Borough of Naugatuck
Water Pollution Control Facility
Monthly Operating Report
August 2013

Borough of Naugatuck
Monthly WPCF Report August 2013
Page 1 of 3

This report summarizes the activities at the Borough POTW for August 2013:

1. **Highlights and Significant Issues:** Please refer to the report.
2. **Collection System Update:**

Please see attached Collections Report.

3. **Plant Performance Summary:**

Please see the attached reports and graphs for additional performance details.

Plant Process Data	Limit	Actual
Total Suspended Solids (mg/l)		
Influent Avg.	-	334
Effluent Avg.	30	5
Removal Efficiency	85%	98%
Plant Process Data*	**Limit**	**Actual**
Carbonaceous BOD		
Influent Avg.	-	237
Effluent Avg.	30	5
Removal Efficiency	85%	98%

	Naugatuck	Middlebury	Oxford	OTR
June			0.110*	
July			0.072*	
August Flow Avg. (MGD)	4.3	0.437	0.058	N/A
Sludge Liquid Total (MGal)				4178.0
Sludge Cake Total (Wet Tons)				5413.9
Septage Total (MGal)	50,250	73,000	189,950	682,400

Discharge Permit Exceedance: None

** Data from new flowmeter installation*

Safety Incidents and Odor Complaints

	Month	YTD
Recordable Accidents	0	0
Lost Time Accidents	0	0
Odor Complaints	5	15
Unconfirmed Odor Complaints	0	1

1. **Compliance & Regulatory Issues**

a. There were 5 recorded Odor Complaints for August 2013 (as of Aug 30). Three complaints were from the area north of the plant, one complaint was from the area around the Inwood Pump station and one complaint from Meadowbrook Place. The Aug 10 odor complaint (north of the plant) most likely as a result of a failure of the Spirac conveyors. The complaint was received Saturday evening as the conveyor was cleaned for repairs. Odor control measures were taken however a complaint was still received. A complaint was received on August 14 from people walking by the Inwood pump station. There have been no previous complaints from that pump station area. On August 16 an Odor complaint was received approximately 3 PM. I told the caller I would respond myself and was at her home on Meadowbrook within 10 minutes. Upon my arrival. Mrs. Merrill indicated the odor had just gone away. The wind direction at the plant was from the SSW thus she was upwind of the facility. Mrs. Merrill contacted CTDEEP and requested a plant tour. On Sept 11, 2013 at 9 AM, Lou Santos, CTDEEP will accompany Mrs. Merrill on a tour of the Naugatuck wastewater facility. This tour

will also include Jim Stewart, Kleinfelder, and TRC's odor group. Dan Gorka will also attend.

b. On Sept 4, 2013, Carlos Esguerra from CTDEEP visited the site to offer a chance to discuss the preliminary draft NPDES permit. Jim Stewart, Bill Hardy Dan Gorka and Kathy Luvisi attended the meeting.

2. Personnel

a. One collections employee resigned effective Aug 30, 2013 to accept a position in Texas. The position has been filled with a start date of Sept 11, 2013.

b. One operator transferred to the Redding facility. A second operator submitted his resignation to accept a position at a Quick-Lube center. Both positions have been filled with start dates of Sept 9 and 10, 2013.

c. The filling of the vacant Electrician position will take time to find a qualified candidate.

d. Our summer intern returned to college on Aug 13, 2013.

3. Health & Safety

a. Staff received training on the MSDS updates.

4. Operational Information

a. The #2 Primary tank repairs are complete. Basically, the entire collector mechanism was rebuilt (bottom wear strips, new return rails and support brackets, new chain, new sprockets, and new shear pin hubs. In addition, the grease scum troughs were replaced (~$7400).

b. The Collections crew assisted with Operations personnel removed a heavy grease buildup form the wet well. That task took in excess of 12 hours to complete.

c. The Piller blowers were started August 15, 2013. Due to factory related electrical issues, the blowers are not fully operable. A Piller service Tech will be onsite in September to make the required repairs.

d. The 1985 Ford dump truck we have been using for plowing is owned by the Borough. The truck has reached the end of its useful life. Repairs are estimated at over $5,000 as the cab is basically rusted through. The issue is that this vehicle was used for plowing and sanding. While we have an ARI vehicle that can plow (a utility pickup for collections), we have no vehicle for sanding. We have asked the Borough for input regarding their plans for this vehicle.

e. Small brush growth along the access road has blocked the road markers on each side of the road. The brush along the road requires trimming.

f. A spare internal recycle pump was purchased for approximately $54k. This pump has a 14 to 20 week lead time.

5. Collections

a. The original Plattsmill pump station pump rails require replacement at an estimated cost of $7800. The original rails are severely corroded. This is the last pump station that requires new rails.

6. Maintenance

a. On Aug 10, 2013 vertical (VC4) conveyor and an intermediate horizontal conveyor failed. Both were repaired and returned to service.

b. The main bearings on the silo bottom conveyors require replacement.

c. The air dryer was replaced at a cost of $9770.

d. The incinerator recycle tray scrubber water pump installation is complete and testing is underway.

e. The expansion joints for the aeration tank air headers have been replaced on tanks #2 and #3.

f. The incinerator exhaust duct and inlet to the primary heat exchanger was cleaned of ash deposits on Aug. 12, 2013.

g. The ventilator fan for the wet well failed as the drive shaft broke. This is an original fan that is approximately 40 years old. We are having a new shaft fabricated.

h. The north J Spin was rebuilt. Once the discharge gate mechanism is rebuilt, the centrifuge will be return to service.

6. **Capital Projects**

a. The Piller turbo aeration blower project electrical installation was completed on Aug 6, 2013. To date there have been minor issues to correct. We expect the mechanical issues to be corrected by mid-September.

High Velocity Cleaning (Continued)

	Street Name	Date	Footage
40	inwood road	14th	225
41		14th	360
42		14th	445
43		14th	200
44	schmitz way easment	15th	550
45	little river dr	15th	310
46	vally drive	15th	550
47	beacon manor rd	16th	275
48		16th	410
49	meadow brook	19th	120
50		19th	300
51	beacon manor rd	19th	300
	loccust st	20th	400
		20th	350
	locust st easment	20th	225
	sheffield st	20th	225
	fairview st	20th	410
	sheffield st	21th	320
	prospect st siphon	21st	345
		21st	100
	golden hill st	23rd	375
	endogen st	23rd	400
	stanley st	23rd	310
	trowbridge place	23rd	385
	woodland st	26th	300
		26th	200
	coen st	26th	425
	oak st	26th	120
	bradley st	26th	400
	hill st	26th	130
	pleasant ave	27th	440
		27th	110
	sharon ave	27th	350

This Month		Year to Date	
20765	Feet	32300	Feet

Root Treatment

Street Name	Type	Footage
dukes root control	foam/chem	4600

This Month		Year to Date	
4600	Feet	4600	Feet

Video Inspections

Street Name	Type	Footage
Great Hill Road	Push	250

This Month		Year to Date	
250	Feet	1200	Feet

Pump Station Services

	Work performed	Location	Date	Notes
	Pump Station Checks	All 5	2nd	Weekly check performed
1	Cut grass and picked up trash	M&M	12th	
2	pump station checks	all 5	9th	
3	pump station checks	all 5	16th	
4	pump station checks	all 5	22nd	
5	pump station checks	All 5	27th	heavy rain
6	pump station checks	All 5	30th	

Borough of Naugatuck
Collections Systems Report
August 2013

	Calls for Service
1	150 may st. lateral problem.
2	
3	
4	
5	
6	

This Month	Year to Date
1	2

	Calls Caused By Collection System
1	
2	
3	
4	

Reason

	High Velocity Cleaning		
	Street Name	Date	Footage
1	Tawny Trush Road	1st	600
2		1st	120
3		1st	150
4		1st	250
5		1st	280
6		1st	80
7		1st	175
8	Meadow Lark Road	1st	420
9		1st	145
10		1st	175
11		1st	105
12	Red Robin Road	1st	150
13		1st	105
14		5th	210
15		5th	180
16		5th	175
17		5th	160
18		5th	190
19		5th	110
20		5th	430
21	Morning Dove Road	5th	850
22		5th	120
23	Rain Dance Circle	5th	245
24	Morning Dove Road	6th	240
25		6th	200
26		6th	150
27		6th	300
28		6th	225
29		6th	225
30		6th	200
31		6th	250
32	Morning Dove Road Easment	7th	850
33	Horton Hill Road	7th	320
34		7th	500
35	Horton Hill Road	8th	200
36	margret circle	13th	250
37		13th	540
38		13th	350
39		13th	175

6 month list
Call for service

Vac Truck Information

Days out of the plant working		
This Month	YTD	Remaining
16	29	121

Fuel Information	Fuel Cost	Fuel Used			
	$190.00	16.4	Gallons	YTD Gallons	
	$137.00	32.9	Gallons	143.3	Gallons
			Gallons		
			Gallons	YTD Fuel Cost	
This Months Total	$327.00	49.3	Gallons	$722.00	

	Mileage		Engine Hours
Month Start	165890	Month Start	4481
Month End	166598	Month End	4520.5
Total	708	Total	39.5

Utlity Truck Information	Fuel Cost	Fuel Used		
	$131.00	31.19	Gallons	YTD Gallons
	$96.00	23.42	Gallons	111.71
			Gallons	
			Gallons	YTD Fuel Cost
	$227.00	**54.61**	Gallons	$464.00

Other tasks and notes

	2nd - Went to RPM to get a new chainsaw for the plant. Cleared all brush by back road sign so it was visiable.
1	7th - Marked out a lateral for Manny T. with the Burough of Naugatuck on Great Hill Road.
2	12th - Vacced plant wetwell out.
3	12th cut grass at maple and may
4	19th cut grass at platts mill
5	kingsley power serviced all pump station generators
6	29th dukes root control

VEOLIA
WATER

Sent via certified mail #7009 2820 0004 1018 0415 on September 10, 2013

Municipal Wastewater Monitoring Coordinator
Connecticut Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127

September 10, 2013

Re: August 2013 Reports for Naugatuck, CT WPCF, NPDES # CT0100641

Dear Sir/Madám:

Enclosed please find the *Monthly Operating Report, Monthly Total Phosphorus, Seasonal Total Phosphorus and Nutrients Analysis Report* for the month for August 2013. The *Nutrients Analysis Report for Compliance with General Permit for Nitrogen Discharges and Discharge Monitoring Report* was submitted electronically. There were no exceptions to the reports.

