



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/2/13 12:45 AM	275.00	2.70	8.50	14.80	6.30	12.90	14.80	22.70	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:00 AM	274.00	3.00	9.00	14.30	5.30	13.40	14.30	22.10	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:15 AM	280.00	2.20	9.80	14.90	5.10	13.70	14.90	22.20	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:30 AM	274.00	2.10	10.70	16.10	5.40	15.50	16.10	22.80	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:45 AM	290.00	2.80	11.40	17.00	5.60	16.40	17.00	24.30	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:00 AM	275.00	2.60	12.00	17.40	5.40	17.20	17.40	25.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:15 AM	293.00	2.00	12.70	17.10	4.40	17.20	17.10	25.20	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:30 AM	290.00	2.80	13.10	17.30	4.20	17.20	17.30	24.10	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:45 AM	273.00	3.00	14.00	17.20	3.20	18.50	17.20	23.80	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:00 AM	297.00	2.90	14.20	18.30	4.10	20.60	18.30	24.60	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:15 AM	296.00	2.90	14.70	17.40	2.70	20.80	17.40	23.80	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:30 AM	304.00	3.70	15.30	18.20	2.90	22.00	18.20	24.10	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:45 AM	313.00	3.10	15.30	19.40	4.10	21.30	19.40	25.90	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:00 AM	314.00	3.40	15.70	19.10	3.40	21.60	19.10	26.00	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:15 AM	321.00	2.00	16.20	18.90	2.70	21.90	18.90	25.60	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:30 AM	301.00	1.80	16.60	18.60	2.00	22.50	18.60	24.60	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:45 AM	293.00	2.60	16.90	18.70	1.80	22.50	18.70	24.40	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:00 AM	299.00	2.80	17.70	19.90	2.20	24.70	19.90	25.00	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:15 AM	297.00	1.90	18.40	19.70	1.30	25.50	19.70	25.90	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:30 AM	327.00	2.90	19.10	20.00	0.90	26.20	20.00	26.00	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:45 AM	309.00	2.30	20.00	20.40	0.40	26.70	20.40	25.50	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 6:00 AM	305.00	2.60	20.50	20.10	0.00	27.80	20.10	25.60	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 6:15 AM	314.00	3.30	21.20	20.90	0.00	28.10	20.90	27.50	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 6:30 AM	304.00	2.20	21.80	21.30	0.00	27.90	21.30	27.00	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 6:45 AM	328.00	2.50	21.80	21.80	0.00	27.40	21.80	25.70	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 7:00 AM	328.00	3.30	21.80	21.70	0.00	0.00	21.70	26.40	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 7:15 AM	306.00	3.70	21.60	21.90	0.30	28.40	21.90	26.70	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 7:30 AM	318.00	2.30	21.90	22.10	0.20	28.50	22.10	26.50	21.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 7:45 AM	313.00	4.10	22.90	22.30	0.00	29.40	22.30	27.20	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 8:00 AM	310.00	3.40	23.20	21.60	0.00	30.40	21.60	26.90	23.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 8:15 AM	316.00	4.90	14.30	21.70	7.40	30.40	21.70	27.40	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 8:30 AM	305.00	3.50	13.90	22.00	8.10	30.20	22.00	26.70	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 8:45 AM	315.00	3.70	13.80	23.00	9.20	30.80	23.00	31.40	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 9:00 AM	324.00	3.50	13.70	27.20	13.50	30.50	27.20	32.80	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 9:15 AM	328.00	4.30	14.40	25.90	11.50	29.90	25.90	29.90	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 9:30 AM	331.00	5.40	14.80	22.90	8.10	0.00	22.90	30.00	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 9:45 AM	317.00	3.10	15.00	21.80	6.80	29.70	21.80	25.70	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 10:00 AM	314.00	4.20	14.80	21.40	6.60	27.80	21.40	24.80	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 10:15 AM	343.00	3.90	14.30	20.10	5.80	26.30	20.10	22.50	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 10:30 AM	330.00	3.70	13.60	19.60	6.00	25.50	19.60	21.60	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 10:45 AM	326.00	4.40	13.80	18.10	4.30	23.70	18.10	19.90	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 11:00 AM	317.00	4.10	14.00	17.50	3.50	23.30	17.50	19.60	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 11:15 AM	330.00	4.40	13.90	16.80	2.90	22.40	16.80	19.10	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 11:30 AM	325.00	4.20	12.20	16.10	3.90	20.00	16.10	17.70	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 11:45 AM	348.00	3.80	11.90	15.40	3.50	19.40	15.40	17.50	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 12:00 PM	309.00	5.50	11.90	15.60	3.70	18.90	15.60	16.80	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 12:15 PM	6.00	3.80	18.20	17.00	0.00	18.20	15.60	17.00	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 12:30 PM	351.00	4.40	11.20	14.20	3.00	17.40	14.20	16.00	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 12:45 PM	313.00	3.70	10.50	13.60	3.10	15.90	13.60	14.80	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:00 PM	0.00	2.80	0.00	14.20	0.00	0.00	13.80	14.20	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:15 PM	341.00	3.70	8.70	13.10	4.40	13.80	13.10	13.40	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:30 PM	341.00	4.50	8.50	11.90	3.40	12.60	11.90	11.50	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 1:45 PM	320.00	4.50	8.80	12.70	3.90	12.00	12.70	12.50	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:00 PM	333.00	3.50	8.90	12.50	3.60	13.10	12.50	11.90	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:15 PM	339.00	4.10	9.30	12.50	3.20	13.10	12.50	12.90	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:30 PM	323.00	2.70	9.90	12.40	2.50	12.90	12.40	12.90	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 2:45 PM	334.00	3.30	10.30	11.50	1.20	12.90	11.50	13.40	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:00 PM	316.00	2.10	8.60	10.70	2.10	11.40	10.70	11.90	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:15 PM	300.00	2.40	10.30	11.10	0.80	12.70	11.10	12.10	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:30 PM	303.00	3.80	10.40	12.40	2.00	12.70	12.40	12.80	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 3:45 PM	314.00	4.00	10.40	11.70	1.30	12.80	11.70	12.20	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:00 PM	315.00	3.60	9.40	10.20	0.80	11.30	10.20	10.10	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:15 PM	316.00	2.00	9.90	10.80	0.90	12.20	10.80	10.90	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:30 PM	301.00	3.60	9.20	9.70	0.50	10.80	9.70	10.50	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 4:45 PM	298.00	2.80	9.20	9.40	0.20	10.70	9.40	9.60	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:00 PM	276.00	4.70	8.90	9.30	0.40	10.90	9.30	9.40	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:15 PM	296.00	3.90	8.50	7.50	0.00	9.30	7.50	7.70	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/2/13 5:30 PM	311.00	4.00	9.30	8.00	0.00	9.60	8.00	8.00	9.30	0.00	3.30	3.30	0.00	3.30	0.00	0.00
11/2/13 5:45 PM	310.00	3.90	9.10	7.70	0.00	8.80	7.70	7.70	9.10	0.00	2.30	2.30				



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November, 2013

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
11/3/13 1:30 AM	321.00	3.60	7.90	8.00	0.10	9.60	8.00	7.80	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 1:45 AM	300.00	2.20	7.90	7.60	0.00	8.20	7.60	7.20	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:00 AM	311.00	2.20	9.40	7.30	0.00	9.20	7.30	9.20	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:15 AM	315.00	2.90	15.60	13.40	0.00	9.20	13.40	16.10	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:30 AM	324.00	3.20	10.90	11.00	0.10	9.20	11.00	12.40	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:45 AM	310.00	2.40	9.40	8.70	0.00	9.20	8.70	9.60	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:00 AM	305.00	3.70	9.00	8.70	0.00	10.00	8.70	8.80	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:15 AM	308.00	2.40	8.80	8.10	0.00	9.70	8.10	8.50	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:30 AM	297.00	2.90	8.80	8.10	0.00	8.70	8.10	8.80	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:45 AM	324.00	3.90	9.20	9.00	0.00	9.70	9.00	9.60	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:00 AM	326.00	3.00	9.40	8.60	0.00	9.60	8.60	9.90	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:15 AM	332.00	2.70	9.30	8.60	0.00	9.70	8.60	9.20	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:30 AM	312.00	2.80	9.20	8.60	0.00	10.10	8.60	9.60	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:45 AM	297.00	2.40	8.80	9.20	0.40	10.60	9.20	9.60	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:00 AM	231.00	1.00	9.90	10.80	0.90	10.80	8.90	9.90	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:15 AM	213.00	0.60	10.10	10.60	0.50	10.60	8.90	10.10	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:30 AM	183.00	0.80	10.40	10.70	0.30	10.70	8.80	10.40	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:45 AM	185.00	0.70	10.40	11.40	1.00	11.40	9.50	10.40	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:00 AM	294.00	0.70	9.00	10.00	1.00	10.60	10.00	10.80	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:15 AM	207.00	1.30	11.40	12.00	0.60	12.00	10.60	11.40	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:30 AM	279.00	0.40	9.20	10.40	1.20	11.80	10.40	11.70	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:45 AM	215.00	0.40	11.80	12.10	0.30	12.10	10.60	11.80	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 7:00 AM	175.00	0.30	11.60	10.40	0.00	13.20	11.60	11.70	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 7:15 AM	252.00	0.80	11.40	12.40	1.00	12.40	11.10	11.40	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 7:30 AM	267.00	2.00	11.80	12.40	0.60	12.40	10.90	11.80	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 7:45 AM	204.00	1.10	11.30	12.50	1.20	12.50	13.30	11.30	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 8:00 AM	236.00	0.60	11.80	12.30	0.50	12.30	15.30	11.80	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 8:15 AM	187.00	1.80	12.70	12.30	0.00	12.30	16.50	12.70	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 8:30 AM	186.00	1.40	14.40	13.40	0.00	13.40	17.80	14.40	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 8:45 AM	181.00	1.50	15.60	14.50	0.00	14.50	18.50	15.60	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 9:00 AM	234.00	1.60	17.70	15.40	0.00	15.40	18.00	17.70	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 9:15 AM	253.00	1.90	18.90	13.20	0.00	13.20	18.00	18.90	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 9:30 AM	275.00	1.70	9.00	14.10	5.10	10.00	14.10	16.50	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 9:45 AM	246.00	0.80	17.10	10.80	0.00	10.80	14.30	17.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 10:00 AM	273.00	1.40	7.10	8.80	1.70	11.10	8.80	8.50	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 10:15 AM	220.00	1.00	4.20	5.10	0.90	5.10	7.40	4.20	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 10:30 AM	192.00	1.10	6.50	5.10	0.00	5.10	8.60	6.50	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 10:45 AM	215.00	1.80	7.00	6.70	0.00	6.70	5.50	7.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 11:00 AM	184.00	2.50	2.00	3.00	1.00	3.00	4.50	2.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 11:15 AM	178.00	2.30	5.40	5.00	0.00	3.70	5.40	3.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 11:30 AM	129.00	2.40	4.50	4.80	0.30	2.90	4.50	2.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 11:45 AM	180.00	2.70	2.10	2.30	0.20	2.30	4.20	2.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 12:00 PM	161.00	4.00	4.30	5.50	1.20	3.40	4.30	2.70	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 12:15 PM	134.00	3.30	3.60	4.50	0.90	2.10	3.60	1.90	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 12:30 PM	185.00	2.60	1.20	1.90	0.70	1.90	3.20	1.20	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 12:45 PM	158.00	2.90	3.60	4.50	0.90	2.10	3.60	1.50	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 1:00 PM	142.00	3.80	3.80	4.40	0.60	2.00	3.80	1.50	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 1:15 PM	171.00	1.60	3.40	4.40	1.00	2.00	3.40	1.50	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 1:30 PM	195.00	2.60	1.20	2.10	0.90	2.10	3.20	1.20	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 1:45 PM	189.00	3.40	1.00	1.90	0.90	1.90	3.00	1.00	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:00 PM	170.00	3.40	3.20	4.60	1.40	2.30	3.20	1.40	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:15 PM	150.00	4.20	3.00	4.30	1.30	2.30	3.00	1.00	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:30 PM	160.00	2.10	2.90	4.30	1.40	1.90	2.90	0.90	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 2:45 PM	156.00	3.10	3.20	4.70	1.50	2.40	3.20	1.30	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:00 PM	167.00	2.50	3.30	4.80	1.50	2.50	3.30	1.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:15 PM	155.00	3.80	3.40	5.00	1.60	2.60	3.40	1.50	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:30 PM	171.00	5.10	3.70	5.30	1.60	3.00	3.70	1.70	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 3:45 PM	177.00	2.60	3.30	5.00	1.70	3.00	3.30	1.60	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:00 PM	163.00	3.60	3.10	4.80	1.70	2.50	3.10	1.60	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:15 PM	149.00	3.00	3.30	4.80	1.50	3.20	3.30	1.40	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:30 PM	155.00	3.50	3.60	5.00	1.40	2.80	3.60	1.90	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 4:45 PM	144.00	5.00	3.50	5.00	1.50	2.90	3.50	1.70	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:00 PM	174.00	2.80	3.40	5.10	1.70	3.20	3.40	1.90	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:15 PM	184.00	2.30	1.90	3.30	1.40	3.30	3.50	1.90	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:30 PM	167.00	1.40	4.20	5.40	1.20	4.70	4.20	2.70	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 5:45 PM	175.00	2.00	4.70	5.80	1.10	4.50	4.70	4.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:00 PM	177.00	1.50	5.50	6.80	1.30	4.10	5.50	4.00	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:15 PM	152.00	2.40	5.10	5.90	0.80	4.40	5.10	5.60	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:30 PM	150.00	3.10	4.50	5.90	1.40	4.80	4.50	5.90	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 6:45 PM	129.00	4.00	4.80	6.00	1.20	4.80	4.80	5.70	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/3/13 7:00 PM	143.00	3.0														



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/4/13 2:15 AM	143.00	6.30	11.30	8.80	0.00	8.80	11.30	9.10	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 2:30 AM	169.00	4.70	10.50	8.70	0.00	8.50	10.50	9.00	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 2:45 AM	166.00	5.50	10.40	9.30	0.00	8.50	10.40	8.60	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:00 AM	172.00	6.20	10.00	9.30	0.00	8.00	10.00	8.80	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:15 AM	168.00	4.20	9.40	8.50	0.00	8.00	9.40	8.60	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:30 AM	169.00	4.40	9.30	7.90	0.00	8.60	9.30	8.70	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:45 AM	172.00	3.40	10.30	8.00	0.00	9.40	10.30	9.80	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:00 AM	169.00	3.90	10.60	9.00	0.00	9.70	10.60	9.70	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:15 AM	158.00	4.60	9.00	8.50	0.00	9.80	9.00	10.90	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:30 AM	164.00	2.90	8.90	8.40	0.00	9.20	8.90	9.80	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:45 AM	168.00	5.70	8.90	8.60	0.00	9.90	8.90	8.80	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:00 AM	165.00	5.00	8.20	8.40	0.20	10.80	8.20	9.00	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:15 AM	168.00	5.00	8.30	8.50	0.20	10.50	8.30	9.00	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:30 AM	158.00	6.20	8.90	8.90	0.00	9.20	8.90	9.50	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:45 AM	165.00	6.80	8.30	8.70	0.40	9.80	8.30	11.80	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:00 AM	176.00	4.80	8.40	9.40	1.00	10.30	8.40	11.70	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:15 AM	169.00	3.50	9.30	9.80	0.50	10.50	9.30	10.90	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:30 AM	159.00	5.80	8.90	10.20	1.30	10.80	8.90	10.60	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:45 AM	155.00	5.10	8.80	10.20	1.40	10.90	8.80	10.90	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:00 AM	182.00	4.60	11.90	10.20	0.00	10.20	8.60	11.90	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:15 AM	157.00	4.10	9.00	9.80	0.80	11.50	9.00	10.00	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:30 AM	177.00	5.00	10.20	9.70	0.00	12.20	10.20	9.00	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:45 AM	168.00	5.30	8.90	9.70	0.80	12.00	8.90	9.30	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 8:00 AM	178.00	8.30	9.30	10.10	0.80	0.00	9.30	9.70	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 8:15 AM	180.00	6.60	10.20	11.20	1.00	11.20	9.60	10.20	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 8:30 AM	163.00	6.80	9.60	9.60	0.00	10.70	9.60	10.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 8:45 AM	172.00	7.50	10.10	9.30	0.00	11.00	10.10	10.00	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 9:00 AM	174.00	9.20	8.90	8.30	0.00	11.60	8.90	8.70	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 9:15 AM	183.00	5.30	8.80	11.10	2.30	11.10	7.90	8.80	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 9:30 AM	188.00	4.80	8.10	11.70	3.60	11.70	8.90	8.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 9:45 AM	165.00	7.60	11.50	7.90	0.00	9.90	11.50	7.70	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 10:00 AM	181.00	5.60	6.50	10.50	4.00	10.50	10.90	6.50	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 10:15 AM	182.00	8.30	6.40	9.30	2.90	9.30	10.60	6.40	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 10:30 AM	174.00	7.50	12.00	7.40	0.00	9.90	12.00	7.00	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 10:45 AM	195.00	7.60	7.00	9.70	2.70	9.70	12.60	7.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 11:00 AM	186.00	5.30	7.10	10.10	3.00	10.10	10.90	7.10	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 11:15 AM	179.00	5.40	10.20	7.60	0.00	8.90	10.20	6.70	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 11:30 AM	181.00	7.70	7.50	9.80	2.30	9.80	11.00	7.50	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 11:45 AM	184.00	6.00	7.30	9.60	2.30	9.60	10.60	7.30	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 12:00 PM	191.00	6.20	7.50	9.50	2.00	9.50	9.60	7.50	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 12:15 PM	213.00	8.60	8.10	10.70	2.60	10.70	10.40	8.10	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 12:30 PM	179.00	8.60	10.30	8.00	0.00	10.60	10.30	8.10	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 12:45 PM	187.00	7.90	8.30	12.90	4.60	12.90	10.50	8.30	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 1:00 PM	193.00	6.60	7.30	10.90	3.60	10.90	9.80	7.30	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 1:15 PM	180.00	6.60	8.00	10.00	2.00	10.00	9.10	8.00	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 1:30 PM	198.00	4.90	7.50	9.90	2.40	9.90	15.80	7.50	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 1:45 PM	180.00	5.40	7.60	10.60	3.00	10.60	21.60	7.60	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 2:00 PM	179.00	5.80	22.30	8.00	0.00	10.90	22.30	8.30	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 2:15 PM	179.00	6.60	26.50	8.10	0.00	10.60	26.50	8.30	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 2:30 PM	174.00	5.10	28.20	7.80	0.00	10.20	28.20	7.40	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 2:45 PM	186.00	7.20	7.00	9.50	2.50	9.50	28.90	7.00	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:00 PM	173.00	6.60	25.40	7.60	0.00	9.00	25.40	6.70	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:15 PM	190.00	4.90	6.70	9.80	3.10	9.80	25.10	6.70	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:30 PM	195.00	7.50	7.50	8.70	1.20	8.70	24.80	7.50	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 3:45 PM	189.00	5.20	7.40	9.20	1.80	9.20	24.00	7.40	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:00 PM	204.00	7.20	8.00	10.40	2.40	10.40	25.80	8.00	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:15 PM	186.00	6.00	8.10	10.00	1.90	10.00	25.60	8.10	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:30 PM	170.00	6.70	28.70	9.60	0.00	10.60	28.70	8.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 4:45 PM	171.00	5.50	28.40	9.50	0.00	11.30	28.40	9.70	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:00 PM	173.00	3.80	30.10	9.90	0.00	12.30	30.10	9.80	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:15 PM	190.00	6.30	11.50	14.60	3.10	14.60	31.60	11.50	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:30 PM	191.00	6.00	11.00	14.40	3.40	14.40	29.50	11.00	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 5:45 PM	182.00	3.70	11.80	14.20	2.40	14.20	29.30	11.80	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:00 PM	184.00	3.50	12.30	14.30	2.00	14.30	28.40	12.30	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:15 PM	186.00	3.40	13.10	15.70	2.60	15.70	29.40	13.10	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:30 PM	200.00	4.90	15.70	16.90	1.20	16.90	31.80	15.70	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 6:45 PM	197.00	4.50	16.10	16.80	0.70	16.80	31.60	16.10	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:00 PM	200.00	6.50	17.50	18.00	0.50	18.00	32.00	17.50	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:15 PM	206.00	5.00	18.10	17.40	0.00	17.40	31.10	18.10	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/4/13 7:30 PM	183.00	5.80	16.80	16.90	0.10	16.90	30.60	16.80	11.40	0.00	0.00	0.00				



