



US Army Corps of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	
7/1/13 12:00 AM	354.00	5.10	8.90	7.60	0.00	8.90	19.20	7.60	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:15 AM	16.00	6.90	8.30	8.20	0.00	8.30	17.40	8.20	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:30 AM	8.00	5.70	8.90	8.30	0.00	8.90	17.00	8.30	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:45 AM	8.00	5.50	8.70	9.10	0.40	8.70	14.90	9.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:00 AM	4.00	4.80	8.30	8.70	0.40	8.30	14.50	8.70	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:15 AM	7.00	6.60	8.80	9.10	0.30	8.80	14.90	9.10	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:30 AM	18.00	5.40	8.90	9.00	0.10	8.90	14.50	9.00	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:45 AM	3.00	6.10	8.90	8.90	0.00	8.90	13.60	8.90	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:00 AM	16.00	5.50	8.60	9.00	0.40	8.60	14.00	9.00	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:15 AM	1.00	4.20	0.00	9.20	0.00	0.00	15.30	9.20	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:30 AM	33.00	3.80	8.70	9.40	0.70	8.70	16.00	9.40	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:45 AM	43.00	5.50	8.80	9.90	1.10	8.80	15.10	9.90	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:00 AM	35.00	3.60	10.00	9.90	0.00	10.00	14.30	9.90	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:15 AM	55.00	6.10	12.60	11.70	0.00	12.60	16.40	11.70	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:30 AM	41.00	4.30	11.90	15.70	3.80	11.90	15.40	15.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:45 AM	32.00	6.60	12.60	21.30	8.70	12.60	17.00	21.30	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:00 AM	26.00	5.10	11.00	19.10	8.10	11.00	22.10	19.10	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:15 AM	40.00	5.50	12.40	22.20	9.80	12.40	21.30	22.20	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:30 AM	37.00	5.70	11.70	19.80	8.10	11.70	17.70	19.80	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:45 AM	51.00	4.60	11.20	18.50	7.30	11.20	24.90	18.50	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 5:00 AM	40.00	6.00	12.50	22.10	9.60	12.50	22.50	22.10	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 5:15 AM	43.00	9.10	12.70	19.60	6.90	12.70	20.30	19.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 5:30 AM	22.00	6.30	12.80	19.80	7.00	12.80	23.40	19.80	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 5:45 AM	26.00	5.50	12.80	17.50	4.70	12.80	22.60	17.50	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 6:00 AM	27.00	8.20	9.80	11.10	1.30	9.80	13.20	11.10	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 6:15 AM	47.00	6.80	9.40	9.90	0.50	9.40	9.40	9.90	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 6:30 AM	31.00	6.10	10.60	11.60	1.00	10.60	10.20	11.60	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 6:45 AM	28.00	6.10	8.50	8.30	0.00	8.50	9.70	8.30	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 7:00 AM	21.00	8.60	8.80	15.80	7.00	8.80	7.90	15.80	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 7:15 AM	14.00	7.50	9.20	12.00	2.80	9.20	11.20	12.00	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 7:30 AM	35.00	8.80	12.30	14.00	1.70	12.30	8.50	14.00	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 7:45 AM	32.00	7.00	11.30	19.30	8.00	11.30	9.70	19.30	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 8:00 AM	39.00	6.70	10.40	18.30	7.90	10.40	9.40	18.30	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 8:15 AM	30.00	7.70	8.50	17.90	9.40	8.50	9.70	17.90	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 8:30 AM	22.00	8.20	8.10	16.30	8.20	8.10	11.30	16.30	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 8:45 AM	29.00	6.40	8.00	11.30	3.30	8.00	11.70	11.30	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 9:00 AM	42.00	6.30	8.70	15.60	6.90	8.70	13.70	15.60	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 9:15 AM	30.00	7.20	10.60	16.50	5.90	10.60	13.90	16.50	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 9:30 AM	21.00	8.60	10.10	13.80	3.70	10.10	14.10	13.80	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 9:45 AM	20.00	8.40	11.40	15.20	3.80	11.40	16.10	15.20	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 10:00 AM	26.00	7.80	12.80	18.80	6.00	12.80	16.20	18.80	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 10:15 AM	14.00	9.20	14.10	23.80	9.70	14.10	16.50	23.80	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 10:30 AM	21.00	7.30	14.70	20.30	5.60	14.70	18.50	20.30	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 10:45 AM	16.00	8.00	11.80	17.10	5.30	11.80	14.90	17.10	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 11:00 AM	22.00	8.40	15.50	18.50	3.00	15.50	22.90	18.50	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 11:15 AM	26.00	10.00	13.20	15.30	2.10	13.20	17.00	15.30	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 11:30 AM	21.00	9.70	14.00	16.10	2.10	14.00	18.70	16.10	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 11:45 AM	17.00	9.30	14.70	15.40	0.70	14.70	24.50	15.40	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:00 PM	44.00	9.30	15.00	17.40	2.40	15.00	18.60	17.40	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:15 PM	24.00	11.30	14.20	17.30	3.10	14.20	20.00	17.30	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:30 PM	24.00	12.10	15.50	15.80	0.30	15.50	17.60	15.80	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 12:45 PM	31.00	7.60	15.40	16.40	1.00	15.40	23.70	16.40	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:00 PM	27.00	10.90	14.00	21.40	7.40	14.00	21.50	21.40	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:15 PM	37.00	9.40	13.90	22.70	8.80	13.90	20.10	22.70	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:30 PM	33.00	8.80	14.90	19.80	4.90	14.90	21.60	19.80	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 1:45 PM	37.00	8.20	15.80	23.30	7.50	15.80	20.20	23.30	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:00 PM	5.00	10.10	15.00	22.80	7.80	15.00	19.40	22.80	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:15 PM	26.00	10.70	18.40	21.60	3.20	18.40	21.70	21.60	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:30 PM	29.00	8.50	15.80	18.80	3.00	15.80	20.80	18.80	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 2:45 PM	27.00	10.20	16.90	19.40	2.50	16.90	27.00	19.40	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:00 PM	17.00	9.90	17.40	20.20	2.80	17.40	24.80	20.20	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:15 PM	25.00	8.30	19.50	19.30	0.00	19.50	22.00	19.30	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:30 PM	27.00	9.40	19.00	20.80	1.80	19.00	20.60	20.80	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 3:45 PM	37.00	9.70	17.10	19.10	2.00	17.10	20.40	19.10	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:00 PM	24.00	10.50	18.40	27.30	0.20	18.40	27.30	18.60	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:15 PM	34.00	11.60	22.60	18.60	0.00	22.60	19.60	18.60	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/1/13 4:30 PM	33.00	10.70	20.														



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of Engineers**

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Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/2/13 12:45 AM	61.00	6.10	13.00	14.10	1.10	13.00	16.50	14.10	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:00 AM	59.00	4.90	16.40	18.00	1.60	16.40	34.10	18.00	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:15 AM	54.00	4.80	17.20	16.50	0.00	17.20	22.80	16.50	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:30 AM	59.00	6.40	22.40	16.70	0.00	22.40	23.00	16.70	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:45 AM	55.00	5.10	25.50	16.20	0.00	25.50	23.10	16.20	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:00 AM	49.00	5.60	41.00	59.60	18.60	41.00	48.00	59.60	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:15 AM	48.00	6.70	22.90	47.00	24.10	22.90	58.40	47.00	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:30 AM	50.00	5.70	19.20	20.90	1.70	19.20	43.50	20.90	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:45 AM	47.00	4.00	23.00	28.50	5.50	23.00	39.20	28.50	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:00 AM	66.00	4.80	12.80	10.80	0.00	12.80	15.60	10.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:15 AM	55.00	3.50	17.40	18.30	0.90	17.40	29.40	18.30	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:30 AM	46.00	7.00	15.00	18.00	3.00	15.00	21.90	18.00	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:45 AM	62.00	5.10	28.70	26.30	0.00	28.70	34.30	26.30	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:00 AM	45.00	5.00	24.00	32.10	8.10	24.00	68.90	32.10	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:15 AM	58.00	6.10	18.70	26.20	7.50	18.70	34.90	26.20	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:30 AM	64.00	6.40	17.00	19.10	2.10	17.00	18.80	19.10	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:45 AM	50.00	6.50	21.00	16.80	0.00	21.00	16.60	16.80	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:00 AM	47.00	6.20	20.80	25.30	4.50	20.80	18.10	25.30	26.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:15 AM	55.00	5.30	16.00	12.80	0.00	16.00	18.90	12.80	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:30 AM	41.00	4.80	33.00	20.40	0.00	33.00	22.40	20.40	26.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:45 AM	42.00	6.80	22.70	18.50	0.00	22.70	27.90	18.50	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 6:00 AM	39.00	6.50	17.40	10.80	0.00	17.40	23.70	10.80	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 6:15 AM	30.00	6.80	16.30	10.00	0.00	16.30	17.60	10.00	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 6:30 AM	41.00	7.30	17.50	16.90	0.00	17.50	21.70	16.90	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 6:45 AM	55.00	7.20	14.90	9.60	0.00	14.90	19.50	9.60	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 7:00 AM	53.00	9.60	14.90	9.60	0.00	14.90	9.10	7.90	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 7:15 AM	54.00	5.70	14.30	8.10	0.00	14.30	8.40	8.10	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 7:30 AM	43.00	5.90	19.10	13.00	0.00	19.10	11.00	13.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 7:45 AM	44.00	6.60	18.50	11.80	0.00	18.50	8.80	11.80	22.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 8:00 AM	53.00	7.30	14.00	9.10	0.00	14.00	9.20	9.10	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 8:15 AM	37.00	7.60	13.20	9.10	0.00	13.20	9.90	9.10	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 8:30 AM	47.00	6.00	18.30	7.90	0.00	18.30	11.40	7.90	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 8:45 AM	45.00	7.60	15.60	13.40	0.00	15.60	14.30	13.40	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 9:00 AM	59.00	5.20	21.20	15.60	0.00	21.20	12.90	15.60	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 9:15 AM	46.00	7.40	17.70	15.50	0.00	17.70	14.90	15.50	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 9:30 AM	54.00	7.20	18.60	19.00	0.40	18.60	18.90	19.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 9:45 AM	29.00	7.70	21.60	16.90	0.00	21.60	14.30	16.90	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 10:00 AM	18.00	7.00	15.40	11.80	0.00	15.40	11.90	11.80	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 10:15 AM	45.00	9.20	18.90	14.20	0.00	18.90	12.40	14.20	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 10:30 AM	47.00	8.10	20.70	15.40	0.00	20.70	14.30	15.40	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 10:45 AM	38.00	8.20	20.60	15.00	0.00	20.60	19.00	15.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 11:00 AM	40.00	5.90	20.20	16.40	0.00	20.20	23.40	16.40	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 11:15 AM	48.00	8.90	24.60	19.10	0.00	24.60	22.40	19.10	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 11:30 AM	42.00	7.70	21.00	17.80	0.00	21.00	21.00	17.80	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 11:45 AM	36.00	9.50	20.90	17.70	0.00	20.90	23.60	17.70	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 12:00 PM	42.00	6.20	21.60	20.40	0.00	21.60	19.00	20.40	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 12:15 PM	40.00	9.00	22.80	19.40	0.00	22.80	17.60	19.40	24.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 12:30 PM	40.00	5.80	22.40	18.40	0.00	22.40	17.00	18.40	22.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 12:45 PM	31.00	8.60	28.80	25.40	0.00	28.80	19.60	25.40	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:00 PM	39.00	8.30	35.70	35.90	0.20	35.70	32.90	35.90	35.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:15 PM	26.00	8.80	33.40	32.40	0.00	33.40	43.60	32.40	37.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:30 PM	29.00	9.40	36.40	31.40	0.00	36.40	37.70	31.40	34.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 1:45 PM	25.00	8.20	30.30	27.00	0.00	30.30	34.40	27.00	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:00 PM	16.00	7.60	30.60	26.00	0.00	30.60	25.30	26.00	31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:15 PM	22.00	8.30	30.20	28.10	0.00	30.20	26.50	28.10	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:30 PM	37.00	6.80	33.20	31.50	0.00	33.20	26.50	31.50	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 2:45 PM	31.00	9.80	32.20	33.90	1.70	32.20	41.00	33.90	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:00 PM	27.00	9.20	28.00	30.60	2.60	28.00	27.30	30.60	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:15 PM	30.00	7.50	21.30	22.50	1.20	21.30	18.60	22.50	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:30 PM	24.00	6.70	19.20	16.20	0.00	19.20	17.20	16.20	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 3:45 PM	41.00	9.30	16.30	15.60	0.00	16.30	12.50	15.60	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:00 PM	31.00	7.20	14.20	12.50	0.00	14.20	10.10	12.50	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:15 PM	15.00	8.50	13.20	12.10	0.00	13.20	10.90	12.10	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:30 PM	29.00	8.70	14.60	15.10	0.50	14.60	11.50	15.10	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 4:45 PM	37.00	5.90	14.40	14.50	0.10	14.40	11.50	14.50	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:00 PM	23.00	9.10	17.00	17.70	0.70	17.00	14.10	17.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:15 PM	35.00	7.80	17.90	19.10	1.20	17.90	15.00	19.10	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:30 PM	18.00	9.60	19.70	20.70	1.00	19.70	16.10	20.70	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 5:45 PM	23.00	8.10	20.10	13.10	0.00	20.10	17.00	13.10	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/2/13 6:00 PM	52.00	8.20	1													



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/3/13 1:30 AM	15.00	3.70	15.70	13.30	0.00	15.70	16.70	13.30	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 1:45 AM	10.00	4.80	14.60	16.00	1.40	14.60	16.00	16.00	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:00 AM	4.00	3.60	14.90	15.50	0.60	14.90	15.40	15.50	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:15 AM	9.00	4.70	15.60	18.00	2.40	15.60	15.30	18.00	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:30 AM	6.00	6.10	17.90	11.40	0.00	17.90	15.20	11.40	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:45 AM	6.00	6.60	15.00	11.20	0.00	15.00	16.10	11.20	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:00 AM	356.00	4.80	12.40	15.00	2.60	18.80	15.00	11.90	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:15 AM	4.00	4.00	15.90	13.10	0.00	15.90	15.70	13.10	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:30 AM	2.00	3.70	16.70	13.80	0.00	16.70	17.10	13.80	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:45 AM	4.00	5.10	16.30	15.50	0.00	16.30	18.50	15.50	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:00 AM	5.00	5.00	14.90	12.50	0.00	14.90	13.80	12.50	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:15 AM	2.00	4.00	14.50	11.20	0.00	14.50	12.70	11.20	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:30 AM	8.00	5.50	13.00	10.40	0.00	13.00	11.60	10.40	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:45 AM	355.00	6.00	10.30	10.90	0.60	13.40	10.90	9.70	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:00 AM	12.00	5.90	12.80	9.70	0.00	12.80	10.20	9.70	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:15 AM	359.00	3.10	10.70	10.50	0.00	12.70	10.50	9.80	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:30 AM	11.00	4.20	12.80	10.30	0.00	12.80	10.90	10.30	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:45 AM	356.00	3.20	11.70	11.30	0.00	13.10	11.30	10.80	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:00 AM	3.00	3.30	12.90	11.20	0.00	12.90	11.20	11.20	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:15 AM	15.00	3.60	13.00	10.90	0.00	13.00	10.60	10.90	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:30 AM	17.00	3.40	13.10	10.70	0.00	13.10	10.80	10.70	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:45 AM	9.00	2.80	12.90	11.40	0.00	12.90	10.90	11.40	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 7:00 AM	3.00	2.20	13.10	11.30	0.00	13.10	11.00	11.30	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 7:15 AM	2.00	1.50	13.30	11.50	0.00	13.30	11.20	11.50	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 7:30 AM	0.00	1.20	13.20	11.50	0.00	13.20	11.20	11.50	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 7:45 AM	13.00	1.90	13.50	11.40	0.00	13.50	11.30	11.40	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 8:00 AM	19.00	3.30	13.10	11.30	0.00	13.10	10.50	11.30	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 8:15 AM	3.00	3.20	13.30	11.50	0.00	13.30	10.90	11.50	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 8:30 AM	2.00	1.30	12.90	11.10	0.00	12.90	10.80	11.10	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 8:45 AM	319.00	0.70	12.60	10.50	0.00	12.80	10.50	11.50	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 9:00 AM	12.00	1.20	12.50	11.10	0.00	12.50	11.00	11.10	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 9:15 AM	15.00	1.30	12.40	10.90	0.00	12.40	10.80	10.90	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 9:30 AM	8.00	2.20	12.10	10.80	0.00	12.10	10.70	10.80	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 9:45 AM	16.00	2.00	14.30	11.20	0.00	14.30	11.60	11.20	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 10:00 AM	8.00	3.30	14.30	12.50	0.00	14.30	13.50	12.50	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 10:15 AM	12.00	1.80	25.60	15.50	0.00	25.60	13.40	15.50	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 10:30 AM	17.00	3.70	18.70	16.50	0.00	18.70	19.40	16.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 10:45 AM	24.00	3.30	19.40	16.60	0.00	19.40	20.00	16.60	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 11:00 AM	22.00	2.30	18.90	16.80	0.00	18.90	19.20	16.80	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 11:15 AM	17.00	3.40	20.20	17.20	0.00	20.20	21.30	17.20	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 11:30 AM	7.00	3.10	23.70	19.00	0.00	23.70	23.90	19.00	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 11:45 AM	8.00	2.90	24.30	21.90	0.00	24.30	24.30	21.90	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 12:00 PM	7.00	2.20	26.50	26.30	0.00	26.50	26.40	26.30	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 12:15 PM	6.00	3.60	28.00	30.70	2.70	28.00	31.80	30.70	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 12:30 PM	10.00	3.80	28.80	32.90	4.10	28.80	31.10	32.90	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 12:45 PM	5.00	3.20	30.20	36.30	6.10	30.20	32.60	36.30	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 1:00 PM	45.00	3.30	32.60	40.80	8.20	32.60	35.40	40.80	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 1:15 PM	55.00	3.90	32.50	42.10	9.60	32.50	36.20	42.10	33.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 1:30 PM	58.00	3.50	29.30	36.90	7.60	29.30	35.00	36.90	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 1:45 PM	38.00	2.60	28.80	36.40	7.60	28.80	37.60	36.40	25.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:00 PM	87.00	0.90	29.50	34.30	4.80	29.50	42.00	34.30	26.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:15 PM	110.00	0.60	46.30	27.70	0.00	28.90	46.30	41.40	27.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:30 PM	20.00	1.00	39.80	47.20	7.40	39.80	50.50	47.20	42.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 2:45 PM	51.00	3.60	40.90	55.80	14.90	40.90	60.10	55.80	32.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:00 PM	40.00	3.50	39.50	52.60	13.10	39.50	44.60	52.60	45.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:15 PM	61.00	1.40	0.00	46.00	0.00	0.00	41.60	46.00	41.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:30 PM	80.00	3.60	41.00	48.00	7.00	41.00	45.30	48.00	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 3:45 PM	57.00	2.80	39.70	42.60	2.90	39.70	48.70	42.60	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:00 PM	66.00	3.10	37.90	41.70	3.80	37.90	44.90	41.70	28.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:15 PM	82.00	1.30	34.90	37.60	2.70	34.90	40.60	37.60	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:30 PM	30.00	0.50	35.40	39.50	4.10	35.40	39.50	39.50	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 4:45 PM	4.00	2.00	43.30	46.40	3.10	43.30	44.50	46.40	43.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:00 PM	18.00	2.60	39.70	45.60	5.90	39.70	48.30	45.60	36.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:15 PM	12.00	2.10	42.30	41.30	0.00	42.30	47.60	41.30	34.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:30 PM	8.00	2.50	47.00	44.70	0.00	47.00	48.40	44.70	33.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 5:45 PM	14.00	1.60	45.10	45.60	0.50	45.10	41.70	45.60	27.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:00 PM	345.00	1.00	24.70	34.70	10.00	29.90	34.70	28.30	24.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:15 PM	13.00	2.70	28.90	27.70	0.00	28.90	27.00	27.70	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:30 PM	2.00	2.10	27.40	24.80	0.00	27.40	28.60	24.80	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/3/13 6:45 PM	18.00	2.30	26.50															



