		66.9		NV		NV	

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium		Calcium		Ferrous Iron		Iron		TOC		Aluminum		Magnesium		Manganese		Manganese, Divalent		Vanadium		Sulfide		Acid Volatile Sulfide	
			feet	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		umoles/g	
Transect G	G1	Q1	0.0-0.5	67	J	1,910		1,250		16,700		5,900		7,240		2,250		236		0.5	U	26		152		6.8	
		Q2	0.0-0.5	67.1		3,260		4,340		24,000		7,200		8,680		2,700		255		1.521	U	34.9		1,170	J	21.2	
		Q2	1.1-1.6	33.1		7,650		3,700		28,500		22,000		14,300		3,190		131		1.526	U	41.7		102		NV	
		Q2	2.5-3.0	28.8		2,070		5,170		28,600		9,700		12,300		2,760		183		1.505	U	34.9		128		NV	
	G2	Q1	0.0-0.5	123	J	2,540		6,210		32,700		14,000		19,000		5,410		614		1.525		61.4		896		29.1	
		Q2	0.0-0.5	153		2,270		6,410		40,700		28,000		23,000		6,300		770		2.458	U	79.4		1,500		17.1	
		Q2	0.8-1.3	144	K	2,260		NV		32,900		NV		19,400		4,640		466		NV		61.8		NV		NV	
		Q2	2.5-3.0	50	K	1,310		NV		24,800		NV		13,300		3,550		148		NV		48.1		NV		NV	
	G3	Q1	0.0-0.5	148	K	13,700		28	J	38,000		17,000		22,500		5,740		698		4.083		75.4		449		23.9	
		Q2	0.0-0.5	164		3,010		8,510		43,700		13,000		24,800		6,620		899		2.421	U	86.5		1,900		25.6	
		Q2	1.0-1.5	29.8	K	1,210		NV		20,300		NV		12,700		2,750		133		NV		39.3		NV		NV	
		Q2	2.5-3.0	29.6	K	2,290		NV		32,100		NV		13,400		3,240		200		NV		40.2		NV		NV	
	G4	Q1	0.0-0.5	121	K	3,890		14.7	J	39,300		17,000		21,500		5,720		1,100		13.992		66.5		1,430		22.2	
		Q2	0.0-0.5	140		2,390		4,170		36,700		9,100		21,100		5,470		1,340		2.371	U	70.8		1,650		10.2	
		Q2	1.0-1.5	182		2,740		NV		45,100		NV		27,600		6,650		1,200		NV		91.2		NV		NV	
		Q2	2.5-3.0	197		2,490		NV		42,200		NV		25,700		6,120		1,570		NV		94.3		NV		NV	
Transect H	H1	Q1	0.0-0.5	114	K	139,000		11,100		23,100		25,000		14,200		6,220		544		10.439		55.3		2,630		51.2	
		Q2	0.0-0.5	89.5		3,000		7,410		28,900		21,000		19,600		5,040		545		2.404	U	55		2,690	J	16.9	
		Q2	1.0-1.5	182		6,110		9,980		30,500		35,000		18,800		6,450		653		2.342	U	87.6		2,400		NV	
		Q2	2.5-3.0	29.2		2,050		493		3,460		860		5,420		803		61.4		1.441	U	20		35.1		NV	
	H2	Q1	0.0-0.5	47.1	K	14,900		1,900		12,100		8,700		7,290		2,080		171		0.5	U	29.3		203		20.8	
		Q2	0.0-0.5	134		4,690		2,180		32,100		29,000		24,000		6,440		521		2.403	U	77		1,040	J	32.2	
		Q2	1.0-1.5	43.2		49,900		NV		8,490		NV		5,710		2,180		119		NV		24.2		NV		NV	
		Q2	2.5-3.0	88.4		1,500		NV		14,500		NV		5,660		1,780		215		NV		99		NV		NV	
	H3	Q1	0.0-0.5	49.3	K	4,820		8,330		11,900		12,000		8,550		2,700		240		0.785		28.7		1,480		36.5	
		Q2	0.0-0.5	71.8		2,780		6,100		14,800		9,800		9,860		2,840		242		9.836		45.4		1,870	J	16.4	
		Q2	1.0-1.5	71.7		4,560		NV		17,200		NV		11,300		3,710		318		NV		44.2		NV		NV	
		Q2	2.5-3.0	101		3,460		NV		20,800		NV		14,300		3,670		370		NV		57.6		NV		NV	
	H4	Q1	0.0-0.5	107	K	2,570		12,800		31,900		20,000		21,300		5,570		573		3.842		60.8		732		24.5	
		Q2	0.0-0.5	207		17,400		13,200		37,500		48,000		23,200		9,340		795		13.377		99.6		3,470	J	38.3	
		Q2	1.0-1.5	80.7		1,210		NV		22,500		NV		18,000		3,020		295		NV		48.4		NV		NV	
		Q2	2.5-3.0	27.9		514		NV		5,910		NV		12,300		1,260		63		NV		25.5		NV		NV	