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November, 2013

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		
11/5/13 3:00 AM	217.00	2.70	16.60	13.80	0.00	13.80	20.40	16.60	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:15 AM	217.00	5.10	16.70	14.20	0.00	14.20	20.70	16.70	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:30 AM	208.00	2.30	17.00	13.70	0.00	13.70	19.60	17.00	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:45 AM	213.00	3.50	16.50	14.20	0.00	14.20	19.70	16.50	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:00 AM	213.00	2.50	16.60	14.50	0.00	14.50	20.20	16.60	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:15 AM	203.00	2.90	16.30	14.70	0.00	14.70	19.20	16.30	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:30 AM	212.00	3.60	16.60	14.80	0.00	14.80	19.00	16.60	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:45 AM	200.00	3.00	16.20	15.00	0.00	15.00	18.90	16.20	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:00 AM	200.00	3.40	16.80	14.00	0.00	14.00	19.20	16.80	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:15 AM	197.00	3.90	16.30	13.70	0.00	13.70	18.20	16.30	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:30 AM	201.00	2.90	15.70	13.00	0.00	13.00	17.70	15.70	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:45 AM	194.00	4.60	15.00	12.90	0.00	12.90	17.50	15.00	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:00 AM	178.00	3.10	16.60	11.50	0.00	12.60	16.60	15.20	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:15 AM	192.00	3.30	15.00	12.50	0.00	12.50	16.60	15.00	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:30 AM	191.00	4.10	14.80	13.60	0.00	13.60	17.40	14.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:45 AM	206.00	3.70	14.70	13.30	0.00	13.30	17.30	14.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 7:00 AM	205.00	3.90	15.70	12.50	0.00	12.50	16.90	15.70	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 7:15 AM	195.00	3.00	15.90	11.70	0.00	11.70	16.70	15.90	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 7:30 AM	202.00	3.10	16.20	11.40	0.00	11.40	16.90	16.20	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 7:45 AM	185.00	3.10	16.30	11.40	0.00	11.40	17.20	16.30	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 8:00 AM	224.00	3.00	16.10	11.40	0.00	11.40	17.10	16.10	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 8:15 AM	208.00	5.00	16.00	11.50	0.00	11.50	17.10	16.00	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 8:30 AM	206.00	2.60	16.20	12.40	0.00	12.40	17.40	16.20	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 8:45 AM	193.00	3.10	16.70	15.20	0.00	15.20	18.10	16.70	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 9:00 AM	190.00	4.30	16.20	17.00	0.80	17.00	18.00	16.20	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 9:15 AM	187.00	3.80	16.00	17.00	1.00	17.00	17.30	16.00	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 9:30 AM	203.00	5.50	15.80	19.10	3.30	19.10	17.70	15.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 9:45 AM	191.00	3.50	15.90	17.30	1.40	17.30	17.70	15.90	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 10:00 AM	214.00	2.80	16.10	17.90	1.80	17.90	19.10	16.10	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 10:15 AM	221.00	5.30	16.80	16.00	0.00	16.00	17.10	16.80	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 10:30 AM	190.00	4.30	18.20	17.20	0.00	17.20	16.90	18.20	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 10:45 AM	212.00	5.10	16.30	17.80	1.50	17.80	17.40	16.30	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 11:00 AM	225.00	5.90	15.40	0.00	0.00	0.00	16.90	15.40	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 11:15 AM	205.00	4.80	12.30	16.30	4.00	16.30	16.90	12.30	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 11:30 AM	222.00	4.20	10.10	14.50	4.40	14.50	16.30	10.10	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 11:45 AM	235.00	5.00	10.20	15.50	5.30	15.50	18.00	10.20	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 12:00 PM	188.00	7.10	9.90	15.50	5.60	15.50	17.90	9.90	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 12:15 PM	200.00	4.30	10.00	15.70	5.70	15.70	18.20	10.00	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 12:30 PM	207.00	4.50	12.40	19.80	7.40	19.80	21.50	12.40	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 12:45 PM	198.00	3.40	13.80	21.40	7.60	21.40	23.20	13.80	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 1:00 PM	174.00	6.00	23.20	10.90	0.00	14.80	23.20	12.20	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 1:15 PM	192.00	5.50	9.10	12.10	3.00	12.10	22.90	9.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 1:30 PM	190.00	3.10	8.00	11.60	3.60	11.60	25.60	8.00	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 1:45 PM	205.00	3.60	7.40	11.70	4.30	11.70	27.50	7.40	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 2:00 PM	200.00	4.20	5.90	11.40	5.50	11.40	26.70	5.90	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 2:15 PM	202.00	4.00	6.00	10.80	4.80	10.80	25.10	6.00	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 2:30 PM	175.00	4.90	25.20	6.70	0.00	13.00	25.20	6.20	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 2:45 PM	207.00	2.90	7.20	14.10	6.90	14.10	26.10	7.20	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:00 PM	189.00	5.00	7.90	14.20	6.30	14.20	23.00	7.90	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:15 PM	182.00	3.30	9.30	15.50	6.20	15.50	22.90	9.30	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:30 PM	194.00	4.30	10.90	16.30	5.40	16.30	21.10	10.90	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 3:45 PM	161.00	4.00	22.10	12.70	0.00	17.20	22.10	10.40	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:00 PM	171.00	4.00	20.80	13.40	0.00	17.00	20.80	10.40	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:15 PM	181.00	4.40	10.90	16.60	5.70	16.60	19.30	10.90	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:30 PM	147.00	3.80	19.40	16.30	0.00	20.50	19.40	11.60	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 4:45 PM	169.00	3.20	19.90	17.40	0.00	0.00	19.90	13.70	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:00 PM	178.00	5.50	18.50	18.00	0.00	21.70	18.50	14.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:15 PM	179.00	4.40	17.80	17.40	0.00	21.60	17.80	14.20	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:30 PM	176.00	3.80	17.50	18.00	0.50	22.10	17.50	14.40	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 5:45 PM	176.00	4.20	18.80	18.60	0.00	23.30	18.80	15.60	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:00 PM	175.00	4.10	18.00	18.30	0.30	25.70	18.00	17.50	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:15 PM	176.00	4.30	20.40	18.10	0.00	27.00	20.40	18.60	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:30 PM	167.00	6.50	20.20	18.00	0.00	23.40	20.20	18.30	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 6:45 PM	192.00	4.90	18.40	22.80	4.40	22.80	19.50	18.40	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 7:00 PM	188.00	6.60	18.00	21.70	3.70	21.70	19.60	18.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/5/13 7:15 PM	180.00	3.40	18.															



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/6/13 3:45 AM	216.00	8.60	7.80	7.10	0.00	7.10	11.50	7.80	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:00 AM	203.00	8.60	7.50	7.50	0.00	7.50	11.80	7.50	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:15 AM	180.00	6.80	7.50	8.60	1.10	8.60	12.70	7.50	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:30 AM	201.00	11.20	6.90	7.40	0.50	7.40	12.50	6.90	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:45 AM	207.00	6.40	5.90	7.20	1.30	7.20	12.60	5.90	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:00 AM	184.00	6.00	5.20	6.40	1.20	6.40	12.80	5.20	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:15 AM	202.00	6.50	5.00	6.20	1.20	6.20	12.70	5.00	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:30 AM	195.00	6.40	5.30	6.70	1.40	6.70	13.10	5.30	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:45 AM	210.00	9.00	5.20	6.80	1.60	6.80	13.80	5.20	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:00 AM	200.00	10.60	6.00	6.70	0.70	6.70	12.90	6.00	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:15 AM	214.00	5.20	6.00	7.20	1.00	7.20	13.10	6.20	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:30 AM	216.00	7.60	7.30	8.10	0.80	8.10	13.30	7.30	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:45 AM	227.00	8.80	7.30	7.20	0.00	7.20	13.30	7.30	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:00 AM	218.00	6.90	6.50	5.80	0.00	5.80	12.10	6.50	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:15 AM	211.00	7.80	5.00	5.30	0.30	5.30	10.60	5.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:30 AM	215.00	10.00	4.70	5.10	0.40	5.10	10.40	4.70	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:45 AM	192.00	7.60	4.70	5.50	0.80	5.50	10.10	4.70	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:00 AM	213.00	9.80	4.30	5.60	1.30	5.60	9.50	4.30	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:15 AM	226.00	10.30	5.30	6.50	1.20	6.50	9.90	5.30	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:30 AM	214.00	7.60	5.40	6.10	0.70	6.10	9.40	5.40	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:45 AM	222.00	10.40	5.20	6.30	1.10	6.30	9.00	5.20	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 9:00 AM	209.00	7.20	6.00	5.60	0.00	5.60	8.50	6.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 9:15 AM	199.00	8.90	6.10	5.40	0.00	5.40	8.70	6.10	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 9:30 AM	219.00	7.10	6.00	4.70	0.00	4.70	8.50	6.00	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 9:45 AM	212.00	7.50	5.00	4.60	0.00	4.60	9.60	5.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 10:00 AM	215.00	7.90	5.00	5.00	0.00	5.00	10.50	5.00	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 10:15 AM	224.00	7.30	4.40	5.40	1.00	5.40	10.50	4.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 10:30 AM	251.00	5.90	4.10	5.40	1.30	5.40	10.40	4.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 10:45 AM	204.00	9.80	4.30	5.20	0.90	5.20	10.80	4.30	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 11:00 AM	219.00	5.50	4.80	4.60	0.00	4.60	10.60	4.80	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 11:15 AM	208.00	6.50	5.50	4.60	0.00	4.60	10.30	5.50	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 11:30 AM	215.00	7.30	5.70	4.30	0.00	4.30	9.10	5.70	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 11:45 AM	204.00	8.50	5.20	4.70	0.00	4.70	8.60	5.20	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 12:00 PM	229.00	5.60	4.60	4.70	0.10	4.70	8.50	4.60	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 12:15 PM	224.00	5.70	3.60	4.70	1.10	4.70	7.70	3.60	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 12:30 PM	234.00	6.20	3.60	4.90	1.30	4.90	7.70	3.60	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 12:45 PM	218.00	6.10	3.90	4.90	1.00	4.90	7.80	3.90	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 1:00 PM	307.00	5.50	5.90	8.40	2.50	5.20	8.40	3.80	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 1:15 PM	265.00	7.50	2.20	2.30	0.10	2.30	4.70	2.20	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 1:30 PM	295.00	8.80	4.70	4.60	0.00	3.30	4.60	2.30	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 1:45 PM	274.00	7.20	4.80	4.10	0.00	3.90	4.10	2.20	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 2:00 PM	267.00	5.30	2.50	2.40	0.00	2.40	3.90	2.50	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 2:15 PM	270.00	6.30	5.70	3.70	0.00	4.00	3.70	2.30	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 2:30 PM	286.00	5.70	6.90	3.70	0.00	4.70	3.70	2.40	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 2:45 PM	277.00	8.40	6.80	4.00	0.00	4.30	4.00	2.50	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 3:00 PM	297.00	8.80	7.10	3.60	0.00	5.10	3.60	1.70	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 3:15 PM	311.00	4.40	7.70	3.70	0.00	6.00	3.70	2.10	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 3:30 PM	313.00	8.70	9.10	3.80	0.00	7.10	3.80	2.80	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 3:45 PM	314.00	7.00	9.70	4.30	0.00	7.40	4.30	3.60	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:00 PM	311.00	4.30	10.20	4.70	0.00	8.50	4.70	4.90	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:15 PM	327.00	5.10	10.80	5.20	0.00	10.80	5.20	6.20	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:30 PM	308.00	5.30	11.10	5.80	0.00	12.80	5.80	6.90	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 4:45 PM	312.00	5.20	12.70	5.90	0.00	15.50	5.90	8.80	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:00 PM	347.00	4.30	12.60	5.90	0.00	16.20	5.90	10.20	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:15 PM	332.00	7.10	12.00	5.40	0.00	15.00	5.40	10.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:30 PM	347.00	3.50	11.10	4.90	0.00	13.60	4.90	8.70	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 5:45 PM	328.00	6.80	11.30	4.20	0.00	14.60	4.20	7.90	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:00 PM	326.00	4.60	11.10	3.90	0.00	14.80	3.90	9.70	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:15 PM	330.00	7.80	12.10	4.60	0.00	15.90	4.60	10.90	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:30 PM	336.00	6.70	13.40	4.70	0.00	15.90	4.70	12.00	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 6:45 PM	323.00	4.70	14.80	5.50	0.00	18.10	5.50	15.30	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:00 PM	319.00	6.20	13.50	5.00	0.00	14.90	5.00	12.80	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:15 PM	328.00	4.50	12.80	4.40	0.00	14.30	4.40	10.00	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:30 PM	342.00	3.00	12.80	4.30	0.00	13.90	4.30	10.00	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 7:45 PM	316.00	3.70	11.70	4.10	0.00	13.00	4.10	9.10	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:00 PM	323.00	3.80	10.80	3.90	0.00	11.40	3.90	8.50	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:15 PM	302.00	3.30	11.50	3.80	0.00	11.00	3.80	8.50	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:30 PM	317.00	3.20	12.30	4.00	0.00	14.00	4.00	8.50	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 8:45 PM	279.00	2.10	11.30	4.10	0.00	12.00	4.10	9.60	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 9:00 PM	287.00	2.30	12.70	4.20	0.00	13.90	4.20	9.80	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/6/13 9:15 PM	296.00	2.50	12.10</													



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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		
11/7/13 4:30 AM	297.00	2.20	10.90	16.90	6.00	12.60	16.90	11.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 4:45 AM	302.00	2.90	10.90	15.50	4.60	14.90	15.50	11.40	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:00 AM	286.00	2.20	10.50	14.60	4.10	12.60	14.60	11.00	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:15 AM	292.00	2.00	11.70	13.70	2.00	14.40	13.70	12.00	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:30 AM	306.00	2.10	12.30	13.20	0.90	15.40	13.20	12.50	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:45 AM	272.00	1.80	12.70	13.50	0.80	15.50	13.50	15.30	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:00 AM	287.00	1.70	12.90	14.50	1.60	15.70	14.50	16.30	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:15 AM	303.00	2.50	12.80	13.30	0.50	17.00	13.30	15.50	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:30 AM	291.00	3.10	14.30	14.20	0.00	17.30	14.20	18.40	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:45 AM	285.00	2.40	15.50	12.30	0.00	17.60	12.30	15.60	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:00 AM	273.00	1.70	13.50	11.70	0.00	16.30	11.70	14.80	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:15 AM	272.00	2.50	12.90	11.90	0.00	15.40	11.90	15.70	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:30 AM	284.00	2.50	14.80	12.30	0.00	17.20	12.30	16.50	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:45 AM	277.00	3.40	14.40	11.80	0.00	16.50	11.80	17.10	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:00 AM	263.00	3.70	17.30	17.60	0.30	17.60	12.10	17.30	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:15 AM	266.00	3.80	19.00	17.00	0.00	17.00	11.70	19.00	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:30 AM	252.00	4.50	15.30	15.80	0.50	15.80	10.40	15.30	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:45 AM	273.00	3.50	13.20	11.30	0.00	14.90	11.30	15.40	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 9:00 AM	281.00	4.50	12.60	10.80	0.00	15.20	10.80	14.80	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 9:15 AM	298.00	3.30	13.70	10.60	0.00	14.90	10.60	14.30	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 9:30 AM	250.00	4.40	14.10	15.20	1.10	15.20	10.50	14.10	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 9:45 AM	311.00	2.70	13.70	10.50	0.00	0.00	10.50	13.70	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 10:00 AM	261.00	4.00	13.90	16.90	3.00	16.90	10.10	13.90	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 10:15 AM	270.00	2.70	12.80	9.30	0.00	14.20	9.30	12.90	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 10:30 AM	277.00	4.60	11.20	8.80	0.00	11.20	8.80	11.50	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 10:45 AM	290.00	4.20	10.70	7.80	0.00	9.80	7.80	8.60	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 11:00 AM	263.00	5.60	8.10	9.60	1.50	9.60	7.30	8.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 11:15 AM	283.00	4.00	8.00	6.80	0.00	7.00	6.80	5.80	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 11:30 AM	281.00	4.20	8.70	6.40	0.00	6.60	6.40	6.80	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 11:45 AM	278.00	3.90	9.70	6.60	0.00	8.60	6.60	6.60	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 12:00 PM	253.00	4.60	5.00	6.30	1.30	6.30	5.20	5.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 12:15 PM	267.00	4.50	3.20	4.70	1.50	4.70	5.70	3.20	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 12:30 PM	273.00	4.80	6.90	5.10	0.00	4.70	5.10	3.70	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 12:45 PM	269.00	5.10	5.50	6.20	0.70	6.20	6.20	5.50	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 1:00 PM	266.00	5.60	5.20	7.10	1.90	7.10	6.40	5.20	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 1:15 PM	288.00	5.30	8.30	6.70	0.00	6.70	6.70	5.10	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 1:30 PM	277.00	6.20	10.10	8.50	0.00	9.50	8.50	10.00	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 1:45 PM	295.00	3.80	9.90	9.20	0.00	9.20	9.20	9.70	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 2:00 PM	258.00	6.10	8.90	10.00	1.10	10.00	8.60	8.90	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 2:15 PM	282.00	3.50	11.20	9.80	0.00	10.40	9.80	10.20	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 2:30 PM	283.00	3.50	10.90	8.80	0.00	8.90	8.80	8.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 2:45 PM	237.00	5.80	7.60	8.10	0.50	8.10	8.00	7.60	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 3:00 PM	288.00	6.00	10.40	8.00	0.00	9.60	8.00	8.50	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 3:15 PM	290.00	5.10	11.40	9.20	0.00	10.20	9.20	9.40	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 3:30 PM	264.00	4.60	10.00	10.20	0.20	10.20	9.50	10.00	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 3:45 PM	266.00	5.00	10.90	10.30	0.00	10.30	9.60	10.90	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 4:00 PM	275.00	4.50	12.10	9.40	0.00	10.90	9.40	10.30	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 4:15 PM	294.00	4.20	12.00	13.30	1.30	11.40	13.30	10.80	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 4:30 PM	301.00	3.00	13.00	15.40	2.40	11.80	15.40	10.90	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 4:45 PM	283.00	3.30	13.00	16.50	3.50	11.90	16.50	11.10	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:00 PM	272.00	3.30	12.60	16.40	3.80	13.10	16.40	11.40	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:15 PM	323.00	5.70	14.30	16.70	2.40	14.10	16.70	12.70	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:30 PM	313.00	4.70	20.40	23.30	2.90	20.40	23.30	22.00	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 5:45 PM	319.00	4.50	18.90	23.70	4.80	19.50	23.70	23.10	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:00 PM	315.00	4.90	17.20	22.20	5.00	0.00	22.20	22.60	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:15 PM	296.00	7.30	17.60	19.30	1.70	0.00	19.30	19.50	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:30 PM	295.00	3.50	15.20	17.40	2.20	17.00	17.40	18.70	15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 6:45 PM	298.00	4.60	16.30	19.80	3.50	18.70	19.80	23.40	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:00 PM	306.00	2.30	16.80	19.40	2.60	22.90	19.40	24.30	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:15 PM	302.00	3.80	16.80	19.60	2.80	22.40	19.60	24.50	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:30 PM	278.00	4.40	15.50	19.70	4.20	21.50	19.70	25.80	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 7:45 PM	293.00	3.90	15.80	18.70	2.90	20.50	18.70	24.80	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:00 PM	268.00	4.30	24.80	21.60	0.00	21.60	18.60	24.80	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:15 PM	301.00	5.60	17.20	22.30	5.10	23.70	22.30	30.90	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:30 PM	279.00	4.50	16.40	22.60	2.20	22.20	18.60	27.00	16.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/7/13 8:45 PM	294.00	6.60	16.40	17.70	1.30	21.70	17.70	25.10	16.40	0.00</								