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Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/4/13 2:15 AM	206.00	1.50	39.80	33.60	0.00	33.60	33.50	39.80	33.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 2:30 AM	194.00	1.70	35.30	31.70	0.00	31.70	30.20	35.30	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 2:45 AM	207.00	1.80	34.70	33.10	0.00	33.10	31.00	34.70	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:00 AM	211.00	2.40	36.70	36.80	0.10	36.80	35.70	36.70	30.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:15 AM	208.00	1.70	38.30	36.40	0.00	36.40	33.90	38.30	33.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:30 AM	199.00	1.70	39.00	36.90	0.00	36.90	35.60	39.00	35.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:45 AM	219.00	1.40	41.60	37.50	0.00	37.50	35.40	41.60	35.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:00 AM	183.00	1.60	39.50	36.10	0.00	36.10	31.60	39.50	34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:15 AM	211.00	1.90	37.80	34.20	0.00	34.20	30.20	37.80	32.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:30 AM	183.00	2.80	35.50	31.60	0.00	31.60	28.10	35.50	31.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:45 AM	180.00	2.60	32.60	30.30	0.00	30.30	26.50	32.60	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:00 AM	176.00	2.90	27.80	28.80	1.00	30.40	27.80	32.00	28.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:15 AM	196.00	2.30	30.90	28.60	0.00	28.60	28.00	30.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:30 AM	199.00	2.60	30.50	28.30	0.00	28.30	28.40	30.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:45 AM	201.00	2.40	29.50	26.90	0.00	26.90	26.40	29.50	27.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:00 AM	202.00	1.80	27.30	25.70	0.00	25.70	25.50	27.30	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:15 AM	234.00	1.60	28.10	25.70	0.00	25.70	24.20	28.10	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:30 AM	207.00	1.60	25.50	24.80	0.00	24.80	24.60	25.50	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:45 AM	197.00	2.50	24.00	25.10	1.10	25.10	24.30	24.00	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 7:00 AM	219.00	2.30	24.10	24.20	0.10	24.20	21.00	24.10	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 7:15 AM	231.00	1.80	23.80	23.60	0.00	23.60	20.90	23.80	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 7:30 AM	228.00	1.90	24.70	23.20	0.00	23.20	20.30	24.70	23.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 7:45 AM	210.00	2.30	23.60	22.70	0.00	22.70	19.80	23.60	22.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 8:00 AM	227.00	1.90	23.00	23.40	0.40	23.40	20.10	23.00	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 8:15 AM	237.00	1.50	23.40	23.40	0.00	23.40	19.80	23.40	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 8:30 AM	213.00	1.90	22.50	23.30	0.80	23.30	18.90	22.50	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 8:45 AM	256.00	3.40	21.80	22.30	0.50	22.30	18.50	21.80	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 9:00 AM	238.00	2.10	20.60	22.70	2.10	22.70	18.00	20.60	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 9:15 AM	227.00	3.30	18.80	21.20	2.40	21.20	16.00	18.80	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 9:30 AM	220.00	3.70	18.00	18.20	0.20	18.20	15.20	18.00	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 9:45 AM	224.00	3.30	16.70	17.20	0.50	17.20	14.70	16.70	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 10:00 AM	259.00	3.90	16.30	17.10	0.80	17.10	14.50	16.30	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 10:15 AM	241.00	4.40	16.20	15.80	0.00	15.80	14.40	16.20	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 10:30 AM	195.00	4.60	15.40	15.50	0.10	15.50	14.20	15.40	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 10:45 AM	221.00	3.80	15.80	16.10	0.30	16.10	14.80	15.80	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 11:00 AM	209.00	3.90	15.40	15.20	0.00	15.20	14.30	15.40	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 11:15 AM	214.00	3.70	14.50	15.20	0.70	15.20	14.50	14.50	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 11:30 AM	229.00	3.90	15.80	14.30	0.00	14.30	14.20	15.80	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 11:45 AM	188.00	1.90	15.80	13.90	0.00	13.90	14.10	15.80	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 12:00 PM	181.00	3.50	15.00	13.80	0.00	13.80	14.30	15.00	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 12:15 PM	194.00	3.70	15.30	14.20	0.00	14.20	15.10	15.30	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 12:30 PM	175.00	2.30	15.00	19.70	4.70	14.10	15.00	15.30	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 12:45 PM	195.00	5.50	15.60	14.70	0.00	14.70	15.20	15.60	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 1:00 PM	174.00	5.30	15.30	17.70	2.40	14.40	15.30	15.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 1:15 PM	193.00	3.30	15.90	14.90	0.00	14.90	15.30	15.90	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 1:30 PM	184.00	4.70	15.50	13.90	0.00	13.90	15.40	15.50	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 1:45 PM	171.00	4.70	15.20	19.40	4.20	14.00	15.20	15.60	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 2:00 PM	170.00	4.70	15.70	18.60	2.90	14.00	15.70	15.30	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 2:15 PM	154.00	4.70	16.90	18.90	2.00	14.10	16.90	15.80	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 2:30 PM	181.00	6.60	16.30	14.60	0.00	14.60	17.90	16.30	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 2:45 PM	216.00	4.60	16.00	14.80	0.00	14.80	18.30	16.00	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:00 PM	196.00	4.80	16.00	14.90	0.00	14.90	19.60	16.00	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:15 PM	191.00	4.40	16.20	14.50	0.00	14.50	19.10	16.20	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:30 PM	187.00	4.70	15.90	14.50	0.00	14.50	19.50	15.90	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 3:45 PM	224.00	4.30	16.60	14.60	0.00	14.60	18.90	16.60	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:00 PM	172.00	4.50	18.90	18.90	0.00	14.40	18.90	16.30	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:15 PM	167.00	7.00	19.60	18.80	0.00	15.00	19.60	16.00	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:30 PM	198.00	5.80	16.00	15.50	0.00	15.50	19.00	16.00	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 4:45 PM	209.00	4.30	0.00	15.60	0.00	15.60	19.20	0.00	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:00 PM	213.00	3.80	15.80	16.20	0.40	16.20	26.80	15.80	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:15 PM	203.00	4.10	16.30	15.60	0.00	15.60	22.40	16.30	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:30 PM	209.00	6.20	15.90	15.70	0.00	15.70	21.50	15.90	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 5:45 PM	0.00	0.00	0.00	0.00	0.00	15.50	21.50	15.80	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:00 PM	167.00	6.20	20.80	17.20	0.00	14.90	20.80	15.10	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:15 PM	164.00	3.80	21.30	18.00	0.00	15.70	21.30	14.80	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/4/13 6:30 PM	168.00	4.50	20.90	18.00	0.00	16.												



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/5/13 3:00 AM	179.00	1.70	101.50	103.20	1.70	102.90	101.50	104.50	103.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:15 AM	192.00	1.20	102.40	100.80	0.00	100.80	97.80	102.40	102.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:30 AM	213.00	1.50	101.30	98.50	0.00	98.50	90.70	101.30	99.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:45 AM	173.00	1.50	86.20	96.90	10.70	93.50	86.20	95.90	96.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:00 AM	198.00	1.60	99.50	92.30	0.00	92.30	90.60	99.50	95.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:15 AM	189.00	1.00	96.30	88.90	0.00	88.90	86.50	96.30	96.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:30 AM	211.00	1.30	94.60	89.90	0.00	89.90	86.70	94.60	93.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:45 AM	273.00	1.10	90.90	78.10	0.00	82.70	78.10	90.80	90.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:00 AM	212.00	1.10	82.00	78.10	0.00	78.10	74.90	82.00	77.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:15 AM	199.00	1.40	73.80	71.50	0.00	71.50	67.00	73.80	76.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:30 AM	209.00	1.90	66.80	64.20	0.00	64.20	58.30	66.80	67.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:45 AM	179.00	2.00	58.70	71.50	12.80	67.00	58.70	68.40	71.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:00 AM	223.00	1.70	68.60	73.20	4.60	73.20	60.70	68.60	79.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:15 AM	250.00	1.10	68.50	72.70	4.20	72.70	61.80	68.50	71.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:30 AM	258.00	1.40	69.90	68.40	0.00	68.40	59.30	69.90	70.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:45 AM	0.00	0.00	0.00	0.00	0.00	62.80	55.90	62.00	65.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 7:00 AM	227.00	1.50	58.00	57.10	0.00	57.10	50.10	58.00	56.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 7:15 AM	241.00	1.80	58.90	58.20	0.00	58.20	51.90	58.90	60.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 7:30 AM	205.00	1.00	60.80	63.10	2.30	63.10	52.50	60.80	60.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 7:45 AM	235.00	2.40	47.90	49.00	1.10	49.00	51.20	47.90	43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 8:00 AM	217.00	1.40	37.00	43.40	6.40	43.40	37.00	37.00	38.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 8:15 AM	234.00	2.70	33.50	40.40	6.90	40.40	30.80	33.50	34.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 8:30 AM	258.00	2.00	28.80	35.00	6.20	35.00	27.10	28.80	31.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 8:45 AM	233.00	3.60	25.80	34.70	8.90	34.70	24.90	25.80	28.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 9:00 AM	262.00	1.90	25.70	34.50	8.80	34.50	27.20	25.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 9:15 AM	269.00	1.40	25.10	34.30	9.20	34.30	27.20	25.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 9:30 AM	268.00	2.80	24.80	34.60	9.80	34.60	27.20	24.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 9:45 AM	233.00	2.60	25.50	33.50	8.00	33.50	27.20	25.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 10:00 AM	322.00	2.20	28.60	27.20	0.00	34.90	27.20	26.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 10:15 AM	59.00	0.40	36.00	27.20	0.00	36.00	27.20	27.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 10:30 AM	323.00	1.30	28.60	27.20	0.00	35.80	27.20	26.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 10:45 AM	20.00	1.30	33.20	26.40	0.00	33.20	27.20	26.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 11:00 AM	12.00	0.80	33.20	24.50	0.00	33.20	27.20	24.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 11:15 AM	143.00	2.30	27.20	28.60	1.40	31.20	27.20	28.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 11:30 AM	195.00	1.30	19.40	30.10	10.70	30.10	27.20	19.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 11:45 AM	140.00	2.10	27.20	28.60	1.40	28.00	27.20	21.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 12:00 PM	55.00	3.90	28.70	23.80	0.00	28.70	27.20	23.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 12:15 PM	146.00	1.70	27.20	28.60	1.40	28.40	27.20	24.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 12:30 PM	157.00	1.10	27.20	28.60	1.40	27.10	27.20	21.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 12:45 PM	199.00	3.60	21.80	24.50	2.70	24.50	27.20	21.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 1:00 PM	112.00	4.80	27.20	28.60	1.40	29.50	27.20	30.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 1:15 PM	82.00	4.80	32.30	31.60	0.00	32.30	27.20	31.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 1:30 PM	103.00	3.00	27.20	28.60	1.40	30.70	27.20	30.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 1:45 PM	88.00	3.00	30.20	30.40	0.20	30.20	27.20	30.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 2:00 PM	117.00	4.80	27.20	28.60	1.40	30.50	27.20	29.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 2:15 PM	93.00	2.70	27.20	28.60	1.40	32.20	27.20	31.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 2:30 PM	93.00	3.70	27.20	28.60	1.40	32.90	27.20	35.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 2:45 PM	88.00	2.60	32.90	36.20	3.30	32.90	27.20	36.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:00 PM	84.00	4.20	35.10	82.10	47.00	35.10	27.20	82.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:15 PM	141.00	3.60	27.20	28.60	1.40	34.00	27.20	35.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:30 PM	139.00	3.20	27.20	28.60	1.40	32.20	27.20	36.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 3:45 PM	113.00	2.30	27.20	28.60	1.40	32.50	27.20	39.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:00 PM	138.00	2.50	27.20	28.60	1.40	32.60	27.20	39.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:15 PM	172.00	2.80	27.20	28.60	1.40	34.40	27.20	36.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:30 PM	110.00	2.40	27.20	28.60	1.40	34.30	27.20	35.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 4:45 PM	169.00	5.00	27.20	28.60	1.40	33.20	27.20	41.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:00 PM	213.00	2.50	32.80	32.50	0.00	32.50	27.20	32.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:15 PM	215.00	3.10	28.70	31.70	3.00	31.70	27.20	28.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:30 PM	189.00	3.30	23.10	30.90	7.80	30.90	27.20	23.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 5:45 PM	192.00	4.10	27.90	31.40	3.50	31.40	27.20	27.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:00 PM	210.00	3.20	26.00	30.60	4.60	30.60	27.20	26.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:15 PM	211.00	3.70	22.00	31.00	9.00	31.00	27.20	22.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:30 PM	194.00	2.70	22.00	31.00	9.00	31.00	27.20	22.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 6:45 PM	199.00	3.10	22.90	30.40	7.50	30.40	27.20	22.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 7:00 PM	207.00	4.40	22.50	28.50	6.00	28.50	27.20	22.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/5/13 7:15 PM	237.00	4.90	20.40	24.40	4.0													



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/6/13 3:45 AM	214.00	0.90	12.30	17.70	5.40	17.70	27.20	12.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:00 AM	205.00	1.10	12.40	17.90	5.50	17.90	27.20	12.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:15 AM	198.00	1.60	12.90	19.00	6.10	19.00	27.20	12.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:30 AM	178.00	1.80	27.20	28.60	1.40	18.30	27.20	13.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:45 AM	223.00	1.40	13.50	17.60	4.10	17.60	27.20	13.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:00 AM	205.00	1.40	13.30	17.50	4.20	17.50	27.20	13.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:15 AM	191.00	1.40	12.20	16.90	4.70	16.90	27.20	12.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:30 AM	197.00	1.10	12.80	16.60	3.80	16.60	27.20	12.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:45 AM	200.00	1.50	12.70	19.60	6.90	19.60	27.20	12.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:00 AM	195.00	1.90	11.70	17.50	5.80	17.50	27.20	11.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:15 AM	198.00	1.70	12.20	16.70	4.50	16.70	27.20	12.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:30 AM	215.00	1.70	11.50	16.80	5.30	16.80	27.20	11.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:45 AM	209.00	1.50	12.00	17.10	5.10	17.10	27.20	12.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:00 AM	207.00	1.60	12.50	17.60	5.10	17.60	27.20	12.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:15 AM	220.00	2.00	12.90	17.20	4.30	17.20	27.20	12.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:30 AM	182.00	2.30	12.70	17.10	4.40	17.10	27.20	12.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:45 AM	194.00	2.10	12.80	17.70	4.90	17.70	27.20	12.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:00 AM	213.00	1.90	14.10	18.80	4.70	18.80	27.20	14.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:15 AM	192.00	2.10	13.00	17.70	4.70	17.70	27.20	13.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:30 AM	226.00	1.90	12.90	17.80	4.90	17.80	27.20	12.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:45 AM	199.00	1.90	12.90	17.80	4.90	17.80	27.20	12.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 9:00 AM	247.00	2.90	12.70	17.60	4.90	17.60	27.20	12.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 9:15 AM	208.00	2.10	12.20	17.30	5.10	17.30	27.20	12.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 9:30 AM	220.00	3.20	12.50	16.40	3.90	16.40	27.20	12.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 9:45 AM	322.00	1.20	28.60	27.20	0.00	16.30	27.20	13.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 10:00 AM	251.00	1.30	14.80	18.20	3.40	18.20	27.20	14.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 10:15 AM	248.00	2.30	17.90	21.80	3.90	21.80	27.20	17.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 10:30 AM	232.00	1.40	18.60	21.80	3.90	22.50	27.20	18.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 10:45 AM	180.00	2.50	18.00	23.30	5.30	23.30	27.20	18.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 11:00 AM	158.00	2.80	27.20	28.60	1.40	22.10	27.20	19.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 11:15 AM	140.00	3.20	27.20	28.60	1.40	21.90	27.20	18.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 11:30 AM	186.00	3.50	19.40	20.70	1.30	20.70	27.20	19.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 11:45 AM	165.00	2.90	27.20	28.60	1.40	17.70	27.20	17.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 12:00 PM	176.00	3.80	27.20	28.60	1.40	17.40	27.20	17.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 12:15 PM	194.00	3.70	17.20	18.70	1.50	18.70	27.20	17.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 12:30 PM	233.00	2.70	17.70	17.50	0.00	17.50	27.20	17.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 12:45 PM	200.00	1.90	17.70	17.70	0.00	17.70	27.20	17.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 1:00 PM	211.00	2.00	19.10	18.90	0.00	18.90	27.20	19.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 1:15 PM	191.00	2.90	19.10	20.10	1.00	20.10	27.20	19.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 1:30 PM	200.00	2.50	19.60	19.80	0.20	19.80	27.20	19.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 1:45 PM	224.00	2.10	19.20	21.70	2.50	21.70	27.20	19.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 2:00 PM	197.00	2.40	18.20	20.90	2.70	20.90	27.20	18.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 2:15 PM	176.00	2.80	27.20	28.60	1.40	20.30	27.20	18.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 2:30 PM	197.00	1.90	18.20	22.60	4.40	22.60	27.20	18.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 2:45 PM	247.00	3.80	18.50	20.40	1.90	20.40	27.20	18.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 3:00 PM	159.00	2.50	27.20	28.60	1.40	20.70	27.20	19.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 3:15 PM	212.00	3.00	19.50	21.80	2.30	21.80	27.20	19.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 3:30 PM	220.00	3.90	19.80	23.00	3.20	23.00	27.20	19.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 3:45 PM	231.00	3.10	21.50	23.60	2.10	23.60	27.20	21.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:00 PM	205.00	1.80	22.40	23.80	1.40	23.80	27.20	22.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:15 PM	191.00	1.80	21.90	22.60	0.70	22.60	27.20	21.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:30 PM	185.00	3.10	21.00	21.60	0.60	21.60	27.20	21.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 4:45 PM	245.00	2.40	16.90	18.80	1.90	18.80	27.20	16.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:00 PM	255.00	2.90	14.10	16.00	1.90	16.00	27.20	14.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:15 PM	221.00	2.30	12.90	15.20	2.30	15.20	27.20	12.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:30 PM	186.00	2.00	11.90	14.50	2.60	14.50	27.20	11.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 5:45 PM	210.00	3.60	9.40	12.60	3.20	12.60	27.20	9.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:00 PM	250.00	3.40	10.70	12.80	2.10	12.80	27.20	10.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:15 PM	224.00	4.00	11.10	13.30	2.20	13.30	27.20	11.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:30 PM	246.00	4.40	11.40	14.00	2.60	14.00	27.20	11.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 6:45 PM	207.00	3.40	12.10	14.60	2.50	14.60	27.20	12.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:00 PM	206.00	2.50	13.10	14.40	1.30	14.40	27.20	13.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:15 PM	205.00	2.70	13.80	30.10	16.30	30.10	27.20	13.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:30 PM	233.00	1.20	13.40	15.00	1.60	15.00	27.20	13.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 7:45 PM	209.00	2.50	11.40	13.20	1.80	13.20	27.20	11.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:00 PM	224.00	2.00	11.00	12.80	1.80	12.80	27.20	11.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:15 PM	221.00	2.30	11.00	12.30	1.30	12.30	27.20	11.00	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:30 PM	213.00	2.60	10.40	11.60	1.20	11.60	27.20	10.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/6/13 8:45 PM	227.00	3.00	10.50	12.40	1.90	12.40	27.20	10.50	28.60	0.00	0.00	0.00				