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Chromium		Calcium		Ferrous Iron		Iron		TOC		Aluminum		Magnesium		Manganese		Manganese, Divalent		Vanadium		Sulfide		Acid Volatile Sulfide	
			feet	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		umoles/g	
Transect I	I1	Q1	0.0-0.5	316	K	7,110		6,660		19,200		20,000		9,320		5,690		218		0.5	U	59.1		311		3.2	
		Q2	0.0-0.5	700		9,370		4,490		18,100		14,000		7,350		8,320		207		1.508	U	70.8		1,240	J	26.5	
		Q2	1.0-1.5	16.7		371		5,270		7,550		3,100		6,250		1,330		168		1.453	U	17.2		815		NV	
		Q2	2.5-3.0	22		588		6,100		12,700		11,000		9,190		2,130		296		1.498	U	22.1		1,060		NV	
	I2	Q1	0.0-0.5	254	K	6,360		2,410		23,500		40,000		12,300		5,830		274		0.5	U	85.5		292		10.6	
		Q2	0.0-0.5	315		9,030		5,580		24,800		34,000		12,200		7,600		260		1.531	U	91.5		1,600	J	23.8	
		Q2	1.0-1.5	308		8,710		NV		29,600		NV		15,600		7,490		332		NV		95.7		NV		NV	
		Q2	2.5-3.0	575		5,320		NV		39,600		NV		19,700		5,890		345		NV		170		NV		NV	
	I3	Q1	0.0-0.5	357	K	7,560		3,630		34,400		36,000		17,900		7,530		425		0.582		122		1,140		24.4	
		Q2	0.0-0.5	425		6,280		5,960		34,200		39,000		20,400		6,830		411		5.431	U	237		2,070	J	21.5	
		Q2	1.0-1.5	327		5,160		NV		32,700		NV		19,900		6,470		393		NV		153		NV		NV	
		Q2	2.5-3.0	332		5,760		NV		27,300		NV		15,700		5,460		284		NV		134		NV		NV	
	I4	Q1	0.0-0.5	374	K	35,900		8,210		32,700		33,000		12,400		5,980		368		0.5	U	156		1,000		42.7	
		Q2	0.0-0.5	542		10,400		4,570		42,500		39,000		21,100		7,830		447		1.836	U	145		1,690	J	11.9	
		Q2	0.8-1.3	1,390		7,020		NV		50,300		NV		19,900		6,190		323		NV		229		NV		NV	
		Q2	2.1-2.6	508		2,880		NV		28,700		NV		12,600		3,240		131		NV		287		NV		NV	
Transect J	J1	Q4	0.0 - 0.5	1,830		63,500		2,690		24,300		21,500		7,740		22,000		1,290		NV		67.2		NV		5	
		Q4	0.8-1.3	1,620		46,500		6,340		53,000		10,900		9,860		12,200		233		NV		95		NV		7.1	
		Q4	2.5-3.0	2,730		21,800		11,900		36,800		18,000		15,500		17,000		567		NV		134		NV		10	
	J2	Q4	0.0 - 0.5	1,840		41,600		2,050		26,700		9,640		7,010		13,400		670		NV		88.5		NV		16.8	
		Q4	1.0-1.5	605		1,270		1,060		21,500		10,900		10,100		2,240		207		NV		52.5		NV		4.8	
		Q4	2.5-3.0	303		420		701		6,450		679		2,560		752		65.5		NV		13.5		NV		5	
	J3	Q4	0.0 - 0.5	1,260		17,800		4,910		23,700		13,600		6,090		6,430		492		NV		64.1		NV		0.63	
		Q4	0.6-1.0	28.2		190		144		10,400		769		1,200		138		23.7		NV		20.8		NV		6.6	
		Q4	2.5-3.0	567		1,430		176		29,400		9,590		10,400		2,150		214		NV		89.2		NV		0.63	
	J4	Q4	0.0 - 0.5	2,360		13,300		818		28,400		9,670		9,540		30,200		2,070		NV		70		NV		2.4	
		Q4	0.5-1.0	8,140	J	12,500		1,550		37,200		762	U	12,000		17,600		919		NV		146		NV		0.63	U
		Q4	2.5-3.0	114	J	32.6		22		1,180		572	U	846		116		5.77		NV		2.36		NV		0.63	U

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Cadmium		Copper		Iron		Lead		Nickel		Mercury		Zinc		Moisture	Total Solids	0.001 mm		0.002 mm		0.005 mm		0.02 mm	
			feet	umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		%	%	% passing		% passing		% passing		% passing	
Transect A	A1	Q1	0.0-0.5	0.00446		0.27		92.8		0.0865		0.585		0.000028	J	1.86		NV	NV	2		2		3		4.5	
		Q2	0.0-0.5	0.00187		0.0632		71.9		0.0874		0.179		NV		1.79		38.5	51.9	1		1		1		5	
		Q2	0.9-1.4	NV		NV		NV		NV		NV		NV		NV		22	73.3	0.5		4		14		23	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		23.4	85.3	0.5		0.5		0.5		3	
	A2	Q1	0.0-0.5	0.000661	J	0.0546		20		0.0287		0.112		0.000026	J	0.468		NV	NV	0.5		0.5		0.5		0.5	
		Q2	0.0-0.5	0.000142	U	0.059		25.4		0.0351		0.133		NV		0.545		20.9	76.6	0.5		0.5		0.5		1.5	
		Q2	0.9-1.4	NV		NV		NV		NV		NV		NV		NV		19.4	NV	NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		22.1	NV	NV		NV		NV		NV	
	A3	Q1	0.0-0.5	0.000468	J	0.0389		17.5		0.0199		0.0265		0.0000077	U	0.288		NV	NV	1		1		1		1	
		Q2	0.0-0.5	0.000142	U	0.119		20.1		0.0163		0.633		NV		0.219		24.6	79.9	0.5		0.5		0.5		2	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		22.7	NV	NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		17.2	NV	NV		NV		NV		NV	
	A4	Q1	0.0-0.5	0.000652	J	0.0529		29.2		0.0216		0.106		0.0000076	U	0.313		NV	NV	1		1		1		1.5	
		Q2	0.0-0.5	0.000143	U	0.0335		17.2		0.0221		0.0214		NV		0.283		24.9	79.2	0.5		0.5		0.5		2	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		23.5	NV	NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		23	NV	NV		NV		NV		NV	
Transect B	B1	Q1	0.0-0.5	0.00164		0.301		82		0.0826		0.569		0.000014	J	1.4		NV	NV	2.5		2.5		4		6.5	
		Q2	0.0-0.5	0.00265		0.11		73.7		0.0655		0.483		NV		1.22		37	59.6	1.5		2		4		8	
		Q2	0.8-1.3	NV		NV		NV		NV		NV		NV		NV		31.1	66.7	4		7		10		19	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		20.7	80.3	20		28		41		64	
	B2	Q1	0.0-0.5	0.00145		0.28		74.4		0.0609		0.5		0.000029	J	0.974		NV	NV	2.5		2.5		4		8	
		Q2	0.0-0.5	0.00164		0.163		52.1		0.0606		0.0629		NV		0.906		30.6	64.6	1.5		1.5		2.5		11	
		Q2	0.6-1.1	NV		NV		NV		NV		NV		NV		NV		17.8	NV	NV		NV		NV		NV	
		Q2	1.9-2.4	NV		NV		NV		NV		NV		NV		NV		17.3	NV	NV		NV		NV		NV	
	B3	Q1	0.0-0.5	0.00369		0.159	J	102		0.115	J	0.429	J	0.0000077*	R	1.47	J	NV	NV	10		21		35.5		59	
		Q2	0.0-0.5	0.00388		0.342		107		0.128		0.685		NV		1.62		59.3	45.2	18		29		46		69	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		32.1	NV	NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		17.6	NV	NV		NV		NV		NV	
	B4	Q1	0.0-0.5	0.000648	J	0.395*	J	125		0.136		0.0898*	K	0.0000075*	R	1.7		NV	NV	8		14		23*		41*	
		Q1-Dup	0.0-0.5	0.000364*	J	0.403	J	122*		0.122*		0.397	K	0.0000078*	R	1.54*		NV	NV	8*		14*		26.5		45	
		Q2	0.0-0.5	0.00455		0.463		121		0.145		0.4		NV		1.93		53.2	49.4	13		19		28.5		48	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		69.4	NV	NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		65.5	NV	NV		NV		NV		NV	
	B5	Q4	0.0 - 0.5	0.000926		0.1		39.4		0.0282		0.0393		NV		0.508		28*	NV	0.5		0.5		0.5		2	
		Q4-Dup	0.0 - 0.5	0.000799*		0.0914*		35.7*		0.0275*		0.0363*		NV		0.484*		28.5	NV	0.5*		0.5*		0.5*		1*	
		Q4	0.5-1.0	0.00038	J	0.0724	L	45.2	J	0.0239	J	0.0411	J	NV		0.209	J	14.7	NV	1		1		1.5		2.5	
		Q4	2.3-2.9	0.000143	U	0.0177		25.3		0.0038		0.0272		NV		0.0318		14.7	NV	0.5		0.5		0.5		0.5	