Also enclosed is a summary of sludge sources received at this facility during the month of August 2013.

Please contact me if you have any questions regarding the enclosed revised report.

Sincerely,
Veolia Water North America – Northeast, LLC

John Batorski
Plant Manager

cc: James R. Stewart PE, LS, Director of Public Works, Borough of Naugatuck
(Enclosure)

Veolia Water NA -Naugatuck
500 Cherry Street, Naugatuck, CT 06770
Tel 203-723-1433 / 203-723-8539
www.veoliawaterna.com

Facility: Naugatuck WWTF
Sample month: Aug,2013
Facility ID: 088-001
Page 1 of MOR for permit # CT0100641

Chief Operator: John Batorski
Permit expiration date: August 7, 2006

Please return forms to: DEP-BWM
79 Elm Street
Hartford, CT 06106-5127

Date received: (stamped)

P. 8

	Daily Flow			Primary Sludge			Aeration Tanks				Return sludge		Waste sludge	Dry solids to incineration	Waste accepted		CBOD (5-day)			Suspended Solids			Settleable Solids	Turbidity	Comments
	Max.	Min.	Total	Vol.	% solids	wt.	MLSS	SVI	DO Hi	DO Lo	% flow	% solids			septic	indust	Inf.	Prim. Eff.	Final Eff.	Inf.	Prim. Eff.	Final Eff.			
Units	mgd			gal.		lbs.			mg/l				lbs	lbs	gal	gal	mg/l			mg/l			Eff.	Eff.	
Freq	daily			work day			work day				work day		work day	work day	work day		Daily			Daily			ml/l	NTU	
01	7.2	2.6	5.3				4,304	65	2.30	0.90	142	0.77	0	156,528	29,450								work day	work day	
02	6.0	3.4	4.8				4,766	87	2.30	1.20	155	1.04	2,654	160,344	62,250								0.0	2.6	
03	5.8	2.7	4.5						3.60	1.00	168		0	169,716	18,250								0.0	1.9	
04	5.9	1.8	4.1						2.30	1.20	173		4,424	133,960	1,500										
05	5.8	2.8	4.2				5,372	97	5.00	0.50	170	1.00	3,403	161,904	40,750		220	77	<4	210	110	<5	0.0	1.3	
06	12.9	0.5	4.2				4,810	104	3.70	0.00	179	0.92	1,557	103,689	46,500		140	43	<4	150	64	<5	0.0	1.6	
07	5.8	1.4	4.4				4,640	111	3.00	0.70	167	1.01	0	170,568	58,050		260	120	<4	320	130	<5	0.0	4.7	
08	5.6	2.5	4.4				5,366	89	2.30	1.40	162	1.02	1,735	148,285	33,200								0.0	1.6	
09	8.1	2.8	5.3				5,026	107	2.30	1.10	141	1.02	2,590	157,224	32,150								0.0	3.1	
10	7.3	2.5	5.1						2.40	1.20	159		2,590	110,844	4,500										
11	5.9	1.8	4.1						2.30	1.00	168		2,590	173,268	0										
12	5.5	2.8	4.6				5,164	91	2.30	0.60	171	1.08	0	95,511	42,750		240	64	<4	240	96	<5	0.0	2.5	
13	5.9	2.8	4.4				6,374	72	2.10	0.70	157	1.03	2,629	125,219	33,000		110	100	<4	120	86	7	0.0	2.8	
14	5.4	0.0	2.1				4,874	96	2.00	0.50	370	0.98	3,318	146,314	50,500		200	83	<4	310	88	<5	0.0	3.0	
15	6.6	0.0	3.8				4,710	94	2.10	0.20	202	0.65	1,372	115,357	35,950								0.0	2.5	
16	5.7	1.9	4.1				5,363	62	1.90	0.20	107	0.81	2,397	169,716	34,750								0.0	4.0	
17	7.1	2.3	4.0						2.00	0.60	253		5,684	164,605	2,750										
18	5.8	2.4	3.5						2.00	0.60	214		2,739	162,096	0										
19	5.8	2.1	4.5				5,536	50	2.30	0.80	168	0.83	12,709	81,227	44,300		230	83	<4	330	72	<5	0.0	4.6	
20	5.4	0.0	4.0				4,762	56	2.10	0.70	186	1.12	7,588	145,552	62,000		98	120	<4	53	92	<5	0.0	4.9	
21	5.5	2.5	4.3				4,470	52	2.00	0.60	168	0.77	3,905	157,224	48,000		270	63	<4	410	100	<5	0.0	4.1	
22	5.6	2.5	4.5				5,056	46	2.30	0.80	168	0.85	4,313	128,639	56,600								0.0	5.9	
23	5.8	3.0	4.4				4,810	50	2.20	1.00	170	0.90	7,994	143,712	37,700								0.0	5.5	
24	5.8	2.6	4.1						2.10	0.90	181		0	108,546	7,800										
25	6.1	2.5	4.2						2.10	0.80	175		2,284	158,736	0										
26	5.9	2.4	4.5				4,646	39	5.00	1.10	162	0.70	2,382	147,072	32,950		440	98	<4	650	68	<5	0.0	5.8	
27	5.9	3.2	4.8				3,288	41	2.00	0.90	155	0.67	0	147,792	44,750		500	84	<4	560	61	<5	0.0	5.4	
28	5.8	2.4	4.4				3,158	56	2.10	1.00	161	0.65	1,659	139,390	57,000		130		<4	650		<5	0.0	5.8	
29	5.6	2.8	4.7				5,566	31	2.00	0.90	158	0.37	787	148,536	28,000								0.0	5.7	
30	6.9	2.7	4.5				3,110	49	3.90	0.70	166	0.49	1,250	110,068	40,250								0.0	2.9	
31	6.1	2.8	4.3						2.20	0.80	171		1,250	175,102	9,950										
TOT			134.1										85,803	4,416,745	995,600										
AVG	6.3	2.2	4.3				4,781	70	1.5	0.9	176	0.8	2,768	142,476	32,116		237	85	4	334	88	5	0.0	3.7	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Authorized Official: John Batorski Title: Plant Manager Signature: John Batorski Date: 9-9-13

	Chlorine Dose		Chlorine Residual		Fecal Coliform	Ammonia			Nitrate			Nitrite			TKN			D.O.	pH		Ortho P	Total Phosphorus		Temp.		Zinc	Copper	Comments
			high	low		Inf.	Prim.	Eff.	Inf.	Prim.	Eff.	Inf.	Prim.	Eff.	Inf.	Prim.	Eff.	Eff.	Inf.	Eff.	Eff.	Inf.	Eff.	Inf.	Eff.	Eff.	Eff.	
Units	lbs	mg/l	mg/l		#/100 ml	mg/l			mg/l			mg/l			mg/l			mg/l	S.U.		mg/l	mg/l		Deg F		kg/d	kg/d	
Freq	Daily		4/work day		daily	weekly			weekly			weekly			weekly			week	work day		weekly	wee k		work day		work day	work day	
01	71.58	1.62	0.05	0.01	20													7.6	7.1	6.9				73	86			
02	65.92	1.65	0.04	0.00														8.3	7.0	7.0				72	82			
03	56.00	1.49	0.02	0.00																								
04	59.21	1.73	0.04	0.00																								
05	55.76	1.59	0.04	0.00		21.6	16.8	0.33	<0.01	<0.01	4.7	0.050	0.0	<0.01	36.6	28.6	1.47	6.7	7.0	6.6	9.5	6.2	9.4	70	77	1.34	0.18	
06	50.87	1.45	0.05	0.00	20	19.2	13.9	0.49			3.6			0.02			2.22	8.5	7.0	6.8	9.3		10.0	70	85			
07	53.06	1.45	0.04	0.01	20	23.6	22.6	1.36			4.1			0.04			3.03	7.9	7.3	7.2				71	84			
08	71.70	1.95	0.05	0.03	50													7.3	7.4	7.3				72	83			
09	67.86	1.54	0.04	0.00														7.8	7.2	6.9				73	87			
10	63.52	1.49	0.04	0.00																								
11	62.58	1.83	0.05	0.02																								
12	59.04	1.54	0.04	0.03		20.4	14.1	0.28			4.4			<0.01			1.71	9.2	7.4	7.3	9.7		9.6	70	80	1.40	0.40	
13	53.01	1.44	0.04	0.00	780	20.8	20.8	0.30			4.4			<0.01			2.06	8.1	7.0	6.8	10.7		11.4	71	85			
14	50.99	2.91	0.05	0.00	410	29.0	17.7	0.18			4.7			<0.01			1.53	7.9	7.1	7.0				71	82			
15	53.95	1.70	0.04	0.00	10													6.1	7.1	6.1				69	83			
16	57.58	1.68	0.05	0.03	<10													8.6	7.2	7.0				74	85			
17	57.26	1.72	0.04	0.03																								
18	59.05	2.02	0.05	0.03																								
19	58.48	1.56	0.04	0.03		25.2	18.0	0.26			6.0			0.03			2.75	8.2	7.2	7.0	15.0		15.4	77	86	1.31	0.26	
20	63.37	1.90	0.03	0.00	20	25.8	19.1	0.36			5.8			0.06			2.77	7.2	7.2	6.8	16.1		16.3	74	85			
21	58.65	1.64	0.04	0.01	350	25.4	20.0	0.40			5.0			0.03			2.49	8.9	7.4	6.9				73	85			
22	58.88	1.57	0.04	0.00	50													8.2	7.3	6.9				73	89			
23	54.20	1.48	0.04	0.01														5.7	7.3	6.6				73	84			
24	49.41	1.45	0.04	0.00																								
25	50.99	1.46	0.04	0.00																								
26	52.03	1.39	0.03	0.00		23.8	17.8	0.27			5.0			<0.01			2.79	7.8	7.2	6.7	14.5		15.6	72	85	1.48	0.41	
27	61.53	1.54	0.04	0.00	30	21.4	17.7	0.46			3.4			0.01			2.73	7.3	7.0	6.6	13.9		14.3	71	89			
28	65.24	1.78	0.05	0.00	50	23.2		0.43			4.1			<0.01			2.69	7.5	7.2	6.7				75	88			
29	68.16	1.74	0.04	0.00	630													8.7	7.3	6.7				71	87			
30	66.52	1.77	0.05	0.00														7.9	6.9	7.0				73	89			
31	67.72	1.89	0.03	0.00																								
TOT																												
AVG			0.041	0.008	57	23.3	18.0	0.43	0.0	0.0	4.6	0.1	0.0	0.02	36.6	28.6	2.35	7.8	7.2	6.8	12.3	6.2	12.7	72	85	1.38	0.31	