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7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/7/13 4:30 AM	226.00	2.80	12.30	13.80	1.50	13.80	27.20	12.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 4:45 AM	219.00	1.70	11.70	13.50	1.80	13.50	27.20	11.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:00 AM	230.00	1.90	11.60	12.80	1.20	12.80	27.20	11.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:15 AM	229.00	1.90	11.10	12.60	1.50	12.60	27.20	11.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:30 AM	204.00	1.80	10.40	12.30	1.90	12.30	27.20	10.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:45 AM	221.00	2.80	10.10	11.90	1.80	11.90	27.20	10.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:00 AM	196.00	1.60	10.30	12.00	1.70	12.00	27.20	10.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:15 AM	237.00	2.20	10.60	11.70	1.10	11.70	27.20	10.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:30 AM	220.00	2.00	9.60	11.20	1.60	11.20	27.20	9.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:45 AM	208.00	1.80	9.70	11.10	1.40	11.10	27.20	9.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:00 AM	208.00	2.20	9.40	11.60	2.20	11.60	27.20	9.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:15 AM	195.00	2.50	9.50	10.90	1.40	10.90	27.20	9.50	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:30 AM	211.00	2.60	9.10	10.50	1.40	10.50	27.20	9.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:45 AM	215.00	2.60	8.90	10.40	1.50	10.40	27.20	8.90	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:00 AM	210.00	3.00	9.40	10.00	0.60	10.00	27.20	9.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:15 AM	217.00	2.70	9.60	10.30	0.70	10.30	27.20	9.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:30 AM	209.00	5.90	9.80	10.90	1.10	10.90	27.20	9.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:45 AM	215.00	4.50	10.30	11.10	0.80	11.10	27.20	10.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 9:00 AM	235.00	4.60	10.30	11.20	0.90	11.20	27.20	10.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 9:15 AM	221.00	5.30	10.60	11.40	0.80	11.40	27.20	10.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 9:30 AM	257.00	3.10	10.70	11.10	0.40	11.10	27.20	10.70	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 9:45 AM	259.00	4.00	10.60	11.20	0.60	11.20	27.20	10.60	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 10:00 AM	220.00	2.90	10.80	11.10	0.30	11.10	27.20	10.80	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 10:15 AM	235.00	4.60	11.10	11.50	0.40	11.50	27.20	11.10	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 10:30 AM	235.00	2.40	11.30	12.10	0.80	12.10	27.20	11.30	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 10:45 AM	250.00	4.00	12.20	12.80	0.60	12.80	27.20	12.20	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 11:00 AM	255.00	2.70	12.40	12.90	0.50	12.90	27.20	12.40	28.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 11:15 AM	219.00	4.40	13.10	13.50	0.40	13.50	27.20	13.10	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 11:30 AM	244.00	3.60	13.80	13.40	0.00	13.40	27.20	13.80	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 11:45 AM	219.00	2.80	13.80	13.00	0.00	13.00	27.20	13.80	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 12:00 PM	211.00	4.00	14.10	14.60	0.50	14.60	27.20	14.10	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 12:15 PM	187.00	4.50	14.20	14.50	0.30	14.50	27.20	14.20	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 12:30 PM	179.00	4.50	27.20	15.40	0.00	14.90	27.20	14.50	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 12:45 PM	231.00	4.80	15.10	15.70	0.60	15.70	27.20	15.10	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 1:00 PM	199.00	4.50	15.40	15.00	0.00	15.00	27.20	15.40	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 1:15 PM	194.00	4.00	15.30	14.70	0.00	14.70	27.20	15.30	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 1:30 PM	217.00	4.20	15.50	14.30	0.00	14.30	27.20	15.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 1:45 PM	235.00	4.40	16.80	14.10	0.00	14.10	27.20	16.80	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 2:00 PM	262.00	4.30	20.00	15.30	0.00	15.30	27.20	20.00	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 2:15 PM	244.00	2.90	19.00	14.60	0.00	14.60	27.20	19.00	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 2:30 PM	216.00	6.00	18.40	15.00	0.00	15.00	27.20	18.40	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 2:45 PM	218.00	5.40	18.40	16.30	0.00	16.30	27.20	18.40	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 3:00 PM	220.00	7.30	19.30	16.20	0.00	16.20	27.20	19.30	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 3:15 PM	214.00	4.80	19.40	16.70	0.00	16.70	27.20	19.40	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 3:30 PM	256.00	3.20	19.10	16.90	0.00	16.90	27.20	19.10	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 3:45 PM	194.00	5.30	18.90	16.20	0.00	16.20	27.20	18.90	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 4:00 PM	214.00	5.00	19.30	16.10	0.00	16.10	27.20	19.30	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 4:15 PM	201.00	4.20	20.10	16.60	0.00	16.60	27.20	20.10	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 4:30 PM	207.00	6.50	20.00	16.30	0.00	16.30	27.20	20.00	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 4:45 PM	208.00	5.30	20.20	16.80	0.00	16.80	27.20	20.20	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:00 PM	194.00	7.20	20.60	17.60	0.00	17.60	27.20	20.60	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:15 PM	206.00	4.40	20.00	16.50	0.00	16.50	27.20	20.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:30 PM	230.00	4.20	20.10	16.80	0.00	16.80	27.20	20.10	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 5:45 PM	240.00	2.50	20.30	17.50	0.00	17.50	27.20	20.30	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:00 PM	212.00	4.20	20.60	17.40	0.00	17.40	27.20	20.60	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:15 PM	231.00	4.90	20.00	17.80	0.00	17.80	27.20	20.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:30 PM	226.00	3.60	23.50	18.60	0.00	18.60	27.20	23.50	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 6:45 PM	211.00	3.70	21.00	18.40	0.00	18.40	27.20	21.00	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:00 PM	235.00	2.90	20.80	18.50	0.00	18.50	27.20	20.80	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:15 PM	201.00	4.10	20.80	131.60	110.80	131.60	27.20	20.80	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:30 PM	218.00	2.80	19.70	18.50	0.00	18.50	27.20	19.70	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 7:45 PM	215.00	3.20	19.00	18.70	0.00	18.70	27.20	19.00	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:00 PM	203.00	3.00	18.90	18.50	0.00	18.50	27.20	18.90	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:15 PM	208.00	1.60	18.60	18.70	0.10	18.70	27.20	18.60	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:30 PM	216.00	2.60	18.90	19.10	0.20	19.10	27.20	18.90	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/7/13 8:45 PM	216.00	2.90	19.00	19.00	0.00	19.00	27.20											



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/8/13 5:15 AM	210.00	3.00	18.70	20.60	1.90	20.60	27.20	18.70	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 5:30 AM	216.00	3.20	19.10	20.50	1.40	20.50	27.20	19.10	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 5:45 AM	230.00	3.40	18.70	20.70	2.00	20.70	27.20	18.70	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:00 AM	198.00	3.10	19.00	20.40	1.40	20.40	27.20	19.00	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:15 AM	212.00	3.30	18.80	20.10	1.30	20.10	27.20	18.80	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:30 AM	195.00	2.90	19.90	20.40	0.50	20.40	27.20	19.90	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:45 AM	220.00	4.90	20.00	20.00	0.00	20.00	27.20	20.00	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:00 AM	217.00	4.30	19.20	20.30	1.10	20.30	27.20	19.20	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:15 AM	236.00	4.30	19.50	20.40	0.90	20.40	27.20	19.50	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:30 AM	223.00	4.70	19.10	20.40	1.30	20.40	27.20	19.10	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:45 AM	250.00	5.10	19.00	20.40	1.40	20.40	27.20	19.00	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:00 AM	258.00	7.20	19.30	20.00	0.70	20.00	27.20	19.30	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:15 AM	265.00	5.40	18.80	19.60	0.80	19.60	27.20	18.80	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:30 AM	257.00	5.50	19.20	19.80	0.60	19.80	27.20	19.20	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:45 AM	291.00	4.70	25.20	27.20	2.00	20.00	27.20	19.60	25.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:00 AM	270.00	2.20	26.30	27.20	0.90	20.60	27.20	19.70	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:15 AM	225.00	4.90	19.50	19.70	0.20	19.70	27.20	19.50	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:30 AM	207.00	4.50	18.70	20.00	1.30	20.00	27.20	18.70	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:45 AM	237.00	3.80	17.50	19.20	1.70	19.20	27.20	17.50	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 10:00 AM	259.00	5.20	18.50	19.90	1.40	19.90	27.20	18.50	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 10:15 AM	232.00	2.90	19.00	20.40	1.40	20.40	27.20	19.00	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 10:30 AM	297.00	2.50	21.90	27.20	5.30	18.70	27.20	18.60	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 10:45 AM	7.00	5.20	18.30	18.10	0.00	18.30	27.20	18.10	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 11:00 AM	211.00	2.60	17.60	18.00	0.40	18.00	27.20	17.60	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 11:15 AM	196.00	3.90	20.00	21.90	1.90	21.90	27.20	20.00	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 11:30 AM	225.00	5.80	19.90	20.60	0.70	20.60	27.20	19.90	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 11:45 AM	211.00	5.50	20.80	20.30	0.00	20.30	27.20	20.80	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 12:00 PM	171.00	5.00	27.20	22.20	0.00	20.30	27.20	19.50	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 12:15 PM	212.00	4.90	21.60	25.30	3.70	25.30	27.20	21.60	28.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 12:30 PM	202.00	3.50	17.80	22.70	4.90	22.70	27.20	17.80	30.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 12:45 PM	206.00	5.80	15.60	15.60	0.00	15.60	27.20	15.60	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 1:00 PM	218.00	3.80	16.10	16.10	0.00	16.10	27.20	16.10	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 1:15 PM	205.00	3.70	16.20	16.00	0.00	16.00	27.20	16.20	26.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 1:30 PM	199.00	5.30	14.60	15.00	0.40	15.00	27.20	14.60	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 1:45 PM	182.00	4.60	14.60	15.40	0.80	15.40	27.20	14.60	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 2:00 PM	205.00	5.40	14.20	15.10	0.90	15.10	27.20	14.20	22.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 2:15 PM	204.00	8.60	14.40	14.80	0.40	14.80	27.20	14.40	22.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 2:30 PM	217.00	9.30	13.70	13.90	0.20	13.90	27.20	13.70	21.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 2:45 PM	222.00	7.60	13.50	13.90	0.40	13.90	27.20	13.50	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 3:00 PM	219.00	6.80	14.10	14.60	0.50	14.60	27.20	14.10	23.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 3:15 PM	210.00	7.40	14.70	15.20	0.50	15.20	27.20	14.70	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 3:30 PM	205.00	6.00	14.20	15.60	1.40	15.60	27.20	14.20	22.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 3:45 PM	222.00	6.60	13.90	15.80	1.90	15.80	27.20	13.90	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 4:00 PM	242.00	8.30	14.20	16.00	1.80	16.00	27.20	14.20	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 4:15 PM	231.00	7.10	14.10	16.40	2.30	16.40	27.20	14.10	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 4:30 PM	242.00	3.80	14.40	16.40	2.00	16.40	27.20	14.40	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 4:45 PM	228.00	6.00	14.30	16.60	2.30	16.60	27.20	14.30	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 5:00 PM	235.00	7.00	13.30	15.00	1.70	15.00	27.20	13.30	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 5:15 PM	221.00	3.90	13.40	14.30	0.90	14.30	27.20	13.40	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 5:30 PM	244.00	4.50	13.20	14.40	1.20	14.40	27.20	13.20	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 5:45 PM	236.00	6.10	13.30	14.50	1.20	14.50	27.20	13.30	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:00 PM	224.00	6.70	13.40	14.60	1.20	14.60	27.20	13.40	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:15 PM	238.00	5.80	13.50	14.60	1.10	14.60	27.20	13.50	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:30 PM	262.00	4.60	13.80	15.00	1.20	15.00	27.20	13.80	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 6:45 PM	221.00	3.60	14.40	15.50	1.10	15.50	27.20	14.40	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:00 PM	249.00	5.90	14.70	15.70	1.00	15.70	27.20	14.70	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:15 PM	244.00	8.10	15.00	21.90	6.90	21.90	27.20	15.00	21.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:30 PM	238.00	4.00	15.00	14.90	0.00	14.90	27.20	15.00	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 7:45 PM	233.00	4.00	14.40	14.40	0.00	14.40	27.20	14.40	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:00 PM	223.00	2.70	14.50	14.20	0.00	14.20	27.20	14.50	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:15 PM	238.00	5.00	14.80	13.90	0.00	13.90	27.20	14.80	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:30 PM	202.00	4.40	14.80	14.40	0.00	14.40	27.20	14.80	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 8:45 PM	223.00	4.60	15.30	14.60	0.00	14.60	27.20	15.30	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:00 PM	247.00	3.00	15.30	14.70	0.00	14.70	27.20	15.30	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:15 PM	233.00	3.20	15.10	15.20	0.10	15.20	27.20	15.10	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/8/13 9:30 PM	251.00	3.40	15.20	14.90	0.00													



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/9/13 6:00 AM	236.00	1.90	22.10	23.80	1.70	23.80	27.20	22.10	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:15 AM	234.00	1.80	21.80	24.50	2.70	24.50	27.20	21.80	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:30 AM	242.00	1.70	22.40	24.60	2.20	24.60	27.20	22.40	23.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:45 AM	251.00	1.50	22.60	24.50	1.90	24.50	27.20	22.60	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:00 AM	216.00	2.10	22.50	24.80	2.30	24.80	27.20	22.50	24.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:15 AM	235.00	2.40	22.40	24.60	2.20	24.60	27.20	22.40	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:30 AM	237.00	1.70	22.20	24.70	2.50	24.70	27.20	22.20	24.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:45 AM	247.00	1.90	21.50	24.10	2.60	24.10	27.20	21.50	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:00 AM	240.00	3.70	21.70	24.60	2.90	24.60	27.20	21.70	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:15 AM	229.00	3.00	22.20	24.80	2.60	24.80	27.20	22.20	24.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:30 AM	255.00	4.20	21.80	25.00	3.20	25.00	27.20	21.80	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:45 AM	232.00	2.50	21.70	24.90	3.20	24.90	27.20	21.70	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:00 AM	214.00	3.20	21.40	24.60	3.20	24.60	27.20	21.40	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:15 AM	227.00	5.40	21.40	24.40	3.00	24.40	27.20	21.40	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:30 AM	250.00	3.30	21.10	23.90	2.80	23.90	27.20	21.10	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:45 AM	211.00	3.40	21.60	24.40	2.80	24.40	27.20	21.60	24.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:00 AM	248.00	2.20	21.70	25.10	3.40	25.10	27.20	21.70	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:15 AM	231.00	3.90	21.70	25.00	3.30	25.00	27.20	21.70	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:30 AM	234.00	3.50	20.90	23.50	2.60	23.50	27.20	20.90	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:45 AM	250.00	3.60	20.20	22.40	2.20	22.40	27.20	20.20	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 11:00 AM	223.00	2.20	19.50	22.20	2.70	22.20	27.20	19.50	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 11:15 AM	195.00	4.10	20.20	23.90	3.70	23.90	27.20	20.20	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 11:30 AM	257.00	4.60	20.40	23.10	2.70	23.10	27.20	20.40	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 11:45 AM	247.00	5.20	20.00	22.60	2.60	22.60	27.20	20.00	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 12:00 PM	285.00	6.60	20.50	27.20	6.70	23.30	27.20	20.50	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 12:15 PM	272.00	8.00	20.70	27.20	6.50	23.30	27.20	20.70	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 12:30 PM	232.00	8.80	19.70	23.20	3.50	23.20	27.20	19.70	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 12:45 PM	246.00	6.40	20.40	22.70	2.30	22.70	27.20	20.40	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 1:00 PM	265.00	3.50	20.70	23.30	2.60	23.30	27.20	20.70	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 1:15 PM	243.00	3.30	20.70	22.10	1.40	22.10	27.20	20.70	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 1:30 PM	242.00	3.90	16.70	18.20	1.50	18.20	27.20	16.70	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 1:45 PM	231.00	1.90	14.60	14.80	0.20	14.80	27.20	14.60	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 2:00 PM	271.00	1.80	12.60	27.20	14.60	15.40	27.20	15.00	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 2:15 PM	271.00	2.50	12.00	27.20	15.20	15.50	27.20	15.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 2:30 PM	254.00	2.50	16.70	17.60	0.90	17.60	27.20	16.70	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 2:45 PM	221.00	4.60	17.30	18.70	1.40	18.70	27.20	17.30	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 3:00 PM	209.00	3.00	16.30	17.50	1.20	17.50	27.20	16.30	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 3:15 PM	230.00	1.30	17.40	17.20	0.00	17.20	27.20	17.40	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 3:30 PM	262.00	4.40	15.40	16.10	0.70	16.10	27.20	15.40	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 3:45 PM	245.00	4.00	14.00	15.10	1.10	15.10	27.20	14.00	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 4:00 PM	247.00	2.10	14.00	14.30	0.30	14.30	27.20	14.00	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 4:15 PM	240.00	2.90	14.10	14.40	0.30	14.40	27.20	14.10	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 4:30 PM	252.00	2.90	14.10	14.30	0.20	14.30	27.20	14.10	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 4:45 PM	230.00	3.30	14.20	15.10	0.90	15.10	27.20	14.20	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 5:00 PM	208.00	3.70	14.80	15.50	0.70	15.50	27.20	14.80	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 5:15 PM	204.00	3.40	15.60	15.90	0.30	15.90	27.20	15.60	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 5:30 PM	221.00	3.70	15.30	16.90	1.60	16.90	27.20	15.30	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 5:45 PM	225.00	3.70	15.30	16.50	1.20	16.50	27.20	15.30	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:00 PM	230.00	2.40	14.90	15.80	0.90	15.80	27.20	14.90	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:15 PM	218.00	4.90	14.50	15.90	1.40	15.90	27.20	14.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:30 PM	233.00	3.90	14.80	16.00	1.20	16.00	27.20	14.80	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 6:45 PM	218.00	4.70	14.70	15.50	0.80	15.50	27.20	14.70	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:00 PM	217.00	6.20	26.60	15.30	0.00	15.30	27.20	26.60	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:15 PM	215.00	5.10	15.30	16.20	0.90	16.20	27.20	15.30	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:30 PM	225.00	5.40	14.20	15.90	1.70	15.90	27.20	14.20	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 7:45 PM	206.00	4.50	14.40	16.00	1.60	16.00	27.20	14.40	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:00 PM	220.00	2.30	14.50	16.20	1.70	16.20	27.20	14.50	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:15 PM	231.00	3.90	14.20	16.00	1.80	16.00	27.20	14.20	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:30 PM	247.00	4.00	14.20	16.70	2.50	16.70	27.20	14.20	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 8:45 PM	234.00	2.90	14.50	17.10	2.60	17.10	27.20	14.50	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:00 PM	212.00	3.30	15.70	17.60	1.90	17.60	27.20	15.70	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:15 PM	232.00	3.70	15.30	18.00	2.70	18.00	27.20	15.30	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:30 PM	239.00	3.30	15.10	17.60	2.50	17.60	27.20	15.10	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 9:45 PM	229.00	4.20	14.60	16.60	2.00	16.60	27.20	14.60	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:00 PM	237.00	3.40	14.20	17.10	2.90	17.10	27.20	14.20	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:15 PM	231.00	2.50	14.20	16.70	2.50	16.70	27.20	14.20	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:30 PM	242.00	3.30	14.30	16.40	2.10	16.40	27.20	14.30	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 10:45 PM	230.00	3.30	14.50	16.60	2.10	16.60	27.20	14.50	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/9/13 11:00 PM	212.00	2.80	14.10	16.30	2.20	16.30	27.20	14.10	12.40	0.00	0.00					