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Real-Time Air Monitoring Data
November, 2013

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		
11/9/13 6:00 AM	216.00	6.50	5.90	6.40	0.50	6.40	8.40	5.90	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:15 AM	212.00	8.60	6.30	6.30	0.00	6.30	8.60	6.30	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:30 AM	220.00	6.20	6.10	6.80	0.70	6.80	8.30	6.10	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:45 AM	233.00	10.20	6.20	6.80	0.60	6.80	8.30	6.20	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:00 AM	229.00	6.10	6.10	6.80	0.70	6.80	8.20	6.10	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:15 AM	224.00	6.00	6.10	6.80	0.70	6.80	8.60	6.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:30 AM	243.00	6.10	6.10	0.00	0.00	0.00	8.00	6.10	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:45 AM	233.00	6.90	6.10	7.00	0.90	7.00	8.40	6.10	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:00 AM	209.00	6.80	6.20	6.80	0.60	6.80	8.30	6.20	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:15 AM	218.00	5.80	5.80	6.60	0.80	6.60	8.10	5.80	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:30 AM	227.00	7.30	6.30	6.70	0.40	6.70	7.90	6.30	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:45 AM	231.00	6.30	6.30	6.70	0.40	6.70	8.10	6.30	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:00 AM	245.00	6.80	6.10	6.50	0.40	6.50	7.90	6.10	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:15 AM	242.00	5.50	6.40	6.80	0.40	6.80	8.30	6.40	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:30 AM	242.00	4.50	7.20	0.00	0.00	0.00	8.20	7.20	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:45 AM	218.00	7.40	6.80	7.00	0.20	7.00	8.10	6.80	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:00 AM	255.00	6.50	6.70	6.60	0.00	6.60	7.70	6.70	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:15 AM	246.00	6.60	6.10	6.30	0.20	6.30	7.00	6.10	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:30 AM	259.00	6.30	5.80	6.60	0.80	6.60	7.50	5.80	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:45 AM	245.00	7.60	5.80	6.70	0.90	6.70	7.60	5.80	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 11:00 AM	260.00	6.70	6.80	7.60	0.80	7.60	8.50	6.80	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 11:15 AM	253.00	11.10	7.30	7.00	0.00	7.00	8.90	7.30	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 11:30 AM	249.00	5.40	6.60	6.80	0.20	6.80	8.50	6.60	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 11:45 AM	256.00	10.40	7.50	0.00	0.00	0.00	8.70	7.50	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 12:00 PM	239.00	8.00	7.90	6.70	0.00	6.70	8.80	7.90	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 12:15 PM	282.00	6.00	10.90	9.00	0.00	7.40	9.00	8.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 12:30 PM	278.00	10.30	11.00	9.20	0.00	6.00	9.20	7.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 12:45 PM	275.00	7.00	11.10	9.20	0.00	6.00	9.20	7.20	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 1:00 PM	282.00	9.90	11.70	8.80	0.00	6.30	8.80	8.80	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 1:15 PM	266.00	6.30	8.10	7.00	0.00	7.00	8.90	7.10	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 1:30 PM	269.00	7.30	6.70	0.00	0.00	0.00	8.70	6.70	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 1:45 PM	288.00	8.20	10.60	8.70	0.00	9.50	8.70	8.40	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 2:00 PM	268.00	10.30	6.20	6.70	0.50	6.70	8.30	6.20	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 2:15 PM	264.00	8.70	6.40	6.10	0.00	6.10	8.30	6.40	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 2:30 PM	256.00	9.20	6.20	6.80	0.60	6.80	8.50	6.20	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 2:45 PM	285.00	8.70	10.60	8.30	0.00	6.30	8.30	7.00	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 3:00 PM	260.00	8.60	7.00	6.40	0.00	6.40	8.30	7.00	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 3:15 PM	278.00	6.70	10.90	8.10	0.00	7.10	8.10	7.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 3:30 PM	274.00	8.30	11.30	8.90	0.00	7.40	8.90	8.00	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 3:45 PM	262.00	5.30	7.80	7.10	0.00	7.10	8.40	7.80	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 4:00 PM	271.00	10.00	11.60	9.00	0.00	7.40	9.00	7.40	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 4:15 PM	247.00	7.40	8.40	8.50	0.10	8.50	10.10	8.40	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 4:30 PM	272.00	9.90	11.80	10.20	0.00	7.90	10.20	9.00	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 4:45 PM	288.00	5.70	12.20	10.90	0.00	8.10	10.90	8.70	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 5:00 PM	302.00	6.50	14.90	9.90	0.00	10.00	9.90	8.70	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 5:15 PM	270.00	6.30	11.60	9.50	0.00	7.50	9.50	8.40	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 5:30 PM	259.00	6.40	8.60	9.50	0.90	9.50	10.70	8.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 5:45 PM	284.00	6.30	13.40	11.40	0.00	10.90	11.40	10.30	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:00 PM	270.00	4.60	13.90	12.80	0.00	12.20	12.80	12.10	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:15 PM	281.00	7.40	15.10	13.90	0.00	10.70	13.90	13.00	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:30 PM	283.00	6.20	16.50	14.30	0.00	12.10	14.30	12.90	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 6:45 PM	280.00	8.50	17.60	15.30	0.00	12.60	15.30	14.40	17.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:00 PM	287.00	9.40	17.20	15.50	0.00	13.00	15.50	15.10	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:15 PM	284.00	5.50	18.60	18.30	0.00	15.90	18.30	17.50	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:30 PM	273.00	4.80	19.30	18.20	0.00	16.90	18.20	19.30	19.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 7:45 PM	278.00	6.10	21.10	23.90	2.80	21.00	23.90	22.40	21.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:00 PM	279.00	6.20	20.80	23.10	2.30	0.00	23.10	20.20	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:15 PM	299.00	6.50	19.60	23.20	3.60	17.80	23.20	19.80	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:30 PM	260.00	5.70	19.80	17.00	0.00	17.00	23.00	19.80	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 8:45 PM	283.00	7.20	19.40	22.00	2.60	16.80	22.00	18.70	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:00 PM	290.00	4.70	18.70	20.70	2.00	17.20	20.70	17.10	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:15 PM	265.00	4.70	17.00	17.20	0.20	17.20	20.30	17.00	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:30 PM	267.00	2.20	18.30	16.90	0.00	16.90	19.70	18.30	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 9:45 PM	274.00	6.30	22.90	19.50	0.00	17.20	19.50	17.00	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:00 PM	292.00	5.60	24.90	18.30	0.00	0.00	18.30	16.70	24.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:15 PM	295.00	6.30	26.30	17.50	0.00	18.60	17.50	16.30	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/9/13 10:30 PM	283.00	5.40	26.20	16.70														



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/11/13 7:30 AM	230.00	3.60	14.10	13.20	0.00	13.20	13.10	14.10	32.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 7:45 AM	212.00	4.50	13.90	13.40	0.00	13.40	12.90	13.90	32.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:00 AM	232.00	4.20	13.90	13.20	0.00	13.20	12.80	13.90	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:15 AM	245.00	5.00	13.70	12.70	0.00	12.70	13.10	13.70	32.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:30 AM	217.00	3.80	12.90	13.10	0.20	13.10	12.20	12.90	32.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:45 AM	261.00	3.00	14.80	13.40	0.00	13.40	13.00	14.80	31.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:00 AM	237.00	4.50	14.00	12.70	0.00	12.70	13.00	14.00	37.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:15 AM	242.00	3.50	13.60	12.90	0.00	12.90	13.10	13.60	31.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:30 AM	251.00	3.60	14.50	13.00	0.00	13.00	12.90	14.50	31.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:45 AM	251.00	4.70	14.00	15.20	1.20	15.20	12.90	14.00	31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:00 AM	251.00	2.70	15.50	16.50	1.00	16.50	13.20	15.50	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:15 AM	264.00	2.80	17.70	16.30	0.00	16.30	15.20	17.70	33.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:30 AM	251.00	3.50	17.90	15.70	0.00	15.70	15.50	17.90	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:45 AM	265.00	2.60	17.80	17.40	0.00	17.40	16.10	17.80	32.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:00 AM	247.00	2.40	20.10	19.00	0.00	19.00	16.10	20.10	35.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:15 AM	268.00	2.00	21.10	18.70	0.00	18.70	17.90	21.10	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:30 AM	296.00	1.90	30.50	18.90	0.00	18.90	18.90	21.40	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:45 AM	314.00	2.00	35.80	21.90	0.00	21.70	21.90	26.60	35.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 12:00 PM	326.00	6.20	30.50	20.60	0.00	20.50	20.60	24.70	30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 12:15 PM	347.00	3.00	25.70	16.60	0.00	17.90	16.60	18.90	25.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 12:30 PM	2.00	5.90	18.10	19.40	1.30	18.10	16.40	19.40	26.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 12:45 PM	5.00	5.80	18.10	21.80	3.70	18.10	17.30	21.80	26.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 1:00 PM	6.00	6.40	17.80	22.90	5.10	17.80	17.70	22.90	26.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 1:15 PM	1.00	9.90	17.80	20.70	2.90	17.80	15.80	20.70	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 1:30 PM	20.00	10.80	19.70	21.40	1.70	19.70	17.10	21.40	18.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 1:45 PM	6.00	9.10	13.80	16.70	2.90	13.80	12.50	16.70	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 2:00 PM	1.00	12.00	14.00	15.10	1.10	14.00	13.20	15.10	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 2:15 PM	9.00	10.00	9.10	13.50	4.40	9.10	9.50	13.50	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 2:30 PM	1.00	11.70	8.80	9.80	1.00	8.80	8.90	9.80	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 2:45 PM	12.00	9.70	7.40	7.60	0.20	7.40	7.70	7.60	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 3:00 PM	9.00	11.20	3.40	1.20	0.00	3.40	6.00	1.20	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 3:15 PM	16.00	11.50	3.90	0.10	0.00	3.90	6.00	0.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 3:30 PM	14.00	12.10	5.10	0.10	0.00	5.10	7.10	0.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 3:45 PM	11.00	14.30	10.80	-0.50	0.00	10.80	8.50	-0.50	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 4:00 PM	23.00	9.60	8.10	0.00	0.00	8.10	10.50	0.00	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 4:15 PM	19.00	13.40	5.90	-0.30	0.00	5.90	8.50	-0.30	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 4:30 PM	9.00	11.50	3.60	-0.10	0.00	3.60	7.00	-0.10	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 4:45 PM	17.00	12.10	2.20	-0.10	0.00	2.20	4.70	-0.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 5:00 PM	6.00	15.50	2.30	0.00	0.00	2.30	4.00	0.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 5:15 PM	356.00	11.50	5.70	4.20	0.00	2.60	4.20	0.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 5:30 PM	0.00	13.80	4.80	0.20	0.00	4.80	5.10	0.20	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 5:45 PM	0.00	0.00	0.00	0.00	0.00	7.80	8.10	0.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 6:00 PM	0.00	10.40	4.80	0.70	0.00	4.80	7.10	0.70	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 6:15 PM	4.00	9.90	5.60	4.60	0.00	5.60	4.20	4.60	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 6:30 PM	13.00	14.80	5.20	2.80	0.00	5.20	5.50	2.80	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 6:45 PM	347.00	11.50	6.80	9.60	2.80	11.60	9.60	2.80	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 7:00 PM	0.00	0.00	0.00	0.00	0.00	5.60	5.30	1.30	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 7:15 PM	9.00	8.10	3.70	0.20	0.00	3.70	7.20	0.20	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 7:30 PM	0.00	9.30	1.90	0.00	0.00	1.90	3.90	0.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 7:45 PM	0.00	12.30	2.90	-0.20	0.00	2.90	4.00	-0.20	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:00 PM	11.00	11.70	5.50	0.00	0.00	5.50	4.80	0.00	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:15 PM	9.00	11.40	2.00	-0.30	0.00	2.00	4.00	-0.30	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:30 PM	6.00	10.10	3.40	-0.40	0.00	3.40	3.70	-0.40	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 8:45 PM	357.00	11.10	5.40	3.60	0.00	4.20	3.60	-0.30	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:00 PM	7.00	10.50	2.40	0.20	0.00	2.40	3.80	0.20	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:15 PM	3.00	10.40	2.40	-0.10	0.00	2.40	3.10	-0.10	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:30 PM	7.00	12.80	2.70	0.00	0.00	2.70	3.30	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 9:45 PM	331.00	7.80	5.80	3.60	0.00	0.00	3.60	1.30	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:00 PM	346.00	4.40	6.70	4.00	0.00	3.60	4.00	1.00	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:15 PM	3.00	8.90	2.40	1.10	0.00	2.40	3.20	1.10	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:30 PM	3.00	7.50	3.20	1.20	0.00	3.20	3.30	1.20	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 10:45 PM	0.00	4.80	4.00	1.70	0.00	4.00	3.40	1.70	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:00 PM	341.00	8.60	5.80	3.50	0.00	4.40	3.50	0.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:15 PM	333.00	6.50	5.60	3.80	0.00	4.60	3.80	0.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:30 PM	334.00	7.70	5.90	3.70	0.00	4.80	3.70	0.80	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/11/13 11:45 PM	330.00	7.30	5.50	3.60	0.00	4.30	3.60	1.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:00 AM	336.00	6.70	5.70	4.00	0.00	4.80	4.00	1.00	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:15 AM	345.00	4.20	5.60	3.70	0.00	4.10	3.70	0.90	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:30 AM	330.00	6.80	5.50	3.80	0.00	4.40	3.80	0.30	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:45 AM	323.00	7.20	5.50	3.60	0.00	4.20	3.60	0.50	5.50</							



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/12/13 8:15 AM	333.00	4.40	6.80	6.00	0.00	5.80	6.00	2.40	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 8:30 AM	334.00	3.90	5.60	5.90	0.30	4.70	5.90	2.70	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 8:45 AM	326.00	4.30	8.30	6.40	0.00	5.80	6.40	3.80	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:00 AM	327.00	4.60	6.90	6.50	0.00	6.40	6.50	4.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:15 AM	325.00	5.00	8.20	6.70	0.00	7.50	6.70	3.90	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:30 AM	340.00	6.40	7.80	7.30	0.00	7.00	7.30	4.60	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:45 AM	344.00	5.30	6.90	7.10	0.20	7.10	7.10	5.70	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:00 AM	0.00	5.40	7.00	6.20	0.00	7.00	7.30	6.20	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:15 AM	344.00	6.00	6.30	6.10	0.00	6.70	6.10	6.60	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:30 AM	346.00	3.60	6.00	6.00	0.00	6.50	6.00	4.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:45 AM	342.00	5.90	6.10	6.30	0.20	5.20	6.30	5.40	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:00 AM	339.00	6.60	5.60	5.90	0.30	6.10	5.90	3.50	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:15 AM	4.00	4.40	6.30	3.20	0.00	6.30	6.10	3.20	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:30 AM	334.00	5.10	6.60	6.90	0.30	6.00	6.90	4.10	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:45 AM	12.00	5.80	4.50	2.40	0.00	4.50	6.10	2.40	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:00 PM	9.00	4.10	4.70	2.50	0.00	4.70	5.80	2.50	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:15 PM	346.00	2.90	6.00	5.70	0.00	3.90	5.70	9.20	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:30 PM	1.00	8.60	0.00	5.10	0.00	0.00	5.30	5.10	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 12:45 PM	2.00	4.80	4.90	3.50	0.00	4.90	5.60	3.50	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 1:00 PM	347.00	2.80	8.60	6.40	0.00	5.20	6.40	4.10	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 1:15 PM	7.00	4.50	5.80	3.90	0.00	5.80	6.30	3.90	8.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 1:30 PM	7.00	3.20	5.70	2.80	0.00	5.70	5.80	2.80	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 1:45 PM	334.00	4.30	8.20	5.80	0.00	4.80	5.80	2.30	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 2:00 PM	335.00	4.30	11.80	5.80	0.00	5.10	5.80	2.60	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 2:15 PM	323.00	5.50	9.60	5.80	0.00	0.00	5.80	4.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 2:30 PM	328.00	4.70	10.00	6.30	0.00	5.40	6.30	2.10	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 2:45 PM	310.00	3.90	8.10	6.40	0.00	5.00	6.40	1.90	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 3:00 PM	313.00	3.80	11.10	6.20	0.00	4.30	6.20	0.20	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 3:15 PM	351.00	3.40	11.20	6.90	0.00	5.80	6.90	1.20	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 3:30 PM	323.00	4.70	11.50	7.70	0.00	5.50	7.70	2.60	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 3:45 PM	334.00	3.30	12.10	8.50	0.00	0.00	8.50	2.30	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 4:00 PM	285.00	4.10	12.10	8.50	0.00	6.30	8.50	1.60	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 4:15 PM	303.00	3.70	12.20	8.70	0.00	6.20	8.70	8.30	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 4:30 PM	303.00	4.20	11.10	9.50	0.00	6.20	9.50	1.60	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 4:45 PM	295.00	4.00	11.10	8.60	0.00	5.10	8.60	1.10	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 5:00 PM	301.00	4.50	12.30	8.10	0.00	6.90	8.10	0.50	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 5:15 PM	301.00	4.50	13.10	8.80	0.00	6.40	8.80	-0.30	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 5:30 PM	298.00	3.80	12.50	8.20	0.00	6.40	8.20	-0.60	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 5:45 PM	284.00	3.60	9.90	7.90	0.00	4.40	7.90	-0.70	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 6:00 PM	288.00	3.60	12.70	8.30	0.00	5.90	8.30	-0.40	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 6:15 PM	300.00	4.00	13.60	8.90	0.00	6.10	8.90	1.00	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 6:30 PM	281.00	3.90	11.40	9.60	0.00	0.00	9.60	1.50	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 6:45 PM	286.00	2.80	11.40	11.00	0.00	5.70	11.00	2.90	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 7:00 PM	300.00	3.80	11.00	9.00	0.00	6.00	9.00	1.20	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 7:15 PM	279.00	5.10	11.10	9.80	0.00	6.00	9.80	1.60	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 7:30 PM	280.00	4.90	11.60	10.00	0.00	8.10	10.00	2.20	11.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 7:45 PM	289.00	5.80	11.30	10.00	0.00	8.00	10.00	2.90	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 8:00 PM	273.00	3.90	11.10	9.20	0.00	8.30	9.20	2.00	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 8:15 PM	291.00	2.90	10.60	9.90	0.00	6.90	9.90	3.00	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 8:30 PM	300.00	3.40	10.40	9.00	0.00	6.50	9.00	1.70	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 8:45 PM	300.00	3.90	10.00	9.40	0.00	6.30	9.40	2.30	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:00 PM	297.00	4.50	9.20	9.10	0.00	6.00	9.10	2.90	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:15 PM	295.00	3.60	9.70	9.10	0.00	7.30	9.10	3.20	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:30 PM	272.00	3.20	9.40	9.10	0.00	7.00	9.10	3.80	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 9:45 PM	255.00	3.90	3.60	8.60	0.00	8.60	9.90	3.60	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:00 PM	282.00	3.80	10.90	11.90	1.00	10.00	11.90	4.90	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:15 PM	284.00	2.80	10.20	13.60	3.40	9.50	13.60	4.80	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:30 PM	278.00	3.50	10.90	13.50	2.60	12.20	13.50	4.90	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 10:45 PM	293.00	3.70	10.60	14.50	3.90	10.60	14.50	6.10	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:00 PM	271.00	2.50	10.50	14.70	4.20	11.10	14.70	6.40	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:15 PM	280.00	4.30	11.20	15.60	4.40	12.50	15.60	7.20	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:30 PM	286.00	3.90	10.60	15.50	4.90	11.70	15.50	10.20	10.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/12/13 11:45 PM	294.00	3.90	10.80	15.10	4.30	12.00	15.10	9.20	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:00 AM	279.00	4.20	11.20	12.90	1.70	11.30	12.90	7.10	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:15 AM	290.00	2.80	10.30	12.70	2.40	11.40	12.70	7.30	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:30 AM	243.00	2.70	10.30	10.30	0.00	10.30	12.80	10.30	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:45 AM	258.00	3.40	8.50	11.20	2.70	11.20	12.40	8.50	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:00 AM	262.00	3.10	7.30	10.40	3.10	10.40	11.70	7.30	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:15 AM	269.00	2.80	7.20	10.70	3.50	10.70	11.50	7.20	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:30 AM	257.00	4.20	7.20	10.50	3.30	10.50	11.60	7.20	10.10	0.00						