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Cadmium		Copper		Iron		Lead		Nickel		Mercury		Zinc		Moisture		Total Solids		0.001 mm		0.002 mm		0.005 mm		0.02 mm	
			feet	umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		%		%		% passing		% passing		% passing		% passing	
Transect C	C1	Q1	0.0-0.5	0.00174		0.143		136		0.13		0.372		0.0000075	U	1.6		NV		NV		0.5		2		5.5		11	
		Q2	0.0-0.5	0.00573		0.218		109		0.18		0.679		NV		1.85		43.4		51.1		3		4		7		12	
		Q2	0.8-1.3	NV		NV		NV		NV		NV		NV		NV		46.6		47.8		5.5		9		17		34.5	
		Q2	0.8-1.3	NV		NV		NV		NV		NV		NV		NV		41.2*		NV		NV		NV		NV		NV	
		Q2	2.3-2.8	NV		NV		NV		NV		NV		NV		NV		17.8*		47.2		4		7		11		21	
		Q2-Dup	2.3-2.8	NV		NV		NV		NV		NV		NV		NV		28.8		NV		3*		5*		9*		15*	
	C2	Q1	0.0-0.5	0.00529		0.136		92.6		0.171		0.247		0.0000078	U	1.74		NV		NV		1.5		3		6.5		12	
		Q2	0.0-0.5	0.00432		0.152		98.6		0.167		0.208		NV		1.68		34.7		61.7		2		5		8		12	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		21.3		NV		NV		NV		NV		NV	
		Q2	2.0-2.5	NV		NV		NV		NV		NV		NV		NV		20.8		NV		NV		NV		NV		NV	
	C3	Q1	0.0-0.5	0.00483		0.185		101		0.127		0.428		0.0000077	U	1.88		NV		NV		2		8		16.5		28	
		Q2	0.0-0.5	0.00467		0.294		84		0.123		0.108		NV		1.96		43.2		56.3		7		9		16		31	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		55.6		NV		NV		NV		NV		NV	
		Q2	2.4-2.9	NV		NV		NV		NV		NV		NV		NV		46.3		NV		NV		NV		NV		NV	
	C4	Q1	0.0-0.5	0.00511		0.401		125		0.132		0.184		0.0000075	U	1.86		NV		NV		5		12.5		21		35	
		Q2	0.0-0.5	0.0044*		0.352*		107		0.132		0.279		NV		1.81*		42.3*		54.6*		9		15		23		38.5	
		Q2-Dup	0.0-0.5	0.0044		0.364		92*		0.132*		0.0838*		NV		1.84		46.8		56.4		4*		8*		16*		24*	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		59.2		NV		NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		19.2		NV		NV		NV		NV		NV	
Transect D	D1	Q1	0.0-0.5	0.000951	J	0.0469		103		0.0889		0.155		0.0000075	U	1.17		NV		NV		4		10.5		18		29.5	
		Q2	0.0-0.5	0.00242		0.126		74.7		0.0784		0.163		NV		1.02		72.1		25.4		2		9		18.5		31	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		76.3		28.6		3		8		13		24	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		61.5		38.3		6		18		31		49	
	D2	Q1	0.0-0.5	0.000972	J	0.195		82.5		0.0875		0.058		0.0000076	U	1.04		NV		NV		11		15.5		31		48	
		Q2	0.0-0.5	0.00272		0.029		87.9		0.0815		0.0915		NV		0.989		72.4		28.3		5		10.5		18		35	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		69.1		NV		NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		41.1		NV		NV		NV		NV		NV	
	D3	Q1	0.0-0.5	0.000964	J	0.129	J	80.4		0.0869		0.115	K	0.0000076*	R	0.991		NV		NV		15		22		33		57	
		Q2	0.0-0.5	0.00322		0.154		86.7		0.101		0.36		NV		1.2		69.2		30.6		7		15		28		43	
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		74		NV		NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		50.1		NV		NV		NV		NV		NV	
	D4	Q1	0.0-0.5	0.00175		0.254		170		0.0912		0.372		0.0000076	U	1.1		NV		NV		4		10		18		26	
		Q2	0.0-0.5	0.00405		0.382		162		0.147		0.586		NV		1.74		48.6		46.8		9.5		15		22		34.5	
		Q2	0.8-1.3	NV		NV		NV		NV		NV		NV		NV		61.1		NV		NV		NV		NV		NV	
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		59.3		NV		NV		NV		NV		NV	