p. 9

Nutrient Analysis Report

Town/Facility: Naugatuck WWTF Flow Rate: 4.2 MGD Sampling Date: 08/05/13

Parameter	Raw Influent		Primary Effluent		Final Effluent				Plant Efficiency
	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	(%)
Ammonia	21.6		16.8		0.3				
Nitrites	0.05		0.04		<0.01				
Nitrates	0.0		0.0		4.7				
TKN	36.6		28.6		1.5				
Total Nitrogen	36.7	1,284	28.7	1,004	6.2	217			83
Orthophosphates	3.9	138			9.5	331			
Total Phosphorus	6.2	217			9.4	329			

Permit # CT0100641

Seasonal Total Phosphorus Report

Average from April 1st through October 30th

for compliance with NPDES permit

Submit this report by November 15th

Permit # CT0100641

Month	Average in lbs/d
April	361
May	365
June	264
July	342
August	468
September	
October	

Average Seasonal Load Cap in lbs/d	Seasonal Average in lbs/d
Load Capacity N/A	360

Monthly Total Phosphorus Report

for compliance with NPDES permit

Use this report from April 1st through October 30th

Facility Name: Naugatuck

Permit # : CT0100641

Month of: August, 2013

Sample Date	Flow (mgd)	Effluent Total Phosphorus (mg/l) Max. Daily Limit - - for comparison purposes only	X	Total Phosphorus (lbs/d)
08/05/2013	5.3	9.38	8.34	329
08/06/2013	4.8	9.97	8.34	349
08/12/2013	4.5	9.58	8.34	368
08/13/2013	4.1	11.40	8.34	418
08/19/2013	4.2	15.40	8.34	578
08/20/2013	4.2	16.30	8.34	544
08/26/2013	4.4	15.60	8.34	585
08/27/2013	4.4	14.30	8.34	572
	5.3		8.34	
	5.1		8.34	

Average Monthly Total Phosphorus Limit (mg/l)	Average Monthly Total Phosphorus (mg/l)	Average Seasonal Load Cap (lbs/d)	Average Monthly Total Phosphorus Load (lbs/d)
	12.74		468

VEOLIA WATER

Naugatuck Plant Samples by Intake Forecast Summary

Sample Date Range 8/1/2013 - 8/31/2013
Forecast Date Range 9/1/2013 - 8/31/2013
Number of Forecast Days: 0

	Forecasted New Intake	Forecasted Total
Bates, Inc.		
Liquid Sludge		
Total Gallons: 6,000	0	6,000
Total Samples for Bates, Inc.: 1		
Beacon Falls Treatment	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 130,000	0	130,000
Total Samples for Beacon Falls Treatment: 20		
Bennett Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 278,000	0	278,000
Total Samples for Bennett Septic: 74		
Bill Dunn Sanitation	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 60,200	0	60,200
Total Samples for Bill Dunn Sanitation: 31		
Bill Marek Excavating & Septic Systems	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 24,000	0	24,000
Total Samples for Bill Marek Excavating & Septic Systems: 8		
Bristol	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 567.49	0	567
Total Samples for Bristol: 31		
Casella- Beacon, NY	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 241.59	0	242
Total Samples for Casella- Beacon, NY: 11		
Chatfield	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 13,600	0	13,600
Total Samples for Chatfield: 17		

East Coast Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 140,000		
Total Samples for East Coast Septic: 35	0	140,000

Grieger Excavating	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 35,000		
Total Samples for Grieger Excavating: 14	0	35,000

Heritage Village Water	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 32,500		
Total Samples for Heritage Village Water: 5	0	32,500

Koseski Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 161,250		
Total Samples for Koseski Septic: 57	0	161,200

Litchfield	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 39,000		
Total Samples for Litchfield: 6	0	39,000

Lynnwood Place	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 52,000		
Total Samples for Lynnwood Place: 8	0	52,000

Mahopac Septic	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 817,500		
Total Samples for Mahopac Septic: 135	0	817,500

NEO Chicopee	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 458.80		
Total Samples for NEO Chicopee: 19	0	459

NEO Glen Cove	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 216.23		
Total Samples for NEO Glen Cove: 9	0	216

NEO Suffolk NY	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 1,106.76	0	1,107
Total Samples for NEO Suffolk NY: 44		
NEO Westfield MA	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 498.89	0	499
Total Samples for NEO Westfield MA: 22		
New England Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 135,000	0	135,000
Total Samples for New England Septic: 45		
New Hartford	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 58,500	0	58,500
Total Samples for New Hartford : 9		
New Rochelle	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 1,954.91	0	1,955
Total Samples for New Rochelle: 85		
North Canaan	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 39,000	0	39,000
Total Samples for North Canaan: 6		
Oxbury Sanitation	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 38,500	0	38,500
Total Samples for Oxbury Sanitation: 13		
Pawling	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 39,000	0	39,000
Total Samples for Pawling: 6		
Plymouth	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 58,500	0	58,500
Total Samples for Plymouth: 9		
Prospect Sanitation	Forecasted New Intake	Forecasted Total

Septage		
Total Gallons: 45,000		
Total Samples for Prospect Sanitation: 18	0	45,000

Rhinebeck	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 13.96		
Total Samples for Rhinebeck: 1	0	14

Shelton Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 4,000		
Total Samples for Shelton Septic: 2	0	4,000

Stratford	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 975,000		
Total Samples for Stratford: 150	0	975,000

Superior Sanitation	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 24,000		
Total Samples for Superior Sanitation: 16	0	24,000

Talarico Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 204,000		
Total Samples for Talarico Septic: 60	0	204,000

Thomaston	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 65,000		
Total Samples for Thomaston: 10	0	65,000

Torrington	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 338,000		
Total Samples for Torrington: 52	0	338,000

Veolia Bedford Hills	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 13,000		
Total Samples for Veolia Bedford Hills: 2	0	13,000

Veolia Danbury	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 235.95		
	0	236

Total Samples for Veolia Danbury: 12

Veolia North Haven	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 123,500	0	123,500
Total Samples for Veolia North Haven: 19		

Veolia Pepsi	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 8,500	0	8,500
Total Samples for Veolia Pepsi: 2		

Veolia Poughkeepsie	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 351,000	0	351,000
Total Samples for Veolia Poughkeepsie: 54		

Veolia Redding	Forecasted New Intake	Forecasted Total
Liquid Sludge		
Total Gallons: 841,500	0	841,500
Total Samples for Veolia Redding: 130		

Veolia Seymour	Forecasted New Intake	Forecasted Total
Cake Sludge		
Total Tons: 119.28	0	119
Total Samples for Veolia Seymour: 14		

VES Ahlstrom Latex	Forecasted New Intake	Forecasted Total
Industrial Waste Water		
Total Gallons: 6,500	0	6,500
Total Samples for VES Ahlstrom Latex : 1		

VES Americas Styrenics	Forecasted New Intake	Forecasted Total
Industrial Waste Water		
Total Gallons: 4,700	0	4,700
Total Samples for VES Americas Styrenics : 1		

VES Newburgh	Forecasted New Intake	Forecasted Total
Industrial Waste Water		
Total Gallons: 6,300	0	6,300
Total Samples for VES Newburgh: 3		

Watertown Septic	Forecasted New Intake	Forecasted Total
Septage		
Total Gallons: 3,000	0	3,000

Total Samples for Watertown Septic: 1

Westport		
Liquid Sludge	**Forecasted New Intake**	**Forecasted Total**
Total Gallons: 123,500		
Total Samples for Westport: 19	0	123,500

Windham		
Liquid Sludge	**Forecasted New Intake**	**Forecasted Total**
Total Gallons: 227,500		
Total Samples for Windham: 35	0	227,500

Total Gallons for all Customers 8/1/2013 - 8/31/2013: 5,527,550		
Total Tons for all Customers 8/1/2013 - 8/31/2013: 5,413.86	0	5,527,600
Total Samples for all Customers 8/1/2013 - 8/31/2013: 1324	0	5,414

DMR Copy of Record

Permit

Permit #:	CT0100641	Permittee:	NAUGATUCK WPCF	Facility:	NAUGATUCK, BOROUGH OF
Major:	Yes	Permittee Address:	500 CHERRY STREET NAUGATUCK, CT 06770	Facility Location:	500 CHERRY STREET NAUGATUCK, CT 06770
Permitted Feature:	001 External Outfall	Discharge:	001-1 SANITARY SEWAGE		

Report Dates & Status

Monitoring Period:	From 08/01/13 to 08/31/13	DMR Due Date:	09/15/13	Status:	NetDMR Validated

Considerations for Form Completion

MONTHLY AVERAGE CONCENTRATIONS SHALL NOT BE EXCEEDED BY > 1.5 DURING ANY WEEK.GRAB SAMPLES SHALL BE TAKEN DURINGPERIODS OF DAILY PEAK FLOW.SAMPLES COLLECTED FOR BACTERIOLOGICAL EXAM SHALL BE COLLECTED BTW 11AM & 3PM OR DURING PEAK HORLY FLOW.