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Real-Time Air Monitoring Data
November, 2013

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
11/13/13 9:00 AM	245.00	4.90	20.20	19.50	0.00	19.50	15.00	20.20	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:15 AM	249.00	5.30	17.30	18.40	1.10	18.40	13.80	17.30	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:30 AM	241.00	3.80	20.40	16.90	0.00	16.90	14.30	20.40	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:45 AM	248.00	5.60	16.30	17.20	0.90	17.20	12.60	16.30	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:00 AM	242.00	5.90	11.40	13.40	2.00	13.40	11.50	11.40	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:15 AM	217.00	6.30	12.60	12.70	0.10	12.70	12.70	12.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:30 AM	220.00	3.30	10.20	11.90	1.70	11.90	12.50	10.20	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:45 AM	244.00	6.20	10.20	11.30	1.10	11.30	12.80	10.20	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:00 AM	230.00	7.10	11.20	10.90	0.00	10.90	13.40	11.20	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:15 AM	249.00	8.60	10.50	11.00	0.50	11.00	11.80	10.50	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:30 AM	243.00	5.50	9.70	9.80	0.10	9.80	10.90	9.70	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:45 AM	227.00	7.60	7.20	8.40	1.20	8.40	10.60	7.20	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:00 PM	230.00	8.70	6.80	8.00	1.20	8.00	10.00	6.80	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:15 PM	232.00	6.50	6.40	8.00	1.60	8.00	10.00	6.40	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:30 PM	237.00	5.20	5.70	7.70	2.00	7.70	9.80	5.70	14.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 12:45 PM	233.00	7.80	7.40	0.00	0.00	0.00	11.00	7.40	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:00 PM	226.00	7.70	7.30	7.50	0.20	7.50	10.40	7.30	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:15 PM	224.00	9.60	5.40	7.30	1.90	7.30	10.20	5.40	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:30 PM	237.00	9.70	7.10	8.60	1.50	8.60	9.80	7.10	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 1:45 PM	226.00	6.60	4.90	6.80	1.90	6.80	11.60	4.90	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 2:00 PM	239.00	6.60	4.00	6.10	2.10	6.10	9.70	4.00	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 2:15 PM	224.00	8.50	3.40	6.00	2.60	6.00	10.10	3.40	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 2:30 PM	239.00	9.70	4.60	6.70	2.10	6.70	10.20	4.60	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 2:45 PM	219.00	9.60	4.80	7.10	2.30	7.10	10.40	4.80	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 3:00 PM	229.00	7.20	5.70	7.60	1.90	7.60	10.80	5.70	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 3:15 PM	218.00	7.90	10.40	10.10	0.00	10.10	12.20	10.40	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 3:30 PM	219.00	6.40	9.00	9.10	0.10	9.10	12.50	9.00	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 3:45 PM	227.00	8.70	6.50	8.50	2.00	8.50	12.10	6.50	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 4:00 PM	221.00	6.30	6.90	7.70	0.80	7.70	12.00	6.90	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 4:15 PM	199.00	8.00	7.10	7.80	0.70	7.80	11.70	7.10	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 4:30 PM	202.00	7.30	6.00	8.20	2.20	8.20	12.10	6.00	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 4:45 PM	217.00	9.80	7.20	8.20	1.00	8.20	12.40	7.20	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 5:00 PM	214.00	7.10	6.40	7.80	1.40	7.80	12.40	6.40	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 5:15 PM	213.00	8.60	7.20	8.30	1.10	8.30	13.30	7.20	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 5:30 PM	220.00	5.60	7.60	9.50	1.90	9.50	14.20	7.60	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 5:45 PM	212.00	6.30	7.50	8.20	0.70	8.20	13.40	7.50	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 6:00 PM	208.00	7.10	7.40	8.20	0.80	8.20	12.40	7.40	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 6:15 PM	224.00	5.70	7.80	9.00	1.20	9.00	14.10	7.80	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 6:30 PM	216.00	8.50	8.70	9.40	0.70	9.40	13.60	8.70	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 6:45 PM	204.00	9.80	10.00	10.10	0.10	10.10	13.80	10.00	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 7:00 PM	210.00	6.40	10.20	11.40	1.20	11.40	14.30	10.20	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 7:15 PM	224.00	6.30	10.90	0.00	0.00	0.00	14.00	10.90	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 7:30 PM	203.00	9.80	14.60	14.20	0.00	14.20	14.00	14.60	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 7:45 PM	215.00	7.60	15.10	15.30	0.20	15.30	16.00	15.10	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 8:00 PM	207.00	7.20	15.50	16.20	0.70	16.20	16.10	15.50	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 8:15 PM	212.00	6.20	16.00	15.60	0.00	15.60	15.70	16.00	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 8:30 PM	210.00	7.10	15.20	14.30	0.00	14.30	16.00	15.20	15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 8:45 PM	213.00	9.70	13.10	13.90	0.80	13.90	18.70	13.10	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:00 PM	230.00	7.50	13.10	13.20	0.10	13.20	18.90	13.10	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:15 PM	203.00	10.60	13.10	13.30	0.20	13.30	19.40	13.10	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:30 PM	223.00	7.40	13.00	13.50	0.50	13.50	18.70	13.00	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 9:45 PM	212.00	9.10	12.10	12.60	0.50	12.60	19.00	12.10	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:00 PM	214.00	6.80	12.80	12.90	0.10	12.90	18.80	12.80	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:15 PM	219.00	8.40	11.90	12.10	0.20	12.10	16.90	11.90	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:30 PM	234.00	7.60	10.40	11.80	1.40	11.80	16.60	10.40	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 10:45 PM	221.00	5.30	10.80	12.20	1.40	12.20	16.60	10.80	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:00 PM	212.00	6.20	11.50	11.10	0.00	11.10	15.50	11.50	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:15 PM	211.00	9.00	10.80	11.80	1.00	11.80	15.00	10.80	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:30 PM	217.00	8.90	11.30	0.00	0.00	0.00	14.80	11.30	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/13/13 11:45 AM	219.00	6.30	12.90	12.70	0.00	12.70	15.20	12.90	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:00 AM	230.00	9.00	13.20	13.40	0.20	13.40	14.30	13.20	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:15 AM	222.00	12.30	12.50	14.20	1.70	14.20	13.90	12.50	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:30 AM	223.00	8.20	12.90	13.50	0.60	13.50	13.70	12.90	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:45 AM	221.00	6.70	12.70	13.30	0.60	13.30	12.90	12.70	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:00 AM	219.00	7.20	13.00	12.80	0.00	12.80	13.00	13.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:15 AM	226.00	5.90	14.10	13.60	0.00	13.60	12.80	14.10	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:30 AM	236.00	5.00	13.80	13.40	0.00	13.40	13.40	13.80	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:45 AM	222.00	5.80	13.20	15.00	1.80	15.00	13.60	13.20	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 2:00 AM	220.00	5.10	12.10	12.90	0.80	12.90	12.70	12.10	11.40	0						



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/14/13 9:45 AM	233.00	7.20	14.20	12.30	0.00	12.30	11.50	14.20	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:00 AM	233.00	6.20	14.90	12.30	0.00	12.30	11.70	14.90	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:15 AM	235.00	5.80	12.30	11.10	0.00	11.10	11.00	12.30	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:30 AM	236.00	9.80	11.80	11.00	0.00	11.00	11.20	11.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:45 AM	222.00	8.20	11.30	10.00	0.00	10.00	11.20	11.30	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:00 AM	231.00	6.30	11.00	9.60	0.00	9.60	11.80	11.00	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:15 AM	226.00	6.70	11.30	10.10	0.00	10.10	11.80	11.30	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:30 AM	202.00	8.20	12.50	11.50	0.00	11.50	11.40	12.50	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:45 AM	230.00	11.90	13.60	11.50	0.00	11.50	11.50	13.60	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:00 PM	229.00	8.20	12.60	0.00	0.00	0.00	11.80	12.60	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:15 PM	226.00	7.30	13.10	11.30	0.00	11.30	12.00	13.10	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:30 PM	227.00	8.10	12.20	10.90	0.00	10.90	11.40	12.20	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 12:45 PM	227.00	5.20	12.10	10.70	0.00	10.70	11.90	12.10	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:00 PM	238.00	9.90	14.10	11.40	0.00	11.40	12.60	14.10	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:15 PM	236.00	7.40	13.90	11.90	0.00	11.90	12.80	13.90	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:30 PM	215.00	9.80	13.90	12.40	0.00	12.40	13.40	13.90	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 1:45 PM	212.00	10.40	13.20	11.90	0.00	11.90	12.90	13.20	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 2:00 PM	219.00	8.50	15.30	13.30	0.00	13.30	14.10	15.30	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 2:15 PM	228.00	9.70	15.50	12.10	0.00	12.10	14.30	15.50	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 2:30 PM	227.00	7.30	16.00	12.00	0.00	12.00	14.20	16.00	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 2:45 PM	239.00	8.70	17.30	13.10	0.00	13.10	13.40	17.30	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 3:00 PM	213.00	7.30	16.00	12.40	0.00	12.40	14.10	16.00	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 3:15 PM	195.00	8.20	15.40	12.80	0.00	12.80	14.40	15.40	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 3:30 PM	220.00	5.70	16.50	13.30	0.00	13.30	15.00	16.50	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 3:45 PM	225.00	5.80	15.00	12.60	0.00	12.60	15.10	15.00	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 4:00 PM	235.00	8.80	18.40	13.30	0.00	13.30	15.10	18.40	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 4:15 PM	229.00	6.00	19.70	14.40	0.00	14.40	18.10	19.70	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 4:30 PM	228.00	6.10	17.20	14.40	0.00	14.40	16.00	17.20	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 4:45 PM	221.00	7.20	15.70	13.10	0.00	13.10	14.90	15.70	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 5:00 PM	228.00	7.30	19.40	14.90	0.00	14.90	15.40	19.40	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 5:15 PM	217.00	6.10	19.00	14.00	0.00	14.00	15.90	19.00	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 5:30 PM	230.00	6.50	16.70	14.40	0.00	14.40	15.50	16.70	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 5:45 PM	208.00	5.50	15.20	13.40	0.00	13.40	15.60	15.20	16.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 6:00 PM	209.00	5.40	14.00	12.80	0.00	12.80	15.30	14.00	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 6:15 PM	208.00	4.50	13.20	12.00	0.00	12.00	15.30	13.20	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 6:30 PM	226.00	7.10	15.60	13.50	0.00	13.50	14.80	15.60	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 6:45 PM	226.00	6.90	14.60	12.60	0.00	12.60	14.30	14.60	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 7:00 PM	224.00	5.70	13.50	11.70	0.00	11.70	14.30	13.50	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 7:15 PM	219.00	6.00	14.40	0.00	0.00	0.00	14.50	14.40	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 7:30 PM	230.00	4.70	13.50	11.80	0.00	11.80	13.80	13.50	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 7:45 PM	230.00	5.60	12.40	11.30	0.00	11.30	13.60	12.40	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 8:00 PM	225.00	6.30	12.80	11.80	0.00	11.80	13.80	12.80	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 8:15 PM	213.00	4.20	15.10	14.10	0.00	14.10	14.60	15.10	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 8:30 PM	236.00	4.70	15.30	14.50	0.00	14.50	14.60	15.30	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 8:45 PM	211.00	4.40	14.60	13.60	0.00	13.60	13.90	14.60	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 9:00 PM	206.00	3.90	14.00	13.80	0.00	13.80	14.50	14.00	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 9:15 PM	240.00	3.80	13.30	13.10	0.00	13.10	14.80	13.30	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 9:30 PM	220.00	5.00	14.00	12.80	0.00	12.80	14.20	14.00	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 9:45 PM	201.00	5.10	13.40	13.40	0.00	13.40	13.80	13.40	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:00 PM	236.00	8.50	14.00	0.00	0.00	0.00	13.90	14.00	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:15 PM	212.00	7.90	14.20	13.30	0.00	13.30	14.00	14.20	14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:30 PM	221.00	4.60	13.70	13.80	0.10	13.80	14.10	13.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 10:45 PM	217.00	5.20	14.50	14.30	0.00	14.30	14.60	14.50	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:00 PM	202.00	6.30	15.20	0.00	0.00	0.00	14.60	15.20	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:15 PM	213.00	5.00	16.20	14.30	0.00	14.30	15.10	16.20	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:30 PM	222.00	5.60	17.20	15.50	0.00	15.50	16.00	17.20	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/14/13 11:45 PM	218.00	6.00	19.90	16.70	0.00	16.70	16.40	19.90	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 12:00 AM	220.00	8.70	21.20	17.10	0.00	17.10	16.80	21.20	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 12:15 AM	215.00	9.00	20.90	17.00	0.00	17.00	16.40	20.90	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 12:30 AM	215.00	7.70	19.90	17.50	0.00	17.50	16.70	19.90	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 12:45 AM	213.00	4.50	20.30	18.00	0.00	18.00	16.90	20.30	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 1:00 AM	209.00	4.80	20.10	0.00	0.00	0.00	17.10	20.10	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 1:15 AM	215.00	6.20	21.20	18.10	0.00	18.10	19.90	21.20	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 1:30 AM	224.00	5.10	21.10	17.50	0.00	17.50	21.40	21.10	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 1:45 AM	227.00	4.10	20.60	18.30	0.00	18.30	21.20	20.60	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 2:00 AM	208.00	6.10	20.40	17.60	0.00	17.60	20.20	20.40	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 2:15 AM	219.00	7.00	19.70	17.70	0.00	17.70	20.60	19.70	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/15/13 2:30 AM	208.00	4.90	19.50	17.10	0.00	17.10	18.90	19.50	17.40	0.00	0.00	0.00	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
November, 2013

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		
11/15/13 10:30 AM	228.00	3.60	21.80	15.80	0.00	15.80	17.10	21.80	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 10:45 AM	240.00	5.60	16.60	15.90	0.00	15.90	18.40	16.60	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:00 AM	207.00	7.30	23.70	22.30	0.00	22.30	18.40	23.70	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:15 AM	209.00	4.10	21.40	18.50	0.00	18.50	17.20	21.40	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:30 AM	204.00	7.50	19.00	17.20	0.00	17.20	16.30	19.00	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:45 AM	211.00	6.50	18.70	17.00	0.00	17.00	16.30	18.70	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 12:00 PM	222.00	4.90	18.70	16.50	0.00	16.50	16.90	18.70	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 12:15 PM	215.00	5.30	18.90	17.60	0.00	17.60	17.30	18.90	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 12:30 PM	211.00	7.50	21.10	18.50	0.00	18.50	17.50	21.10	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 12:45 PM	208.00	5.30	22.20	0.00	0.00	0.00	17.80	22.20	17.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 1:00 PM	203.00	4.60	23.60	20.50	0.00	20.50	19.10	23.60	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 1:15 PM	201.00	8.60	22.00	19.80	0.00	19.80	18.90	22.00	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 1:30 PM	216.00	4.40	20.20	17.70	0.00	17.70	17.80	20.20	17.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 1:45 PM	219.00	5.10	19.80	17.80	0.00	17.80	17.40	19.80	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 2:00 PM	227.00	3.20	19.60	17.70	0.00	17.70	17.80	19.60	17.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 2:15 PM	221.00	5.20	21.10	18.40	0.00	18.40	18.40	21.10	16.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 2:30 PM	210.00	6.00	20.50	18.30	0.00	18.30	18.10	20.50	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 2:45 PM	227.00	7.40	20.40	18.20	0.00	18.20	17.80	20.40	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 3:00 PM	217.00	6.20	22.20	17.90	0.00	17.90	18.70	22.20	17.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 3:15 PM	210.00	8.40	23.40	20.10	0.00	20.10	19.90	23.40	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 3:30 PM	228.00	3.00	24.00	0.00	0.00	0.00	19.60	24.00	16.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 3:45 PM	231.00	5.50	18.80	16.30	0.00	16.30	17.40	18.80	15.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 4:00 PM	241.00	5.90	14.90	14.50	0.00	14.50	17.30	14.90	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 4:15 PM	250.00	5.70	17.50	16.50	0.00	16.50	16.00	17.50	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 4:30 PM	210.00	8.00	20.00	16.80	0.00	16.80	16.90	20.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 4:45 PM	235.00	4.70	21.60	18.70	0.00	18.70	17.50	21.60	16.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 5:00 PM	222.00	3.90	21.50	19.10	0.00	19.10	18.20	21.50	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 5:15 PM	220.00	4.30	25.10	20.10	0.00	20.10	20.40	25.10	16.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 5:30 PM	221.00	4.40	28.10	24.20	0.00	24.20	20.50	28.10	19.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 5:45 PM	219.00	4.50	26.70	23.50	0.00	23.50	19.90	26.70	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 6:00 PM	226.00	4.00	26.90	24.10	0.00	24.10	20.20	26.90	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 6:15 PM	229.00	3.70	27.80	23.60	0.00	23.60	22.30	27.80	20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 6:30 PM	218.00	4.00	27.60	24.30	0.00	24.30	24.90	27.60	19.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 6:45 PM	204.00	3.50	28.10	24.00	0.00	24.00	23.20	28.10	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 7:00 PM	212.00	3.90	27.70	24.20	0.00	24.20	24.80	27.70	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 7:15 PM	218.00	4.00	29.70	25.70	0.00	25.70	26.60	29.70	18.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 7:30 PM	228.00	2.90	31.20	27.10	0.00	27.10	27.60	31.20	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 7:45 PM	207.00	3.40	33.20	28.30	0.00	28.30	26.50	33.20	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 8:00 PM	202.00	4.30	34.10	29.90	0.00	29.90	29.50	34.10	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 8:15 PM	184.00	4.50	34.00	31.70	0.00	31.70	29.60	34.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 8:30 PM	199.00	4.80	33.50	29.10	0.00	29.10	28.20	33.50	22.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 8:45 PM	195.00	3.50	36.80	32.40	0.00	32.40	29.00	36.80	24.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 9:00 PM	200.00	4.40	33.20	29.60	0.00	29.60	27.70	33.20	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 9:15 PM	207.00	4.40	30.30	0.00	0.00	0.00	26.50	30.30	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 9:30 PM	187.00	3.10	33.70	29.40	0.00	29.40	27.40	33.70	23.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 9:45 PM	196.00	2.50	34.70	25.80	0.00	25.80	25.70	34.70	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 10:00 PM	204.00	2.60	31.00	26.10	0.00	26.10	25.70	31.00	23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 10:15 PM	184.00	2.80	32.80	0.00	0.00	0.00	27.90	32.80	25.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 10:30 PM	186.00	2.90	32.00	31.00	0.00	31.00	28.40	32.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 10:45 PM	190.00	3.10	29.80	29.30	0.00	29.30	29.00	29.80	24.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:00 PM	176.00	2.70	26.80	23.40	0.00	26.50	26.80	30.60	23.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:15 PM	176.00	4.40	28.90	23.00	0.00	27.90	28.90	28.60	23.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:30 PM	185.00	4.20	28.60	26.90	0.00	26.90	28.00	28.60	22.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/15/13 11:45 PM	184.00	3.30	27.30	27.10	0.00	27.10	27.90	27.30	21.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 12:00 AM	170.00	3.60	27.40	21.40	0.00	26.30	27.40	27.10	21.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 12:15 AM	180.00	5.90	25.30	23.50	0.00	23.50	24.60	25.30	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 12:30 AM	188.00	4.60	24.50	24.20	0.00	24.20	24.10	24.50	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 12:45 AM	204.00	5.20	24.50	23.50	0.00	23.50	23.90	24.50	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 1:00 AM	196.00	3.80	26.10	24.40	0.00	24.40	24.70	26.10	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 1:15 AM	218.00	4.60	26.20	24.90	0.00	24.90	24.40	26.20	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 1:30 AM	209.00	7.60	29.90	27.70	0.00	27.70	26.80	29.90	23.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 1:45 AM	194.00	5.40	32.20	29.40	0.00	29.40	27.70	32.20	25.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 2:00 AM	182.00	5.00	32.60	30.40	0.00	30.40	29.10	32.60	26.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 2:15 AM	210.00	4.30	34.10	31.80	0.00	31.80	29.00	34.10	26.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/16/13 2:30 AM	203.00	4.80	37.80	33.00	0.00	33.00	31.00	37.80	27.90	0.00	0.00	0.00						