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Cadmium		Copper		Iron	Lead		Nickel		Mercury		Zinc		Moisture	Total Solids	0.001 mm	0.002 mm	0.005 mm	0.02 mm
			feet	umoles/g		umoles/g		umoles/g	umoles/g		umoles/g		umoles/g		umoles/g		%	%	% passing	% passing	% passing	% passing
Transect E	E1	Q1	0.0-0.5	0.000831	J	0.0604*		75.1	0.0769		0.0574*		0.0000078	U	0.893		NV	NV	13	18	21*	32*
		Q1-Dup	0.0-0.5	0.000801*	J	0.0992		47.9*	0.0445*		0.132		0.0000076*	U	0.801*		NV	NV	9*	17*	25	39
		Q2	0.0-0.5	0.00248		0.0465		68.5	0.0745		0.0557		NV		0.947		73.4	32	8	14.5	22	36
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		66.8	30.1	9	14	24	45
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		44.1	55.2	30	39	55	79
	E2	Q1	0.0-0.5	0.00199	J	0.135		139	0.0415		0.254		0.0000078	U	0.562		NV	NV	28	41	68	83
		Q2	0.0-0.5	0.00391		0.0947		77.6	0.0597		0.558		NV		0.684		49.2	29	19	36	53	73.5
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		41.5	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		40.9	NV	NV	NV	NV	NV
	E3	Q1	0.0-0.5	0.00351		0.196		105	0.0833		0.43		0.0000076	U	1.08		NV	NV	11	19.5	32	54
		Q2	0.0-0.5	0.00293		0.0469		97.4	0.087		0.335		NV		1.03		72.1	29.2	5	14	23	36
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		69.6	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		70.8	NV	NV	NV	NV	NV
	E4	Q1	0.0-0.5	0.00107	J	0.178		60.4	0.0867		0.0421		0.0000099	J	0.485		NV	NV	3.5	4	9	16
		Q2	0.0-0.5	0.00178		0.206		61	0.0855		0.277		NV		0.72		41.7	60.6	3	7	11	19.5
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		31	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		50.4	NV	NV	NV	NV	NV
Transect F	F1	Q1	0.0-0.5	0.000484	J	0.127		69.4	0.0526		0.0468		0.0000078	U	0.643		NV	NV	4.5	11	19	29
		Q2	0.0-0.5	0.00251		0.192		91.6	0.0692		1		NV		0.917		60.8	42.4	8	10.5	17	33
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		55.3	49.9	0.5	24	33	40.5
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		60.7	37.8	8	17	26	41
	F2	Q1	0.0-0.5	0.000518	J	0.168		80.6	0.0526		0.0498		0.0000078	U	0.615		NV	NV	31	40.5	60	82.5
		Q2	0.0-0.5	0.000825	J	0.151		109	0.0255		0.499		NV		0.161		26	77.1	17	22.5	31	42
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		37.9	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		38.3	NV	NV	NV	NV	NV
	F3	Q1	0.0-0.5	0.0038	J	0.288		172	0.15		0.0715		0.0000076	U	1.33		NV	NV	19	26	37.5	54.5
		Q2	0.0-0.5	0.00369		0.165		110	0.111		0.0784*		NV		1.13		71.4	26.3*	14	21	33	51
		Q2-Dup	0.0-0.5	0.00278*		0.105*		94.2*	0.0759*		0.163		NV		0.85*		71.2*	28.3	12*	19.5*	29.5*	45*
		Q2	1.2-1.7	NV		NV		NV	NV		NV		NV		NV		61.4	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		61.6	NV	NV	NV	NV	NV
	F4	Q1	0.0-0.5	0.00293		0.273		107	0.103		0.115		0.0000076	U	1.15		NV	NV	10	24	35	50
		Q2	0.0-0.5	0.00257		0.0602		75.1	0.0823		0.0434		NV		0.895		72.2	26.8	8	15	25	41
		Q2	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		63.7*	NV	NV	NV	NV	NV
		Q2-Dup	1.0-1.5	NV		NV		NV	NV		NV		NV		NV		64.5	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		61.1*	NV	NV	NV	NV	NV
		Q2-Dup	2.5-3.0	NV		NV		NV	NV		NV		NV		NV		61.2	NV	NV	NV	NV	NV

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Cadmium		Copper		Iron		Lead		Nickel		Mercury		Zinc		Moisture	Total Solids	0.001 mm	0.002 mm	0.005 mm	0.02 mm
			feet	umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		%	%	% passing	% passing	% passing	% passing
Transect G	G1	Q1	0.0-0.5	0.000141	U	0.0698		48.7		0.0213		0.17		0.0000076	U	0.262		NV	NV	8	9.5	11.5	16
		Q2	0.0-0.5	0.00239	J	0.0995	J	68.7	J	0.053	J	0.648	J	NV		0.574	J	32.5	61.5	1	4	6.5	12
		Q2	1.1-1.6	NV		NV		NV		NV		NV		NV		NV		41.7	60.1	11	13	22	39
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		34.6	61.6	10	15	24	44
	G2	Q1	0.0-0.5	0.00115		0.0881		80.7		0.0737		0.0571		0.0000078	U	0.844		NV	NV	6.5	9	15.5	26
		Q2	0.0-0.5	0.00294		0.2		68.4		0.0712		0.157		NV		0.858		68.8	31.5	7	11	18.5	35
		Q2	0.8-1.3	NV		NV		NV		NV		NV		NV		NV		56.7	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		34.5	NV	NV	NV	NV	NV
	G3	Q1	0.0-0.5	0.00155		0.137		74.3		0.0753		0.288		0.0000078	U	0.846		NV	NV	8	15	23	43.5
		Q2	0.0-0.5	0.00357		0.151		81.9		0.0821		0.443		NV		0.968		70.6	30.4	3	12	20	31
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		30.9	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		29.9	NV	NV	NV	NV	NV
	G4	Q1	0.0-0.5	0.0015		0.131		100		0.0892		0.285		0.0000078	U	1.02		NV	NV	8	12	20	36
		Q2	0.0-0.5	0.00297		0.0892		72.2		0.076		0.0556		NV		0.907		64.6	39.3	5	11	18	30
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		71.2	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		66.9	NV	NV	NV	NV	NV
Transect H	H1	Q1	0.0-0.5	0.0363		0.427		71		0.182		0.501		0.0000078	U	1.86		NV	NV	2	8	17	29
		Q2	0.0-0.5	0.00704	J	0.00789	J	61	J	0.0749	J	0.0444	J	NV		0.801	J	61.7	28.5	6	12	19	37
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		66.6	44.6	9	14	21	38
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		21.8	83.8	4	7	11	23
	H2	Q1	0.0-0.5	0.0149		0.23		48.7		0.0951		0.0391		0.0000077	U	0.976		NV	NV	4	4	5.5	13.5
		Q2	0.0-0.5	0.0109	J	0.0214	J	57.9	J	0.0958	J	0.269	J	NV		0.947	J	68.8	54.2	3	4	7	12
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		29.5	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		34.8	NV	NV	NV	NV	NV
	H3	Q1	0.0-0.5	0.00948		0.141		60.7		0.0928		0.0511		0.0000076	U	0.951		NV	NV	2	7	10	20
		Q2	0.0-0.5	0.0114	J	0.0181	J	36.2	J	0.0765	J	0.31	J	NV		0.721	J	49.4	29	8	17	26	39
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		54.4	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		50	NV	NV	NV	NV	NV
	H4	Q1	0.0-0.5	0.00437		0.225		82.6		0.0685		0.34		0.0000075	U	0.822		NV	NV	3	7.5	15	32
		Q2	0.0-0.5	0.0294	J	0.0916	J	58.9	J	0.151	J	0.252	J	NV		1.49	J	77.6	22.6	4.5	7	11.5	45
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		41.6	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		15.8	NV	NV	NV	NV	NV