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7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/10/13 6:45 AM	264.00	2.20	19.80	22.90	3.10	22.90	27.20	19.80	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:00 AM	295.00	1.50	21.40	27.20	5.80	22.90	27.20	19.10	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:15 AM	270.00	1.80	20.70	27.20	6.50	22.70	27.20	19.10	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:30 AM	305.00	2.20	25.10	27.20	2.10	24.00	27.20	19.20	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:45 AM	311.00	2.70	23.80	27.20	3.40	23.10	27.20	18.90	23.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:00 AM	289.00	2.30	27.80	27.20	0.00	23.30	27.20	19.40	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:15 AM	286.00	2.10	26.30	27.20	0.90	24.10	27.20	19.90	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:30 AM	7.00	3.40	25.40	19.40	0.00	25.40	27.20	19.40	29.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:45 AM	20.00	3.70	24.90	31.10	6.20	24.90	27.20	31.10	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:00 AM	20.00	5.70	23.50	27.00	3.50	23.50	27.20	27.00	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:15 AM	43.00	7.80	15.80	20.30	4.50	15.80	27.20	20.30	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:30 AM	47.00	6.60	16.70	16.40	0.00	16.70	27.20	16.40	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:45 AM	21.00	7.50	18.60	17.00	0.00	18.60	27.20	17.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:00 AM	23.00	8.80	17.40	17.70	0.30	17.40	27.20	17.70	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:15 AM	28.00	6.50	18.30	16.50	0.00	18.30	27.20	16.50	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:30 AM	34.00	6.10	18.90	17.00	0.00	18.90	27.20	17.00	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:45 AM	45.00	7.30	19.50	14.40	0.00	19.50	27.20	14.40	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 11:00 AM	14.00	7.00	17.80	14.80	0.00	17.80	27.20	14.80	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 11:15 AM	26.00	9.50	17.00	15.90	0.00	17.00	27.20	15.90	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 11:30 AM	44.00	9.70	19.30	15.20	0.00	19.30	27.20	15.20	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 11:45 AM	39.00	10.20	18.40	17.20	0.00	18.40	27.20	17.20	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 12:00 PM	38.00	8.30	19.40	17.60	0.00	19.40	27.20	17.60	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 12:15 PM	45.00	7.50	16.80	19.10	2.30	16.80	27.20	19.10	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 12:30 PM	29.00	8.70	16.00	18.40	2.40	16.00	27.20	18.40	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 12:45 PM	50.00	8.90	16.50	19.50	3.00	16.50	27.20	19.50	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 1:00 PM	30.00	9.50	15.80	18.50	2.70	15.80	27.20	18.50	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 1:15 PM	12.00	9.00	16.20	17.90	1.70	16.20	27.20	17.90	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 1:30 PM	37.00	6.70	15.40	14.70	0.00	15.40	27.20	14.70	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 1:45 PM	54.00	5.50	15.30	17.60	2.30	15.30	27.20	17.60	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 2:00 PM	72.00	5.30	13.90	16.40	2.50	13.90	27.20	16.40	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 2:15 PM	63.00	6.80	14.20	16.60	2.40	14.20	27.20	16.60	27.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 2:30 PM	78.00	5.40	14.60	14.90	0.30	14.60	27.20	14.90	25.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 2:45 PM	89.00	6.60	17.00	17.90	0.90	17.00	27.20	17.90	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 3:00 PM	79.00	4.60	15.60	16.90	1.30	15.60	27.20	16.90	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 3:15 PM	83.00	4.20	19.50	18.00	0.00	19.50	27.20	18.00	27.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 3:30 PM	90.00	7.40	27.20	31.70	4.50	20.40	27.20	15.50	31.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 3:45 PM	48.00	4.90	20.90	17.00	0.00	20.90	27.20	17.00	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 4:00 PM	76.00	5.10	20.00	17.60	0.00	20.00	27.20	17.60	28.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 4:15 PM	72.00	8.20	23.80	19.90	0.00	23.80	27.20	19.90	34.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 4:30 PM	49.00	5.90	20.40	23.30	2.90	20.40	38.10	23.30	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 4:45 PM	71.00	8.40	23.00	22.10	0.00	23.00	28.70	22.10	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 5:00 PM	42.00	6.20	26.40	28.70	2.30	26.40	59.30	28.70	40.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 5:15 PM	33.00	6.10	22.90	30.00	7.10	22.90	40.80	30.00	31.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 5:30 PM	49.00	7.20	20.50	21.80	1.30	20.50	37.20	21.80	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 5:45 PM	43.00	6.00	21.60	20.70	0.00	21.60	29.50	20.70	44.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 6:00 PM	29.00	5.70	22.40	21.10	0.00	22.40	32.60	21.10	32.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 6:15 PM	32.00	4.50	21.60	20.00	0.00	21.60	29.30	20.00	33.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 6:30 PM	41.00	7.50	22.40	21.20	0.00	22.40	36.40	21.20	34.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 6:45 PM	38.00	6.30	23.30	22.00	0.00	23.30	32.60	22.00	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:00 PM	47.00	3.70	24.20	23.10	0.00	24.20	35.10	23.10	39.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:15 PM	59.00	4.80	29.20	22.90	0.00	29.20	33.70	22.90	36.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:30 PM	48.00	4.70	21.90	22.30	0.40	21.90	33.80	22.30	35.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 7:45 PM	49.00	4.00	20.60	20.90	0.30	20.60	31.10	20.90	31.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:00 PM	45.00	5.50	21.10	20.80	0.00	21.10	31.60	20.80	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:15 PM	68.00	4.10	20.90	20.80	0.00	20.90	31.50	20.80	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:30 PM	51.00	5.50	19.90	21.70	1.80	19.90	30.30	21.70	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 8:45 PM	14.00	4.50	21.40	21.90	0.50	21.40	28.30	21.90	29.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:00 PM	53.00	4.50	20.70	20.60	0.00	20.70	29.00	20.60	28.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:15 PM	42.00	3.00	22.10	22.00	0.00	22.10	28.60	22.00	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:30 PM	60.00	3.50	21.20	21.80	0.60	21.20	30.00	21.80	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 9:45 PM	41.00	4.90	20.20	19.40	0.00	20.20	27.70	19.40	26.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:00 PM	73.00	3.20	24.70	22.30	0.00	24.70	30.20	22.30	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:15 PM	192.00	1.30	21.10	21.70	0.60	21.70	30.40	21.10	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:30 PM	186.00	2.00	23.20	26.60	3.40	26.60	32.60	23.20	34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 10:45 PM	158.00	2.90	35.20	30.90	0.00	24.10	35.20	24.30	30.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/10/13 11:00 PM	157.00	2.90	42.30	26														



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/12/13 8:15 AM	65.00	2.90	5.90	5.20	0.00	5.90	15.50	5.20	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 8:30 AM	56.00	1.80	11.80	8.50	0.00	11.80	16.90	8.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 8:45 AM	8.00	1.10	9.90	17.00	7.10	9.90	29.60	17.00	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:00 AM	331.00	2.10	11.80	26.80	15.00	9.80	26.80	14.50	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:15 AM	30.00	1.10	14.60	20.70	6.10	14.60	28.70	20.70	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:30 AM	7.00	2.80	18.20	13.90	0.00	18.20	16.50	13.90	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:45 AM	10.00	2.30	14.90	13.10	0.00	14.90	23.40	13.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:00 AM	9.00	4.50	18.50	14.40	0.00	18.50	18.00	14.40	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:15 AM	12.00	3.80	19.70	19.80	0.10	19.70	34.10	19.80	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:30 AM	9.00	2.40	12.00	15.10	3.10	12.00	20.00	15.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:45 AM	14.00	2.10	11.40	9.90	0.00	11.40	13.80	9.90	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:00 AM	6.00	3.80	15.20	10.40	0.00	15.20	18.40	10.40	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:15 AM	332.00	1.60	9.00	15.00	6.00	11.70	15.00	8.90	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:30 AM	12.00	3.50	11.70	9.90	0.00	11.70	14.40	9.90	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:45 AM	7.00	2.50	14.00	12.90	0.00	14.00	17.20	12.90	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 12:00 PM	351.00	2.10	12.70	20.80	8.10	14.20	20.80	11.40	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 12:15 PM	20.00	3.20	14.30	11.70	0.00	14.30	19.40	11.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 12:30 PM	23.00	2.90	14.80	13.70	0.00	14.80	21.10	13.70	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 12:45 PM	17.00	4.10	15.00	16.00	1.00	15.00	22.50	16.00	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 1:00 PM	19.00	4.50	15.90	17.60	1.70	15.90	23.30	17.60	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 1:15 PM	27.00	5.50	17.20	18.20	1.00	17.20	32.10	18.20	25.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 1:30 PM	23.00	5.80	19.30	17.40	0.00	19.30	38.80	17.40	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 1:45 PM	25.00	3.90	18.10	23.40	5.30	18.10	49.50	23.40	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 2:00 PM	35.00	5.10	18.10	17.90	0.00	18.10	25.00	17.90	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 2:15 PM	29.00	5.00	18.20	16.60	0.00	18.20	23.60	16.60	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 2:30 PM	27.00	5.20	28.60	24.30	0.00	28.60	35.60	24.30	47.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 2:45 PM	20.00	6.50	20.10	18.40	0.00	20.10	31.20	18.40	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 3:00 PM	32.00	5.40	18.80	17.90	0.00	18.80	21.70	17.90	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 3:15 PM	30.00	5.40	19.30	19.10	0.00	19.30	0.00	19.10	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 3:30 PM	34.00	4.60	18.60	18.40	0.00	18.60	23.40	18.40	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 3:45 PM	31.00	5.70	26.70	27.90	1.20	26.70	34.00	27.90	23.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 4:00 PM	30.00	6.00	22.50	21.80	0.00	22.50	31.90	21.80	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 4:15 PM	37.00	5.70	19.40	22.10	2.70	19.40	35.80	22.10	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 4:30 PM	42.00	5.80	22.70	31.70	9.00	22.70	53.30	31.70	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 4:45 PM	34.00	5.40	19.00	23.30	4.30	19.00	23.00	23.30	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 5:00 PM	21.00	5.00	19.50	21.00	1.50	19.50	25.00	21.00	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 5:15 PM	23.00	6.10	22.40	27.10	4.70	22.40	40.50	27.10	32.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 5:30 PM	38.00	4.70	30.50	31.80	1.30	30.50	55.30	31.80	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 5:45 PM	42.00	5.70	25.10	29.60	4.50	25.10	42.90	29.60	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 6:00 PM	34.00	4.70	21.00	25.70	4.70	21.00	40.90	25.70	26.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 6:15 PM	23.00	5.00	24.50	23.90	0.00	24.50	35.60	23.90	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 6:30 PM	21.00	4.40	21.70	23.20	1.50	21.70	31.80	23.20	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 6:45 PM	36.00	3.70	27.50	40.10	12.60	27.50	36.80	40.10	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 7:00 PM	32.00	4.60	28.50	45.30	16.80	28.50	434.10	45.30	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 7:15 PM	41.00	3.90	28.20	25.20	0.00	28.20	46.40	25.20	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 7:30 PM	49.00	2.90	23.00	23.10	0.10	23.00	0.00	23.10	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 7:45 PM	0.00	0.00	0.00	0.00	0.00	34.20	43.50	36.10	34.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 8:00 PM	67.00	2.80	31.40	29.20	0.00	31.40	40.60	29.20	33.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 8:15 PM	93.00	3.30	48.40	31.20	0.00	31.40	48.40	29.10	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 8:30 PM	70.00	4.80	29.60	26.60	0.00	29.60	40.90	26.60	38.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 8:45 PM	71.00	3.80	37.70	23.70	0.00	37.70	30.70	23.70	40.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:00 PM	69.00	3.20	28.90	24.50	0.00	28.90	36.50	24.50	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:15 PM	85.00	4.40	23.20	16.70	0.00	23.20	20.30	16.70	34.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:30 PM	93.00	2.10	19.40	32.00	12.60	22.10	19.40	15.40	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 9:45 PM	92.00	3.00	21.40	23.10	1.70	24.90	21.40	15.60	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:00 PM	102.00	2.80	20.40	21.80	1.40	22.40	20.40	16.50	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:15 PM	116.00	1.70	20.70	17.80	0.00	21.60	20.70	15.80	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:30 PM	106.00	3.00	23.20	17.70	0.00	22.80	23.20	15.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 10:45 PM	109.00	1.00	21.90	16.30	0.00	20.40	21.90	17.00	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:00 PM	101.00	1.80	23.60	14.80	0.00	19.90	23.60	17.30	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:15 PM	110.00	2.00	0.00	15.80	0.00	20.30	0.00	15.90	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:30 PM	106.00	1.60	24.10	15.80	0.00	20.40	24.10	17.70	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/12/13 11:45 PM	155.00	1.50	27.90	16.00	0.00	21.10	27.90	17.10	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/13/13 12:00 AM	149.00	1.70	25.50	16.00	0.00	21.10	25.50	18.60	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/13/13 12:15 AM	177.00	2.40	24.00	15.50	0.00	20.60	24.00	18.00	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/13/13 12:30 AM	158.00	1.90	25.90	16.00	0.00	20.30	25.90	18.80	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/13/13 12:45 AM	150.00	2.20	23.50	17.90	0.00	21.20	23.50	22.10	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/13/13 1:00 AM	154.00	1.50	24.70	21.50	0.00	21.90	24.70	20.30	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/13/13 1:15 AM	183.00	0.90	25.30	30.70	5.40	30.70	45.50	25.30	28.90	0.00	0.00	0.00	0.0					



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/14/13 10:30 AM	115.00	1.30	15.60	17.90	2.30	21.30	15.60	17.30	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 10:45 AM	119.00	1.70	16.00	16.80	0.80	21.20	16.00	17.10	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:00 AM	165.00	2.80	16.50	17.20	0.70	20.80	16.50	17.90	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:15 AM	70.00	1.40	20.30	18.20	0.00	20.30	20.10	18.20	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:30 AM	131.00	2.90	22.50	19.50	0.00	21.70	22.50	18.30	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:45 AM	111.00	1.90	22.80	22.50	0.00	20.90	22.80	19.50	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 12:00 PM	147.00	1.90	22.00	18.80	0.00	21.20	22.00	21.00	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 12:15 PM	101.00	1.20	20.30	21.70	1.40	20.10	20.30	19.40	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 12:30 PM	154.00	3.10	23.70	21.20	0.00	21.50	23.70	19.80	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 12:45 PM	99.00	2.20	23.70	22.40	0.00	21.70	23.70	20.90	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 1:00 PM	55.00	3.00	22.30	21.30	0.00	22.30	22.20	21.30	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 1:15 PM	23.00	6.50	19.90	19.00	0.00	19.90	20.40	19.00	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 1:30 PM	24.00	4.10	20.20	18.50	0.00	20.20	21.60	18.50	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 1:45 PM	15.00	7.70	28.10	21.10	0.00	28.10	23.20	21.10	34.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 2:00 PM	23.00	9.10	26.20	22.00	0.00	26.20	21.40	22.00	31.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 2:15 PM	29.00	5.30	26.50	32.20	5.70	26.50	31.70	32.20	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 2:30 PM	30.00	5.80	30.30	28.90	0.00	30.30	54.00	28.90	25.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 2:45 PM	30.00	6.10	25.20	31.70	6.50	25.20	38.40	31.70	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 3:00 PM	36.00	6.50	25.40	26.40	1.00	25.40	43.70	26.40	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 3:15 PM	42.00	6.00	23.60	24.70	1.10	23.60	23.20	24.70	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 3:30 PM	40.00	6.60	24.20	23.40	0.00	24.20	22.80	23.40	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 3:45 PM	42.00	6.20	23.90	22.50	0.00	23.90	22.90	22.50	25.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 4:00 PM	39.00	7.40	23.90	26.20	2.30	23.90	22.70	26.20	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 4:15 PM	45.00	5.50	24.20	25.20	1.00	24.20	20.90	25.20	26.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 4:30 PM	37.00	5.90	25.60	27.40	1.80	25.60	27.70	27.40	27.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 4:45 PM	38.00	6.30	23.80	23.30	0.00	23.80	19.20	23.30	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 5:00 PM	73.00	5.20	23.40	22.60	0.00	23.40	20.40	22.60	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 5:15 PM	65.00	4.80	23.20	23.20	0.00	23.20	19.30	23.20	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 5:30 PM	53.00	5.80	23.30	21.40	0.00	23.30	23.10	21.40	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 5:45 PM	67.00	5.20	20.40	19.80	0.00	20.40	18.80	19.80	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 6:00 PM	88.00	2.90	20.20	20.20	0.00	20.20	25.30	20.20	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 6:15 PM	91.00	3.00	34.80	22.40	0.00	20.20	34.80	26.70	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 6:30 PM	75.00	3.90	21.30	24.40	3.10	21.30	26.40	24.40	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 6:45 PM	106.00	3.30	39.40	27.60	0.00	43.70	39.40	31.30	27.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 7:00 PM	93.00	3.70	26.30	44.10	17.80	24.20	26.30	25.00	44.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 7:15 PM	95.00	4.60	26.60	36.00	9.40	27.10	26.60	29.00	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 7:30 PM	80.00	2.90	24.30	23.10	0.00	24.30	20.50	23.10	39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 7:45 PM	69.00	4.40	28.20	24.20	0.00	28.20	19.70	24.20	24.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 8:00 PM	70.00	3.50	27.00	28.50	1.50	27.00	27.30	28.50	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 8:15 PM	91.00	4.00	41.70	24.30	0.00	25.20	41.70	29.00	24.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 8:30 PM	98.00	2.60	20.40	24.80	4.40	25.40	20.40	24.20	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 8:45 PM	106.00	1.60	19.00	30.90	11.90	25.30	19.00	21.50	30.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 9:00 PM	104.00	3.10	22.00	27.30	5.30	24.60	22.00	21.00	27.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 9:15 PM	77.00	4.10	25.00	19.90	0.00	25.00	22.00	19.90	26.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 9:30 PM	92.00	5.40	23.00	30.00	7.00	24.50	23.00	21.30	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 9:45 PM	74.00	3.00	23.70	20.20	0.00	23.70	23.50	20.20	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 10:00 PM	75.00	4.30	23.00	20.30	0.00	23.00	25.60	20.30	22.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 10:15 PM	75.00	3.40	23.50	20.70	0.00	23.50	19.90	20.70	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 10:30 PM	82.00	3.90	24.90	19.10	0.00	24.90	21.10	19.10	29.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 10:45 PM	78.00	2.60	25.60	19.10	0.00	25.60	19.10	19.10	30.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:00 PM	92.00	2.50	18.60	27.00	8.40	23.80	18.60	19.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:15 PM	102.00	2.80	17.10	29.70	12.60	29.10	17.10	18.80	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:30 PM	92.00	1.60	29.80	32.00	2.20	28.90	29.80	29.40	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/14/13 11:45 PM	64.00	2.70	28.60	25.90	0.00	28.60	20.80	25.90	36.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 12:00 AM	92.00	1.40	17.10	37.40	20.30	31.30	17.10	21.10	37.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 12:15 AM	113.00	1.00	18.00	29.70	11.70	32.30	18.00	21.60	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 12:30 AM	67.00	1.80	27.00	19.30	0.00	27.00	16.20	19.30	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 12:45 AM	69.00	1.90	26.90	18.90	0.00	26.90	16.10	18.90	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 1:00 AM	21.00	0.30	23.90	18.30	0.00	23.90	16.00	18.30	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 1:15 AM	92.00	0.80	17.70	19.90	2.20	23.50	17.70	20.40	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 1:30 AM	89.00	0.90	23.10	19.00	0.00	23.10	15.70	19.00	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 1:45 AM	125.00	1.20	18.10	22.70	4.60	25.50	18.10	19.10	22.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 2:00 AM	53.00	0.80	29.00	24.30	0.00	29.00	22.90	24.30	33.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 2:15 AM	95.00	0.20	24.30	28.70	4.40	28.10	24.30	24.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 2:30 AM	62.00	1.30	27.20	25.40	0.00	27.20	25.00	25.40	29.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 2:45 AM	98.00	0.90	24.90	28.10	3.20	27.90	24.90	29.90	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 3:00 AM	136.00	2.50	21.70	24.60	2.90	25.60	21.70	23.80	24.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 3:15 AM	100.00	1.80	23.40	25.20	1.80	27.10	23.40	23.70	25.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/15/13 3:30 AM	149.00	2.10	21.10	26.20	5.10	27.80	21.10	25.70								