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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
11/16/13 11:15 AM	170.00	8.60	48.30	27.00	0.00	24.20	48.30	24.00	27.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 11:30 AM	202.00	6.40	23.30	23.30	0.00	23.30	44.70	23.30	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 11:45 AM	182.00	7.90	21.40	18.80	0.00	18.80	37.10	21.40	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 12:00 PM	193.00	7.60	20.40	18.10	0.00	18.10	35.20	20.40	19.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 12:15 PM	180.00	7.40	21.80	16.30	0.00	16.30	34.10	21.80	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 12:30 PM	198.00	7.60	22.40	14.50	0.00	14.50	32.00	22.40	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 12:45 PM	194.00	6.60	22.20	14.20	0.00	14.20	32.00	22.20	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 1:00 PM	193.00	7.00	24.00	15.70	0.00	15.70	33.00	24.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 1:15 PM	168.00	5.40	35.40	18.70	0.00	17.30	35.40	26.90	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 1:30 PM	187.00	4.00	29.00	19.50	0.00	19.50	37.80	29.00	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 1:45 PM	194.00	8.70	31.60	19.50	0.00	19.50	39.00	31.60	19.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 2:00 PM	182.00	7.40	28.30	18.00	0.00	18.00	38.60	28.30	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 2:15 PM	188.00	6.00	24.20	16.80	0.00	16.80	39.80	24.20	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 2:30 PM	193.00	11.00	19.10	15.10	0.00	15.10	36.00	19.10	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 2:45 PM	194.00	6.80	17.60	13.80	0.00	13.80	31.20	17.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 3:00 PM	181.00	6.30	16.50	13.70	0.00	13.70	28.50	16.50	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 3:15 PM	172.00	5.80	28.20	15.60	0.00	14.10	28.20	16.30	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 3:30 PM	199.00	7.20	16.40	14.00	0.00	14.00	25.90	16.40	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 3:45 PM	186.00	6.60	16.60	13.70	0.00	13.70	24.90	16.60	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 4:00 PM	178.00	7.40	22.70	12.90	0.00	12.00	22.70	16.30	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 4:15 PM	190.00	10.00	16.30	0.00	0.00	0.00	22.20	16.30	12.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 4:30 PM	194.00	5.10	13.20	9.20	0.00	9.20	19.40	13.20	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 4:45 PM	188.00	7.10	11.30	9.00	0.00	9.00	18.20	11.30	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 5:00 PM	194.00	6.10	9.70	8.60	0.00	8.60	16.90	9.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 5:15 PM	196.00	6.40	8.00	8.40	0.40	8.40	15.70	8.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 5:30 PM	187.00	7.00	7.20	8.80	1.60	8.80	15.20	7.20	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 5:45 PM	205.00	7.50	7.90	8.70	0.80	8.70	15.40	7.90	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 6:00 PM	180.00	7.30	7.10	8.50	1.40	8.50	15.50	7.10	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 6:15 PM	181.00	6.70	5.60	7.40	1.80	7.40	15.40	5.60	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 6:30 PM	186.00	7.20	5.00	7.30	2.30	7.30	15.00	5.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 6:45 PM	186.00	7.70	4.40	6.10	1.70	6.10	14.60	4.40	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 7:00 PM	171.00	7.80	14.80	5.90	0.00	6.00	14.80	4.40	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 7:15 PM	178.00	5.80	14.80	6.40	0.00	6.30	14.80	4.10	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 7:30 PM	177.00	9.10	15.50	7.50	0.00	7.50	15.50	4.70	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 7:45 PM	182.00	7.20	5.40	7.80	2.40	7.80	15.10	5.40	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 8:00 PM	190.00	7.60	6.20	8.20	2.00	8.20	16.20	6.20	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 8:15 PM	177.00	9.20	16.90	9.10	0.00	8.20	16.90	6.60	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 8:30 PM	188.00	7.10	7.40	8.70	1.30	8.70	18.20	7.40	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 8:45 PM	183.00	8.80	8.30	10.00	1.70	10.00	20.00	8.30	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 9:00 PM	197.00	7.60	8.30	9.90	1.60	9.90	21.10	8.30	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 9:15 PM	190.00	8.80	8.00	9.40	1.40	9.40	22.00	8.00	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 9:30 PM	191.00	9.00	7.60	8.40	0.80	8.40	22.20	7.60	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 9:45 PM	199.00	7.20	7.00	8.40	1.40	8.40	22.90	7.00	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 10:00 PM	195.00	6.00	6.50	9.40	2.90	9.40	23.30	6.50	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 10:15 PM	211.00	11.80	6.70	9.90	3.20	9.90	22.20	6.70	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 10:30 PM	208.00	8.50	6.50	9.80	3.30	9.80	20.90	6.50	10.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 10:45 PM	197.00	9.30	6.40	9.40	3.00	9.40	19.10	6.40	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 11:00 PM	216.00	7.70	6.30	8.60	2.30	8.60	15.40	6.30	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 11:15 PM	210.00	11.80	6.70	8.70	2.00	8.70	15.00	6.70	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 11:30 PM	206.00	7.70	7.30	7.90	0.60	7.90	14.90	7.30	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/16/13 11:45 PM	223.00	8.70	7.60	7.60	0.00	7.60	14.60	7.60	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:00 AM	203.00	9.60	8.10	6.70	0.00	6.70	16.70	8.10	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:15 AM	220.00	9.40	8.30	6.50	0.00	6.50	18.00	8.30	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:30 AM	212.00	8.50	8.10	6.60	0.00	6.60	17.90	8.10	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:45 AM	229.00	8.70	7.50	6.90	0.00	6.90	17.40	7.50	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:00 AM	216.00	8.40	6.60	7.30	0.70	7.30	17.20	6.60	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:15 AM	206.00	9.80	6.00	7.10	1.10	7.10	16.30	6.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:30 AM	222.00	9.90	5.40	6.60	1.20	6.60	15.00	5.40	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:45 AM	210.00	9.60	5.60	6.50	0.90	6.50	14.20	5.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:00 AM	225.00	7.60	5.90	6.30	0.40	6.30	14.20	5.90	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:15 AM	198.00	11.30	6.30	6.20	0.00	6.20	13.50	6.30	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:30 AM	206.00	6.10	6.70	6.30	0.00	6.30	13.10	6.70	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:45 AM	215.00	6.60	6.80	6.90	0.10	6.90	13.10	6.80	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:00 AM	220.00	8.50	6.70	6.60	0.00	6.60	12.70	6.70	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:15 AM	198.00	6.00	6.00	6.00	0.00	6.00	12.30	6.00	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:30 AM	220.00	5.60	5.40	5.70	0.30	5.70	11.80	5.40	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:45 AM	223.00	7.60	4.80	5.90	1.10	5.90	11.80	4.80	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:00 AM	220.00	5.80	4.50	6.00	1.50	6.00	11.40	4.50	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:15 AM	211.00	5.90	4.50	6.40	1.90	6.40	11.00	4.50	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:30 AM	190.00	4.90</														



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/17/13 12:00 PM	199.00	8.30	2.50	4.20	1.70	4.20	5.30	2.50	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:15 PM	202.00	11.90	3.00	4.70	1.70	4.70	5.30	3.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:30 PM	192.00	8.90	3.40	5.10	1.70	5.10	5.80	3.40	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 12:45 PM	189.00	15.30	4.40	4.90	0.50	4.90	5.90	4.40	7.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:00 PM	192.00	11.20	4.70	4.90	0.20	4.90	5.80	4.70	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:15 PM	202.00	10.80	5.10	4.90	0.00	4.90	5.90	5.10	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:30 PM	189.00	9.00	5.30	5.20	0.00	5.20	6.10	5.30	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 1:45 PM	194.00	10.50	5.30	5.60	0.30	5.60	6.20	5.30	7.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:00 PM	209.00	7.70	5.20	8.30	3.10	8.30	8.00	5.20	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:15 PM	213.00	13.30	5.80	8.30	2.50	8.30	8.10	5.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:30 PM	222.00	6.40	5.80	8.30	2.50	8.30	8.10	5.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 2:45 PM	233.00	10.30	2.70	3.70	1.00	3.70	9.00	2.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:00 PM	247.00	9.30	5.00	6.20	1.20	6.20	9.00	5.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:15 PM	236.00	4.50	5.00	7.50	2.50	7.50	9.00	5.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:30 PM	244.00	7.20	5.90	8.50	2.60	8.50	9.00	5.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 3:45 PM	243.00	8.00	5.70	8.00	2.30	8.00	9.00	5.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:00 PM	234.00	12.30	7.70	9.20	1.50	9.20	9.00	7.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:15 PM	256.00	9.80	8.30	9.50	1.20	9.50	9.00	8.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:30 PM	260.00	17.70	9.90	10.30	0.40	10.30	9.00	9.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 4:45 PM	262.00	16.00	9.90	9.40	0.00	9.40	9.00	9.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 5:00 PM	272.00	14.30	9.60	9.00	0.00	5.50	9.00	5.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 5:15 PM	279.00	9.50	9.60	9.00	0.00	6.60	9.00	6.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 5:30 PM	276.00	10.30	9.60	9.00	0.00	6.60	9.00	5.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 5:45 PM	289.00	13.00	9.60	9.00	0.00	6.60	9.00	5.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 6:00 PM	289.00	19.00	9.60	9.00	0.00	9.70	9.00	7.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 6:15 PM	294.00	11.60	9.60	9.00	0.00	9.70	9.00	8.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 6:30 PM	316.00	9.70	9.60	9.00	0.00	8.70	9.00	6.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 6:45 PM	287.00	9.40	9.60	9.00	0.00	8.20	9.00	6.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 7:00 PM	277.00	9.30	9.60	9.00	0.00	6.40	9.00	4.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 7:15 PM	279.00	14.00	9.60	9.00	0.00	6.40	9.00	4.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 7:30 PM	278.00	13.80	9.60	9.00	0.00	11.00	9.00	8.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 7:45 PM	268.00	8.00	11.70	13.00	1.30	13.00	9.00	11.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 8:00 PM	285.00	8.30	9.60	9.00	0.00	13.70	9.00	12.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 8:15 PM	295.00	8.00	9.60	9.00	0.00	13.90	9.00	12.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 8:30 PM	301.00	7.10	9.60	9.00	0.00	14.60	9.00	11.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 8:45 PM	296.00	8.20	9.60	9.00	0.00	14.60	9.00	11.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 9:00 PM	316.00	10.30	9.60	9.00	0.00	10.50	9.00	10.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 9:15 PM	313.00	8.00	9.60	9.00	0.00	12.50	9.00	10.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 9:30 PM	289.00	10.00	9.60	9.00	0.00	9.10	9.00	8.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 9:45 PM	305.00	6.80	9.60	9.00	0.00	10.20	9.00	8.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 10:00 PM	302.00	7.80	9.60	9.00	0.00	10.70	9.00	9.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 10:15 PM	276.00	8.80	9.60	9.00	0.00	11.50	9.00	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 10:30 PM	281.00	5.20	9.60	9.00	0.00	12.70	9.00	9.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 10:45 PM	282.00	7.80	9.60	9.00	0.00	12.00	9.00	10.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 11:00 PM	287.00	9.40	9.60	9.00	0.00	12.70	9.00	10.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 11:15 PM	269.00	8.00	11.20	12.90	1.70	12.90	9.00	11.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 11:30 PM	272.00	7.70	9.60	9.00	0.00	11.30	9.00	10.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/17/13 11:45 PM	294.00	10.30	9.60	9.00	0.00	11.30	9.00	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 12:00 AM	314.00	7.10	9.60	9.00	0.00	11.30	9.00	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 12:15 AM	266.00	8.50	9.70	10.90	1.20	10.90	9.00	9.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 12:30 AM	269.00	6.50	10.20	11.60	1.40	11.60	9.00	10.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 12:45 AM	264.00	6.10	9.90	10.80	0.90	10.80	9.00	9.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:00 AM	286.00	7.80	9.60	9.00	0.00	11.50	9.00	9.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:15 AM	298.00	6.60	9.60	9.00	0.00	11.40	9.00	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:30 AM	283.00	9.90	9.60	9.00	0.00	11.50	9.00	10.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:45 AM	279.00	8.20	9.60	9.00	0.00	11.40	9.00	10.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:00 AM	295.00	9.30	9.60	9.00	0.00	11.90	9.00	10.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:15 AM	277.00	7.10	9.60	9.00	0.00	12.10	9.00	10.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:30 AM	294.00	7.60	9.60	9.00	0.00	12.60	9.00	12.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:45 AM	288.00	7.10	9.60	9.00	0.00	13.20	9.00	13.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:00 AM	270.00	6.00	9.60	9.00	0.00	13.40	9.00	14.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:15 AM	275.00	7.30	9.60	9.00	0.00	14.10	9.00	14.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:30 AM	276.00	7.60	9.60	9.00	0.00	14.10	9.00	14.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:45 AM	279.00	6.20	9.60	9.00	0.00	13.70	9.00	13.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:00 AM	273.00	8.00	9.60	9.00	0.00	13.40	9.00	13.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:15 AM	275.00	8.10	9.60	9.00	0.00	13.40	9.00	13.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:30 AM	266.00	4.90	11.50	12.20	0.70	12.20	9.00	11.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:45 AM	284.00	9.40	9.60	9.00	0.00	12.20	9.00	12.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 5:00 AM	271.00	5.20	9.60	9.00	0.00	13.10	9.00	12.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 5:15 AM	294.00	5.50	9.60	9.00	0.00	9.80	9.00	9.20	9.60	0.00	0.00	0.00	0.00	0		