Principal Executive Officer

First Name:	John	Title:	Plant Manager	Telephone:	203-723-1433
Last Name:	Batorski				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
					Sample										=	80	15 - deg F		01/01 - Daily	GR - GRAB
00011	Temperature, water deg. fahrenheit	1 - Effluent Gross	0	–	Permit Req.											Req Mon INST MAX	15 - deg F		01/01 - Daily	GR - GRAB
					Value NODI															
					Sample						=	5.7					19 - mg/L		01/01 - Daily	GR - GRAB
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	–	Permit Req.						>=	5.0001 INST MIN					19 - mg/L		01/01 - Daily	GR - GRAB
					Value NODI															
					Sample						=	6.1			=	7.3	12 - SU		01/01 - Daily	GR - GRAB
00400	pH	1 - Effluent Gross	0	–	Permit Req.						>=	6 INST MIN			<=	9 INST MAX	12 - SU		01/01 - Daily	GR - GRAB
					Value NODI															
					Sample										=	80	19 - mg/L		01/30 - Monthly	GR - GRAB
00410	Alkalinity, total [as CaCO3]	1 - Effluent Gross	0	–	Permit Req.											Req Mon INST MAX	19 - mg/L		01/30 - Monthly	GR - GRAB
					Value NODI															
					Sample								=	5	=	7	19 - mg/L		12/30 - Twelve Per Month	CP - COMPOS
00530	Solids, total suspended	1 - Effluent Gross	0	–	Permit Req.								<=	30 MO AVG	<=	45 DAILY MX	19 - mg/L		12/30 - Twelve Per Month	CP - COMPOS
					Value NODI															
					Sample								=	334			19 - mg/L		12/30 - Twelve Per Month	CP - COMPOS
00530	Solids, total suspended	C - Raw Sewage Influent	0	–	Permit Req.									Req Mon MO AVG			19 - mg/L		12/30 - Twelve Per Month	CP - COMPOS
					Value NODI															
					Sample										<	0.1	25 - mL/L		01/07 - Weekly	GR - GRAB
00545	Solids, settleable	1 - Effluent Gross	0	–	Permit Req.											Req Mon INST MAX	25 - mL/L		01/07 - Weekly	GR - GRAB
					Value NODI															
					Sample										=	8.8	19 - mg/L		01/30 - Monthly	CP - COMPOS
00600	Nitrogen, total	1 - Effluent Gross	0	–	Permit Req.											Req Mon DAILY MX	19 - mg/L		01/30 - Monthly	CP - COMPOS
					Value NODI															
					Sample	=	245			26 - lb/d									02/07 - Twice Every Week	CP - COMPOS
00600	Nitrogen, total	C - Nitrogen, Removal Complete	0	–	Permit Req.		Req Mon MO AVG			26 - lb/d									02/07 - Twice Every Week	CP - COMPOS
					Value NODI															
					Sample								=	0.4	=	1.4	19 - mg/L		12/30 - Twelve Per Month	CP - COMPOS

Sent electronically 9-10-13

P. 19

00610 Nitrogen, ammonia total [as N]	1 - Effluent Gross	3	–	Permit Req.					<=	4 MO AVG		Req Mon DAILY MX	19 - mg/L	12/30 - Twelve Per Month	CP - COMPOS
				Value NODI											
				Sample											
00615 Nitrogen, nitrite total [as N]	1 - Effluent Gross	0	–	Permit Req.							=	0.00	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample											
00620 Nitrogen, nitrate total [as N]	1 - Effluent Gross	0	–	Permit Req.							=	0	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample											
00625 Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	–	Permit Req.							=	0	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample											
00665 Phosphorus, total [as P]	1 - Effluent Gross	0	–	Permit Req.							=	10.0	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample											
01002 Arsenic, total [as As]	S - See Comments	0	–	Permit Req.							=	5	69 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB
				Value NODI								Opt Mon INST MAX	69 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB
				Sample											
01012 Beryllium, total [as Be]	S - See Comments	0	–	Permit Req.							<	0.39	69 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB
				Value NODI								Opt Mon INST MAX	69 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB
				Sample											
01027 Cadmium, total [as Cd]	1 - Effluent Gross	0	–	Permit Req.							<	0.0002	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample	=	0.31	=	0.41	01 - kg/d						
01042 Copper, total [as Cu]	1 - Effluent Gross	0	–	Permit Req.	<=	1.4 MO AVG	<=	2.56 DAILY MX	01 - kg/d					01/07 - Weekly	CP - COMPOS
				Value NODI										01/07 - Weekly	CP - COMPOS
				Sample											
01077 Silver, total [as Ag]	1 - Effluent Gross	0	–	Permit Req.							<	0.001	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample	=	1.38	=	1.46	01 - kg/d						
01092 Zinc, total [as Zn]	1 - Effluent Gross	0	–	Permit Req.	<=	4.65 MO AVG	<=	11.11 DAILY MX	01 - kg/d					01/07 - Weekly	CP - COMPOS
				Value NODI										01/07 - Weekly	CP - COMPOS
				Sample	=	4.3			03 - MGD						
50050 Flow, in conduit or thru treatment plant	1 - Effluent Gross	0	–	Permit Req.	<=	10.3 MO AVG			03 - MGD					99/99 - Continuous	TM - TOTALZ
				Value NODI										99/99 - Continuous	TM - TOTALZ
				Sample											
50060 Chlorine, total residual	1 - Effluent Gross	0	–	Permit Req.							=	0.04	19 - mg/L	04/01 - Four Per Day	GR - GRAB
				Value NODI							<=	.00 DAILY MX	19 - mg/L	04/01 - Four Per Day	GR - GRAB
				Sample											
70507 Phosphorous, in total orthophosphate	1 - Effluent Gross	0	–	Permit Req.							=	10.1	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Value NODI								Req Mon DAILY MX	19 - mg/L	01/30 - Monthly	CP - COMPOS
				Sample											
				Permit						= 57	=	75	13 - #/100mL	12/30 - Twelve Per Month	GR - GRAB

74055	Coliform, fecal general	1 - Effluent Gross	0	–	Req.			<=	200 30DA GEO	<=	400 7 DA GEO	13 - #/100mL	12/30 - Twelve Per Month	GR - GRAB	
					Value										
					NODI										
					Sample					=	925	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78467	Zinc, dry weight	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample					=	51.4	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78468	Lead, dry weight	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample					=	17.6	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78469	Nickel, dry weight	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample					=	0.76	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78471	Mercury, dry weight	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample					=	41.6	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78473	Chromium, dry weight	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample					=	711	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78475	Copper, sludge, tot, dry weight [as Cu]	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample					=	1.07	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
78476	Cadmium, sludge, tot dry weight [as Cd]	S - See Comments	0	–	Permit Req.						Opt Mon INST MAX	09 - mg/kg	01/60 - Once Every 2 Months	GR - GRAB	
					Value										
					NODI										
					Sample			=	4	=	4	19 - mg/L	12/30 - Twelve Per Month	CP - COMPOS	
80126	BOD, carbonaceous, 5 day, 5 C	1 - Effluent Gross	1	–	Permit Req.			<=	30 MO AVG	<=	40 DAILY MX	19 - mg/L	12/30 - Twelve Per Month	CP - COMPOS	
					Value										
					NODI										
					Sample			=	237			19 - mg/L	12/30 - Twelve Per Month	CP - COMPOS	
80126	BOD, carbonaceous, 5 day, 5 C	G - Raw Sewage Influent	0	–	Permit Req.				Req Mon MO AVG			19 - mg/L	12/30 - Twelve Per Month	CP - COMPOS	
					Value										
					NODI										
					Sample	=	96					23 - %	01/30 - Monthly	CA - CALCTD	
81011	Solids, suspended percent removal	K - Percent Removal	0	–	Permit Req.	>=	85 MN % RMV					23 - %	01/30 - Monthly	CA - CALCTD	
					Value										
					NODI										
					Sample	=	98					23 - %	01/30 - Monthly	CA - CALCTD	
81383	Carbonaceous oxygen demand, % removal	K - Percent Removal	0	–	Permit Req.	>=	85 MN % RMV					23 - %	01/30 - Monthly	CA - CALCTD	
					Value										
					NODI										
					Sample										
TGA3D	Pass/Fail Static 48Hr Acute D. Pulex	T - See Comments	1	–	Permit Req.				Opt Mon AVERAGE			9A - pass=0/fail=1	01/90 - Quarterly	CP - COMPOS	
					Value				9 - Conditional Monitoring - Not Required This Period						
					NODI										
					Sample										
TGA6C	Pass/Fail Static 48Hr Acute Pimephales	T - See Comments	1	–	Permit Req.				Opt Mon AVERAGE			9A - pass=0/fail=1	01/90 - Quarterly	CP - COMPOS	
					Value				9 - Conditional Monitoring - Not Required This Period						
					NODI										