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Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/16/13 12:00 PM	227.00	2.80	21.60	23.70	2.10	23.70	31.10	21.60	25.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 12:15 PM	228.00	2.60	26.50	23.70	0.00	23.70	29.10	26.50	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 12:30 PM	282.00	1.40	27.10	28.30	1.20	23.00	28.30	20.90	27.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 12:45 PM	205.00	4.40	20.50	23.20	2.70	23.20	34.80	20.50	23.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 1:00 PM	229.00	3.60	19.00	22.00	3.00	22.00	26.70	19.00	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 1:15 PM	236.00	4.90	19.40	23.50	4.10	23.50	26.00	19.40	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 1:30 PM	209.00	4.30	21.40	21.80	0.40	21.80	26.30	21.40	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 1:45 PM	251.00	4.50	18.40	21.50	3.10	21.50	26.30	18.40	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 2:00 PM	234.00	3.30	18.10	21.30	3.20	21.30	28.10	18.10	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 2:15 PM	218.00	2.30	17.70	19.90	2.20	19.90	24.70	17.70	27.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 2:30 PM	223.00	3.00	16.90	20.00	3.10	20.00	57.40	16.90	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 2:45 PM	216.00	4.00	16.70	19.60	2.90	19.60	24.80	16.70	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 3:00 PM	214.00	3.20	16.30	20.00	3.70	20.00	23.10	16.30	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 3:15 PM	273.00	2.50	22.10	22.20	0.10	19.70	22.20	15.00	22.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 3:30 PM	242.00	3.50	16.00	19.30	3.30	19.30	22.00	16.00	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 3:45 PM	206.00	3.80	16.30	18.90	2.60	18.90	30.10	16.30	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 4:00 PM	203.00	3.10	15.60	18.50	2.90	18.50	23.60	15.60	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 4:15 PM	178.00	2.60	21.50	22.50	1.00	19.40	21.50	17.00	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 4:30 PM	209.00	3.30	15.40	18.20	2.80	18.20	19.70	15.40	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 4:45 PM	219.00	3.20	14.50	17.20	2.70	17.20	20.20	14.50	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 5:00 PM	236.00	4.40	14.90	17.70	2.80	17.70	41.00	14.90	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 5:15 PM	207.00	3.70	14.40	17.60	3.20	17.60	18.50	14.40	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 5:30 PM	217.00	4.00	13.90	17.50	3.60	17.50	17.40	13.90	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 5:45 PM	238.00	5.50	13.60	17.10	3.50	17.10	16.80	13.60	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 6:00 PM	268.00	3.90	13.90	16.90	3.00	16.90	22.10	13.90	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 6:15 PM	231.00	4.30	13.70	17.10	3.40	17.10	17.30	13.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 6:30 PM	220.00	4.70	14.70	17.20	2.50	17.20	17.20	14.70	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 6:45 PM	224.00	4.90	13.60	16.80	3.20	16.80	16.80	13.60	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 7:00 PM	227.00	3.20	14.00	17.10	3.10	17.10	16.80	14.00	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 7:15 PM	217.00	2.80	14.10	17.00	2.90	17.00	29.00	14.10	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 7:30 PM	247.00	4.30	15.30	17.90	2.60	17.90	17.10	15.30	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 7:45 PM	204.00	3.00	15.20	18.10	2.90	18.10	25.70	15.20	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 8:00 PM	222.00	3.20	16.70	18.60	1.90	18.60	18.00	16.70	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 8:15 PM	219.00	1.40	19.60	20.10	0.50	20.10	22.80	19.60	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 8:30 PM	223.00	2.50	16.60	19.50	2.90	19.50	20.70	16.60	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 8:45 PM	238.00	1.60	18.70	19.40	0.70	19.40	22.00	18.70	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 9:00 PM	235.00	1.30	17.70	19.40	1.70	19.40	23.40	17.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 9:15 PM	222.00	1.50	16.90	19.00	2.10	19.00	23.70	16.90	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 9:30 PM	227.00	1.90	17.50	19.70	2.20	19.70	23.70	17.50	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 9:45 PM	215.00	2.10	18.40	19.70	1.30	19.70	25.20	18.40	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 10:00 PM	215.00	1.80	19.00	19.70	0.70	19.70	26.40	19.00	21.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 10:15 PM	224.00	2.10	19.80	20.50	0.70	20.50	23.80	19.80	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 10:30 PM	238.00	1.10	20.10	20.70	0.60	20.70	23.90	20.10	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 10:45 PM	218.00	2.00	19.90	21.20	1.30	21.20	23.50	19.90	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 11:00 PM	207.00	1.50	20.40	21.10	0.70	21.10	22.70	20.40	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 11:15 PM	223.00	1.80	21.50	21.50	0.00	21.50	22.60	21.50	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 11:30 PM	237.00	1.80	21.90	21.70	0.00	21.70	22.90	21.90	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/16/13 11:45 PM	242.00	2.00	20.20	22.00	1.80	22.00	22.90	20.20	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 12:00 AM	245.00	2.00	20.80	0.00	0.00	0.00	23.20	20.80	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 12:15 AM	264.00	1.60	19.80	20.80	1.00	20.80	24.70	19.80	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 12:30 AM	263.00	2.10	19.10	20.10	1.00	20.10	26.20	19.10	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 12:45 AM	244.00	1.50	18.90	19.80	0.90	19.80	28.10	18.90	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 1:00 AM	240.00	1.30	21.00	21.30	0.30	21.30	26.10	21.00	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 1:15 AM	245.00	1.30	22.10	22.20	0.10	22.20	28.20	22.10	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 1:30 AM	235.00	1.80	21.70	21.70	0.00	21.70	28.70	21.70	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 1:45 AM	232.00	1.50	21.40	21.30	0.00	21.30	26.30	21.40	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 2:00 AM	250.00	1.60	21.70	21.80	0.10	21.80	27.30	21.70	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 2:15 AM	236.00	1.30	21.80	22.20	0.40	22.20	28.00	21.80	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 2:30 AM	233.00	1.60	21.60	22.90	1.30	22.90	24.20	21.60	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 2:45 AM	241.00	1.30	26.10	26.60	0.50	26.60	26.30	26.10	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 3:00 AM	218.00	0.80	22.00	25.90	3.90	25.90	24.60	22.00	41.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 3:15 AM	213.00	1.20	22.30	23.40	1.10	23.40	25.60	22.30	33.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 3:30 AM	223.00	1.20	22.00	23.10	1.10	23.10	25.20	22.00	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 3:45 AM	212.00	1.30	22.40	22.70	0.30	22.70	23.10	22.40	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 4:00 AM	213.00	1.50	22.20	23.00	0.80	23.00	24.10	22.20	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 4:15 AM	211.00	1.50	22.90	22.90	0.00	22.90	28.70	22.90	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 4:30 AM	232.00	1.40	25.80	24.10	0.00	24.10	26.80	25.80	21.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 4:45 AM	224.00	1.20	25.70	25.40	0.00	25.40	27.80	25.70	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
7/17/13 5:00 AM	217.00	1.40	25.10	27.00														



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/17/13 12:45 PM	9.00	1.30	25.80	25.60	0.00	25.80	32.70	25.60	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 1:00 PM	128.00	2.10	35.70	27.30	0.00	26.90	35.70	26.20	27.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 1:15 PM	125.00	4.10	44.00	28.10	0.00	26.80	44.00	24.20	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 1:30 PM	133.00	2.30	34.40	28.50	0.00	26.00	34.40	33.40	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 1:45 PM	112.00	3.50	28.90	26.40	0.00	25.50	28.90	24.10	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 2:00 PM	130.00	3.20	31.60	29.90	0.00	28.30	31.60	25.00	29.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 2:15 PM	118.00	3.10	82.60	37.60	0.00	36.10	82.60	32.80	37.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 2:30 PM	84.00	2.90	29.60	261.60	232.00	29.60	47.20	261.60	38.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 2:45 PM	79.00	3.70	34.70	54.40	19.70	34.70	61.80	54.40	45.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 3:00 PM	96.00	2.90	59.60	42.60	0.00	43.00	59.60	39.90	42.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 3:15 PM	102.00	1.90	59.60	40.40	0.00	37.70	59.60	40.40	40.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 3:30 PM	87.00	4.10	43.10	40.20	0.00	43.10	57.90	40.20	57.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 3:45 PM	74.00	4.70	42.10	50.30	8.20	42.10	65.40	50.30	38.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 4:00 PM	74.00	2.00	37.00	62.40	25.40	37.00	82.20	62.40	40.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 4:15 PM	70.00	2.80	43.10	62.70	19.60	43.10	155.20	62.70	40.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 4:30 PM	111.00	2.40	100.60	46.40	0.00	37.00	100.60	51.00	46.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 4:45 PM	192.00	1.40	55.80	39.00	0.00	39.00	79.50	55.80	38.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 5:00 PM	228.00	1.60	43.20	43.10	0.00	43.10	44.90	43.20	43.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 5:15 PM	284.00	3.30	38.60	46.40	7.80	38.70	46.40	45.40	38.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 5:30 PM	274.00	2.30	35.40	142.30	106.90	38.50	142.30	64.70	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 5:45 PM	237.00	3.10	52.10	52.30	0.20	52.30	69.00	52.10	62.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 6:00 PM	253.00	3.00	33.10	38.00	4.90	38.00	41.70	33.10	32.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 6:15 PM	263.00	3.70	28.90	36.90	8.00	36.90	28.40	28.90	28.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 6:30 PM	282.00	4.00	27.50	29.70	2.20	36.80	29.70	29.10	27.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 6:45 PM	242.00	3.10	27.80	36.90	9.10	36.90	28.30	27.80	24.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 7:00 PM	250.00	4.40	28.00	36.50	8.50	36.50	28.40	28.00	25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 7:15 PM	276.00	4.40	25.00	26.40	1.40	36.70	26.40	28.80	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 7:30 PM	302.00	3.10	25.10	26.80	1.70	34.90	26.80	33.20	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 7:45 PM	282.00	3.20	24.80	60.90	36.10	36.20	60.90	27.10	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 8:00 PM	280.00	3.60	23.30	26.60	3.30	34.50	26.60	26.20	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 8:15 PM	299.00	1.50	21.90	33.00	11.10	32.80	33.00	30.30	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 8:30 PM	283.00	2.50	21.30	27.00	5.70	31.80	27.00	25.90	21.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 8:45 PM	279.00	2.20	28.10	26.40	0.00	33.90	26.40	24.60	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 9:00 PM	264.00	2.50	24.50	31.50	7.00	31.50	33.30	24.50	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 9:15 PM	267.00	1.80	24.10	34.40	10.30	34.40	29.20	24.10	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 9:30 PM	253.00	1.70	28.50	32.50	4.00	32.50	33.00	28.50	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 9:45 PM	257.00	1.80	25.90	31.70	5.80	31.70	30.50	25.90	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 10:00 PM	258.00	1.20	26.00	32.20	6.20	32.20	28.70	26.00	22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 10:15 PM	290.00	2.00	24.10	28.10	4.00	33.00	28.10	26.80	24.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 10:30 PM	291.00	1.60	23.60	27.80	4.20	33.40	27.80	26.60	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 10:45 PM	251.00	1.00	26.30	33.00	6.70	33.00	25.90	26.30	22.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 11:00 PM	213.00	1.10	26.00	32.90	6.90	32.90	24.90	26.00	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 11:15 PM	257.00	1.20	26.70	33.30	6.60	33.30	26.40	26.70	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 11:30 PM	247.00	1.00	26.50	34.80	8.30	34.80	26.90	26.50	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/17/13 11:45 PM	227.00	1.00	27.90	36.20	8.30	36.20	40.80	27.90	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 12:00 AM	239.00	1.30	28.30	36.30	8.00	36.30	26.80	28.30	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 12:15 AM	230.00	1.40	28.60	36.90	8.30	36.90	30.40	28.60	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 12:30 AM	216.00	1.20	29.80	36.50	6.70	36.50	29.70	29.80	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 12:45 AM	239.00	1.30	30.60	37.40	6.80	37.40	31.80	30.60	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 1:00 AM	260.00	1.40	30.70	37.60	6.90	37.60	31.70	30.70	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 1:15 AM	262.00	1.80	31.30	38.90	7.60	38.90	33.00	31.30	29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 1:30 AM	229.00	1.40	33.70	38.60	4.90	38.60	32.50	33.70	30.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 1:45 AM	243.00	1.80	34.60	39.20	4.60	39.20	32.20	34.60	29.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 2:00 AM	246.00	1.90	33.60	39.40	5.80	39.40	32.60	33.60	29.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 2:15 AM	266.00	1.80	34.00	38.70	4.70	38.70	31.40	34.00	31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 2:30 AM	255.00	1.00	33.40	39.50	6.10	39.50	30.80	33.40	31.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 2:45 AM	262.00	2.10	33.70	38.20	4.50	38.20	57.70	33.70	30.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 3:00 AM	223.00	1.20	34.20	38.00	3.80	38.00	35.80	34.20	28.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 3:15 AM	257.00	1.60	33.80	38.80	5.00	38.80	37.70	33.80	28.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 3:30 AM	263.00	1.30	33.80	38.80	5.00	38.80	61.60	33.80	33.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 3:45 AM	275.00	1.70	27.90	37.40	9.50	37.60	37.40	34.60	27.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 4:00 AM	231.00	1.10	33.90	36.90	3.00	36.90	37.30	33.90	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 4:15 AM	205.00	1.10	31.70	35.90	4.00	35.70	40.00	31.70	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 4:30 AM	251.00	1.30	31.40	34.40	3.00	34.40	34.80	31.40	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 4:45 AM	247.00	1.50	29.10	33.00	3.90	33.00	33.60	29.10	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 5:00 AM	250.00	1.20	28.60	33.40	4.80	33.40	29.80	28.60	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 5:15 AM	244.00	1.60	28.40	33.00	4.60	33.00	32.00	28.40	24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 5:30 AM	230.00	1.00	29.30	33.20	3.90	33.20	31.10	29.30	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/18/13 5:45 AM	216.00	1.00	28.60	33												



US Army Corps of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Table with columns: Reading Time (EST), Wind Direction, Wind Speed, Particulates (µg/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4], Naphthalene (µg/m³) [Upwind, Downwind, CDF Contribution, M1, M2, M3, M4]. Rows represent hourly data from 7/18/13 1:30 PM to 7/19/13 2:00 PM.