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Cadmium		Copper		Iron		Lead		Nickel		Mercury		Zinc		Moisture	Total Solids	0.001 mm	0.002 mm	0.005 mm	0.02 mm
			feet	umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		umoles/g		%	%	% passing	% passing	% passing	% passing
Transect I	I1	Q1	0.0-0.5	0.142		1.02		63.4		0.387		0.306		0.0000076	U	4.69		NV	NV	0.5	2	6	17.5
		Q2	0.0-0.5	0.0746	J	0.000765	R	78.1	J	0.23	J	0.476	J	NV		3.19	J	32.5	72.1	0.5	2.5	8	15
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		25.7	59.3	3	4	7	13
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		34.2	48.4	5	7	10	14
	I2	Q1	0.0-0.5	0.088		0.533		59.9		0.349		0.626		0.0000077	U	3.14		NV	NV	3	6	9.5	20
		Q2	0.0-0.5	0.0856	J	0.0147	J	57.8	J	0.233	J	0.74	J	NV		3.01	J	53.1	51.2	3.5	5	7	15.5
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		56.8	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		59.6	NV	NV	NV	NV	NV
	I3	Q1	0.0-0.5	0.121		0.122		55.5		0.537		0.545		0.0000075	U	3.6		NV	NV	12	12	15.5	39
		Q2	0.0-0.5	0.169	J	0.000776	R	32.7	J	0.493	J	0.0415	J	NV		5.56	J	68.8	27.9	6	16	29	47
		Q2	1.0-1.5	NV		NV		NV		NV		NV		NV		NV		65.2	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV		NV		NV		NV		NV		NV		NV		60.6	NV	NV	NV	NV	NV
	I4	Q1	0.0-0.5	0.192		0.0928		74.4		0.631		0.536		0.0000077	U	4.99		NV	NV	4	15	27	45
		Q2	0.0-0.5	0.0759	J	0.00458	J	40.8	J	0.324	J	0.293	J	NV		3.16	J	60.2	43.6	10	15	31	50.5
		Q2	0.8-1.3	NV		NV		NV		NV		NV		NV		NV		69.5	NV	NV	NV	NV	NV
		Q2	2.1-2.6	NV		NV		NV		NV		NV		NV		NV		62.2	NV	NV	NV	NV	NV
Transect J	J1	Q4	0.0 - 0.5	0.00907		0.296		162		0.214		0.295		NV		2.53		33.8	NV	0.5	0.5	0.5	1
		Q4	0.8-1.3	0.00848		0.657		104		0.559		0.307		NV		1.6		19.1	NV	6	8	13	26
		Q4	2.5-3.0	0.00478		0.226		79.8		0.121		0.175		NV		1.39		46.8	NV	11	20	34	60
	J2	Q4	0.0 - 0.5	0.00571		0.154		127		0.0646		0.414		NV		1.2		32	NV	1	2	4	10
		Q4	1.0-1.5	0.00545		0.352		104		0.131		0.156		NV		2.29		31.6	NV	5	10	17	30
		Q4	2.5-3.0	0.0115		0.24		45.8		0.186		0.176		NV		3.12		18.9	NV	1	1	1	5
	J3	Q4	0.0 - 0.5	0.00138		0.151		89.4		0.0539		0.22		NV		0.946		35.6	NV	1	1	2	6
		Q4	0.6-1.0	0.00261		0.187		63.8		0.0736		0.0847		NV		1.16		20.9	NV	2	3	6	8
		Q4	2.5-3.0	0.000142		0.0335		12.1		0.0037		0.00362		NV		0.0122		31.2	NV	16	23	33	58
	J4	Q4	0.0 - 0.5	0.00718		0.19		121		0.0814		0.345		NV		2.57		34	NV	0.5	0.5	0.5	1
		Q4	0.5-1.0	0.00189		0.261		192		0.154		0.686		NV		4.24		23.3	NV	1	1	1	3
		Q4	2.5-3.0	0.00014	U	0.00699		1.11		0.0018		0.00429		NV		0.0092		15	NV	1	1	1	2

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.05 mm	0.064 mm	0.075 mm	0.15 mm	0.3 mm	0.6 mm	1.18 mm	2.36 mm	3.35 mm	4.75 mm	19 mm	37.5 mm	75 mm
			feet	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect A	A1	Q1	0.0-0.5	13	21.5	27.2	67.9	93.3	97.8	99.4	99.9	100	100	100	100	100
		Q2	0.0-0.5	25	44	53.7	74.5	96.3	98.7	99.5	99.8	99.9	100	100	100	100
		Q2	0.9-1.4	32	38	40.6	50.9	62.1	77.6	91.6	99.4	99.8	99.9	100	100	100
		Q2	2.5-3.0	3	2	2.2	2.4	55.9	99.4	99.8	99.9	100	100	100	100	100
	A2	Q1	0.0-0.5	3	3.5	3.9	5.5	55.4	99.3	99.8	99.9	100	100	100	100	100
		Q2	0.0-0.5	2	2	2.2	3.6	60.1	99.4	99.9	100	100	100	100	100	100
		Q2	0.9-1.4	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	A3	Q1	0.0-0.5	2	2	2.1	3.4	56.1	97.8	99.9	100	100	100	100	100	100
		Q2	0.0-0.5	2	2.5	2.7	3.6	50.7	95.4	98.8	100	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	A4	Q1	0.0-0.5	1.5	1.5	1.9	9	70.4	98.1	99.4	99.9	100	100	100	100	100
		Q2	0.0-0.5	2.5	2.5	2.9	9	64.2	98.2	99.8	99.8	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Transect B	B1	Q1	0.0-0.5	28	45.5	55.4	90	95.2	97.1	99	99.9	100	100	100	100	100
		Q2	0.0-0.5	37.5	58	71.9	90.8	96.9	98.8	99.5	99.9	100	100	100	100	100
		Q2	0.8-1.3	28	34	35.8	43.6	57.5	84.5	97.7	99.8	99.9	100	100	100	100
		Q2	2.5-3.0	94	96	96.7	98.4	98.8	99.3	99.4	99.4	99.9	100	100	100	100
	B2	Q1	0.0-0.5	17.5	25	29.4	43.9	68.7	92.5	98.5	99.9	100	100	100	100	100
		Q2	0.0-0.5	23	31	34.8	49.3	73.3	95.1	99.2	99.9	100	100	100	100	100
		Q2	0.6-1.1	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	1.9-2.4	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	B3	Q1	0.0-0.5	75	80.5	85	93.8	96.5	98	98.9	99.2	99.8	99.9	100	100	100
		Q2	0.0-0.5	81	86	88.4	94.2	96.9	99.2	99.7	99.7	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	B4	Q1	0.0-0.5	60.5*	68.5*	76.4*	92.6	95.9	97.4	98.9	99.2	99.8	99.9	100	100	100
		Q1-Dup	0.0-0.5	62	69	76.5	92.2*	95.8*	97.2*	98.4*	99.2*	99.7*	99.9*	100*	100*	100*
		Q2	0.0-0.5	65	71	76.6	93.1	96.1	97.8	99.2	99.8	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	B5	Q4	0.0 - 0.5	3	3.5	4.5*	17.5*	57.1*	90.5*	99	100	100	100	100	100	100
		Q4-Dup	0.0 - 0.5	2*	2.5*	4.7	19.8	58.7	90.7	99*	100*	99.9*	100*	100*	100*	100*
		Q4	0.5-1.0	6.5	8.5	9.4	17.9	46.1	80.8	95.7	100	100	100	100	100	100
		Q4	2.3-2.9	2	3.5	4.5	9.5	33.1	81	98.5	100	99.9	100	100	100	100