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

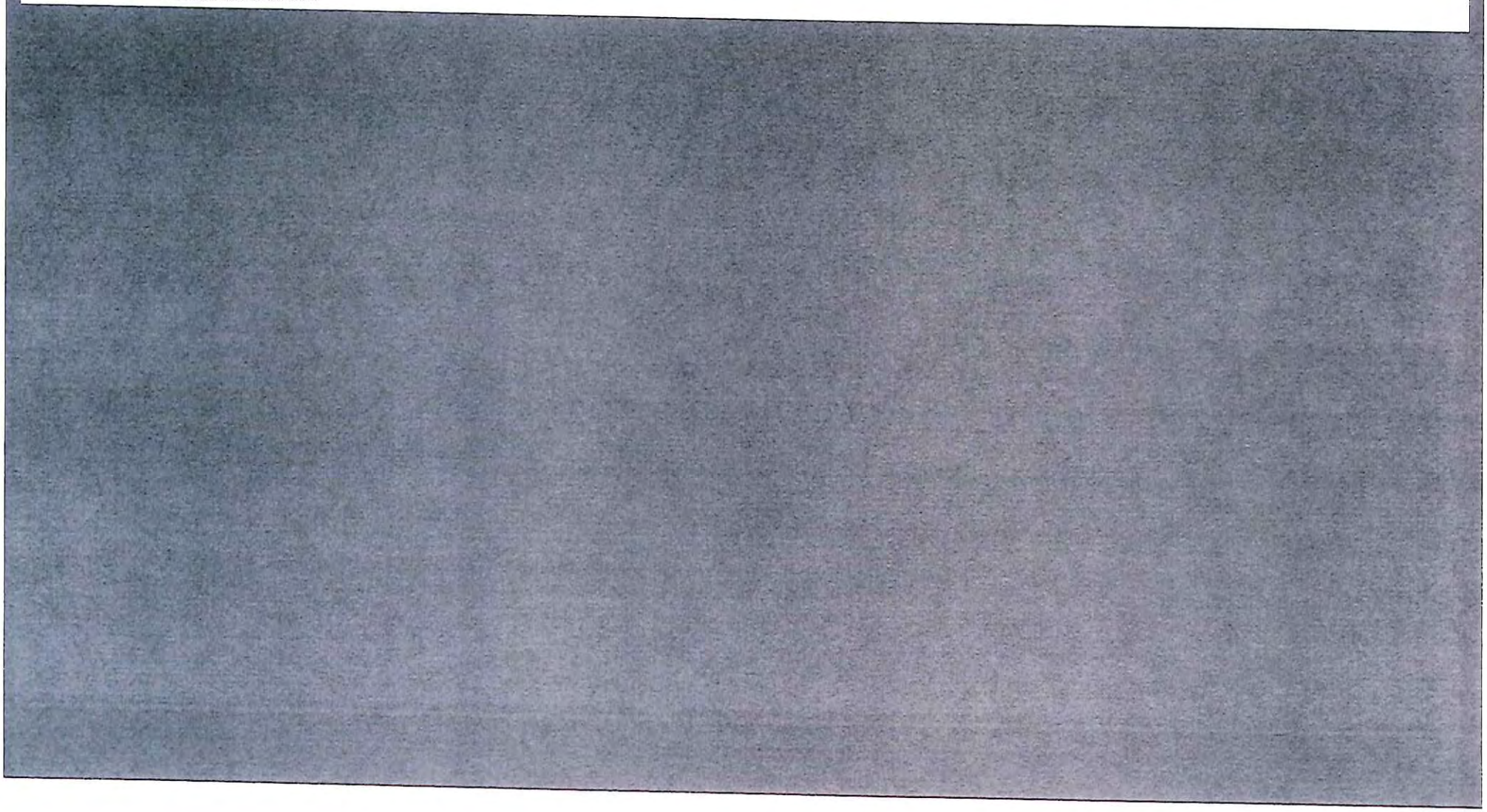
Edit Check Errors

No errors.

Comments

Attachments
No attachments.
Report Last Saved By
NAUGATUCK WPCF
User: John.Batorski@Veoliawaterna.com
Name: John Batorski
E-Mail: John.Batorski@Veoliawaterna.com

Date/Time: 2013-09-10 09:24 (Time Zone: -04:00)



Nutrient Analysis Report

For compliance with General Permit for Nitrogen Discharges

Facility Name: NAUGATUCK TREATMENT Co.
Permit Number: CT0100641

Month: Aug-13
Design Flow: 10.3 MGD

Final Effluent

Plant Name	Sample Date (mm/dd/yyyy)	Average Daily Flow (mgd)	TKN (mg/l)	(Nitrite + Nitrate) (mg/l)	Total Nitrogen (mg/l)	Total Nitrogen (lbs/d)
NAUGATUCK TRE.	8/5/2013	4.2	1.47	4.68	6.2	217
NAUGATUCK TRE.	8/6/2013	4.2	2.22	3.64	5.9	207
NAUGATUCK TRE.	8/7/2013	4.4	3.03	4.1	7.1	261
NAUGATUCK TRE.	8/12/2013	4.6	1.71	4.44	6.2	238
NAUGATUCK TRE.	8/13/2013	4.4	2.06	4.43	6.5	239
NAUGATUCK TRE.	8/14/2013	2.1	1.53	4.65	6.2	109
NAUGATUCK TRE.	8/19/2013	4.5	2.75	6.07	8.8	330
NAUGATUCK TRE.	8/20/2013	4	2.77	5.87	8.6	287
NAUGATUCK TRE.	8/21/2013	4.3	2.49	4.99	7.5	269
NAUGATUCK TRE.	8/26/2013	4.5	2.79	4.96	7.8	293
NAUGATUCK TRE.	8/27/2013	4.8	2.73	3.4	6.1	244
NAUGATUCK TRE.	8/28/2013	4.4	2.69	4.12	6.8	250
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					0	0
					Total Pounds	2944
					Average Pounds	245.3333333

Date of Last Calibration of Flow Meter: 7/15/2013

Statement of Acknowledgement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Authorized Official: ______________

Title: ______________

Sent electronically 9-9-13
J Bart

VEOLIA
WATER

Sent Certified R.R.R. mail #7009 2820 0004 1018 0408 on August 29, 2013

Connecticut Department of Energy and Environmental Protection
Bureau of Water Management
Chronic ATMR
79 Elm Street
Hartford, CT 06106-5127

August 29, 2013

Re: 2013 Chronic Aquatic Toxicity Monitoring Report

Dear Sir:

Enclosed please find the Naugatuck Chronic Aquatic Toxicity Monitoring Report for 2013.

Please contact me if you have any questions regarding the enclosed report.

Sincerely,
Veolia Water North America – Northeast, LLC

John Batorski
Plant Manager

cc: James R. Stewart PE, LS, Director of Public Works, Borough of Naugatuck
(enclosure)

Veolia Water NA -Naugatuck
500 Cherry Street, Naugatuck, CT 06770
Tel 203-723-1433 / 203-723-8539
www.veoliawaterna.com

STATE OF CONNECTICUTDEPARTMENT OF ENVIRONMENTAL PROTECTION**
CHRONIC ATMR PART 1 – PART 1

FACILITY NAME: Borough of Naugatuck WPCF **PIPE:** CT0100641

RECEIVING WATER: Naugatuck River **WATERBODY ID:** 6900

SAMPLE INFORMATION		Site Water	DSN-001 Effluent	Rain?
Sample #1	Collection Dates	7/29/13	7/28/13-7/29/13	
	Collection Times	0700	0140-0120	
	Flow (gpd)			
Sample #2	Collection Dates	7/31/13	7/30/13-7/31/13	
	Collection Times	0700	0154-0149	
	Flow (gpd)			
Sample #3	Collection Dates	8/2/13	8/1/13-8/2/13	
	Collection Times	0700	0100-0139	
	Flow (gpd)			

CHRONIC TOXICITY SUMMARY: Single Concentration

Invertebrate: Ceriodaphnia dubia	Lab Water	Site Water	100% Effluent DSN-001
48-hour % Survival	100%	100%	100%
7-day % Survival	100%	90%	100%
Mean # young/female	36.4	33.6	32.5
# females with 3 broods	10	9	9
% Fecundity	NA	NA	NA
Growth (weight; mg/mysid)	NA	NA	NA
Acceptability Criteria met?	Yes	Yes	NA
Vertebrate: Pimephales promelas	**Lab Water**	**Site Water**	**100% Effluent DSN-001**
48-hour % Survival	100%	97.5%	100%
7-day % Survival	100%	72.5%	100%
Growth (weight; mg/fish)	0.683	0.467	0.614
Acceptability Criteria met?	Yes	No	NA

STATEMENT OF ACKNOWLEDGEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Official: John Batorski Title: Plant Manager

Signature: John Batorski Date: 8-28-13

STATE OF CONNECTICUT**DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHRONIC ATMR PART 1 – PART 1

FACILITY NAME: Borough of Naugatuck WPCF PIPE: CT0100641
RECEIVING WATER: Naugatuck River WATERBODY ID: 6900

CHRONIC TOXICITY SUMMARY: Definitive Multi-Concentration Tests			
Invertebrate: Ceriodaphnia dubia	Lab Water Not Applicable	Site Water Not Applicable	Effluent - DSN-001 (%)
48-hour LC50			>100% effluent
7-day LC50			>100% effluent
7-day EC50 (reproduction)			Not Applicable
7-day EC50 (growth)			Not Applicable
IC25 (reproduction)			>100% effluent
IC50 (reproduction)			>100% effluent
C-LOEC-Survival			>100% effluent
C-NOEC-Survival			100% effluent
C-LOEC-Reproduction (Fecundity)			>100% effluent
C-NOEC-Reproduction (Fecundity)			100% effluent
C-LOEC-Growth			Not Applicable
C-NOEC-Growth			Not Applicable

Vertebrate: Pimephales promelas	Lab Water Not Applicable	Site Water Not Applicable	Effluent - DSN-001 (%)
48-hour LC50			>100% effluent
7-day LC50			Not Estimated
7-day EC50 (growth)			Not Applicable
IC25 (growth)			Not Estimated
IC50 (growth)			Not Estimated
C-LOEC-Survival			Not Estimated
C-NOEC-Survival			Not Estimated
C-LOEC-Growth			Not Estimated
C-NOEC-Growth			Not Estimated