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/18/13 12:45 PM	293.00	10.10	9.60	9.00	0.00	4.30	9.00	3.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:00 PM	307.00	8.80	9.60	9.00	0.00	4.20	9.00	3.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:15 PM	291.00	6.60	9.60	9.00	0.00	4.20	9.00	3.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:30 PM	286.00	8.50	9.60	9.00	0.00	3.80	9.00	3.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 1:45 PM	284.00	8.20	9.60	9.00	0.00	4.10	9.00	3.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:00 PM	289.00	8.20	9.60	9.00	0.00	4.10	9.00	3.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:15 PM	304.00	9.80	9.60	9.00	0.00	3.80	9.00	3.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:30 PM	326.00	10.20	9.60	9.00	0.00	4.00	9.00	3.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 2:45 PM	314.00	9.60	9.60	9.00	0.00	4.30	9.00	3.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:00 PM	310.00	7.90	9.60	9.00	0.00	4.80	9.00	4.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:15 PM	325.00	7.50	9.60	9.00	0.00	4.00	9.00	2.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:30 PM	321.00	8.30	9.60	9.00	0.00	4.00	9.00	3.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 3:45 PM	329.00	8.80	9.60	9.00	0.00	3.50	9.00	2.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:00 PM	333.00	8.00	9.60	9.00	0.00	3.70	9.00	2.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:15 PM	308.00	7.80	9.60	9.00	0.00	3.70	9.00	2.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:30 PM	305.00	5.80	9.60	9.00	0.00	4.60	9.00	3.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 4:45 PM	307.00	7.30	9.60	9.00	0.00	4.50	9.00	3.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 5:00 PM	313.00	6.30	9.60	9.00	0.00	4.60	9.00	2.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 5:15 PM	317.00	7.00	9.60	9.00	0.00	4.40	9.00	3.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 5:30 PM	307.00	6.30	9.60	9.00	0.00	4.40	9.00	2.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 5:45 PM	315.00	7.50	9.60	9.00	0.00	4.70	9.00	2.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 6:00 PM	320.00	4.20	9.60	9.00	0.00	4.30	9.00	3.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 6:15 PM	334.00	4.50	9.60	9.00	0.00	4.30	9.00	3.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 6:30 PM	320.00	3.60	9.60	9.00	0.00	4.90	9.00	4.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 6:45 PM	320.00	6.30	9.60	9.00	0.00	5.40	9.00	4.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 7:00 PM	325.00	4.90	9.60	9.00	0.00	5.60	9.00	3.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 7:15 PM	312.00	6.70	9.60	9.00	0.00	5.80	9.00	3.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 7:30 PM	318.00	2.60	9.60	9.00	0.00	6.40	9.00	5.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 7:45 PM	311.00	3.40	9.60	9.00	0.00	6.70	9.00	5.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 8:00 PM	300.00	3.90	9.60	9.00	0.00	6.90	9.00	5.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 8:15 PM	325.00	4.60	9.60	9.00	0.00	7.50	9.00	7.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 8:30 PM	312.00	2.10	9.60	9.00	0.00	7.90	9.00	7.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 8:45 PM	312.00	4.00	9.60	9.00	0.00	9.60	9.00	10.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 9:00 PM	327.00	2.90	9.60	9.00	0.00	9.60	9.00	10.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 9:15 PM	331.00	3.40	9.60	9.00	0.00	0.00	9.00	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 9:30 PM	325.00	2.80	9.60	9.00	0.00	9.30	9.00	11.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 9:45 PM	327.00	2.70	9.60	9.00	0.00	10.20	9.00	12.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 10:00 PM	339.00	3.60	9.60	9.00	0.00	9.10	9.00	11.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 10:15 PM	328.00	2.60	9.60	9.00	0.00	9.10	9.00	10.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 10:30 PM	329.00	3.30	9.60	9.00	0.00	9.90	9.00	10.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 10:45 PM	330.00	2.40	9.60	9.00	0.00	9.90	9.00	10.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 11:00 PM	322.00	2.60	9.60	9.00	0.00	10.40	9.00	13.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 11:15 PM	322.00	2.60	9.60	9.00	0.00	10.40	9.00	15.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 11:30 PM	4.00	3.30	10.80	15.70	4.90	10.80	9.00	15.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/18/13 11:45 PM	339.00	4.00	9.60	9.00	0.00	9.90	9.00	13.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 12:00 AM	326.00	3.50	9.60	9.00	0.00	11.00	9.00	8.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 12:15 AM	8.00	3.50	11.00	8.70	0.00	11.00	9.00	8.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 12:30 AM	347.00	2.60	9.60	9.00	0.00	10.50	9.00	12.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 12:45 AM	355.00	3.60	9.60	9.00	0.00	12.00	9.00	10.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 1:00 AM	351.00	3.90	9.60	9.00	0.00	12.00	9.00	10.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 1:15 AM	347.00	4.80	9.60	9.00	0.00	9.40	9.00	10.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 1:30 AM	335.00	6.80	9.60	9.00	0.00	9.10	9.00	9.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 1:45 AM	330.00	3.80	9.60	9.00	0.00	9.10	9.00	8.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:00 AM	312.00	4.20	9.60	9.00	0.00	6.80	9.00	6.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:15 AM	326.00	4.20	9.60	9.00	0.00	6.60	9.00	5.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:30 AM	335.00	3.50	9.60	9.00	0.00	6.10	9.00	4.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:45 AM	332.00	4.00	9.60	9.00	0.00	5.90	9.00	4.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:00 AM	341.00	4.10	9.60	9.00	0.00	5.90	9.00	4.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:15 AM	321.00	3.20	9.60	9.00	0.00	6.40	9.00	5.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:30 AM	332.00	4.40	9.60	9.00	0.00	6.50	9.00	5.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:45 AM	317.00	4.50	9.60	9.00	0.00	6.20	9.00	5.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:00 AM	318.00	3.50	9.60	9.00	0.00	6.50	9.00	5.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:15 AM	328.00	3.50	9.60	9.00	0.00	6.80	9.00	6.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:30 AM	304.00	3.20	9.60	9.00	0.00	7.20	9.00	6.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:45 AM	304.00	3.70	9.60	9.00	0.00	7.20	9.00	7.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:00 AM	315.00	3.60	9.60	9.00	0.00	8.50	9.00	9.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:15 AM	320.00	3.70	9.60	9.00	0.00	7.40	9.00	7.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:30 AM	308.00	3.70	9.60	9.00	0.00	7.20	9.00	8.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:45 AM	304.00	3.90	9.60	9.00	0.00	7.80	9.00	9.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 6:00 AM	300.00	3.40	9.60	9.00	0.00	7.80	9.00	8.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 6:15 AM	336.00	3.70	9.													



**US Army Corps
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Indiana Harbor and Canal
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November, 2013

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
11/19/13 1:30 PM	125.00	3.20	9.00	9.60	0.60	7.10	9.00	8.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 1:45 PM	105.00	2.80	9.00	9.60	0.60	8.40	9.00	9.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:00 PM	141.00	4.10	9.00	9.60	0.60	9.90	9.00	8.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:15 PM	114.00	3.20	9.00	9.60	0.60	10.50	9.00	8.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:30 PM	66.00	1.90	11.90	14.20	2.30	11.90	9.00	14.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 2:45 PM	70.00	2.30	12.20	15.30	3.10	12.20	9.00	15.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:00 PM	51.00	3.90	12.20	13.30	1.10	12.20	9.00	13.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:15 PM	108.00	1.70	9.00	9.60	0.60	11.80	9.00	10.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:30 PM	56.00	3.10	12.70	11.00	0.00	12.70	9.00	11.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 3:45 PM	78.00	3.00	11.40	13.40	2.00	11.40	9.00	13.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:00 PM	59.00	3.00	14.30	17.00	2.70	14.30	9.00	17.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:15 PM	140.00	2.20	9.00	9.60	0.60	14.30	9.00	16.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:30 PM	49.00	1.50	12.70	13.20	0.50	12.70	9.00	13.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 4:45 PM	79.00	2.30	16.60	17.00	0.40	16.60	9.00	17.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:00 PM	66.00	2.00	14.30	16.20	1.90	14.30	9.00	16.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:15 PM	79.00	1.50	12.00	13.30	1.30	12.00	9.00	13.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:30 PM	147.00	1.70	9.00	9.60	0.60	0.00	9.00	16.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 5:45 PM	74.00	3.10	11.10	13.50	2.40	11.10	9.00	13.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 6:00 PM	79.00	2.40	14.80	10.50	0.00	14.80	9.00	10.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 6:15 PM	67.00	3.10	9.70	10.70	1.00	9.70	9.00	10.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 6:30 PM	75.00	2.50	11.30	8.60	0.00	11.30	9.00	8.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 6:45 PM	118.00	2.80	9.00	9.60	0.60	10.70	9.00	8.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 7:00 PM	135.00	2.10	9.00	9.60	0.60	10.80	9.00	9.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 7:15 PM	128.00	2.60	9.00	9.60	0.60	11.20	9.00	9.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 7:30 PM	141.00	2.30	9.00	9.60	0.60	13.70	9.00	11.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 7:45 PM	166.00	1.60	9.00	9.60	0.60	26.50	9.00	13.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 8:00 PM	170.00	2.00	9.00	9.60	0.60	26.50	9.00	15.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 8:15 PM	154.00	2.70	9.00	9.60	0.60	21.90	9.00	22.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 8:30 PM	143.00	3.00	9.00	9.60	0.60	22.70	9.00	21.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 8:45 PM	158.00	3.90	9.00	9.60	0.60	39.60	9.00	22.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 9:00 PM	166.00	2.30	9.00	9.60	0.60	25.10	9.00	23.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 9:15 PM	173.00	1.70	9.00	9.60	0.60	26.40	9.00	26.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 9:30 PM	174.00	2.20	9.00	9.60	0.60	30.70	9.00	38.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 9:45 PM	163.00	2.50	9.00	9.60	0.60	34.30	9.00	37.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 10:00 PM	189.00	3.20	35.30	40.70	5.40	40.70	9.00	35.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 10:15 PM	176.00	2.30	9.00	9.60	0.60	37.60	9.00	35.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 10:30 PM	174.00	2.60	9.00	9.60	0.60	0.00	9.00	35.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 10:45 PM	183.00	3.20	37.40	32.90	0.00	32.90	9.00	37.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 11:00 PM	161.00	3.40	9.00	9.60	0.60	31.20	9.00	36.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 11:15 PM	161.00	2.80	9.00	9.60	0.60	27.20	9.00	26.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 11:30 PM	149.00	2.70	9.00	9.60	0.60	33.20	9.00	25.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/19/13 11:45 PM	170.00	3.10	9.00	9.60	0.60	26.60	9.00	31.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 12:00 AM	161.00	3.10	9.00	9.60	0.60	23.40	9.00	28.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 12:15 AM	173.00	3.90	9.00	9.60	0.60	21.40	9.00	20.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 12:30 AM	163.00	4.40	9.00	9.60	0.60	21.70	9.00	20.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 12:45 AM	164.00	4.80	9.00	9.60	0.60	22.40	9.00	20.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 1:00 AM	168.00	3.30	9.00	9.60	0.60	21.40	9.00	34.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 1:15 AM	183.00	2.70	34.60	20.40	0.00	20.40	9.00	34.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 1:30 AM	169.00	4.90	9.00	9.60	0.60	20.30	9.00	14.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 1:45 AM	153.00	4.70	9.00	9.60	0.60	18.00	9.00	14.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 2:00 AM	171.00	3.40	9.00	9.60	0.60	17.30	9.00	13.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 2:15 AM	157.00	4.20	9.00	9.60	0.60	17.00	9.00	13.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 2:30 AM	159.00	2.90	9.00	9.60	0.60	15.80	9.00	14.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 2:45 AM	161.00	3.40	9.00	9.60	0.60	16.10	9.00	13.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:00 AM	142.00	4.10	9.00	9.60	0.60	16.80	9.00	13.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:15 AM	175.00	3.50	9.00	9.60	0.60	15.90	9.00	16.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:30 AM	171.00	3.30	9.00	9.60	0.60	15.40	9.00	14.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:45 AM	159.00	3.00	9.00	9.60	0.60	15.00	9.00	12.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:00 AM	178.00	2.60	9.00	9.60	0.60	16.20	9.00	12.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:15 AM	171.00	2.80	9.00	9.60	0.60	17.40	9.00	11.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:30 AM	187.00	2.40	12.20	15.60	3.40	15.60	9.00	12.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:45 AM	168.00	4.50	9.00	9.60	0.60	17.00	9.00	12.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:00 AM	168.00	4.50	9.00	9.60	0.60	15.50	9.00	13.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:15 AM	161.00	3.00	9.00	9.60	0.60	15.00	9.00	13.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:30 AM	165.00	2.90	9.00	9.60	0.60	17.20	9.00	13.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:45 AM	169.00	2.70	9.00	9.60	0.60	16.20	9.00	13.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:00 AM	148.00	3.80	9.00	9.60	0.60	14.90	9.00	14.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:15 AM	153.00	3.70	9.00	9.60	0.60	15.60	9.00	17.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:30 AM	164.00	4.40	9.00	9.60	0.60	14.80	9.00	13.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:45 AM	170.00	4.10	9.00	9.60	0.60	14.30	9.00	13.10								



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/20/13 2:15 PM	157.00	3.10	9.00	9.60	0.60	0.00	9.00	10.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 2:30 PM	184.00	5.70	10.80	13.00	2.20	13.00	9.00	10.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 2:45 PM	172.00	4.40	9.00	9.60	0.60	20.40	9.00	11.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:00 PM	203.00	3.20	12.10	20.40	8.30	20.40	9.00	12.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:15 PM	177.00	4.30	9.00	9.60	0.60	17.00	9.00	15.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:30 PM	183.00	3.10	15.50	16.10	0.60	16.10	9.00	15.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 3:45 PM	150.00	3.80	9.00	9.60	0.60	22.30	9.00	17.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:00 PM	148.00	4.60	9.00	9.60	0.60	19.00	9.00	16.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:15 PM	195.00	4.70	17.10	19.70	2.60	19.70	9.00	17.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:30 PM	188.00	4.40	17.10	18.90	1.80	18.90	9.00	17.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 4:45 PM	190.00	6.50	17.80	0.00	0.00	0.00	9.00	17.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:00 PM	162.00	3.50	9.00	9.60	0.60	20.20	9.00	19.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:15 PM	160.00	5.60	9.00	9.60	0.60	20.80	9.00	19.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:30 PM	183.00	5.70	19.70	20.80	1.10	20.80	9.00	19.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 5:45 PM	176.00	5.70	9.00	9.60	0.60	22.00	9.00	21.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:00 PM	180.00	5.70	21.00	22.00	1.00	22.00	9.00	21.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:15 PM	166.00	4.10	9.00	9.60	0.60	24.10	9.00	23.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:30 PM	163.00	7.50	9.00	9.60	0.60	23.50	9.00	23.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 6:45 PM	169.00	5.30	9.00	9.60	0.60	25.50	9.00	24.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 7:00 PM	176.00	5.00	9.00	9.60	0.60	25.50	9.00	24.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 7:15 PM	163.00	4.60	9.00	9.60	0.60	24.30	9.00	25.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 7:30 PM	151.00	4.50	9.00	9.60	0.60	25.10	9.00	26.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 7:45 PM	147.00	5.70	9.00	9.60	0.60	30.90	9.00	22.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 8:00 PM	168.00	5.60	9.00	9.60	0.60	29.70	9.00	23.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 8:15 PM	196.00	3.00	24.10	24.80	0.70	24.80	9.00	24.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 8:30 PM	179.00	2.70	9.00	9.60	0.60	24.70	9.00	23.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 8:45 PM	197.00	3.30	23.60	24.40	0.80	24.40	9.00	23.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 9:00 PM	218.00	2.20	27.00	24.30	0.00	24.30	9.00	27.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 9:15 PM	212.00	1.50	29.30	26.30	0.00	26.30	9.00	29.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 9:30 PM	193.00	2.60	29.30	27.70	0.00	27.70	9.00	29.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 9:45 PM	180.00	2.50	31.40	30.10	0.00	30.10	9.00	31.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 10:00 PM	182.00	3.30	31.40	31.30	0.00	31.30	9.00	31.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 10:15 PM	203.00	2.30	35.10	33.80	0.00	33.80	9.00	35.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 10:30 PM	233.00	1.60	35.30	34.20	0.00	34.20	9.00	35.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 10:45 PM	167.00	2.20	9.00	9.60	0.60	32.00	9.00	34.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 11:00 PM	187.00	2.80	35.10	32.00	0.00	32.00	9.00	35.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 11:15 PM	149.00	2.40	9.00	9.60	0.60	31.50	9.00	33.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 11:30 PM	167.00	3.00	9.00	9.60	0.60	49.70	9.00	33.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/20/13 11:45 PM	158.00	2.70	9.00	9.60	0.60	67.00	9.00	34.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 12:00 AM	148.00	3.40	9.00	9.60	0.60	39.80	9.00	35.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 12:15 AM	145.00	2.70	9.00	9.60	0.60	39.80	9.00	33.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 12:30 AM	154.00	3.00	9.00	9.60	0.60	34.50	9.00	33.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 12:45 AM	167.00	5.30	9.00	9.60	0.60	39.20	9.00	31.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 1:00 AM	156.00	4.20	9.00	9.60	0.60	37.30	9.00	31.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 1:15 AM	155.00	4.40	9.00	9.60	0.60	41.10	9.00	28.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 1:30 AM	154.00	3.70	9.00	9.60	0.60	41.10	9.00	28.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 1:45 AM	155.00	3.20	9.00	9.60	0.60	30.90	9.00	27.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 2:00 AM	151.00	3.30	9.00	9.60	0.60	28.10	9.00	28.30	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 2:15 AM	156.00	2.60	9.00	9.60	0.60	28.10	9.00	27.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 2:30 AM	153.00	2.60	9.00	9.60	0.60	25.90	9.00	25.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 2:45 AM	163.00	3.20	9.00	9.60	0.60	25.90	9.00	24.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:00 AM	182.00	3.20	22.40	24.30	1.90	24.30	9.00	22.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:15 AM	179.00	4.60	9.00	9.60	0.60	24.30	9.00	22.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:30 AM	162.00	4.10	9.00	9.60	0.60	26.40	9.00	21.50	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:45 AM	170.00	6.50	9.00	9.60	0.60	28.00	9.00	21.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:00 AM	176.00	3.60	9.00	9.60	0.60	26.60	9.00	21.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:15 AM	170.00	4.20	9.00	9.60	0.60	24.90	9.00	20.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:30 AM	180.00	3.80	19.40	23.20	3.80	23.20	9.00	19.40	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:45 AM	166.00	4.80	9.00	9.60	0.60	0.00	9.00	19.20	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:00 AM	194.00	3.90	18.00	21.50	3.50	21.50	9.00	18.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:15 AM	199.00	2.70	18.00	21.50	3.50	21.50	9.00	18.00	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:30 AM	184.00	3.40	17.10	20.30	3.20	20.30	9.00	17.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:45 AM	194.00	4.30	15.90	19.80	3.90	19.80	9.00	15.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:00 AM	208.00	3.50	15.80	19.50	3.70	19.50	9.00	15.80	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:15 AM	176.00	4.80	9.00	9.60	0.60	18.00	9.00	15.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:30 AM	180.00	3.60	14.70	17.20	2.50	17.20	9.00	14.70	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:45 AM	185.00	3.00	14.60	17.60	3.00	17.60	9.00	14.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:00 AM	203.00	3.60	13.60	16.50	2.90	16.50	9.00	13.60	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:15 AM	181.00	2.90	13.10	16.30	3.20	16.30	9.00	13.10	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:30 AM	190.00	4.40	12.30													