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.05 mm	0.064 mm	0.075 mm	0.15 mm	0.3 mm	0.6 mm	1.18 mm	2.36 mm	3.35 mm	4.75 mm	19 mm	37.5 mm	75 mm
			feet	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect C	C1	Q1	0.0-0.5	23	34	38.9	58.9	77.4	94.6	98.5	99.3	99.9	99.9	100	100	100
		Q2	0.0-0.5	31	40.5	47.8	72.6	86	96.7	99.3	99.8	100	100	100	100	100
		Q2	0.8-1.3	48	54.5	57.6	65.2	75.8	87.2	95	99.3	99.9	99.9	100	100	100
		Q2	0.8-1.3	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.3-2.8	27	29	30.9	38	56.4*	80.4*	91.6*	99.7	99.9	99.9*	100	100	100
		Q2-Dup	2.3-2.8	20*	25*	25.8*	33.9*	57.4	89.3	97.2	99.7*	99.9*	100	100*	100*	100*
	C2	Q1	0.0-0.5	23	30	35.1	64.8	86.8	97.8	99	99.7	99.9	99.9	100	100	100
		Q2	0.0-0.5	19.5	24	27.8	56.5	83.4	97.1	99.1	99.9	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.0-2.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	C3	Q1	0.0-0.5	41.5	50	54.2	69.4	80.3	97.4	98.9	99.3	99.9	100	100	100	100
		Q2	0.0-0.5	49.5	60	64.5	76.1	85.4	93.3	98.6	99.6	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.4-2.9	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	C4	Q1	0.0-0.5	55	61	64.6	78.9	87.7	94.3	98.7	99.5	99.8	99.9	100	100	100
		Q2	0.0-0.5	56	61	65.2	78.7	87.2	94.2*	98.8*	99.9	100	100	100	100	100
		Q2-Dup	0.0-0.5	38.5*	48*	52.3*	64.3*	73.6*	98	99.6	99.6*	99.9*	100*	100*	100*	100*
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Transect D	D1	Q1	0.0-0.5	45.5	53	55.8	60.2	66.5	76.4	93.3	98.9	99.3	99.6	100	100	100
		Q2	0.0-0.5	50	62	67.8	71.8	77.2	86	98	99.6	99.9	99.9	100	100	100
		Q2	1.0-1.5	38	46	48.3	54.3	62.2	74	92.3	99.7	99.8	99.9	100	100	100
		Q2	2.5-3.0	64	70	72.2	75.8	80.1	86.9	95.8	99.4	99.8	99.9	100	100	100
	D2	Q1	0.0-0.5	68	70	82	84.5	87.4	92.3	98.7	99.5	99.8	99.9	100	100	100
		Q2	0.0-0.5	55	67	73	76.3	80.4	87.6	97.9	99.5	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	D3	Q1	0.0-0.5	76	85	89.5	91.1	92.6	95.2	98.5	99.5	99.8	99.9	100	100	100
		Q2	0.0-0.5	67	80	88.5	91.2	93.6	96.8	99.2	99.4	99.8	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	D4	Q1	0.0-0.5	36.5	41.5	44.5	53.5	68	93.3	98.6	99.7	99.9	99.9	100	100	100
		Q2	0.0-0.5	44	48	50	59	72.2	93.4	98.8	99.8	100	100	100	100	100
		Q2	0.8-1.3	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.05 mm	0.064 mm	0.075 mm	0.15 mm	0.3 mm	0.6 mm	1.18 mm	2.36 mm	3.35 mm	4.75 mm	19 mm	37.5 mm	75 mm
			feet	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect E	E1	Q1	0.0-0.5	50*	62*	67.4*	72.6*	80.4*	88.6*	97.1*	99.6	99.8*	99.9	100	100	100
		Q1-Dup	0.0-0.5	56.5	67	71.3	76.6	83.3	89.9	97.7	99.5*	99.9	99.9*	100*	100*	100*
		Q2	0.0-0.5	48	56	59	63.1	70.1	78.5	92.5	99.8	99.9	100	100	100	100
		Q2	1.0-1.5	58	65	68.7	73.4	79.5	85.7	90.9	91.8	92	92.1	92.2	92.2	100
		Q2	2.5-3.0	92	95	96.6	97.7	98.7	99.3	99.5	99.5	99.9	99.9	100	100	100
	E2	Q1	0.0-0.5	92.5	94	95	96.7	98	98.7	99.2	99.5	99.9	99.9	100	100	100
		Q2	0.0-0.5	86	91	93.1	95	97.4	99	99.3	99.4	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	E3	Q1	0.0-0.5	65	67.5	68.5	74.1	81.5	88.9	97.1	99.8	100	100	100	100	100
		Q2	0.0-0.5	58	72	81.2	85.9	90.9	95.4	99	99.5	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	E4	Q1	0.0-0.5	21	22	25.2	39.3	63.8	87.4	97.4	99.9	100	100	100	100	100
		Q2	0.0-0.5	28.5	32	35	46.2	66.2	88	97.8	99.9	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Transect F	F1	Q1	0.0-0.5	39	42.5	44.1	49.1	61.1	86.3	97.9	99.6	99.9	99.9	100	100	100
		Q2	0.0-0.5	40	43	44.9	51	65	89.4	98.1	99.9	100	100	100	100	100
		Q2	1.0-1.5	54	61	63.5	67.4	75.2	90.3	98.4	99.6	99.9	100	100	100	100
		Q2	2.5-3.0	54	59	61.1	65.1	73.3	86.8	96.9	99.5	99.9	100	100	100	100
	F2	Q1	0.0-0.5	89	90	90.3	91.1	92	94.7	98	99.6	99.9	99.9	100	100	100
		Q2	0.0-0.5	46	47	47.1	49.4	55	72.9	90.3	99.3	99.7	99.7	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	F3	Q1	0.0-0.5	73	83.5	88.2	90.3	93.1	96.5	99.2	99.5	99.8	99.9	100	100	100
		Q2	0.0-0.5	64	69	71.6	74.8	80.3	88.3	97.2	99.5*	100	100	100	100	100
		Q2-Dup	0.0-0.5	57.5*	63*	66.8*	70*	75.4*	84*	94.1*	99.6	99.9*	100*	100*	100*	100*
		Q2	1.2-1.7	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	F4	Q1	0.0-0.5	69	71	85.1	86.8	89.2	93	98.4	99.6	99.9	99.9	100	100	100
		Q2	0.0-0.5	65	75	82.1	84.6	88	93.1	98.6	99.5	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2-Dup	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2-Dup	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.05 mm	0.064 mm	0.075 mm	0.15 mm	0.3 mm	0.6 mm	1.18 mm	2.36 mm	3.35 mm	4.75 mm	19 mm	37.5 mm	75 mm
			feet	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect G	G1	Q1	0.0-0.5	19.5	21	21.9	26.5	41.4	84.4	97.1	99.9	100	100	100	100	100
		Q2	0.0-0.5	15	16	16.5	20.9	35.2	84.2	97.9	99.8	100	100	100	100	100
		Q2	1.1-1.6	67	71	74.1	89.3	93	97.2	99.1	99.5	99.9	99.9	100	100	100
		Q2	2.5-3.0	61	71	76.5	93.8	96.2	97.2	98	98.3	98.8	98.8	98.9	100	100
	G2	Q1	0.0-0.5	40	42	56	65	79.8	93.4	97.6	98.6	99.5	99.7	100	100	100
		Q2	0.0-0.5	55	67	74.9	81.3	88.9	95.8	99.1	99.5	99.9	99.9	100	100	100
		Q2	0.8-1.3	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	G3	Q1	0.0-0.5	55	61.5	64.9	76.9	86.6	95.4	98.5	99.6	99.8	99.9	100	100	100
		Q2	0.0-0.5	53	66	74	79.3	86.4	93.3	98.5	99.4	99.9	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	G4	Q1	0.0-0.5	51.5	59	62.3	71.2	84.4	92.7	96.5	97.1	97.6	99.9	100	100	100
		Q2	0.0-0.5	45	51	54.8	66.7	83.1	96.6	99.2	99.5	99.8	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Transect H	H1	Q1	0.0-0.5	50	62	70.5	78.1	87.2	93	97.7	99.4	99.9	99.9	100	100	100
		Q2	0.0-0.5	53	61.5	66.5	74.2	81.7	89.1	97.6	99.6	99.9	100	100	100	100
		Q2	1.0-1.5	57	68	73.1	80.1	87.2	92.7	97.9	99.3	99.7	99.8	100	100	100
		Q2	2.5-3.0	32	39	41.2	55.2	75.5	94.9	98.7	99.4	99.9	99.9	100	100	100
	H2	Q1	0.0-0.5	18	19.5	20.3	26.5	54.9	90.7	98.4	99.8	99.9	100	100	100	100
		Q2	0.0-0.5	19	26	29.6	35.5	58.1	89.3	97.4	99.7	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	H3	Q1	0.0-0.5	35	43	47.5	57.1	69	91.7	98.1	99.6	99.8	99.9	100	100	100
		Q2	0.0-0.5	57	64	68.6	76	87.2	94.5	98.8	99.5	99.9	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	H4	Q1	0.0-0.5	44	49.5	52.3	57.2	70.4	88.5	99.6	99.6	99.9	99.9	100	100	100
		Q2	0.0-0.5	55	58	59.5	64	72.2	83.6	95.5	99.6	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV