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/19/13 2:15 PM	257.00	7.10	24.10	27.40	3.30	27.40	28.20	24.10	42.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 2:30 PM	244.00	7.90	22.20	25.80	3.60	25.80	29.30	22.20	43.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 2:45 PM	239.00	5.80	21.30	31.70	10.40	31.70	40.50	21.30	45.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 3:00 PM	225.00	9.20	22.10	23.00	0.90	23.00	35.90	22.10	34.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 3:15 PM	236.00	10.40	23.00	35.80	12.80	35.80	40.00	23.00	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 3:30 PM	253.00	10.00	20.20	26.90	6.70	26.90	46.30	20.20	39.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 3:45 PM	254.00	11.00	20.90	31.00	10.10	31.00	37.70	20.90	35.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 4:00 PM	261.00	8.50	21.40	28.80	7.40	28.80	36.00	21.40	38.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 4:15 PM	269.00	9.80	21.30	31.90	10.60	31.90	40.10	21.30	35.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 4:30 PM	252.00	10.10	22.90	21.30	0.00	21.30	38.80	22.90	37.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 4:45 PM	247.00	5.80	23.30	19.20	0.00	19.20	42.70	23.30	33.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 5:00 PM	254.00	7.10	23.00	27.40	4.40	27.40	29.70	23.00	28.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 5:15 PM	232.00	8.50	22.10	29.10	7.00	29.10	37.10	22.10	42.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 5:30 PM	232.00	7.20	21.40	29.20	7.80	29.20	34.60	21.40	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 5:45 PM	249.00	7.10	21.00	33.90	12.90	33.90	34.90	21.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 6:00 PM	251.00	4.40	21.20	29.30	8.10	29.30	32.20	21.20	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 6:15 PM	236.00	6.70	20.00	32.00	12.00	32.00	31.10	20.00	30.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 6:30 PM	249.00	8.50	20.80	33.60	12.80	33.60	29.80	20.80	27.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 6:45 PM	238.00	5.80	19.60	32.80	13.20	32.80	42.50	19.60	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 7:00 PM	276.00	5.90	26.40	33.30	6.90	32.60	33.30	19.80	26.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 7:15 PM	241.00	6.10	19.30	26.80	7.50	26.80	27.70	19.30	25.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 7:30 PM	251.00	6.20	21.50	24.20	2.70	24.20	33.90	21.50	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 7:45 PM	250.00	4.60	20.10	24.80	4.70	24.80	54.60	20.10	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 8:00 PM	244.00	3.30	20.50	23.50	3.20	23.50	107.90	20.50	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 8:15 PM	255.00	5.10	18.20	18.00	0.00	18.00	24.80	18.20	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 8:30 PM	236.00	5.00	18.40	16.50	0.00	16.50	27.00	18.40	23.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 8:45 PM	249.00	6.40	18.30	24.10	5.80	24.10	24.10	18.30	22.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 9:00 PM	254.00	4.70	18.70	24.20	5.50	24.20	42.70	18.70	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 9:15 PM	233.00	4.70	18.10	24.90	6.80	24.90	25.80	18.10	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 9:30 PM	237.00	5.00	18.20	24.50	6.30	24.50	25.50	18.20	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 9:45 PM	225.00	3.80	17.80	24.70	6.90	24.70	27.10	17.80	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 10:00 PM	254.00	6.00	18.40	24.70	6.30	24.70	23.80	18.40	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 10:15 PM	229.00	5.40	17.60	24.80	7.20	24.80	21.50	17.60	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 10:30 PM	335.00	7.60	20.20	24.20	4.00	24.90	24.20	16.70	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 10:45 PM	327.00	3.70	18.70	23.20	4.50	24.70	23.20	16.90	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 11:00 PM	291.00	2.30	18.70	23.20	4.50	24.70	23.20	16.90	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 11:15 PM	352.00	4.60	19.10	22.30	3.20	25.30	22.30	17.60	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 11:30 PM	295.00	2.30	38.20	23.40	0.00	32.90	23.40	18.00	38.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/13 11:45 PM	275.00	2.70	37.50	45.40	7.90	35.70	45.40	30.20	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 12:00 AM	238.00	2.00	26.50	35.80	9.30	35.80	54.90	26.50	33.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 12:15 AM	309.00	2.60	24.80	42.60	17.80	35.20	42.60	26.20	24.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 12:30 AM	276.00	1.90	17.60	25.90	8.30	36.40	25.90	20.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 12:45 AM	285.00	2.50	17.00	23.50	6.50	35.60	23.50	18.10	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 1:00 AM	282.00	2.30	16.10	21.20	5.10	35.30	21.20	18.90	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 1:15 AM	261.00	2.90	20.20	35.50	15.30	35.50	23.30	20.20	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 1:30 AM	274.00	2.90	18.60	22.40	3.80	33.00	22.40	20.50	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 1:45 AM	290.00	2.70	18.60	22.20	3.60	31.90	22.20	19.40	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 2:00 AM	281.00	4.00	18.50	21.30	2.80	31.60	21.30	19.30	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 2:15 AM	273.00	3.30	17.20	19.40	2.20	30.40	19.40	18.80	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 2:30 AM	294.00	2.60	16.40	18.60	2.20	29.50	18.60	18.20	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 2:45 AM	280.00	1.90	16.10	17.80	1.70	27.50	17.80	17.60	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:00 AM	285.00	2.10	16.00	17.80	1.80	26.70	17.80	17.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:15 AM	317.00	4.50	16.00	17.40	1.40	26.70	17.40	17.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:30 AM	326.00	2.60	17.20	17.10	0.00	26.50	17.10	16.70	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:45 AM	322.00	1.90	16.30	17.20	0.90	26.80	17.20	16.50	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:00 AM	309.00	2.00	16.80	17.70	0.90	27.20	17.70	17.30	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:15 AM	284.00	1.80	16.90	18.30	1.40	26.20	18.30	18.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:30 AM	319.00	1.90	18.90	18.30	0.00	26.30	18.30	17.50	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:45 AM	280.00	1.30	21.20	20.80	0.00	25.70	20.80	18.10	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:00 AM	315.00	1.50	19.30	19.30	0.00	26.20	19.30	18.10	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:15 AM	319.00	1.90	20.80	18.70	0.00	25.20	18.70	17.60	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:30 AM	321.00	2.00	19.40	19.30	0.00	26.10	19.30	17.50	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:45 AM	3.00	3.40	25.90	18.30	0.00	25.90	19.80	18.30	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:00 AM	14.00	4.30	27.20	18.00	0.00	27.20	20.40	18.00	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:15 AM	3.00	4.20	25.60	18.30	0.00	25.60	22.10	18.30	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:30 AM	1.00	5.80	25.50	18.30	0.00	25.50	20.20	18.30	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:45 AM	352.00	3.50	15.50	15.40	0.00	22.60	15.40	16.60	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 7:00 AM	7.00	3.30	21.90	13.90	0.00	21.90	15.00	13.90	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 7:15 AM	12.00	7.50	21.50	13.50												



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7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)							Naphthalene (µg/m ³)						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/20/13 3:00 PM	52.00	6.80	11.80	15.50	3.70	11.80	14.10	15.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:15 PM	42.00	3.70	10.70	17.70	7.00	10.70	14.90	17.70	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:30 PM	84.00	5.10	10.30	11.20	0.90	10.30	17.70	11.20	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 3:45 PM	40.00	5.00	12.00	31.60	19.60	12.00	18.30	31.60	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:00 PM	67.00	5.40	11.60	11.10	0.00	11.60	18.90	11.10	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:15 PM	134.00	3.60	16.70	16.90	0.20	9.70	16.70	11.10	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:30 PM	96.00	4.40	19.60	18.50	0.00	9.80	19.60	11.20	18.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 4:45 PM	122.00	4.30	22.60	17.20	0.00	11.10	22.60	17.60	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:00 PM	81.00	4.60	11.70	31.50	19.80	11.70	22.00	31.50	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:15 PM	80.00	4.00	16.10	80.60	64.50	16.10	66.20	80.60	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:30 PM	106.00	4.10	24.90	13.20	0.00	16.80	24.90	40.20	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 5:45 PM	79.00	4.60	21.60	89.20	67.60	21.60	16.30	89.20	33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:00 PM	85.00	4.90	15.80	40.40	24.60	15.80	13.90	40.40	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:15 PM	129.00	3.70	14.90	12.70	0.00	15.50	14.90	17.10	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:30 PM	82.00	3.30	15.10	15.90	0.80	15.10	14.80	15.90	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 6:45 PM	78.00	3.40	14.90	42.80	27.90	14.90	15.40	42.80	24.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 7:00 PM	111.00	2.50	14.80	14.40	0.00	14.00	14.80	16.10	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 7:15 PM	82.00	3.10	11.50	14.90	3.40	11.50	15.00	14.90	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 7:30 PM	91.00	3.80	14.30	8.70	0.00	12.70	14.30	14.80	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 7:45 PM	92.00	2.10	15.60	9.00	0.00	12.30	15.60	15.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 8:00 PM	76.00	3.90	12.10	14.10	2.00	12.10	25.20	14.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 8:15 PM	107.00	3.20	13.80	7.60	0.00	13.90	13.80	15.70	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 8:30 PM	54.00	4.10	14.70	14.90	0.20	14.70	15.10	14.90	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 8:45 PM	33.00	5.00	14.70	16.50	1.80	14.70	14.60	16.50	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 9:00 PM	28.00	5.10	14.70	18.10	3.40	14.70	12.60	18.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 9:15 PM	30.00	5.80	15.60	16.70	1.10	15.60	13.40	16.70	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 9:30 PM	41.00	5.30	15.90	19.10	3.20	15.90	16.00	19.10	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 9:45 PM	25.00	6.00	16.90	20.50	3.60	16.90	19.10	20.50	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 10:00 PM	8.00	5.90	17.40	21.60	4.20	17.40	26.40	21.60	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 10:15 PM	358.00	3.90	8.60	11.40	2.80	18.30	11.40	20.50	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 10:30 PM	14.00	5.50	17.60	17.10	0.00	17.60	10.90	17.10	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 10:45 PM	21.00	5.00	19.10	19.10	0.00	19.10	11.70	19.10	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 11:00 PM	42.00	6.00	18.90	18.50	0.00	18.90	12.10	18.50	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 11:15 PM	36.00	4.50	18.90	18.10	0.00	18.90	13.90	18.10	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 11:30 PM	15.00	4.90	20.10	17.00	0.00	20.10	13.20	17.00	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/20/13 11:45 PM	44.00	4.20	19.60	16.90	0.00	19.60	13.00	16.90	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 12:00 AM	36.00	4.50	19.10	18.10	0.00	19.10	13.10	18.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 12:15 AM	55.00	2.70	19.20	18.50	0.00	19.20	13.00	18.50	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 12:30 AM	53.00	2.80	19.10	18.10	0.00	19.10	12.90	18.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 12:45 AM	48.00	4.20	17.80	18.10	0.30	17.80	12.60	18.10	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 1:00 AM	52.00	5.70	17.30	16.60	0.00	17.30	13.50	16.60	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 1:15 AM	34.00	5.10	16.60	16.80	0.20	16.60	13.80	16.80	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 1:30 AM	54.00	4.60	16.50	17.60	1.10	16.50	20.00	17.60	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 1:45 AM	54.00	2.40	15.90	17.70	1.80	15.90	13.00	17.70	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 2:00 AM	82.00	1.50	15.80	15.50	0.00	15.80	12.00	15.50	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 2:15 AM	57.00	1.10	15.20	15.50	0.30	15.20	11.70	15.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 2:30 AM	54.00	1.30	15.60	15.70	0.10	15.60	12.80	15.70	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 2:45 AM	62.00	3.50	15.50	16.00	0.50	15.50	14.10	16.00	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 3:00 AM	35.00	3.80	14.30	15.70	1.40	14.30	15.20	15.70	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 3:15 AM	44.00	4.30	14.20	15.40	1.20	14.20	16.30	15.40	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 3:30 AM	39.00	3.60	15.50	16.10	0.60	15.50	21.50	16.10	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 3:45 AM	40.00	3.60	14.50	16.50	2.00	14.50	18.70	16.50	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 4:00 AM	58.00	2.00	13.90	14.10	0.20	13.90	15.40	14.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 4:15 AM	63.00	2.40	13.50	13.70	0.20	13.50	16.00	13.70	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 4:30 AM	70.00	2.40	13.50	13.20	0.00	13.50	14.30	13.20	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 4:45 AM	68.00	1.80	13.40	13.50	0.10	13.40	15.10	13.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 5:00 AM	64.00	2.20	13.40	14.50	1.10	13.40	18.50	14.50	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 5:15 AM	101.00	3.00	18.80	12.00	0.00	13.10	18.80	15.50	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 5:30 AM	164.00	2.20	13.60	12.50	0.00	13.00	13.60	13.40	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 5:45 AM	141.00	1.50	13.70	10.30	0.00	13.10	13.70	13.10	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 6:00 AM	172.00	1.30	14.50	10.30	0.00	12.90	14.50	13.30	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 6:15 AM	166.00	2.30	13.30	11.00	0.00	13.00	13.30	13.40	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 6:30 AM	132.00	3.40	12.20	9.80	0.00	13.60	12.20	16.00	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 6:45 AM	133.00	3.00	11.60	10.20	0.00	13.40	11.60	12.30	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 7:00 AM	150.00	2.90	13.50	9.70	0.00	13.40	13.50	12.70	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 7:15 AM	170.00	2.80	16.70	13.80	0.00	13.70	16.70	13.20	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 7:30 AM	134.00	2.00	15.60	16.60	1.00	12.80	15.60	13.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 7:45 AM	157.00	2.40	18.50	19.70	1.20	12.60	18.50	14.10	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/21/13 8:00 AM	155.00	2.70	26.10	22.00	0.00	12.90	26.10	13.60	22.00	0.00	0.00	0.00	0.00			



US Army Corps of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/21/13 3:45 PM	126.00	4.20	22.30	14.80	0.00	10.40	22.30	14.60	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 4:00 PM	172.00	2.90	24.00	15.50	0.00	11.90	24.00	14.50	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 4:15 PM	167.00	4.90	25.70	15.20	0.00	12.80	25.70	14.90	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 4:30 PM	181.00	4.00	14.90	13.00	0.00	13.00	23.90	14.90	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 4:45 PM	171.00	3.60	23.80	17.20	0.00	14.40	23.80	15.60	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 5:00 PM	207.00	4.70	16.10	14.30	0.00	14.30	23.00	16.10	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 5:15 PM	199.00	4.00	15.80	16.50	0.70	16.50	24.60	15.80	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 5:30 PM	168.00	4.60	23.30	18.60	0.00	14.30	23.30	15.50	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 5:45 PM	193.00	4.10	15.70	15.00	0.00	15.00	22.80	15.70	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 6:00 PM	205.00	4.10	16.20	14.90	0.00	14.90	22.40	16.20	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 6:15 PM	206.00	3.70	16.00	15.80	0.00	15.80	21.50	16.00	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 6:30 PM	212.00	3.70	15.40	16.50	1.10	16.50	21.20	15.40	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 6:45 PM	212.00	3.20	15.80	16.70	0.90	16.70	20.90	15.80	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 7:00 PM	191.00	3.90	15.60	18.20	2.60	18.20	20.10	15.60	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 7:15 PM	219.00	2.30	15.30	15.80	0.50	15.80	19.20	15.30	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 7:30 PM	254.00	1.70	14.10	15.00	0.90	15.00	17.40	14.10	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 7:45 PM	204.00	2.10	13.40	14.50	1.10	14.50	25.30	13.40	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 8:00 PM	240.00	3.60	13.20	14.30	1.10	14.30	16.90	13.20	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 8:15 PM	225.00	3.70	12.70	14.80	2.10	14.80	16.40	12.70	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 8:30 PM	253.00	1.30	12.80	15.90	3.10	15.90	16.80	12.80	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 8:45 PM	282.00	0.90	15.70	54.30	38.60	17.30	54.30	13.30	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 9:00 PM	9.00	8.60	16.90	13.30	0.00	16.90	17.50	13.30	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 9:15 PM	16.00	12.00	17.90	14.20	0.00	17.90	18.00	14.20	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 9:30 PM	37.00	10.70	18.90	14.50	0.00	18.90	42.50	14.50	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 9:45 PM	43.00	8.30	19.90	14.70	0.00	19.90	19.90	14.70	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 10:00 PM	56.00	6.70	19.60	14.90	0.00	19.60	19.70	14.90	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 10:15 PM	35.00	7.30	19.80	15.30	0.00	19.80	22.70	15.30	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 10:30 PM	37.00	5.50	18.60	14.10	0.00	18.60	15.70	14.10	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 10:45 PM	59.00	3.40	16.30	30.20	13.90	16.30	14.50	30.20	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 11:00 PM	63.00	3.00	22.70	14.20	0.00	22.70	15.10	14.20	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 11:15 PM	65.00	4.90	23.40	15.00	0.00	23.40	16.50	15.00	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 11:30 PM	85.00	4.30	24.00	15.40	0.00	24.00	15.50	15.40	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/21/13 11:45 PM	96.00	5.70	17.10	20.40	3.30	23.80	17.10	16.80	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 12:00 AM	83.00	3.40	22.60	28.50	5.90	22.60	20.50	28.50	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 12:15 AM	94.00	4.00	19.10	37.50	18.40	23.60	19.10	18.60	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 12:30 AM	92.00	5.90	15.70	19.30	3.60	21.30	15.70	16.90	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 12:45 AM	68.00	3.70	20.40	15.00	0.00	20.40	14.10	15.00	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 1:00 AM	94.00	4.30	14.00	16.80	2.80	19.40	14.00	14.90	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 1:15 AM	76.00	4.70	19.10	13.50	0.00	19.10	13.70	13.50	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 1:30 AM	126.00	4.20	11.30	13.40	2.10	17.60	11.30	12.40	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 1:45 AM	153.00	2.60	9.70	12.20	2.50	16.70	9.70	11.60	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 2:00 AM	156.00	3.30	10.70	10.30	0.00	16.60	10.70	11.70	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 2:15 AM	146.00	2.20	10.50	9.80	0.00	16.50	10.50	11.80	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 2:30 AM	138.00	2.10	10.40	10.30	0.00	14.90	10.40	11.80	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 2:45 AM	142.00	2.60	14.40	14.50	0.10	15.80	14.40	15.80	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 3:00 AM	161.00	1.90	20.40	21.30	0.90	15.90	20.40	17.50	21.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 3:15 AM	157.00	2.50	13.30	13.20	0.00	15.80	13.30	14.40	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 3:30 AM	167.00	3.10	11.90	13.00	1.10	16.00	11.90	14.10	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 3:45 AM	161.00	2.50	13.00	12.50	0.00	14.80	13.00	12.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 4:00 AM	166.00	4.30	13.90	12.80	0.00	15.50	13.90	11.80	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 4:15 AM	174.00	3.30	14.60	13.00	0.00	16.40	14.60	14.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 4:30 AM	166.00	3.20	15.40	13.10	0.00	15.90	15.40	13.00	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 4:45 AM	151.00	1.40	15.70	13.60	0.00	15.90	15.70	12.50	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 5:00 AM	179.00	2.30	14.70	12.40	0.00	15.90	14.70	11.80	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 5:15 AM	174.00	2.40	13.30	12.40	0.00	14.50	13.30	12.70	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 5:30 AM	159.00	2.50	16.40	13.90	0.00	15.70	16.40	13.90	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 5:45 AM	169.00	2.80	17.70	15.90	0.00	16.20	17.70	13.00	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 6:00 AM	180.00	3.40	14.50	15.90	1.40	15.90	17.30	14.50	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 6:15 AM	166.00	3.30	17.20	14.70	0.00	15.80	17.20	12.90	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 6:30 AM	161.00	4.00	17.20	14.30	0.00	16.10	17.20	12.50	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 6:45 AM	149.00	4.00	13.20	13.20	0.00	15.60	13.20	12.70	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 7:00 AM	157.00	2.10	20.30	14.40	0.00	15.90	20.30	12.80	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 7:15 AM	167.00	2.90	13.30	12.90	0.00	15.80	13.30	11.80	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 7:30 AM	147.00	3.00	13.20	10.90	0.00	14.90	13.20	11.20	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 7:45 AM	178.00	5.50	14.60	11.50	0.00	15.10	14.60	11.10	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/22/13 8:00 AM	176.00																	