STATE OF CONNECTICUT**DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHRONIC ATMR PART 1 – PART 1

FACILITY NAME: Borough of Naugatuck WPCF PIPE: CT0100641

RECEIVING WATER: Naugatuck River WATERBODY ID: 6900

TOXICITY LAB MEASUREMENTS						
Sample Dates	Eff#1: 7/28-29/13	Riv#1: 7/29/13	Eff#2: 7/30-31/13	Riv#2: 7/31/13	Eff#3: 8/1-2/13	Riv#3: 8/2/13
NEB ID Nos.	C33-3230	C33-3231	C33-3245	C33-3246	C33-3290	C33-3291
Arrival Temperature (°C)	5.6	5.8	4.6	4.8	15.5	16.4,15.8
Dissolved oxygen (mg/L)	8.4	8.7	8.6	8.8	8.6	8.4
PH (SU)	6.6	6.8	7.5	7.5	7.2	7.2
Alkalinity (mg/L as $CaCO_3$)	30	30	30	35	45	20
Hardness (mg/L as $CaCO_3$)	102	50	102	56	104	30
Salinity (ppt)	<1	<1	<1	<1	<1	<1
Specific Conductivity (µmhos/cm)	759	282	768	336	821	172
TRC (mg/L)	0.007	0.016	0.016	0.017	0.014	0.017

New England Bioassay, a Division of GZA GeoEnvironmental, Inc.
www.nebio.com

New England Bioassay
a Division of GZA GeoEnvironmental, Inc

77 Batson Drive
Manchester, CT
06042
860-643-9560
FAX 860-646-7169

CHRONIC AQUATIC TOXICITY TEST REPORT

Borough of Naugatuck WPCF
DSN 001
NPDES Permit: CT0100641
Receiving Water: Naugatuck River

Test Start Date: 7/30/13

Test Period: July 2013

Report Prepared by:

New England Bioassay
A Division of GZA GeoEnvironmental. Inc.
77 Batson Dr.
Manchester, CT 06042

NEB Project Number: 05.0044745.00

Report Date: August 22, 2013

Report Submitted to:

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06040

Sample ID: BF12760/BF12761

Please contact the Lab Manager, Kim Wills, at (860) 858-3153 or Kimberly.wills@gza.com if you have any questions concerning these results.

Whole Effluent Toxicity Testing Report Instruction Form

Client Name/Project: Naugatuck WPCF Test Date: 7/30/13

Sample ID: BF12760/BF12761

Your results were as follows:

☒ Pass

□ Fail – Please proceed according to the instructions in your permit.

□ Invalid **Retesting is still required. Retest report will be sent at a later date under separate cover.**

□ Original Test Invalid – **Valid retest performed. Both test and retest results are attached.**

□ Retesting will be or has been performed according to the Case 1 Protocols outlined in the attached copy of EPA-New England's species-specific, self-implementing policy for alternate dilution water.

□ This is your _____ case of dilution water toxicity. Please proceed according to the Case 2 Protocols outlined in the attached copy of EPA-New England's species-specific, self-implementing policy for alternate dilution water. The alternate dilution water you select for future tests for this species should be described as follows: "synthetic laboratory water made up according to EPA's toxicity test protocols, by adding specified amounts of salts into deionized water in order to match the hardness of our receiving water." Writing this letter should help you to avoid retests in the future.

□ Available information is insufficient to determine whether this test passed or failed. Please compare results to your permit limits. Please submit a current copy of your permit to the NEB Lab so that we can determine the status of future tests results and help ensure your compliance with permit requirements.

Please complete the items on this list before reporting these results according to the instructions in the "Monitoring and Reporting" Section of your permit.

- Please complete, sign and date the upper portion of the "Whole Effluent Toxicity Test Report Certification" page which is the page directly following this page.
- Fill in the Sample Type and Sample Method (upper right) and the Permit Limits (lower left) on the New England Bioassay-EPA Toxicity Test Summary Sheet(s) if they are incomplete.
- Fill in any missing information on the NEB Chain-of-Custody documents. This includes ensuring that the following information is recorded: Sampler's name and title, Facility name and address, Sample collection methods, Sample collection start and end dates and times, Types of sample, Chlorination status of samples upon shipment to NEB, Site description and Sample collection procedures.
- Monitoring results should be summarized on your monthly Discharge Monitoring Report Form.
- Signed and dated originals of this report must be submitted to the State (and Federal) Agencies specified in the "Monitoring and Reporting" section of your permit.

Questions? Please contact the Lab Manager, Kim Wills, at (860) 858-3153 or Kimberly.wills@gza.com

Whole Effluent Toxicity Test Report Certification

I certify under penalty of law that this document and all Attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on 8-28-13
[Date]

John Bartoski
[Authorized Signature]

John Bartoski
[Print or Type Name and Title]

[Print or Type the Permittee's Name]

CT0100641
[Print or Type the NPDES Permit No.]

Since the WET test and report check is complicated, New England Bioassay has certified the validity of the WET test data in the section below. Please note that this does not relieve the permittee from its responsibility to sign and certify the report under 40 C.F.R. S 122.41(k).

Whole Effluent Toxicity Test Report Certification

I certify under penalty of law that this document and all Attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on 8/22/13
[Date]

[Authorized Signature]

Kim Wills, Laboratory Manager
[Print or Type Name and Title]

New England Bioassay
[Print or Type Name of Bioassay Laboratory]

24. Telephone Contacts
If you have questions, please contact Joy Hilton, Water Technical Unit, at (617) 918-1877 or David McDonald, Ecosystem Assessment Unit, at (617) 918-8609.

New England Bioassay - EPA Toxicity Test Summary Sheet

Facility Name: Naugatuck WPCF
NPDES Permit Number: CT0100641
Test Start Date: 7/30/13
Pipe Number:

Test Type	Test Species	Sample Type	Sample Method
_ Acute	_ Fathead Minnow	_ Prechlorinated	_ Grab
_ Chronic	X Ceriodaphnia	X Dechlorinated	X Composite
X Modified (chronic reporting acute values)	_ Daphnia Pulex	_ Chlorine Spiked in Lab	_ Flowthru
_ 24hr screening	_ Mysid Shrimp	_ Chlorinated on site	_ Other
	_ Sheepshead	_ Unchlorinated	
	_ Menidia		
	_ Sea Urchin		
	_ Champia		
	_ Selenastrum		
	_ Other		

Dilution Water

_ receiving water collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination; (Receiving water name: Naugatuck River)
_ alternate surface water of known quality and a hardness, etc. to generally reflect the characteristics of the receiving water; (Surface water name:)
_ synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;
_ or artificial sea salts mixed with deionized water;
_ deionized water and hypersaline brine; or
_ other

Effluent sampling date (s): 7/28-29/13 7/30-31/13 8/1-2/13

Effluent concentrations tested (in%): 0 6.25 12.5 25 50 100
* Permit limit concentration: Monitoring only

Was effluent salinity adjusted? No
If yes, to what value? N/A ppt
With sea salts? N/A Hypersaline brine solution? N/A

Actual effluent concentrations tested after salinity adjustment (%): 0 6.25 12.5 25 50 100

Reference Toxicant test date: 7/2/13

Test Acceptability Criteria

Mean Control Survival: 100%
Mean Diluent Survival: 90%
Mean Control Weight: N/A
Mean Diluent Weight: N/A

Mean Control Reproduction: 36.4 young/female
Mean Diluent Reproduction: 33.6 young/female
Mean Control Cell Count: N/A
Mean Diluent Cell Count: N/A

	Limits	Results
LC50	Monitoring only	>100%
Upper Value		± ∞
Lower Value		100%
Data Analysis Method Used		Graphical
A-NOEC	N/A	100%
C-NOEC	Monitoring only	100%
LOEC		>100%
IC25	N/A	>100%
IC50	N/A	>100%

New England Bioassay - EPA Toxicity Test Summary Sheet

Facility Name: Naugatuck WPCF
NPDES Permit Number: CT0100641
Test Start Date: 7/30/13
Pipe Number: _____

Test Type	Test Species	Sample Type	Sample Method
_ Acute	X Fathead Minnow	_ Prechlorinated	_ Grab
_ Chronic	_ Ceriodaphnia	X Dechlorinated	X Composite
X Modified (chronic reporting acute values)	_ Daphnia Pulex	_ Chlorine Spiked in Lab	_ Flowthru
_ 24hr screening	_ Mysid Shrimp	_ Chlorinated on site	_ Other
	_ Sheepshead	_ Unchlorinated	
	_ Menidia		
	_ Sea Urchin		
	_ Champia		
	_ Selenastrum		
	_ Other_____		

Dilution Water

_ receiving water collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination; (Receiving water name: Naugatuck River)
_ alternate surface water of known quality and a hardness, etc. to generally reflect the characteristics of the receiving water; (Surface water name:_____)
_ synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;
_ or artificial sea salts mixed with deionized water;
_ deionized water and hypersaline brine; or
_ other_____

Effluent sampling date (s): 7/28-29/13 7/30-31/13 8/1-2/13

Effluent concentrations tested (in%): 0 6.25 12.5 25 50 100
* Permit limit concentration: Monitoring only

Was effluent salinity adjusted? No
If yes, to what value? N/A ppt
With sea salts? N/A Hypersaline brine solution? N/A

Actual effluent concentrations tested after salinity adjustment (%): 0 6.25 12.5 25 50 100

Reference Toxicant test date: 7/2/13

Test Acceptability Criteria

Mean Control Survival: 100%
Mean Diluent Survival: 72.5%
Mean Control Weight: 0.683 mg
Mean Diluent Weight: 0.467mg
Mean Control Reproduction: N/A
Mean Diluent Reproduction: N/A
Mean Control Cell Count: N/A
Mean Diluent Cell Count: N/A