Appendix E-3a
Data from Sediment Sampling Events
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.05 mm	0.064 mm	0.075 mm	0.15 mm	0.3 mm	0.6 mm	1.18 mm	2.36 mm	3.35 mm	4.75 mm	19 mm	37.5 mm	75 mm
			feet	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect I	I1	Q1	0.0-0.5	26	32.5	35.9	49.9	77.9	97.3	99.3	99.7	99.9	99.9	100	100	100
		Q2	0.0-0.5	26	31.5	35.9	54.3	82.8	97.8	99.1	99.2	99.9	99.9	100	100	100
		Q2	1.0-1.5	21	28	32.2	54.3	88.9	98.3	99.3	99.6	99.9	99.9	100	100	100
		Q2	2.5-3.0	20	25	27.4	43.6	79.7	98.5	99.5	99.7	100	100	100	100	100
	I2	Q1	0.0-0.5	36.5	43.5	47.2	63.6	87	97.2	98.9	99.4	99.8	99.9	100	100	100
		Q2	0.0-0.5	33	46.5	52.1	72.6	89.9	97.3	99.3	99.7	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	I3	Q1	0.0-0.5	48	50	51.4	57.9	66.3	75.4	88.4	99.3	99.8	99.9	100	100	100
		Q2	0.0-0.5	65	73	77.7	82.8	90	95.9	99.4	99.8	100	100	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
	I4	Q1	0.0-0.5	60	65.5	68.6	72.9	78.5	89.5	96.8	99.4	99.7	99.8	100	100	100
		Q2	0.0-0.5	68	76	79.7	85.3	89.7	94.4	99.2	99.4	99.9	100	100	100	100
		Q2	0.8-1.3	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.1-2.6	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Transect J	J1	Q4	0.0 - 0.5	2	5	7.8	40.3	81.5	97.2	98.9	100	99.9	100	100	100	100
		Q4	0.8-1.3	34	37	39.4	49.5	68.8	90.1	97.9	100	99.9	99.9	100	100	100
		Q4	2.5-3.0	72	76	78.1	91.1	96.2	98.6	99.6	100	99.7	99.9	100	100	100
	J2	Q4	0.0 - 0.5	18	25	29.6	58.7	83.7	94	98	100	99.8	100	100	100	100
		Q4	1.0-1.5	38	40	41.6	48.7	68.7	98.3	99.6	100	99.9	99.9	100	100	100
		Q4	2.5-3.0	7	8	8.5	10.2	33.4	98.1	99.7	100	100	100	100	100	100
	J3	Q4	0.0 - 0.5	23	33	38.1	62.7	82.3	94.2	98.3	100	99.8	99.9	100	100	100
		Q4	0.6-1.0	15	23	26.9	73.4	98.5	99.5	99.7	100	99.8	100	100	100	100
		Q4	2.5-3.0	79	86	88.5	93.8	96.8	98.8	99.5	100	99.5	99.9	100	100	100
	J4	Q4	0.0 - 0.5	3	4	6.8	36.5	91.2	98.7	99.6	100	99.9	100	100	100	100
		Q4	0.5-1.0	4	5.5	7.1	33.2	90.5	98.7	99.8	100	99.9	100	100	100	100
		Q4	2.5-3.0	2	2	2.5	4.1	58.3	98.6	99.7	100	99.9	100	100	100	100

* = datum not used (because it is the lower pair of a duplicate, or the datum was rejected)

mg/kg = Milligram/Kilogram
mm = Millimeters
NV = No Value, no analysis performed
TOC = Total organic carbon
umoles/g = Micromoles per Gram

Qualifiers:
J = Estimated value
K= Analyte is present but flagged as a high bias, usually associated with MS/MSD, LCS, LCSD spike recoveries.
U = Not detected