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/22/13 4:30 PM	98.00	1.80	24.30	21.10	0.00	14.00	24.30	26.00	21.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 4:45 PM	126.00	3.60	28.30	18.20	0.00	13.00	28.30	21.40	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 5:00 PM	53.00	3.30	12.00	19.10	7.10	12.00	28.70	19.10	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 5:15 PM	203.00	4.80	23.80	11.60	0.00	11.60	39.10	23.80	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 5:30 PM	188.00	3.60	18.30	14.70	0.00	14.70	24.00	18.30	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 5:45 PM	209.00	5.10	19.80	14.70	0.00	14.70	38.60	19.80	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 6:00 PM	199.00	3.70	20.00	16.10	0.00	16.10	30.10	20.00	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 6:15 PM	188.00	4.40	16.90	15.20	0.00	15.20	26.10	16.90	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 6:30 PM	239.00	3.40	16.40	13.70	0.00	13.70	25.60	16.40	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 6:45 PM	208.00	3.80	16.00	15.40	0.00	15.40	30.80	16.00	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 7:00 PM	207.00	4.70	14.00	16.10	2.10	16.10	24.80	14.00	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 7:15 PM	260.00	4.90	16.10	15.00	0.00	15.00	65.30	16.10	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 7:30 PM	243.00	5.10	16.20	14.40	0.00	14.40	28.90	16.20	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 7:45 PM	230.00	4.10	17.30	15.60	0.00	15.60	46.70	17.30	20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 8:00 PM	233.00	4.30	16.90	14.90	0.00	14.90	29.70	16.90	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 8:15 PM	257.00	3.10	16.90	14.70	0.00	14.70	36.40	16.90	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 8:30 PM	254.00	2.30	15.70	15.50	0.00	15.50	28.00	15.70	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 8:45 PM	240.00	3.00	16.80	16.10	0.00	16.10	26.40	16.80	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 9:00 PM	250.00	2.80	15.70	16.40	0.70	16.40	24.70	15.70	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 9:15 PM	230.00	2.20	15.90	16.20	0.30	16.20	23.10	15.90	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 9:30 PM	224.00	1.70	15.30	16.40	1.10	16.40	22.60	15.30	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 9:45 PM	257.00	2.40	14.90	17.10	2.20	17.10	20.90	14.90	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 10:00 PM	215.00	1.40	14.20	16.90	2.70	16.90	22.40	14.20	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 10:15 PM	250.00	1.70	13.70	16.80	3.10	16.80	20.60	13.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 10:30 PM	216.00	2.20	13.70	16.90	3.20	16.90	18.70	13.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 10:45 PM	225.00	1.30	13.70	17.10	3.40	17.10	19.90	13.70	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 11:00 PM	217.00	2.00	14.10	18.10	4.00	18.10	18.40	14.10	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 11:15 PM	234.00	2.30	14.40	18.20	3.80	18.20	18.80	14.40	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 11:30 PM	214.00	2.50	14.30	18.00	3.70	18.00	19.40	14.30	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/22/13 11:45 PM	220.00	3.30	14.50	17.60	3.10	17.60	18.00	14.50	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 12:00 AM	207.00	3.70	14.60	18.30	3.70	18.30	17.90	14.60	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 12:15 AM	213.00	2.30	14.50	18.10	3.60	18.10	18.20	14.50	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 12:30 AM	268.00	6.60	14.80	18.20	3.40	18.20	17.80	14.80	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 12:45 AM	322.00	11.80	13.60	18.00	4.40	17.40	18.00	14.20	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 1:00 AM	275.00	6.30	13.40	17.10	3.70	18.10	17.10	14.20	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 1:15 AM	308.00	7.90	14.00	17.20	3.20	17.70	17.20	14.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 1:30 AM	308.00	6.60	13.00	17.40	4.40	17.80	17.40	13.80	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 1:45 AM	272.00	4.80	12.60	285.70	159.70	64.10	285.70	172.40	126.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 2:00 AM	253.00	1.80	18.50	13.80	0.00	13.80	25.00	18.50	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 2:15 AM	143.00	1.60	14.30	12.80	0.00	20.60	14.30	10.30	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 2:30 AM	242.00	1.80	15.40	15.60	0.20	15.60	22.40	15.40	31.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 2:45 AM	223.00	2.90	10.90	23.00	12.10	23.00	16.40	10.90	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 3:00 AM	221.00	2.60	9.10	22.70	13.60	22.70	11.70	9.10	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 3:15 AM	215.00	2.80	9.10	21.80	12.70	21.80	10.90	9.10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 3:30 AM	223.00	2.70	9.50	22.40	12.90	22.40	18.20	9.50	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 3:45 AM	206.00	4.50	13.10	23.60	10.50	23.60	16.60	13.10	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 4:00 AM	220.00	4.30	9.30	21.30	12.00	21.30	12.90	9.30	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 4:15 AM	212.00	3.10	9.60	21.00	11.40	21.00	12.60	9.60	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 4:30 AM	208.00	2.80	10.00	20.30	10.30	20.30	12.20	10.00	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 4:45 AM	234.00	1.90	9.80	21.10	11.30	21.10	11.70	9.80	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 5:00 AM	223.00	3.20	11.80	19.90	8.10	19.90	13.80	11.80	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 5:15 AM	225.00	3.20	12.00	20.40	8.40	20.40	14.50	12.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 5:30 AM	259.00	2.80	13.10	20.10	7.00	20.10	15.70	13.10	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 5:45 AM	263.00	2.10	13.00	20.90	7.90	20.90	17.00	13.00	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 6:00 AM	283.00	1.90	12.90	18.80	5.90	20.30	18.80	11.60	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 6:15 AM	253.00	3.10	10.90	20.20	9.30	20.20	16.80	10.90	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 6:30 AM	275.00	3.30	13.20	17.10	3.90	21.00	17.10	11.00	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 6:45 AM	264.00	1.90	11.70	20.00	8.30	20.00	17.70	11.70	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 7:00 AM	267.00	4.40	12.60	20.30	7.70	20.30	17.30	12.60	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 7:15 AM	264.00	3.80	11.80	18.70	6.90	18.70	15.50	11.80	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 7:30 AM	275.00	4.50	14.70	14.50	0.00	17.60	14.50	10.60	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 7:45 AM	243.00	2.40	10.30	17.80	7.50	17.80	14.90	10.30	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 8:00 AM	273.00	2.80	10.30	14.30	1.30	16.50	14.30	11.10	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 8:15 AM	283.00	4.30	11.40	30.00	18.60	15.90	30.00	11.30	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 8:30 AM	264.00	4.20	11.90	15.30	3.40	15.30	15.30	11.90	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 8:45 AM	350.00	1.50	18.40	19.90	1.50	15.90	19.90	12.70	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 9:00 AM	298.00	4.00	36.20	20.00	0.00	15.00	20.00	12.20	36.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 9:15 AM	350.00	2.70	14.80	18.20	3.40	14.70	18.20	11.20	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/23/13 9:30 AM	328.00	4.00	15.80	18.50	2.70</											



US Army Corps
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Indiana Harbor and Canal
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Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)							
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4		
7/23/13 5:15 PM	34.00	11.90	18.00	23.40	5.40	18.00	19.40	23.40	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 5:30 PM	34.00	10.40	17.90	15.40	0.00	17.90	20.00	15.40	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 5:45 PM	34.00	11.40	14.10	14.10	0.00	14.10	18.30	14.10	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 6:00 PM	36.00	11.90	16.10	12.10	0.00	16.10	18.50	12.10	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 6:15 PM	35.00	11.50	15.20	12.00	0.00	15.20	17.40	12.00	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 6:30 PM	31.00	10.20	11.20	17.80	6.60	11.20	17.20	17.80	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 6:45 PM	32.00	8.90	18.70	12.40	0.00	18.70	18.40	12.40	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 7:00 PM	27.00	12.70	12.90	26.80	13.90	12.90	15.50	26.80	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 7:15 PM	49.00	9.30	17.20	13.20	0.00	17.20	14.20	13.20	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 7:30 PM	34.00	8.40	9.80	10.30	0.50	9.80	17.40	10.30	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 7:45 PM	37.00	8.20	8.00	12.90	4.90	8.00	221.00	12.90	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 8:00 PM	36.00	12.40	2.60	9.50	6.90	2.60	13.60	9.50	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 8:15 PM	27.00	14.50	2.10	8.70	6.60	2.10	49.80	8.70	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 8:30 PM	38.00	10.30	1.90	8.80	6.90	1.90	26.00	8.80	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 8:45 PM	25.00	10.50	1.70	9.60	7.90	1.70	11.80	9.60	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 9:00 PM	50.00	9.50	2.00	8.40	6.40	2.00	16.00	8.40	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 9:15 PM	33.00	8.80	1.80	12.10	10.30	1.80	15.40	12.10	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 9:30 PM	24.00	9.50	2.10	9.20	7.10	2.10	15.50	9.20	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 9:45 PM	36.00	6.80	2.10	9.60	7.50	2.10	26.80	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 10:00 PM	40.00	10.40	1.80	9.10	7.30	1.80	15.60	9.10	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 10:15 PM	19.00	9.20	2.00	10.10	8.10	2.00	21.00	10.10	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 10:30 PM	48.00	9.30	1.80	8.50	6.70	1.80	11.90	8.50	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 10:45 PM	37.00	12.30	1.60	8.00	6.40	1.60	9.30	8.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 11:00 PM	25.00	8.20	2.10	7.70	5.60	2.10	8.50	7.70	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 11:15 PM	40.00	10.10	1.70	8.00	6.30	1.70	8.40	8.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 11:30 PM	28.00	11.90	1.70	6.60	4.90	1.70	8.40	6.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/23/13 11:45 PM	39.00	7.50	1.90	7.60	5.70	1.90	8.10	7.60	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 12:00 AM	21.00	11.30	1.70	8.00	6.30	1.70	8.10	8.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 12:15 AM	54.00	11.10	1.80	7.20	5.40	1.80	14.50	7.20	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 12:30 AM	48.00	7.70	1.90	7.60	5.70	1.90	8.80	7.60	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 12:45 AM	55.00	9.10	1.70	10.40	8.70	1.70	12.20	10.40	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 1:00 AM	26.00	9.30	2.20	8.60	6.40	2.20	9.50	8.60	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 1:15 AM	52.00	6.70	3.20	9.00	5.80	3.20	13.70	9.00	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 1:30 AM	49.00	7.60	2.10	8.10	6.00	2.10	9.40	8.10	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 1:45 AM	41.00	9.00	4.70	8.80	4.10	4.70	21.60	8.80	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 2:00 AM	46.00	5.30	4.00	11.00	7.00	4.00	21.80	11.00	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 2:15 AM	35.00	10.10	5.10	10.50	5.40	5.10	13.40	10.50	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 2:30 AM	40.00	9.40	5.20	14.10	8.90	5.20	20.10	14.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 2:45 AM	46.00	9.00	9.50	14.60	5.10	9.50	16.10	14.60	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 3:00 AM	64.00	8.80	5.20	10.80	5.60	5.20	16.70	10.80	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 3:15 AM	57.00	10.00	11.70	22.90	11.20	11.70	16.80	22.90	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 3:30 AM	56.00	6.50	8.10	15.40	7.30	8.10	17.60	15.40	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 3:45 AM	40.00	8.20	6.10	12.60	6.50	6.10	14.20	12.60	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 4:00 AM	67.00	10.00	10.60	21.20	10.60	10.60	15.20	21.20	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 4:15 AM	55.00	7.80	5.10	12.00	6.90	5.10	17.20	12.00	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 4:30 AM	61.00	8.20	3.90	10.40	6.50	3.90	16.10	10.40	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 4:45 AM	35.00	4.90	4.10	12.60	8.50	4.10	19.20	12.60	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 5:00 AM	63.00	7.30	4.10	11.00	6.90	4.10	13.90	11.00	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 5:15 AM	44.00	6.90	5.60	11.20	5.60	5.60	12.50	11.20	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 5:30 AM	63.00	6.60	4.80	10.20	5.40	4.80	21.50	10.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 5:45 AM	44.00	6.50	5.20	9.80	4.60	5.20	18.60	9.80	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 6:00 AM	43.00	4.40	3.90	9.30	5.40	3.90	20.00	9.30	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 6:15 AM	49.00	7.70	5.10	10.20	5.10	5.10	18.80	10.20	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 6:30 AM	52.00	7.20	6.70	9.60	2.90	6.70	18.90	9.60	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 6:45 AM	40.00	6.20	4.70	10.10	5.40	4.70	15.30	10.10	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 7:00 AM	63.00	7.10	6.30	10.90	4.60	6.30	20.20	10.90	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 7:15 AM	68.00	4.80	7.70	9.50	1.80	7.70	16.60	9.50	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 7:30 AM	55.00	4.80	6.10	11.50	5.40	6.10	17.90	11.50	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 7:45 AM	70.00	6.30	5.70	13.50	7.80	5.70	60.80	13.50	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 8:00 AM	41.00	6.10	6.10	10.30	4.20	6.10	20.10	10.30	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 8:15 AM	58.00	4.80	5.80	14.10	8.30	5.80	22.60	14.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 8:30 AM	41.00	8.40	5.50	9.80	4.30	5.50	17.30	9.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 8:45 AM	43.00	6.20	9.30	10.00	0.70	9.30	16.20	10.00	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 9:00 AM	32.00	6.30	6.50	8.40	1.90	6.50	14.60	8.40	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 9:15 AM	85.00	6.50	7.00	11.50	4.50	7.00	69.10	11.50	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 9:30 AM	84.00	7.00	9.60	10.60	1.00	9.60	16.90	10.60	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7/24/13 9:45 AM	61.00	6.00	9.60	8.40	0.00	9.60	19.00											



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/25/13 6:45 PM	128.00	4.20	52.50	43.60	0.00	29.20	52.50	40.30	43.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 7:00 PM	136.00	3.80	44.80	43.00	0.00	31.20	44.80	28.50	43.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 7:15 PM	86.00	4.30	32.70	21.40	0.00	32.70	135.20	21.40	39.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 7:30 PM	154.00	2.50	86.00	42.20	0.00	162.10	86.00	58.40	42.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 7:45 PM	188.00	1.30	26.80	23.60	0.00	23.60	232.70	26.80	27.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 8:00 PM	206.00	1.90	99.30	30.90	0.00	30.90	19.70	99.30	35.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 8:15 PM	183.00	3.70	35.50	289.00	253.50	289.00	42.70	35.50	109.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 8:30 PM	203.00	2.80	26.20	32.20	6.00	32.20	59.40	26.20	34.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 8:45 PM	224.00	2.60	26.20	38.40	12.20	38.40	24.50	26.20	39.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 9:00 PM	223.00	2.50	27.70	30.30	2.60	30.30	57.10	27.70	39.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 9:15 PM	212.00	2.00	19.90	20.30	0.40	20.30	17.90	19.90	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 9:30 PM	219.00	1.50	19.60	22.90	3.30	22.90	18.70	19.60	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 9:45 PM	211.00	1.50	21.70	23.60	1.90	23.60	19.80	21.70	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 10:00 PM	259.00	2.00	23.50	27.10	3.60	27.10	20.90	23.50	28.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 10:15 PM	235.00	1.10	22.30	28.70	6.40	28.70	21.30	22.30	24.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 10:30 PM	237.00	1.00	21.10	25.90	4.80	25.90	20.60	21.10	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 10:45 PM	190.00	2.10	21.40	26.30	4.90	26.30	20.60	21.40	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 11:00 PM	205.00	2.10	28.20	33.70	5.50	33.70	20.60	28.20	27.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 11:15 PM	204.00	1.80	21.30	25.60	4.30	25.60	23.00	21.30	23.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 11:30 PM	185.00	2.40	21.50	24.70	3.20	24.70	24.70	21.50	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/25/13 11:45 PM	213.00	2.30	23.40	27.00	3.60	27.00	23.10	23.40	23.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 12:00 AM	217.00	2.60	23.30	29.00	5.70	29.00	25.90	23.30	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 12:15 AM	208.00	2.20	22.20	26.00	3.80	26.00	22.90	22.20	22.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 12:30 AM	216.00	2.00	22.40	26.80	4.40	26.80	23.20	22.40	25.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 12:45 AM	212.00	2.70	21.70	26.30	4.60	26.30	22.90	21.70	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 1:00 AM	172.00	3.00	21.50	22.10	6.20	25.50	21.50	21.30	22.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 1:15 AM	217.00	1.90	21.30	24.60	3.30	24.60	19.80	21.30	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 1:30 AM	218.00	3.10	20.60	22.20	1.60	22.20	24.50	20.60	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 1:45 AM	194.00	5.10	19.60	26.40	6.80	26.40	24.80	19.60	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 2:00 AM	215.00	3.80	18.50	24.30	5.80	24.30	21.20	18.50	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 2:15 AM	219.00	3.80	18.10	18.80	0.70	18.80	15.80	18.10	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 2:30 AM	221.00	4.40	16.90	19.40	2.50	19.40	16.00	16.90	19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 2:45 AM	212.00	4.00	16.40	17.60	1.20	17.60	15.30	16.40	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 3:00 AM	187.00	3.70	17.00	17.10	0.10	17.10	15.30	17.00	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 3:15 AM	206.00	2.40	16.50	16.50	0.00	16.50	14.40	16.50	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 3:30 AM	206.00	2.20	16.40	17.30	0.90	17.30	14.70	16.40	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 3:45 AM	207.00	2.70	216.80	25.50	0.00	25.50	14.10	216.80	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 4:00 AM	201.00	2.50	17.90	17.00	0.00	17.00	14.50	17.90	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 4:15 AM	195.00	2.50	16.10	16.70	0.60	16.70	14.20	16.10	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 4:30 AM	184.00	3.90	16.70	15.80	0.00	15.80	14.20	16.70	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 4:45 AM	199.00	3.90	16.00	15.20	0.00	15.20	13.80	16.00	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 5:00 AM	192.00	4.20	15.90	15.40	0.00	15.40	13.70	15.90	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 5:15 AM	186.00	4.00	27.30	16.30	0.00	16.30	14.90	27.30	15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 5:30 AM	201.00	3.00	18.10	17.80	0.00	17.80	15.40	18.10	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 5:45 AM	203.00	2.40	16.80	17.70	0.90	17.70	15.40	16.80	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 6:00 AM	225.00	2.80	16.50	15.10	0.00	15.10	12.90	16.50	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 6:15 AM	241.00	1.20	16.40	16.70	0.30	16.70	14.80	16.40	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 6:30 AM	213.00	2.30	16.70	15.20	0.00	15.20	13.50	16.70	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 6:45 AM	213.00	2.20	15.90	15.00	0.00	15.00	13.80	15.90	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 7:00 AM	169.00	3.20	13.30	13.00	0.00	0.00	13.30	30.80	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 7:15 AM	213.00	4.00	14.90	14.40	0.00	14.40	19.60	14.90	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 7:30 AM	196.00	2.90	88.40	18.20	0.00	18.20	12.20	88.40	25.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 7:45 AM	186.00	3.70	21.10	17.20	0.00	17.20	13.30	21.10	33.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 8:00 AM	209.00	3.30	113.70	15.50	0.00	15.50	38.30	113.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 8:15 AM	208.00	3.50	18.20	31.60	13.40	31.60	22.50	18.20	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 8:30 AM	184.00	3.80	19.80	19.00	0.00	19.00	29.90	19.80	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 8:45 AM	209.00	2.50	17.90	17.00	0.00	17.00	48.80	17.90	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 9:00 AM	226.00	4.60	17.90	18.20	0.30	18.20	24.20	17.90	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 9:15 AM	225.00	3.40	18.10	17.10	0.00	17.10	16.50	18.10	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 9:30 AM	210.00	3.80	17.30	16.90	0.00	16.90	17.20	17.30	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 9:45 AM	220.00	3.60	18.40	19.90	1.50	19.90	16.70	18.40	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 10:00 AM	224.00	3.80	49.10	16.40	0.00	16.40	17.80	49.10	66.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 10:15 AM	197.00	3.10	18.40	16.50	0.00	16.50	16.20	18.40	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 10:30 AM	225.00	4.80	17.70	16.80	0.00	16.80	15.90	17.70	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 10:45 AM	199.00	6.20	36.70	17.60	0.00	17.60	15.90	36.70	80.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 11:00 AM	215.00	6.50	17.70	24.10	6.40	24.10	16.40	17.70	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 11:15 AM	201.00	7.30	17.50	17.70	0.20	17.70	16.80	17.50	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 11:30 AM	212.00	5.40	19.10	17.80	0.00	17.80	23.60	19.10	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/13 11:45 AM	206.00	6.00	18.50</													



US Army Corps of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Table with columns: Reading Time (EST), Wind Direction, Wind Speed, and concentrations of Particulates (µg/m³) and Naphthalene (µg/m³) across various parameters like Upwind, Downwind, and CDF Contribution.