	Limits	Results
LC50	Monitoring only	>100%
Upper Value		± ∞
Lower Value		100%
Data Analysis Method Used		Graphical
A-NOEC	N/A	100%
C-NOEC	Monitoring only	Not Estimated
LOEC		Not Estimated
IC25	N/A	Not Estimated
IC50	N/A	Not Estimated

CERIODAPHNIA DUBIA AQUATIC TOXICITY TEST REPORT

Test Reference Manual:	EPA 821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition
Test Method:	*Ceriodaphnia dubia* Survival and Reproduction Test – 1002.0
Test Type:	Modified Chronic Static Renewal Freshwater Test
Temperature:	25 ± 1°C
Light Quality:	Ambient Laboratory Illumination
Photoperiod:	16 hours light, 8 hours dark
Test Chamber Size:	30 mL
Test Solution Volume:	Minimum 15 mL
Renewal of Test Solutions:	Daily, using most recently collected sample
Age of Test Organisms:	Less than 24 hours
Number of Neonates Per Test Chamber:	1
Number of Replicate Test Chambers Per Treatment:	10
Number of Neonates Per Test Concentration:	10
Feeding Regime:	Fed 0.1 mL each of YCT and algal suspension per exposure chamber daily.
Aeration:	None
Dilution Water:	Naugatuck River
Alternate Control Water:	NEB Lab Synthetic Soft Water (hardness 50 ± 5 mg/L)
Effluent Concentrations:	0%, 6.25%, 12.5%, 25%, 50% and 100% effluent
Test Duration:	Until 60% of control females have three broods - 6 days
End Points:	Survival and reproduction.
Test Acceptability:	Control Survival: ≥ 80% Yes X No _ Control Reproduction: Average ≥ 15/control female Yes X No _
Sampling Requirements:	A minimum of 3 samples are collected Yes X No _ Samples first used within 36 hours of collection Yes X No _
Sample Volume Required:	Minimum 2 liters/day

Test Organism Source: NEB

Test Acceptability Criteria: Mean Alternate Water Control Survival = 100%
Mean Dilution Water Control Survival = 90%
Mean Alternate Control Reproduction = 36.4 / female
Mean Dilution Control Reproduction = 33.6 / female

Test Results:

	Limits	Results	Status
48-hour LC50	Monitor only	>100%	Monitor only
Upper Value		± ∞	
Lower Value		100%	
Data Analysis Method Used		Graphical	
A-NOEC		100%	
Survival C-NOEC		100%	
Reproduction C-NOEC		100%	
Reportable C-NOEC	Monitor only	100%	Monitor only
LOEC		>100%	
MATC		>100%	

Reference Toxicant Data:

Date: 7/2/13
Toxicant: Sodium chloride
Dilution Water: NEB Lab Synthetic Soft Water
Source: New England Bioassay
IC_{25}: 1.061 g.L
In Acceptable Range: Yes X No ____

Dechlorination Procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method.

XDechlorination is not allowed under this permit

_ Sample was dechlorinated by adding sodium thiosulfate to the sample prior to test initiation. Since dechlorination of the effluent was necessary, a thiosulfate control of diluent water spiked with sodium thiosulfate was also included in the test series. Chlorine was _____ mg/L in a dechlorinated sample.

_ Chlorine Measurement was elevated due to interference. Chlorine was _____ mg/L in a filtered sample.

_ Total Residual Chlorine was re-measured following aeration, and was found to be _____ mg/L.

Additional Notes or Other Conditions Affecting the Test:

PIMEPHALES PROMELAS AQUATIC TOXICITY TEST REPORT

Test Reference Manual:	EPA 821-R-02-013, "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms", Fourth Edition		
Test Method:	*Pimephales promelas* Larval Survival and Growth Test – 1000.0		
Test Type:	Modified Chronic Static Renewal Freshwater Test		
Temperature:	25 ± 1°C		
Light Quality:	Ambient Laboratory Illumination		
Photoperiod:	16 hours light, 8 hours dark		
Test Chamber Size:	600 mL		
Test Solution Volume:	Minimum 250 mL		
Renewal of Test Solutions:	Daily, using most recently collected sample		
Age of Test Organisms:	Less than 24 hours		
Number of Larvae Per Test Chamber:	10		
Number of Replicate Test Chambers Per Concentration:	4		
Number of Larvae Per Test Concentration:	40		
Feeding Regime:	Fed 0.15 g newly hatched brine shrimp nauplii twice daily.		
Cleaning:	Siphoned daily, immediately before test solution renewal.		
Aeration:	DO concentration fell below 4.0 mg/L Aerated at <100 bubbles/minute	Yes_ No X Yes_ No X	
Dilution Water:	Naugatuck River		
Alternate Control Water:	NEB Lab Synthetic Soft Water (hardness 50 ± 5 mg/L)		
Effluent Concentrations:	0%, 6.25%, 12.5%, 25%, 50% and 100% effluent		
Test Duration:	7 days		
End Points:	Survival and growth.		
Test Acceptability:	Control Survival: ≥ 80% Control Average Dry Weight ≥ 0.25 mg	Yes_ No X Yes X No_	
Sampling Requirements:	A minimum of 3 samples are collected Samples first used within 36 hours of collection.	Yes X No_ Yes X No_	

Sample Volume Required: Minimum 2.5 liters/day

Test Organism Source: NEB

Test Acceptability Criteria:
Mean Alternate Water Control Survival = 100%
Mean Dilution Water Control Survival = 72.5%
Mean Alternate Water Control Weight = 0.683 mg
Mean Dilution Water Control Weight = 0.467 mg

Test Results:

	Limits	Results	Status
48-hour LC50	Monitor only	>100%	Monitor only
Upper Value		± ∞	
Lower Value		100%	
Data Analysis Method Used		Graphical	
A-NOEC		100%	
Survival C-NOEC		NE*	
Growth C-NOEC		NE*	
Reportable C-NOEC	Monitor only	NE*	Monitor only
LOEC		NE*	
MATC		NE*	

Reference Toxicant Data:

Date: 7/2/13
Toxicant: Sodium chloride
Dilution Water: NEB Lab Synthetic Soft Water
Source: New England Bioassay
IC_{25}: 1.194 g/L
In Acceptable Range: Yes X No ____

Dechlorination Procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method.

X Dechlorination is not allowed under this permit

_ Sample was dechlorinated by adding sodium thiosulfate to the sample prior to test initiation. Since dechlorination of the effluent was necessary, a thiosulfate control of diluent water spiked with sodium thiosulfate was also included in the test series. Chlorine was _____ mg/L in a dechlorinated sample.

_ Chlorine Measurement was elevated due to interference. Chlorine was _____ mg/L in a filtered sample.

_ Total Residual Chlorine was re-measured following aeration, and was found to be _____ mg/L.

Additional Notes:*
Survival of fathead minnows in the Naugatuck River dilution water control was 72.5% at test completion which was below the minimum EPA acceptability criterion of ≥80%. Because the dilution water failed to meet the acceptability criterion, it was not possible to estimate C-NOEC and C-LOEC values for fathead minnow survival and growth. However, it should be noted that fathead minnow survival was ≥95% in the 12.5% to 100% effluent concentrations. Survival was 77.5% in the 6.25% effluent concentration which follows the pattern of dilution water toxicity since this concentration consisted predominantly of Naugatuck River water.

NEW ENGLAND BIOASSAY TOXICITY DATA FORM
CHRONIC COVER SHEET

CLIENT: **Phoenix Environmental Laboratories**
Naugatuck WPCF
ADDRESS: 587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06040
CONTACT: Ms. Bobbi Aloisa
SAMPLE TYPE: MunicipalEffluent
DILUTION WATER: Naugatuck River

C. dubia TEST ID NO: 13-1555a
P. promelas TEST ID NO: 13-1555b
COC NO: C33-3030/3031
PROJECT NO: 05.0041745.00

INVERTEBRATES
TEST SET UP (TECH INIT.): PD
TEST SPECIES: *Ceriodaphnia dubia* AGE: < 24 Hours
ORGANISM LOT #: Cd13 (7-30 MH)
TEST SOLUTION VOLUME: 15 mL
NO. ORGANISMS PER TEST CHAMBER: 1
NO. ORGANISMS PER CONCENTRATION: 10

Laboratory Control Water (SRCF)

Batch Number	Hardness mg/l $CaCO_3$	Alkalinity mg/l $CaCO_3$
C33-5016	46	35

START DATE: 7/30/13 AT 1130 hours
END DATE: 8/5/13 AT 0850 hours

VERTEBRATES
TEST SET UP (TECH INIT.): KS
TEST SPECIES: *Pimephales promelas* AGE: < 24 Hours
ORGANISM LOT #: Pp13 (7-30)
TEST SOLUTION VOLUME: 400 mL
NO. ORGANISMS PER TEST CHAMBER: 10
NO. ORGANISMS PER CONCENTRATION: 40

Laboratory Control Water (SRCF)

Batch Number	Hardness mg/l $CaCO_3$	Alkalinity mg/l $CaCO_3$
C33-5016	46	35

START DATE: 7/30/13 AT 1115 hours
END DATE: 8/6/13 AT 1030 hours

Results of *Ceriodaphnia dubia* Chronic Test

		95% Conf. Limit
48 Hour LC_{50}:	>100%	100% ± ∞
7 Day LC_{50}:	>100%	100% ± ∞
NOEC:	100% (Survival + Reproduction)	
LOEC:	>100% (Survival + Reproduction)	

NOEC: NO-OBSERVED-EFFECT-CONCENTRATION

Results of *Pimephales promelas* Chronic Test

		95% Conf. Limit
48 Hour LC_{50}:	>100%	100% ± ∞
7 Day LC_{50}:	Not Estimated	
NOEC:	Not Estimated	
LOEC:	Not Estimated	