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/21/13 3:00 PM	204.00	3.40	26.80	14.30	0.00	14.30	14.60	26.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:15 PM	231.00	2.30	30.00	10.60	0.00	10.60	14.70	30.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:30 PM	223.00	4.40	31.70	8.00	0.00	8.00	15.20	31.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 3:45 PM	217.00	2.60	31.70	6.10	0.00	6.10	15.50	31.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:00 PM	208.00	3.00	29.40	4.80	0.00	4.80	16.10	29.40	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:15 PM	195.00	2.10	23.80	3.90	0.00	3.90	15.70	23.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:30 PM	187.00	3.00	19.40	3.60	0.00	3.60	17.10	19.40	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 4:45 PM	205.00	1.90	18.40	3.80	0.00	3.80	16.80	18.40	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:00 PM	213.00	2.10	16.60	4.70	0.00	4.70	17.30	16.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:15 PM	192.00	2.10	16.50	5.50	0.00	5.50	17.40	16.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:30 PM	197.00	2.00	17.60	6.30	0.00	6.30	17.50	17.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 5:45 PM	187.00	1.70	18.00	7.30	0.00	7.30	18.50	18.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:00 PM	187.00	3.00	19.50	7.70	0.00	7.70	16.60	19.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:15 PM	211.00	2.00	19.40	8.40	0.00	8.40	17.50	19.40	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:30 PM	216.00	1.90	19.10	8.80	0.00	8.80	16.40	19.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 6:45 PM	215.00	1.80	17.90	8.50	0.00	8.50	15.20	17.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:00 PM	224.00	1.60	16.90	7.80	0.00	7.80	14.70	16.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:15 PM	214.00	1.90	16.70	7.00	0.00	7.00	11.70	16.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:30 PM	206.00	2.00	13.80	6.10	0.00	6.10	9.70	13.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 7:45 PM	233.00	1.50	11.90	6.00	0.00	6.00	9.00	11.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 8:00 PM	221.00	1.60	12.50	5.90	0.00	5.90	8.70	12.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 8:15 PM	215.00	1.90	13.40	6.70	0.00	6.70	9.00	13.40	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 8:30 PM	225.00	2.00	14.80	6.80	0.00	6.80	9.60	14.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 8:45 PM	227.00	2.10	17.60	7.20	0.00	7.20	11.60	17.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 9:00 PM	273.00	1.20	28.70	2.00	0.00	8.90	2.00	19.20	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 9:15 PM	275.00	1.80	28.70	2.90	0.00	8.80	2.90	18.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 9:30 PM	285.00	1.80	28.70	3.20	0.00	9.20	3.20	15.20	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 9:45 PM	271.00	0.90	28.70	3.80	0.00	13.10	3.80	19.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 10:00 PM	297.00	0.90	28.70	5.80	0.00	15.10	5.80	21.20	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 10:15 PM	331.00	1.20	28.70	7.40	0.00	13.90	7.40	25.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 10:30 PM	317.00	1.60	28.70	8.70	0.00	14.00	8.70	28.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 10:45 PM	9.00	5.30	17.40	28.20	10.80	17.40	10.60	28.20	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 11:00 PM	3.00	5.50	18.30	30.10	11.80	18.30	10.10	30.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 11:15 PM	0.00	4.50	18.50	29.70	11.20	18.50	10.90	29.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 11:30 PM	2.00	6.10	21.20	30.90	9.70	21.20	12.60	30.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/21/13 11:45 PM	8.00	5.40	22.60	36.00	13.40	22.60	14.10	36.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 12:00 AM	3.00	5.80	23.00	35.70	12.70	23.00	14.60	35.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 12:15 AM	3.00	4.70	25.20	34.80	9.60	25.20	14.80	34.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 12:30 AM	11.00	5.90	25.80	34.70	8.90	25.80	16.00	34.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 12:45 AM	2.00	5.00	25.00	34.10	9.10	25.00	15.50	34.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 1:00 AM	0.00	4.40	25.50	34.80	9.30	25.50	15.80	34.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 1:15 AM	12.00	4.50	25.00	33.50	8.50	25.00	15.60	33.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 1:30 AM	7.00	4.70	25.20	31.90	6.70	25.20	15.20	31.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 1:45 AM	344.00	5.70	28.70	14.40	0.00	24.70	14.40	30.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 2:00 AM	350.00	4.90	28.70	15.40	0.00	22.30	15.40	30.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 2:15 AM	359.00	4.50	28.70	17.30	0.00	26.60	17.30	35.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 2:30 AM	3.00	7.30	31.70	43.80	12.10	31.70	24.00	43.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 2:45 AM	1.00	7.60	37.20	52.80	15.60	37.20	27.30	52.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 3:00 AM	5.00	8.00	40.00	56.90	16.90	40.00	28.90	56.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 3:15 AM	0.00	4.20	41.30	60.30	19.00	41.30	29.50	60.30	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 3:30 AM	6.00	6.20	43.90	62.20	18.30	43.90	31.30	62.20	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 3:45 AM	353.00	6.60	28.70	33.70	5.00	45.70	33.70	63.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:00 AM	3.00	4.80	50.80	68.30	17.50	50.80	36.40	68.30	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:15 AM	9.00	8.10	55.00	70.90	15.90	55.00	37.90	70.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:30 AM	8.00	9.20	46.90	58.50	11.60	46.90	33.10	58.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:45 AM	6.00	9.40	46.00	58.40	12.40	46.00	34.60	58.40	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:00 AM	8.00	8.30	43.00	58.90	15.90	43.00	32.90	58.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:15 AM	7.00	7.00	40.30	48.50	8.20	40.30	28.60	48.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:30 AM	2.00	6.30	37.90	46.10	8.20	37.90	28.10	46.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:45 AM	4.00	9.30	32.90	38.80	5.90	32.90	27.70	38.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:00 AM	3.00	7.50	34.10	39.80	5.70	34.10	29.80	39.80	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:15 AM	10.00	8.10	27.90	36.90	9.00	27.90	28.00	36.90	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:30 AM	1.00	8.80	25.60	32.70	7.10	25.60	24.20	32.70	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:45 AM	7.00	6.00	24.00	32.10	8.10	24.00	24.60	32.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:00 AM	0.00	10.20	21.30	29.10	7.80	21.30	21.10	29.10	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:15 AM	7.00	10.30	14.60	26.50	11.90	14.60	17.70	26.50	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:30 AM	7.00	7.60	6.90	13.00	6.10	6.90	6.10	13.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:45 AM	13.00	11.40	1.70	0.60	0.00	1.70	0.50	0.60	28.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 8:00 AM	8.00	10.40	1.70	0.20	0.00	1.70	0.60	0.20	28.70	0.00	0.00	0				



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November, 2013

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
11/22/13 3:45 PM	359.00	6.50	4.40	2.90	0.00	2.90	2.90	1.70	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:00 PM	1.00	9.10	3.00	2.00	0.00	3.00	3.20	2.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:15 PM	358.00	6.70	4.90	3.30	0.00	3.70	3.30	2.20	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:30 PM	12.00	9.70	3.20	2.10	0.00	3.20	2.90	2.10	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 4:45 PM	5.00	8.60	3.80	2.10	0.00	3.80	3.00	2.10	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:00 PM	5.00	8.20	3.40	2.20	0.00	3.40	2.80	2.20	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:15 PM	11.00	8.80	3.10	1.90	0.00	3.10	2.30	1.90	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:30 PM	353.00	4.30	4.60	2.30	0.00	3.50	2.30	2.10	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 5:45 PM	6.00	4.60	3.50	2.50	0.00	3.50	2.40	2.50	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:00 PM	2.00	5.90	3.80	2.90	0.00	3.80	2.40	2.90	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:15 PM	341.00	4.00	5.30	2.90	0.00	4.10	2.90	3.20	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:30 PM	333.00	4.70	6.50	3.40	0.00	0.00	3.40	3.60	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 6:45 PM	335.00	4.30	6.40	3.00	0.00	5.80	3.00	3.00	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:00 PM	334.00	4.00	6.00	2.90	0.00	5.40	2.90	2.70	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:15 PM	324.00	4.10	6.50	2.80	0.00	0.00	2.80	2.70	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:30 PM	321.00	2.30	7.30	3.10	0.00	6.30	3.10	3.10	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 7:45 PM	332.00	3.90	7.10	3.10	0.00	6.10	3.10	2.90	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 8:00 PM	313.00	2.10	7.20	2.80	0.00	5.90	2.80	2.70	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 8:15 PM	295.00	2.10	9.00	3.60	0.00	6.40	3.60	3.60	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 8:30 PM	289.00	2.70	9.10	3.30	0.00	6.90	3.30	3.10	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 8:45 PM	287.00	2.40	8.30	3.90	0.00	7.30	3.90	4.30	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 9:00 PM	288.00	2.30	8.30	4.10	0.00	8.50	4.10	4.80	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 9:15 PM	277.00	2.50	8.90	4.20	0.00	8.60	4.20	4.80	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 9:30 PM	275.00	2.60	8.40	4.80	0.00	8.90	4.80	4.80	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 9:45 PM	253.00	1.70	5.90	10.30	4.40	10.30	5.10	5.90	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 10:00 PM	252.00	2.30	6.90	9.40	2.50	9.40	5.60	6.90	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 10:15 PM	249.00	1.80	8.20	11.70	3.50	11.70	7.20	8.20	11.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 10:30 PM	253.00	1.90	8.60	12.40	3.80	12.40	6.90	8.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 10:45 PM	267.00	2.10	8.80	18.90	10.10	18.90	7.10	8.80	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 11:00 PM	288.00	3.00	24.20	7.20	0.00	22.00	7.20	8.70	24.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 11:15 PM	244.00	2.00	9.30	16.30	7.00	16.30	7.50	9.30	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 11:30 PM	252.00	3.70	8.80	13.20	4.40	13.20	7.50	8.80	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/22/13 11:45 PM	263.00	3.10	9.50	13.10	3.60	13.10	8.50	9.50	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 12:00 AM	263.00	2.30	9.50	13.10	3.60	13.10	8.50	9.50	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 12:15 AM	264.00	3.40	8.90	12.70	3.80	12.70	7.60	8.90	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 12:30 AM	262.00	3.00	8.80	12.10	3.30	12.10	7.70	8.80	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 12:45 AM	280.00	2.80	12.10	7.20	0.00	11.80	7.20	7.50	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 1:00 AM	262.00	2.80	6.80	11.00	4.20	11.00	6.80	6.80	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 1:15 AM	281.00	2.70	11.20	6.90	0.00	10.40	6.90	6.90	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 1:30 AM	278.00	2.60	10.70	7.10	0.00	9.90	7.10	7.50	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 1:45 AM	273.00	2.50	9.40	5.90	0.00	8.50	5.90	5.60	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 2:00 AM	278.00	2.60	10.00	6.00	0.00	8.30	6.00	6.10	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 2:15 AM	260.00	2.30	5.90	8.70	2.80	8.70	6.00	5.90	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 2:30 AM	278.00	3.10	9.60	6.10	0.00	9.20	6.10	5.90	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 2:45 AM	277.00	3.80	9.30	5.50	0.00	7.50	5.50	5.80	9.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 3:00 AM	300.00	4.10	8.40	5.30	0.00	6.40	5.30	4.40	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 3:15 AM	299.00	4.50	8.00	4.80	0.00	6.00	4.80	4.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 3:30 AM	292.00	3.80	7.80	4.70	0.00	5.90	4.70	5.90	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 3:45 AM	271.00	4.80	8.00	4.40	0.00	6.00	4.40	4.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 4:00 AM	291.00	3.90	7.90	4.60	0.00	6.10	4.60	4.10	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 4:15 AM	290.00	3.10	7.70	4.30	0.00	5.70	4.30	3.60	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 4:30 AM	294.00	4.00	7.70	4.50	0.00	6.00	4.50	3.80	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 4:45 AM	302.00	3.00	7.40	4.40	0.00	6.20	4.40	4.00	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:00 AM	295.00	3.20	7.30	4.60	0.00	6.20	4.60	4.00	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:15 AM	310.00	2.50	7.40	4.60	0.00	6.40	4.60	4.10	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:30 AM	314.00	4.40	6.90	4.80	0.00	5.80	4.80	4.10	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:45 AM	323.00	4.90	6.80	4.20	0.00	5.50	4.20	3.30	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:00 AM	319.00	4.80	6.90	4.50	0.00	5.60	4.50	3.50	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:15 AM	319.00	7.60	6.80	4.50	0.00	5.80	4.50	3.90	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:30 AM	314.00	4.50	7.70	5.10	0.00	6.40	5.10	3.90	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:45 AM	317.00	4.20	7.70	5.10	0.00	6.40	5.10	4.40	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:00 AM	321.00	3.30	8.20	5.10	0.00	6.90	5.10	4.40	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:15 AM	334.00	4.20	8.50	5.40	0.00	6.70	5.40	5.10	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:30 AM	333.00	7.20	8.70	6.10	0.00	6.70	6.10	5.70	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:45 AM	331.00	6.90	8.90	6.20	0.00	7.50	6.20	5.50	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:00 AM	332.00	7.60	8.50	6.30	0.00	7.80	6.30	5.90	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:15 AM	350.00	6.80	8.30	6.80	0.00	7.90	6.80	6.60	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:30 AM	339.00	7.10	7.80	5.70	0.00	7.00	5.70	5.00	7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:45 AM	345.00	5.20	7.10	5.10	0.00	6.20	5.10	4.20	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 9:00 AM	337.00	8.00	6.20	5.60	0.00	5.60	5.60	2.80	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 9:15 AM	355.00															



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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
11/23/13 4:30 PM	4.00	8.40	3.80	0.60	0.00	3.80	3.40	0.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 4:45 PM	350.00	5.80	7.50	5.20	0.00	4.80	5.20	2.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:00 PM	345.00	8.00	6.90	5.00	0.00	4.90	5.00	2.10	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:15 PM	0.00	7.00	4.40	0.90	0.00	4.40	4.80	0.90	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:30 PM	3.00	7.10	4.90	1.90	0.00	4.90	5.30	1.90	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 5:45 PM	354.00	5.50	6.80	6.70	0.00	4.60	6.70	0.80	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:00 PM	359.00	5.10	6.70	5.10	0.00	5.10	5.10	1.30	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:15 PM	339.00	7.30	6.70	4.60	0.00	5.10	4.60	0.90	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:30 PM	340.00	7.70	7.20	4.20	0.00	4.20	4.20	0.10	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 6:45 PM	327.00	6.50	6.10	3.80	0.00	4.20	3.80	0.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:00 PM	342.00	6.80	6.20	5.90	0.00	4.40	5.90	0.90	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:15 PM	340.00	7.90	7.20	11.70	4.50	5.70	11.70	0.50	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:30 PM	349.00	7.40	8.40	5.70	0.00	7.40	5.70	0.60	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 7:45 PM	340.00	4.10	7.90	7.60	0.00	7.80	7.60	2.30	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:00 PM	331.00	8.00	8.70	7.10	0.00	9.00	7.10	0.90	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:15 PM	346.00	8.90	7.70	18.90	11.20	9.00	18.90	1.20	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:30 PM	341.00	4.70	6.60	6.20	0.00	5.20	6.20	1.60	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 8:45 PM	348.00	6.30	7.70	6.60	0.00	6.70	6.60	2.40	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 9:00 PM	336.00	6.70	6.00	5.60	0.00	5.80	5.60	1.40	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 9:15 PM	326.00	7.20	5.50	5.10	0.00	4.20	5.10	0.00	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 9:30 PM	328.00	3.90	5.20	7.20	2.00	4.30	7.20	0.00	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 9:45 PM	332.00	6.60	5.30	5.40	0.10	4.10	5.40	-0.20	5.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 10:00 PM	336.00	5.80	4.90	5.50	0.60	3.80	5.50	-1.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 10:15 PM	326.00	7.00	4.80	9.30	4.50	4.30	9.30	-0.70	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 10:30 PM	322.00	7.80	4.60	15.90	11.30	4.80	15.90	-1.30	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 10:45 PM	342.00	9.30	4.70	10.60	5.90	3.90	10.60	-1.80	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 11:00 PM	346.00	6.80	4.60	19.40	14.80	4.80	19.40	-1.00	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 11:15 PM	357.00	5.60	4.90	8.10	3.20	5.00	8.10	-0.50	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 11:30 PM	343.00	6.80	4.90	8.60	3.70	4.80	8.60	-1.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/23/13 11:45 PM	353.00	5.60	4.50	7.60	3.10	4.00	7.60	0.00	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 12:00 AM	4.00	4.50	4.20	1.20	0.00	4.20	7.50	1.20	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 12:15 AM	6.00	5.50	4.50	0.10	0.00	4.50	6.50	0.10	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 12:30 AM	1.00	6.90	3.80	-0.60	0.00	3.80	7.50	-0.60	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 12:45 AM	352.00	7.50	4.70	6.60	1.90	4.10	6.60	0.40	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 1:00 AM	336.00	5.90	4.80	6.10	1.30	4.40	6.10	-0.50	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 1:15 AM	323.00	5.60	4.60	5.90	1.30	6.20	5.90	-0.40	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 1:30 AM	315.00	5.40	4.10	5.30	1.20	4.00	5.30	-1.80	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 1:45 AM	312.00	5.10	4.50	4.80	0.30	4.30	4.80	-0.40	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 2:00 AM	315.00	5.10	3.90	5.00	1.10	4.20	5.00	-1.70	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 2:15 AM	307.00	5.30	4.00	4.70	0.70	4.20	4.70	-1.30	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 2:30 AM	321.00	6.30	4.30	4.90	0.60	3.90	4.90	-0.90	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 2:45 AM	330.00	6.90	4.10	5.40	1.30	3.50	5.40	-0.80	4.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 3:00 AM	330.00	5.00	3.70	5.50	1.80	3.70	5.50	-1.30	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 3:15 AM	353.00	4.30	3.70	5.90	2.20	3.30	5.90	-0.80	3.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 3:30 AM	336.00	4.20	4.20	4.40	2.20	4.50	4.40	-1.40	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 3:45 AM	337.00	5.00	4.20	4.30	0.10	4.70	4.30	-0.70	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 4:00 AM	343.00	3.90	4.30	4.30	0.00	4.50	4.30	-0.80	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 4:15 AM	310.00	4.80	4.40	3.90	0.00	4.70	3.90	-1.20	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 4:30 AM	335.00	4.80	4.40	4.00	0.00	4.40	4.00	-0.80	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 4:45 AM	324.00	4.40	4.50	3.90	0.00	5.00	3.90	-0.10	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 5:00 AM	322.00	5.30	4.40	3.70	0.00	4.70	3.70	-0.30	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 5:15 AM	320.00	5.00	4.50	4.50	0.00	4.60	4.50	0.50	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 5:30 AM	310.00	5.10	4.40	4.10	0.00	5.00	4.10	0.40	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 5:45 AM	324.00	2.90	4.60	4.30	0.00	4.60	4.30	0.50	4.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 6:00 AM	321.00	4.80	4.40	4.30	0.00	4.80	4.30	0.40	4.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 6:15 AM	327.00	4.30	4.20	4.20	0.00	4.90	4.20	0.00	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 6:30 AM	323.00	4.20	4.30	4.20	0.00	5.10	4.20	0.30	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 6:45 AM	303.00	3.80	4.90	4.20	0.00	6.20	4.20	0.80	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 7:00 AM	313.00	5.00	4.80	4.40	0.00	5.70	4.40	0.50	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 7:15 AM	299.00	3.40	4.80	4.60	0.00	6.80	4.60	1.30	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 7:30 AM	291.00	4.10	4.70	4.80	0.10	6.00	4.80	2.50	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 7:45 AM	294.00	4.10	4.80	5.60	0.80	5.60	5.60	1.80	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 8:00 AM	288.00	4.70	5.00	5.10	0.10	6.80	5.10	1.70	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 8:15 AM	279.00	4.90	5.80	6.40	0.60	7.10	6.40	4.10	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 8:30 AM	305.00	3.00	5.90	6.30	0.40	8.00	6.30	4.10	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 8:45 AM	302.00	3.50	6.20	6.70	0.50	7.80	6.70	4.90	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 9:00 AM	280.00	3.80	5.60	6.70	1.10	7.80	6.70	5.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 9:15 AM	292.00	3.40	5.80	7.40	1.60	8.40	7.40	6.50	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 9:30 AM	292.00	5.30	7.00	6.00	0.30	7.30	6.00	4.40	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 9:45 AM	294.00	4.50	5.50	6.40	0.90	7.20	6.40	4.50	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/24/13 10:00 AM	266.00	4.00	4.90	7.80	2.90											