Appendix E-3b
Data from Sediment Reference Location Sampling
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Aluminum		Calcium		Magnesium		Iron		Divalent Manganese		Chromium	
				mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Transect 37	37	Q1	0.0-0.5	37,500		200		8,280		49,800		0.97		127	
		Q2	0.0-0.5	41,400		7,570		10,000		72,600		6.704		161	
		Q2	1.0-1.5	31,500		2,440		8,120		48,400		NV		147	
		Q2	2.5-3.0	34,700		1,940		9,750		46,300		NV		84.9	
	37A	Q1	0.0-0.5	36,200		2,660		7,990		47,800		3.773		95.6	
		Q2	0.0-0.5	37,100		2,520		9,430		54,900		2.445	U	124	
		Q2	1.0-1.5	36,200		1,930		9,100		46,700		NV		99.4	
		Q2	2.5-3.0	36,100		1,870		10,100		45,200		NV		55.3	
	37B	Q1	0.0-0.5	35,700		1,900		8,370		47,200		0.658		89.2	
		Q2	0.0-0.5	36,100		2,530		8,850		56,200		2.44	U	166	
		Q2	1.2-1.7	37,900		2,090		9,980		45,500		2.353	U	55.8	
		Q2	2.5-3.0	37,600		1,860		9,460		45,800		2.32	U	75.4	

Appendix E-3b
Data from Sediment Reference Location Sampling
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Ferrous Iron	Manganese	Vanadium	Sulfide	TOC	Acid Volatile Sulfide	Cadmium	Copper	Iron
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	umoles/g	umoles/g	umoles/g	umoles/g
Transect 37	37	Q1	0.0-0.5	10,800	1,470	80.5	2,110	27,000	29.8	0.00273	0.109	103
		Q2	0.0-0.5	10,800	1,770	127	2,490	22,000	20.3	0.0015	0.0374	66.4
		Q2	1.0-1.5	NV	1,550	98	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	1,470	74.8	NV	NV	NV	NV	NV	NV
	37A	Q1	0.0-0.5	7,950	1,210	80.5	2,960	27,000	24.9	0.00286	0.159	87.8
		Q2	0.0-0.5	11,000	1,650	92.2	1,260	29,000	14.7	0.0019	0.0914	69.5
		Q2	1.0-1.5	NV	1,290	76.8	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	1,490	67.9	NV	NV	NV	NV	NV	NV
	37B	Q1	0.0-0.5	9,170	1,620	77.2	775	25,000	9.7	0.00312	0.262	115
		Q2	0.0-0.5	2,230	1,680	107	1,540	23,000	22	0.00163	0.0676	75.9
		Q2	1.2-1.7	4,200	1,670	71	656	26,000	NV	NV	NV	NV
		Q2	2.5-3.0	4,710	1,560	75.2	692	26,000	NV	NV	NV	NV

Appendix E-3b
Data from Sediment Reference Location Sampling
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	Lead	Nickel	Mercury		Zinc	Moisture	Total Solids
				umoles/g	umoles/g	umoles/g		umoles/g	%	%
Transect 37	37	Q1	0.0-0.5	0.069	0.14	7.7E-06	U	0.775	61.9	22.6
		Q2	0.0-0.5	0.0565	0.166	NV		0.585	74	20.8
		Q2	1.0-1.5	NV	NV	NV		NV	74.4	NV
		Q2	2.5-3.0	NV	NV	NV		NV	60.3	NV
	37A	Q1	0.0-0.5	0.075	0.0663	7.8E-06	U	0.792	67.8	19.2
		Q2	0.0-0.5	0.0681	0.161	NV		0.681	73.5	22
		Q2	1.0-1.5	NV	NV	NV		NV	64.9	NV
		Q2	2.5-3.0	NV	NV	NV		NV	59.4	NV
	37B	Q1	0.0-0.5	0.0913	0.185	7.7E-06	U	0.992	62.5	27.6
		Q2	0.0-0.5	0.0635	0.081	NV		0.649	71.4	24.6
		Q2	1.2-1.7	NV	NV	NV		NV	55.7	39.3
		Q2	2.5-3.0	NV	NV	NV		NV	52.9	46.8

Appendix E-3b
Data from Sediment Reference Location Sampling
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.001 mm	0.002 mm	0.005 mm	0.02 mm	0.05 mm	0.064 mm	0.075 mm	0.15 mm	0.3 mm
				% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect 37	37	Q1	0.0-0.5	41	43	56	71	84	88.5	90.6	91.7	93.5
		Q2	0.0-0.5	9	17	28.5	43	65	76	82.6	84.2	87.2
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV
	37A	Q1	0.0-0.5	23	36	50	78	81	88	89.8	90.6	91.8
		Q2	0.0-0.5	13	26	41	49	69	79	85.2	86.6	89.1
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV	NV
	37B	Q1	0.0-0.5	21	34	48	61	83	90	92.7	93.5	94.8
		Q2	0.0-0.5	8	18	31.5	46	70	84	91.3	92.4	94.6
		Q2	1.2-1.7	36	48	62	85	94.5	98.5	99.2	99.3	99.4
		Q2	2.5-3.0	39	51.5	64.5	82.5	93.5	98	98.1	98.4	98.8

Appendix E-3b
Data from Sediment Reference Location Sampling
Dundalk Marine Terminal, Baltimore, Maryland

Transect	Sample	Quarter	Depth	0.6 mm	1.18 mm	2.36 mm	3.35 mm	4.75 mm	19 mm	37.5 mm	75 mm
				% passing	% passing	% passing	% passing	% passing	% passing	% passing	% passing
Transect 37	37	Q1	0.0-0.5	96.1	98.8	99.7	99.9	100	100	100	100
		Q2	0.0-0.5	92.7	98.5	99.4	99.7	99.8	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV
	37A	Q1	0.0-0.5	94	97.2	99.6	99.9	99.9	100	100	100
		Q2	0.0-0.5	93.1	98.2	99.6	99.9	99.9	100	100	100
		Q2	1.0-1.5	NV	NV	NV	NV	NV	NV	NV	NV
		Q2	2.5-3.0	NV	NV	NV	NV	NV	NV	NV	NV
	37B	Q1	0.0-0.5	96.5	98.8	99.6	99.9	99.9	100	100	100
		Q2	0.0-0.5	97.5	99.3	99.4	99.8	99.9	100	100	100
		Q2	1.2-1.7	99.5	99.6	99.7	99.9	99.9	100	100	100
		Q2	2.5-3.0	99.3	99.6	99.6	99.9	99.9	100	100	100

mg/kg = Milligram/Kilogram
mm = Millimeters
NV = No Value, no analysis performed
TOC = Total organic carbon
umoles/g = Micromoles per Gram

Qualifiers:
U = Not detected