US Army Corps of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/27/13 8:15 PM	279.00	2.60	24.20	8.90	0.00	15.20	8.90	22.20	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 8:30 PM	294.00	2.00	6.20	4.10	0.00	11.30	4.10	9.10	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 8:45 PM	279.00	3.90	6.30	5.20	0.00	11.50	5.20	9.10	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 9:00 PM	273.00	3.10	6.80	7.20	0.40	10.80	7.20	8.30	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 9:15 PM	278.00	3.10	7.30	6.50	0.00	10.50	6.50	8.00	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 9:30 PM	276.00	3.20	6.40	6.50	0.10	9.60	6.50	7.40	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 9:45 PM	277.00	2.80	7.30	6.30	0.00	9.80	6.30	7.30	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 10:00 PM	262.00	4.10	7.20	9.20	2.00	9.20	6.30	7.20	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 10:15 PM	241.00	3.00	6.80	8.60	1.80	8.60	5.60	6.80	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 10:30 PM	250.00	3.60	7.10	8.50	1.40	8.50	5.70	7.10	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 10:45 PM	259.00	3.90	7.20	12.70	5.50	12.70	5.00	7.20	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 11:00 PM	240.00	3.70	6.70	8.30	1.60	8.30	6.40	6.70	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 11:15 PM	234.00	3.70	6.70	9.40	2.70	9.40	9.40	6.70	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 11:30 PM	251.00	3.10	6.30	9.00	2.70	9.00	10.60	6.30	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/27/13 11:45 PM	240.00	3.60	6.00	9.50	3.50	9.50	10.80	6.00	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:00 AM	254.00	4.40	5.80	9.10	3.30	9.10	10.10	5.80	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:15 AM	266.00	2.40	5.80	9.30	3.50	9.30	10.20	5.80	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:30 AM	281.00	3.60	8.20	9.00	0.80	8.90	9.00	5.60	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:45 AM	300.00	3.30	8.10	8.40	0.30	8.80	8.40	5.90	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:00 AM	277.00	4.10	8.60	7.80	0.00	9.50	7.80	7.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:15 AM	307.00	3.20	8.60	9.00	0.40	10.30	9.00	7.50	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:30 AM	286.00	4.10	8.20	7.20	0.00	10.00	7.20	8.00	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:45 AM	289.00	6.30	8.60	7.20	0.00	9.90	7.20	8.20	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 2:00 AM	285.00	5.50	8.60	6.20	0.00	9.10	6.20	7.50	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 2:15 AM	276.00	3.50	10.40	8.30	0.00	9.50	8.30	10.00	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 2:30 AM	295.00	3.80	8.20	7.70	0.00	8.70	7.70	8.60	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 2:45 AM	255.00	2.80	7.50	10.30	2.80	10.30	6.50	7.50	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 3:00 AM	274.00	3.30	8.20	6.00	0.00	9.80	6.00	6.80	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 3:15 AM	280.00	2.80	7.50	6.00	0.00	9.60	6.00	6.80	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 3:30 AM	274.00	3.60	7.80	6.20	0.00	9.10	6.20	7.00	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 3:45 AM	245.00	4.30	6.60	7.70	1.10	7.70	6.20	6.60	6.90	2.30	0.00	0.00	0.00	0.00	0.00	2.30
7/28/13 4:00 AM	272.00	2.70	6.80	6.00	0.00	7.90	6.00	6.40	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 4:15 AM	255.00	3.60	6.30	7.70	1.40	7.70	9.20	6.30	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 4:30 AM	254.00	4.60	6.60	8.70	2.10	8.70	10.00	6.60	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 4:45 AM	261.00	4.10	6.10	8.30	2.20	8.30	10.00	6.10	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 5:00 AM	248.00	3.20	6.10	7.40	1.30	7.40	9.40	6.10	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 5:15 AM	238.00	3.80	5.80	7.40	1.60	7.40	9.80	5.80	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 5:30 AM	264.00	3.00	5.70	7.60	1.90	7.60	9.30	5.70	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 5:45 AM	265.00	4.10	5.50	7.40	1.90	7.40	8.40	5.50	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 6:00 AM	241.00	3.20	5.50	7.30	1.80	7.30	8.70	5.50	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 6:15 AM	265.00	3.20	5.80	8.00	2.20	8.00	8.50	5.80	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 6:30 AM	266.00	4.70	5.80	8.70	2.90	8.70	8.70	5.80	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 6:45 AM	243.00	3.10	5.90	8.50	2.60	8.50	8.10	5.90	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 7:00 AM	269.00	2.50	6.10	8.40	2.30	8.40	8.00	6.10	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 7:15 AM	259.00	3.80	6.30	8.10	1.80	8.10	8.00	6.30	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 7:30 AM	265.00	4.60	6.10	7.80	1.70	7.80	7.40	6.10	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 7:45 AM	257.00	3.00	6.40	7.20	0.80	7.20	7.40	6.40	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 8:00 AM	250.00	4.50	6.00	7.00	1.00	7.00	6.70	6.00	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 8:15 AM	256.00	3.90	5.60	7.10	1.50	7.10	6.60	5.60	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 8:30 AM	272.00	2.60	6.70	6.60	0.00	7.30	6.60	5.80	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 8:45 AM	279.00	4.10	6.50	6.30	0.00	7.30	6.30	6.10	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:00 AM	260.00	3.50	6.10	7.30	1.20	7.30	6.00	6.10	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:15 AM	259.00	3.70	6.20	7.40	1.20	7.40	5.90	6.20	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:30 AM	260.00	4.50	6.30	7.60	1.30	7.60	6.00	6.30	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:45 AM	265.00	4.70	6.40	7.30	0.90	7.30	6.60	6.40	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:00 AM	300.00	4.60	6.30	5.90	0.00	8.10	5.90	6.20	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:15 AM	270.00	5.00	6.10	5.90	0.00	0.00	5.90	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:30 AM	284.00	4.70	5.90	5.60	0.00	6.80	5.60	6.20	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:45 AM	270.00	4.90	5.50	8.30	2.80	6.50	8.30	6.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:00 AM	264.00	4.80	5.90	6.50	0.60	6.50	5.80	5.90	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:15 AM	264.00	5.90	5.90	6.40	0.50	6.40	5.30	5.90	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:30 AM	274.00	3.40	5.30	5.30	0.00	6.40	5.30	5.70	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:45 AM	271.00	5.00	4.90	9.60	4.70	8.60	9.60	6.70	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:00 PM	280.00	4.60	5.50	7.20	1.70	8.80	7.20	8.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:15 PM	274.00	4.40	5.10	5.00	0.00	7.40	5.00	8.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:30 PM	274.00	4.70	17.80	11.50	0.00	0.00	11.50	8.30	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 12:45 PM	0.00	0.00	0.00	0.00	0.00	7.30	4.60	8.30	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:00 PM	278.00	3.60	5.40	4.70	0.00	8.10	4.70	8.90	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:15 PM	293.00	5.50	5.30	8.40	3.10	7.90	8.40	8.20	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:30 PM	334.00	2.40	5.90	25.30	19.40	11.00	25.30	9.20	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 1:45 PM	320.00	3.60	6.50	11.40	4.90	12.60	11.40	11.10								



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degrees Clockwise from North	Wind Speed mph	Particulates (µg/m ³)								Naphthalene (µg/m ³)					
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/28/13 9:00 PM	240.00	1.30	7.70	4.00	0.00	4.00	6.60	7.70	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:15 PM	240.00	1.30	7.70	4.10	0.00	4.10	6.60	7.70	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:30 PM	237.00	1.10	8.30	3.60	0.00	3.60	7.20	8.30	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 9:45 PM	232.00	1.40	8.70	4.30	0.00	4.30	8.60	8.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:00 PM	244.00	1.50	8.70	3.80	0.00	3.80	8.20	8.70	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:15 PM	241.00	1.40	9.20	3.60	0.00	3.60	8.80	9.20	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:30 PM	249.00	1.50	9.00	4.20	0.00	4.20	9.90	9.00	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 10:45 PM	255.00	1.40	8.60	0.00	0.00	0.00	10.70	8.60	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:00 PM	273.00	2.40	12.20	10.10	0.00	4.10	10.10	9.10	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:15 PM	244.00	2.10	9.40	4.70	0.00	4.70	11.40	9.40	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:30 PM	263.00	3.30	8.40	4.80	0.00	4.80	12.30	8.40	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/28/13 11:45 PM	249.00	2.90	8.20	5.30	0.00	5.30	10.70	8.20	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:00 AM	257.00	3.00	8.80	6.60	0.00	6.60	9.90	8.80	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:15 AM	272.00	3.20	10.50	8.70	0.00	7.20	8.70	8.30	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:30 AM	268.00	1.90	7.90	7.10	0.00	7.10	8.30	7.90	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:45 AM	271.00	2.80	10.20	8.70	0.00	7.10	8.70	7.30	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:00 AM	271.00	2.60	9.80	7.70	0.00	6.80	7.70	7.50	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:15 AM	267.00	2.10	7.60	6.30	0.00	6.30	7.00	7.60	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:30 AM	256.00	3.00	8.00	5.90	0.00	5.90	6.90	8.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:45 AM	258.00	2.30	8.30	6.50	0.00	6.50	6.90	8.30	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 2:00 AM	282.00	2.20	12.40	10.20	0.00	6.70	10.20	8.40	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 2:15 AM	266.00	2.30	29.20	8.50	0.00	8.50	19.90	29.20	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 2:30 AM	273.00	2.70	13.80	11.60	0.00	8.90	11.60	9.30	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 2:45 AM	266.00	2.30	9.20	8.70	0.00	8.70	11.50	9.20	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 3:00 AM	262.00	1.90	9.40	8.70	0.00	8.70	11.40	9.40	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 3:15 AM	254.00	1.70	9.50	8.80	0.00	8.80	11.70	9.50	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 3:30 AM	256.00	2.10	14.30	11.10	0.00	11.10	14.50	14.30	28.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 3:45 AM	256.00	3.10	10.00	8.70	0.00	8.70	11.30	10.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 4:00 AM	274.00	2.70	11.30	10.40	0.00	9.00	10.40	10.00	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 4:15 AM	257.00	2.10	9.40	8.90	0.00	8.90	9.40	9.40	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 4:30 AM	250.00	2.10	8.50	6.80	0.00	6.80	9.00	8.50	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 4:45 AM	244.00	2.00	8.50	6.00	0.00	6.00	8.60	8.50	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 5:00 AM	248.00	1.40	8.20	6.40	0.00	6.40	8.20	8.20	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 5:15 AM	275.00	2.40	9.50	8.50	0.00	7.10	8.50	8.30	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 5:30 AM	264.00	1.60	8.40	7.90	0.00	7.90	8.40	8.40	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 5:45 AM	290.00	2.30	11.80	9.00	0.00	10.10	9.00	8.90	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 6:00 AM	245.00	1.70	8.80	9.30	0.50	9.30	9.60	8.80	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 6:15 AM	241.00	1.40	8.80	8.80	0.00	8.80	8.90	8.80	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 6:30 AM	264.00	2.20	9.40	9.90	0.50	9.90	12.60	9.40	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 6:45 AM	250.00	2.30	10.20	10.60	0.40	10.60	10.30	10.20	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 7:00 AM	286.00	1.60	14.60	12.40	0.00	11.80	12.40	12.30	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 7:15 AM	267.00	2.90	11.80	12.40	0.60	12.40	11.20	11.80	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 7:30 AM	299.00	2.90	20.40	29.00	8.60	11.90	29.00	13.40	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 7:45 AM	299.00	3.90	31.70	11.50	0.00	14.80	11.50	15.30	31.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 8:00 AM	296.00	3.00	17.10	15.40	0.00	14.40	15.40	13.40	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 8:15 AM	323.00	3.20	27.10	26.30	0.00	23.60	26.30	26.30	27.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 8:30 AM	307.00	2.60	37.80	18.60	0.00	13.00	18.60	52.90	37.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 8:45 AM	17.00	2.20	15.40	41.40	26.00	15.40	18.20	41.40	29.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 9:00 AM	4.00	2.40	14.10	20.00	5.90	14.10	27.80	20.00	31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 9:15 AM	348.00	1.00	111.10	19.20	0.00	13.90	19.20	16.60	111.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 9:30 AM	298.00	4.00	21.20	21.30	0.10	73.70	21.30	17.70	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 9:45 AM	314.00	2.60	24.10	21.50	0.00	16.20	21.50	19.60	24.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 10:00 AM	297.00	2.50	19.60	20.50	0.90	16.60	20.50	19.00	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 10:15 AM	295.00	1.40	17.90	16.60	0.00	360.80	16.60	17.40	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 10:30 AM	5.00	2.70	129.40	20.60	0.00	129.40	18.20	20.60	64.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 10:45 AM	1.00	3.00	16.30	18.00	1.70	16.30	17.20	18.00	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 11:00 AM	1.00	2.40	18.80	55.30	36.50	18.80	16.50	55.30	76.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 11:15 AM	358.00	1.90	66.30	15.50	0.00	18.60	15.50	20.80	66.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 11:30 AM	12.00	2.90	459.10	20.70	0.00	459.10	14.90	20.70	41.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 11:45 AM	17.00	1.80	16.70	20.20	3.50	16.70	16.20	20.20	183.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:00 PM	27.00	4.00	16.80	62.20	45.40	16.80	15.30	62.20	326.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:15 PM	35.00	4.00	21.80	20.70	0.00	21.80	18.50	20.70	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:30 PM	40.00	4.20	20.20	19.60	0.00	20.20	20.10	19.60	34.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 12:45 PM	26.00	5.10	16.60	24.90	8.30	16.60	20.80	24.90	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:00 PM	42.00	5.10	17.10	26.40	9.30	17.10	25.80	26.40	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:15 PM	22.00	5.50	16.30	25.50	9.20	16.30	20.80	25.50	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:30 PM	10.00	5.10	24.80	25.20	0.40	24.80	26.10	25.20	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 1:45 PM	47.00	5.10	16.70	23.30	6.60	16.70	82.80	23.30	26.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 2:00 PM	32.00	4.80	102.40	26.20	0.00	102.40	24.30	26.20	26.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/29/13 2:15 PM	42.00	4.90	20.50	2												



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
7-1-13 to 7-31-13

Reading Time (EST)	Wind Direction Degree Clockwise from North	Wind Speed mph	Particulates ($\mu\text{g}/\text{m}^3$)							Naphthalene ($\mu\text{g}/\text{m}^3$)						
			Upwind	Downwind	CDF Contribution	M1	M2	M3	M4	Upwind	Downwind	CDF Contribution	M1	M2	M3	M4
7/31/13 11:15 PM	310.00	2.30	5.20	1.40	0.00	0.40	1.40	0.10	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/31/13 11:30 PM	287.00	2.50	12.90	2.20	0.00	1.60	2.20	4.00	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/31/13 11:45 PM	284.00	2.90	9.80	1.60	0.00	0.40	1.60	0.60	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 7/25/2013 6:00 AM to 8:00PM Email sent to site Technician? (Yes or No)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or No)

2. Alarm caused by:

- | | |
|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input checked="" type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Other: Weather |

3. Corrective Actions taken? (Yes or No)

4. Dredging suspended? (Yes or No)

5. Alarm logged in air monitoring action spreadsheet? (Yes or No)

Description of Action Taken:

A) No problems were found. Dry site conditions and start-up construction traffic for the south ramp entrance project is believe to have caused the alarms.

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 7/23/2013 11:30 AM & 12:00PM Email sent to site Technician? (Yes or No)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or No)

2. Alarm caused by:

- | | |
|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input checked="" type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Other: Windy weather |

3. Corrective Actions taken? (Yes or No)

4. Dredging suspended? (Yes or No)

5. Alarm logged in air monitoring action spreadsheet? (Yes or No)

Description of Action Taken:

A) No problems were found. Dry site condition and the wind may have caused the alarm.

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 7/20/2013 5:15 PM & 5:45PM Email sent to site Technician? (Yes or No)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or No)

2. Alarm caused by:

- | | |
|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input checked="" type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Other: Hot weather |

3. Corrective Actions taken? (Yes or No)

4. Dredging suspended? (Yes or No)

5. Alarm logged in air monitoring action spreadsheet? (Yes or No)

Description of Action Taken:

A) No problems were found. Dry site condition and the wind may have caused the alarm.

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 7/17/2013 2:30 PM & 5:30PM Email sent to site Technician? (Yes or No)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or No)

2. Alarm caused by:

- | | |
|-------------------------------------|--------------------------------|
| <input type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input checked="" type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Other: Site Maintenance-Mowing |

3. Corrective Actions taken? (Yes or No)

4. Dredging suspended? (Yes or No)

5. Alarm logged in air monitoring action spreadsheet? (Yes or No)

Description of Action Taken:

A) While USACE was performing site maintenance of mowing and trimming, along with dry site condition and high pollen count, the particulate reading were above normal for most of the day. The technicians started mowing with the tractors at 8:00 AM and finished around 5:30PM.

IHC CDF Dredge Project : Air Monitoring Alarm Response Log

Air Monitoring Station: M1 M2 M3 M4 Dock

Air Monitoring Instrument:

Cerex Unit (Naphthalene) Thermo Unit (Particles) PID Monitor

Date & Time of alarm: 7/16/2013 10:45 AM Email sent to site Technician? (Yes or No)

Technician responded to the alarm; Scott Peterson

1. Was dredging occurring at the time of the alarm? (Yes or No)

2. Alarm caused by:

- | | |
|-------------------------------------|--------------------------------|
| <input type="checkbox"/> | Loss of Power |
| <input type="checkbox"/> | Loss of Radio Communication |
| <input type="checkbox"/> | Out of Calibration |
| <input type="checkbox"/> | UV Alignment |
| <input type="checkbox"/> | Blockage in Air Tube |
| <input checked="" type="checkbox"/> | Air Quality |
| <input checked="" type="checkbox"/> | Other: Site Maintenance-Mowing |

3. Corrective Actions taken? (Yes or No)

4. Dredging suspended? (Yes or No)

5. Alarm logged in air monitoring action spreadsheet? (Yes or No)

Description of Action Taken:

A) While USACE was performing site maintenance of mowing and trimming, along with dry site condition and high pollen count, the particulate reading were above normal for most of the day. The mowing tractor started working at 8:00 AM and finished around 2:30PM.