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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		
11/24/13 5:15 PM	238.00	2.90	0.40	4.60	4.20	4.60	8.80	0.40	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 5:30 PM	245.00	3.20	-0.30	4.40	4.70	4.40	8.40	-0.30	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 5:45 PM	224.00	4.10	0.90	4.60	3.70	4.60	9.20	0.90	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 6:00 PM	213.00	2.30	0.70	4.80	4.10	4.80	10.70	0.70	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 6:15 PM	225.00	2.40	-0.20	4.60	4.80	4.60	9.20	-0.20	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 6:30 PM	221.00	2.80	0.50	5.40	4.90	5.40	10.00	0.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 6:45 PM	216.00	2.70	4.70	8.00	3.30	8.00	12.60	4.70	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 7:00 PM	218.00	3.20	2.80	6.70	3.90	6.70	11.80	2.80	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 7:15 PM	207.00	3.70	3.80	8.60	4.80	8.60	14.80	3.80	12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 7:30 PM	223.00	3.30	4.70	9.10	4.40	9.10	16.30	4.70	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 7:45 PM	213.00	3.60	4.80	8.90	4.10	8.90	14.00	4.80	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 8:00 PM	205.00	3.70	4.50	8.50	4.00	8.50	13.00	4.50	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 8:15 PM	206.00	3.00	5.60	9.60	4.00	9.60	12.60	5.60	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 8:30 PM	221.00	4.40	4.60	8.80	4.20	8.80	12.90	4.60	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 8:45 PM	225.00	3.30	4.50	7.80	3.30	7.80	11.60	4.50	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 9:00 PM	223.00	5.20	4.10	7.80	3.70	7.80	10.60	4.10	10.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 9:15 PM	203.00	4.60	4.90	8.40	3.50	8.40	10.40	4.90	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 9:30 PM	213.00	3.80	4.90	8.30	3.40	8.30	9.80	4.90	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 9:45 PM	234.00	5.80	3.50	7.30	3.80	7.30	9.40	3.50	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 10:00 PM	214.00	5.30	3.30	7.00	3.70	7.00	9.00	3.30	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 10:15 PM	224.00	4.50	3.10	6.90	3.80	6.90	9.40	3.10	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 10:30 PM	208.00	5.60	3.90	7.80	3.90	7.80	9.20	3.90	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 10:45 PM	222.00	4.60	5.50	8.30	2.80	8.30	9.20	5.50	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 11:00 PM	227.00	4.50	5.30	7.70	2.40	7.70	8.60	5.30	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 11:15 PM	216.00	6.60	3.50	6.80	3.30	6.80	8.90	3.50	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 11:30 PM	215.00	4.70	6.20	7.90	1.70	7.90	10.30	6.20	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/24/13 11:45 PM	216.00	5.30	8.10	9.40	1.30	9.40	10.10	8.10	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 12:00 AM	213.00	6.00	6.50	8.60	2.10	8.60	8.80	6.50	8.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 12:15 AM	224.00	6.50	4.60	7.70	3.10	7.70	8.90	4.60	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 12:30 AM	206.00	4.20	4.60	7.30	2.70	7.30	7.90	4.60	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 12:45 AM	225.00	3.90	4.50	6.90	2.40	6.90	7.80	4.50	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 1:00 AM	216.00	5.30	3.50	6.30	2.80	6.30	6.60	3.50	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 1:15 AM	227.00	5.40	4.00	6.60	2.60	6.60	6.90	4.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 1:30 AM	220.00	4.90	4.70	6.80	2.10	6.80	6.60	4.70	7.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 1:45 AM	225.00	7.60	5.30	7.20	1.90	7.20	7.50	5.30	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 2:00 AM	228.00	6.80	5.10	8.50	3.40	8.50	7.80	5.10	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 2:15 AM	227.00	5.40	4.40	7.80	3.40	7.80	7.50	4.40	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 2:30 AM	227.00	4.20	3.70	6.40	2.70	6.40	6.90	3.70	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 2:45 AM	235.00	5.40	4.60	7.80	3.20	7.80	7.20	4.60	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 3:00 AM	218.00	4.80	5.00	0.00	0.00	0.00	6.90	5.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 3:15 AM	203.00	6.70	3.70	6.30	2.60	6.30	6.00	3.70	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 3:30 AM	212.00	6.90	4.10	6.80	2.70	6.80	5.90	4.10	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 3:45 AM	210.00	6.40	8.40	6.30	0.00	6.30	6.50	8.40	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 4:00 AM	208.00	4.70	4.60	7.00	2.40	7.00	6.20	4.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 4:15 AM	227.00	6.80	4.70	6.90	2.20	6.90	6.20	4.70	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 4:30 AM	220.00	5.20	4.40	7.80	3.40	7.80	6.20	4.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 4:45 AM	224.00	7.20	4.90	10.60	5.70	10.60	6.50	4.90	5.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 5:00 AM	210.00	6.60	4.40	7.50	3.10	7.50	5.80	4.40	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 5:15 AM	224.00	7.30	4.60	7.70	3.10	7.70	6.20	4.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 5:30 AM	214.00	5.10	4.90	7.20	2.30	7.20	6.40	4.90	5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 5:45 AM	232.00	6.90	5.00	11.40	6.40	11.40	6.50	5.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:00 AM	216.00	5.10	5.40	7.20	1.80	7.20	7.70	5.40	5.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:15 AM	233.00	6.10	5.90	7.20	1.30	7.20	6.50	5.90	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:30 AM	224.00	6.20	7.60	7.60	0.00	7.60	6.80	7.60	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:45 AM	219.00	6.00	8.30	11.40	3.10	11.40	7.60	8.30	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:00 AM	213.00	5.60	8.90	9.10	0.20	9.10	7.50	8.90	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:15 AM	219.00	6.30	7.80	8.50	0.70	8.50	7.40	7.80	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:30 AM	227.00	6.60	11.70	8.30	0.00	8.30	7.10	11.70	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:45 AM	222.00	7.50	6.90	11.20	4.30	11.20	8.00	6.90	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:00 AM	228.00	7.00	7.90	8.20	0.30	8.20	7.40	7.90	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:15 AM	204.00	6.80	7.00	8.70	1.70	8.70	9.10	7.00	6.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:30 AM	205.00	5.50	7.70	13.70	6.00	13.70	8.10	7.70	6.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:45 AM	206.00	7.20	10.80	11.90	1.10	11.90	7.90	10.80	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:00 AM	217.00	6.20	7.60	8.90	1.30	8.90	8.00	7.60	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:15 AM	222.00	5.70	9.10	10.00	0.90	10.00	10.80	9.10	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:30 AM	217.00	7.20	9.50	11.50	2.00	11.50	17.80	9.50	7.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:45 AM	218.00	7.60	13.40	12.10	0.00	12.10	11.30	13.40	7.30</									



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Real-Time Air Monitoring Data
November, 2013

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		
11/25/13 6:00 PM	220.00	5.50	26.00	16.40	0.00	16.40	36.40	26.00	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:15 PM	235.00	3.70	23.20	15.50	0.00	15.50	35.50	23.20	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:30 PM	243.00	4.70	22.90	15.60	0.00	15.60	35.70	22.90	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 6:45 PM	237.00	5.40	21.40	15.10	0.00	15.10	35.80	21.40	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:00 PM	249.00	5.30	20.90	15.40	0.00	15.40	36.80	20.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:15 PM	235.00	3.50	21.20	15.70	0.00	15.70	36.90	21.20	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:30 PM	229.00	4.80	20.70	15.40	0.00	15.40	35.10	20.70	14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 7:45 PM	216.00	3.80	19.80	15.30	0.00	15.30	32.50	19.80	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:00 PM	241.00	7.60	19.10	15.10	0.00	15.10	31.50	19.10	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:15 PM	228.00	6.00	18.50	13.90	0.00	13.90	31.30	18.50	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:30 PM	224.00	7.40	18.10	14.20	0.00	14.20	29.80	18.10	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 8:45 PM	224.00	3.40	17.40	14.10	0.00	14.10	28.10	17.40	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:00 PM	227.00	4.40	15.90	13.30	0.00	13.30	26.10	15.90	13.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:15 PM	236.00	7.50	14.00	11.90	0.00	11.90	23.60	14.00	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:30 PM	224.00	5.10	13.20	11.50	0.00	11.50	22.70	13.20	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 9:45 PM	238.00	4.10	12.90	11.40	0.00	11.40	22.30	12.90	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 10:00 PM	244.00	6.60	12.30	10.90	0.00	10.90	20.50	12.30	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 10:15 PM	243.00	4.20	13.10	10.90	0.00	10.90	19.30	13.10	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 10:30 PM	243.00	4.80	12.70	11.80	0.00	11.80	19.10	12.70	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 10:45 PM	231.00	5.20	12.90	11.40	0.00	11.40	19.40	12.90	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 11:00 PM	252.00	3.80	13.90	11.50	0.00	11.50	19.50	13.90	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 11:15 PM	250.00	3.70	13.50	0.00	0.00	0.00	19.50	13.50	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 11:30 PM	240.00	3.50	14.10	12.10	0.00	12.10	20.00	14.10	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/25/13 11:45 PM	248.00	3.60	14.30	12.90	0.00	12.90	19.50	14.30	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 12:00 AM	233.00	2.90	15.60	0.00	0.00	0.00	20.10	15.60	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 12:15 AM	233.00	2.80	15.50	13.70	0.00	13.70	21.10	15.50	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 12:30 AM	246.00	2.60	17.10	13.50	0.00	13.50	21.10	17.10	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 12:45 AM	242.00	3.10	16.50	14.20	0.00	14.20	20.60	16.50	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 1:00 AM	214.00	2.90	16.40	14.60	0.00	14.60	21.00	16.40	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 1:15 AM	211.00	3.10	17.70	14.20	0.00	14.20	21.20	17.70	12.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 1:30 AM	211.00	3.10	17.10	14.30	0.00	14.30	20.60	17.10	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 1:45 AM	217.00	3.10	17.60	13.80	0.00	13.80	24.20	17.60	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 2:00 AM	199.00	4.90	23.70	18.70	0.00	18.70	29.50	23.70	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 2:15 AM	224.00	3.00	23.90	19.10	0.00	19.10	29.20	23.90	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 2:30 AM	217.00	2.90	22.90	20.50	0.00	20.50	26.40	22.90	14.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 2:45 AM	226.00	3.30	20.50	18.00	0.00	18.00	23.00	20.50	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 3:00 AM	219.00	4.30	18.10	15.50	0.00	15.50	20.30	18.10	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 3:15 AM	220.00	4.50	15.60	14.50	0.00	14.50	20.10	15.60	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 3:30 AM	198.00	3.10	15.90	14.20	0.00	14.20	18.90	15.90	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 3:45 AM	238.00	3.60	15.00	13.40	0.00	13.40	17.60	15.00	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 4:00 AM	246.00	2.90	13.50	12.90	0.00	12.90	17.80	13.50	11.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 4:15 AM	257.00	2.70	13.00	12.20	0.00	12.20	17.30	13.00	11.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 4:30 AM	233.00	2.90	12.30	11.60	0.00	11.60	15.90	12.30	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 4:45 AM	214.00	2.60	11.90	11.40	0.00	11.40	16.00	11.90	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 5:00 AM	236.00	2.50	12.00	11.50	0.00	11.50	15.60	12.00	11.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 5:15 AM	240.00	2.50	12.10	11.40	0.00	11.40	15.80	12.10	11.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 5:30 AM	241.00	2.40	12.10	11.50	0.00	11.50	15.70	12.10	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 5:45 AM	235.00	3.00	12.60	11.80	0.00	11.80	15.00	12.60	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 6:00 AM	259.00	4.10	12.60	11.80	0.00	11.80	15.20	12.60	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 6:15 AM	248.00	4.00	13.80	12.40	0.00	12.40	16.70	13.80	12.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 6:30 AM	249.00	2.40	13.70	12.70	0.00	12.70	16.40	13.70	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 6:45 AM	214.00	2.80	14.50	12.90	0.00	12.90	16.10	14.50	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 7:00 AM	237.00	2.40	14.70	12.90	0.00	12.90	16.30	14.70	13.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 7:15 AM	233.00	3.20	14.70	13.20	0.00	13.20	17.00	14.70	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 7:30 AM	246.00	2.90	15.70	14.20	0.00	14.20	17.40	15.70	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 7:45 AM	242.00	2.40	16.80	15.10	0.00	15.10	18.30	16.80	20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 8:00 AM	242.00	1.80	16.80	15.20	0.00	15.20	19.00	16.80	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 8:15 AM	265.00	3.10	17.30	15.10	0.00	15.10	18.50	17.30	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 8:30 AM	242.00	3.10	18.80	17.10	0.00	17.10	19.90	18.80	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 8:45 AM	260.00	2.60	22.20	18.50	0.00	18.50	21.40	22.20	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 9:00 AM	255.00	3.60	22.80	19.10	0.00	19.10	22.20	22.80	20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 9:15 AM	271.00	3.40	18.90	22.60	3.70	21.50	22.60	21.30	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 9:30 AM	245.00	2.20	24.50	22.60	0.00	22.20	23.70	24.50	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 9:45 AM	268.00	3.00	25.40	23.60	0.00	23.60	25.20	25.40	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/26/13 10:00 AM	265.00	4.20	25.80	0.00	0.00	0.00	27.20	25.80	32.00	0.00	0.00	0.00						



US Army Corps
of Engineers

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

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		
11/27/13 7:30 PM	324.00	4.30	19.10	23.40	4.30	14.60	23.40	13.40	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 7:45 PM	317.00	3.70	18.80	25.70	6.90	15.00	25.70	13.40	18.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 8:00 PM	312.00	5.00	17.90	25.10	7.20	13.30	25.10	16.20	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 8:15 PM	310.00	2.70	18.70	25.70	7.00	16.30	25.70	14.60	18.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 8:30 PM	312.00	3.40	19.40	26.80	7.40	18.00	26.80	16.80	19.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 8:45 PM	319.00	4.20	19.20	24.50	5.30	17.60	24.50	15.00	19.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 9:00 PM	286.00	2.70	19.10	23.10	4.00	17.90	23.10	13.80	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 9:15 PM	298.00	2.30	17.80	21.80	4.00	16.40	21.80	13.40	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 9:30 PM	296.00	2.60	17.00	21.10	4.10	16.00	21.10	13.80	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 9:45 PM	289.00	3.50	17.70	19.60	1.90	17.00	19.60	13.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 10:00 PM	286.00	2.20	15.90	18.00	2.10	15.00	18.00	11.40	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 10:15 PM	280.00	2.30	14.20	17.60	3.40	12.10	17.60	12.80	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 10:30 PM	277.00	2.80	14.70	17.80	3.10	14.10	17.80	12.70	14.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 10:45 PM	269.00	2.70	15.00	15.00	0.00	15.00	19.80	15.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 11:00 PM	228.00	2.50	15.20	14.90	0.00	14.90	18.40	15.20	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 11:15 PM	254.00	2.40	18.50	16.30	0.00	16.30	20.70	18.50	15.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 11:30 PM	256.00	3.00	15.70	16.00	0.30	16.00	18.60	15.70	16.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/27/13 11:45 PM	240.00	2.20	14.50	14.00	0.00	14.00	16.20	14.50	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 12:00 AM	252.00	2.40	13.10	13.20	0.10	13.20	16.10	13.10	14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 12:15 AM	254.00	2.50	13.20	13.10	0.00	13.10	14.30	13.20	14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 12:30 AM	257.00	2.60	13.40	12.90	0.00	12.90	16.40	13.40	13.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 12:45 AM	269.00	2.60	14.70	15.10	0.40	15.10	16.60	14.70	15.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 1:00 AM	236.00	2.80	15.80	15.20	0.00	15.20	16.30	15.80	17.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 1:15 AM	229.00	2.20	14.00	14.10	0.10	14.10	16.30	14.00	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 1:30 AM	257.00	1.70	17.00	15.50	0.00	15.50	18.20	17.00	15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 1:45 AM	230.00	2.60	17.40	15.90	0.00	15.90	16.70	17.40	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 2:00 AM	238.00	2.90	16.30	14.90	0.00	14.90	16.00	16.30	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 2:15 AM	243.00	3.20	14.30	13.90	0.00	13.90	14.80	14.30	15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 2:30 AM	209.00	2.60	11.00	12.20	1.20	12.20	13.50	11.00	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 2:45 AM	222.00	4.90	9.00	10.80	1.80	10.80	11.70	9.00	12.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 3:00 AM	235.00	3.90	7.80	9.10	1.30	9.10	11.00	7.80	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 3:15 AM	228.00	3.00	7.30	8.90	1.60	8.90	10.70	7.30	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 3:30 AM	210.00	4.00	6.50	8.40	1.90	8.40	9.30	6.50	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 3:45 AM	245.00	4.70	4.80	7.90	3.10	7.90	9.20	4.80	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 4:00 AM	240.00	3.60	5.80	7.80	2.00	7.80	9.40	5.80	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 4:15 AM	228.00	3.30	4.30	7.20	2.90	7.20	8.30	4.30	9.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 4:30 AM	229.00	4.00	4.10	6.10	2.00	6.10	9.10	4.10	9.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 4:45 AM	214.00	4.60	3.80	6.50	2.70	6.50	9.20	3.80	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 5:00 AM	208.00	4.40	2.80	6.40	3.60	6.40	9.30	2.80	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 5:15 AM	233.00	4.70	3.20	6.00	2.80	6.00	9.20	3.20	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 5:30 AM	211.00	4.20	2.30	5.60	3.30	5.60	9.30	2.30	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 5:45 AM	195.00	4.00	2.60	5.80	3.20	5.80	9.00	2.60	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 6:00 AM	213.00	5.30	3.40	6.00	2.60	6.00	9.70	3.40	8.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 6:15 AM	215.00	4.60	4.00	6.40	2.40	6.40	9.00	4.00	8.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 6:30 AM	204.00	5.20	4.00	6.50	2.50	6.50	9.00	4.00	8.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 6:45 AM	194.00	5.00	5.30	7.10	1.80	7.10	9.40	5.30	9.10	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	
11/28/13 7:00 AM	220.00	4.80	5.40	7.70	2.30	7.70	9.90	5.40	9.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 7:15 AM	201.00	5.40	5.90	7.20	1.30	7.20	10.30	5.90	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 7:30 AM	201.00	5.70	5.40	0.00	0.00	0.00	10.40	5.40	9.40	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00	
11/28/13 7:45 AM	213.00	5.50	8.40	8.60	0.20	8.60	10.20	8.40	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 8:00 AM	225.00	4.60	6.60	8.20	1.60	8.20	9.40	6.60	9.60	0.00	1.40	0.00	1.40	0.00	0.00	0.00	0.00	
11/28/13 8:15 AM	212.00	4.50	9.00	8.30	0.00	8.30	10.50	9.00	9.60	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00	
11/28/13 8:30 AM	214.00	5.90	8.00	8.30	0.30	8.30	9.90	8.00	9.80	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	
11/28/13 8:45 AM	204.00	4.50	9.50	9.00	0.00	9.00	10.40	9.50	9.80	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	
11/28/13 9:00 AM	194.00	6.70	9.10	9.30	0.20	9.30	10.30	9.10	9.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 9:15 AM	201.00	4.70	9.60	10.40	0.80	10.40	11.70	9.60	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 9:30 AM	220.00	7.40	11.00	10.80	0.00	10.80	10.70	11.00	10.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 9:45 AM	202.00	5.00	10.30	9.80	0.00	9.80	10.90	10.30	10.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 10:00 AM	207.00	7.40	12.10	10.10	0.00	10.10	10.90	12.10	11.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 10:15 AM	201.00	4.70	13.50	10.90	0.00	10.90	12.50	13.50	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 10:30 AM	230.00	7.20	12.00	11.40	0.00	11.40	11.90	12.00	30.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 10:45 AM	220.00	8.70	12.20	11.70	0.00	11.70	12.60	12.20	13.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 11:00 AM	208.00	6.60	14.80	11.10	0.00	11.10	11.30	14.80	14.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 11:15 AM	227.00	6.80	11.80	13.50	1.70	13.50	11.00	11.80	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 11:30 AM	240.00	7.90	12.00	12.00	0.00	12.00	11.70	12.00	13.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11/28/13 11:45 AM	231.00	5.40	12.50	13.90	1.40	13.90	11											



**US Army Corps
of Engineers**

Indiana Harbor and Canal
Confined Disposal Facility
Real-Time Air Monitoring Data
November, 2013

Reading Time (EST)	Wind Direction Degree 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
11/30/13 9:45 PM	235.00	4.80	19.10	20.10	1.00	20.10	21.80	19.10	16.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 10:00 PM	220.00	3.00	20.60	21.20	0.60	21.20	22.30	20.60	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 10:15 PM	202.00	3.30	20.30	21.50	1.20	21.50	23.10	20.30	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 10:30 PM	198.00	3.40	20.20	21.20	1.00	21.20	23.10	20.20	17.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 10:45 PM	233.00	3.30	20.50	21.40	0.90	21.40	23.30	20.50	18.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 11:00 PM	212.00	3.40	21.10	21.40	0.30	21.40	22.60	21.10	18.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 11:15 PM	211.00	3.80	21.20	21.10	0.00	21.10	22.10	21.20	18.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 11:30 PM	197.00	2.80	20.50	21.50	1.00	21.50	22.40	20.50	17.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/30/13 11:45 PM	201.00	2.60	22.30	22.50	0.20	22.50	21.70	22.30	17.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00