LOEC: LOWEST-OBSERVED-EFFECT-CONCENTRATION

Comments:

REVIEWED BY: [signature] DATE: 8/20/13

NEW ENGLAND BIOASSAY- CHRONIC TOXICITY TEST BROOD DATA SHEET

FACILITY NAME & ADDRESS: Naugatuck WPCF		
NEB PROJECT NUMBER:	NEB TEST NUMBER: 13-1559	COC #: C33-3230/31
TEST ORGANISM: *Ceriodaphnia dubia*	AGE: <24 hours	LOT #: Cd13 (165 mH)
START DATE: 7/30/13 TIME: 1130	END DATE: 8/5/13	TIME: 0950

Effluent concentration	Day Number	Source 1: / Source 2: — Replicate A	B	C	D	E	F	G	H	I	J	Total Live Young	Number Live Adults	Analyst - Transfer	Analyst - Counts
NEB Lab Synthetic Control	0	√	√	√	√	√	√	√	√	√	√		10	PD	
	1	√	√	√	√	√	√	√	√	√	√		10	MG	
	2	√	√	√	√	√	√	√	√	√	√		10	MV	
	3	4	6	2	4	5	5	5	6	5	6	98	10	MV	MV
	4	11	12	10	12	12	12	12	15	12	12	120	10	CW	CW
	5	√	√	√	√	√	√	√	√	√	√	0	10	PD	PD
	6	16 ·	21 ·	22 ·	18 ·	19 ·	20 ·	21 ·	22 ·	19 ·	18 ·	196	10	MV	MV
	7														
	Totals	31	39	34	34	36	37	38	43	36	36	304	10		MG
Naugatuck River Diluent	0	√	√	√	√	√	√	√	√	√	√		10		
	1	√	√	√	√	√	√	√	√	√	√		10		
	2	√	√	√	√	√	√	√	√	√	√		10		
	3	7	6	5	5	√	5	4	4	5	4	45	10		
	4	12	12	14	12	√	12	10	15	√	14	101	10		
	5	√	√	√	√	√	√	√	√	14	√	14	10		
	6	19 ·	16 ·	20 ·	21 ·	√/X	16 ·	18 ·	21 ·	22 ·	23 ·	176	9		
	7					√									
	Totals	36	34	39	38	X10	35	32	40	41	41	336	9		
6.25%	0	√	√	√	√	√	√	√	√	√	√		10		
	1	√	√	√	√	√	√	√	√	√	√		10		
	2	√	√	√	√	√	√	√	√	√	√		10		
	3	4	5	5	5	4	6	5	3	5	5	47	10		
	4	10	12	12	11	14	12	13	10	12	12	118	10		
	5	√	√	√	√	10	√	√	√	√	√	10	10		
	6	20	15	21	21	√	23	22	16	20	18	176	10		
	7														
	Totals	34	32	38	37	34	41	40	29	37	35	357	10		

Notes:

NEW ENGLAND BIOASSAY- CHRONIC TOXICITY TEST BROOD DATA SHEET

FACILITY NAME & ADDRESS: Naugatuck WPCF

NEB PROJECT NUMBER: 05.0044745.00 | ORGANISM: *Ceriodaphnia dubia* | START DATE: 7/30/13

Effluent concentration	Day Number	Replicate A	B	C	D	E	F	G	H	I	J	Total Live Young	Number Live Adults	Analyst - Transfer	Analyst - Counts
12.5%	0	√	√	√	√	√	√	√	√	√	√		10		
	1	√	√	√	√	√	√	√	√	√	√		10		
	2	√	√	√	√	√	√	√	√	√	√		10		
	3	√	5	5	4	3	5	4	4	6	5	41	10		
	4	9	12	10	10	10	13	12	14	13	12	115	10		
	5	19	√	√	√	20	19	16	17	√	18	109	10		
	6	√	18	19	22	√	√	√	√	18	√	77	10		
	7														
	Totals	28	35	34	36	33	37	32	35	37	35	352	10		
25%	0	√	√	√	√	√	√	√	√	√	√		10		
	1	√	√	√	√	√	√	√	√	√	√		10		
	2	√	√	√	√	√	√	√	√	√	√		10		
	3	4	3	5	5	4	3	5	3	6	5	43	10		
	4	17	10	12	8	12	12	12	12	14	8	112	10		
	5	√	16	√	√	22	18	√	√	√	20	76	10		
	6	19	√	23	20	√	√	22	19	24	√	127	10		
	7														
	Totals	25	29	40	33	38	33	39	34	44	33	358	10		
50%	0	√	√	√	√	√	√	√	√	√	√		10		
	1	√	√	√	√	√	√	√	√	√	√		10		
	2	√	√	√	√	√	√	√	√	√	√		10		
	3	4	3	4	4	6	5	5	4	√	3	38	10		
	4	12	14	12	12	12	8	12	12	10	12	116	10		
	5	√	√	√	√	16	14	19	16	15	16	96	10		
	6	21	19	23	18	√	√	√	√	√	√	81	10		
	7														
	Totals	37	36	39	34	34	27	36	32	25	31	331	10		
100%	0	√	√	√	√	√	√	√	√	√	√		10		
	1	√	√	√	√	√	√	√	√	√	√		10		
	2	√	√	√	√	√	√	√	√	√	√		10		
	3	4	3	4	3	6	4	5	4	√	5	38	10		
	4	10	10	14	10	10	12	10	14	√	12	98	10		
	5	√	√	√	√	13	√	√	√	10	√	83	10		
	6	16	24	19	18	√	22	21	16	12	18	166	10		
	7														
	Totals	30	37	37	31	25	38	36	34	22	35	305	10		

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 100.0,SO SK IS NOT CALCULABLE.

SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(%)
6.25	10.	0.	.00	.9766D-01
12.50	10.	0.	.00	.9766D-01
25.00	10.	0.	.00	.9766D-01
50.00	10.	0.	.00	.9766D-01
100.00	10.	0.	.00	.9766D-01

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.9023 PERCENT. THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISCALLY SOUND RESULTS.

DATE: 7-30-13
SAMPLE: Naugatuck WPCF

TEST NUMBER: 13-1555a DURATION: 48 h
SPECIES: Ceriodaphnia dubia

METHOD	LC50	CONFIDENCE LIMITS LOWER	UPPER	SPAN
BINOMIAL	*******	100.000	*******	*******
MAA	*******	*******	*******	*******
PROBIT	*******	*******	*******	*******
SPEARMAN	.000	*******	*******	*******

**** = LIMIT DOES NOT EXIST

MINIMUM REQUIRED TRIM IS TOO LARGE: 100.0,SO SK IS NOT CALCULABLE.

SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS
ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(%)
6.25	10.	0.	.00	.9766D-01
12.50	10.	0.	.00	.9766D-01
25.00	10.	0.	.00	.9766D-01
50.00	10.	0.	.00	.9766D-01
100.00	10.	0.	.00	.9766D-01

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 99.9023 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISCALLY SOUND RESULTS.

DATE: 7-30-13 TEST NUMBER: 13-1555a DURATION: 144 h
SAMPLE: Naugatuck WPCF SPECIES: Ceriodaphnia dubia

METHOD	LC50	CONFIDENCE LIMITS		
		LOWER	UPPER	SPAN
BINOMIAL	*******	100.000	*******	*******
MAA	*******	*******	*******	*******
PROBIT	*******	*******	*******	*******
SPEARMAN	.000	*******	*******	*******

**** = LIMIT DOES NOT EXIST

CETIS Analytical Report

Report Date: 16 Aug-13 16:26 (p 1 of 2)
Test Code: 13-1555a | 18-3787-0917

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID:	18-9898-6871	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	16 Aug-13 16:26	Analysis:	STP 2x2 Contingency Tables	Official Results:	Yes
Batch ID:	07-6366-7388	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	30 Jul-13 11:30	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	
Ending Date:	05 Aug-13 09:50	Species:	Ceriodaphnia dubia	Brine:	
Duration:	5d 22h	Source:	In-House Culture	Age:	<24h
Sample ID:	13-3822-4967	Code:	4FA52CC7	Client:	Phoenix Environmental Labs
Sample Date:	29 Jul-13	Material:	WWTF Effluent	Project:	
Receive Date:	30 Jul-13	Source:	Naugatuck WPCF		
Sample Age:	35h	Station:			

Data Transform	Zeta	Alt Hyp	Trials	Seed	NOEL	LOEL	TOEL	TU
Untransformed		C > T	NA	NA	100	>100	NA	1

Fisher Exact/Bonferroni-Holm Test

Control	vs	C-%	Test Stat	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	1	1.0000	Exact	Non-Significant Effect
		12.5	1	1.0000	Exact	Non-Significant Effect
		25	1	1.0000	Exact	Non-Significant Effect
		50	1	1.0000	Exact	Non-Significant Effect
		100	1	1.0000	Exact	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.9	0.8 - NL	Yes	Passes Acceptability Criteria

Data Summary

C-%	Control Type	NR	R	NR + R	Prop NR	Prop R	%Effect
0	Dilution Water	9	1	10	0.9	0.1	0.0%
6.25		10	0	10	1	0	-11.11%
12.5		10	0	10	1	0	-11.11%
25		10	0	10	1	0	-11.11%
50		10	0	10	1	0	-11.11%
100		10	0	10	1	0	-11.11%

7d Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1	1	1	1	0	1	1	1	1	1
6.25		1	1	1	1	1	1	1	1	1	1
12.5		1	1	1	1	1	1	1	1	1	1
25		1	1	1	1	1	1	1	1	1	1
50		1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

7d Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	1/1	1/1	1/1	1/1	0/1	1/1	1/1	1/1	1/1	1/1
6.25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
12.5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
25		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
50		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

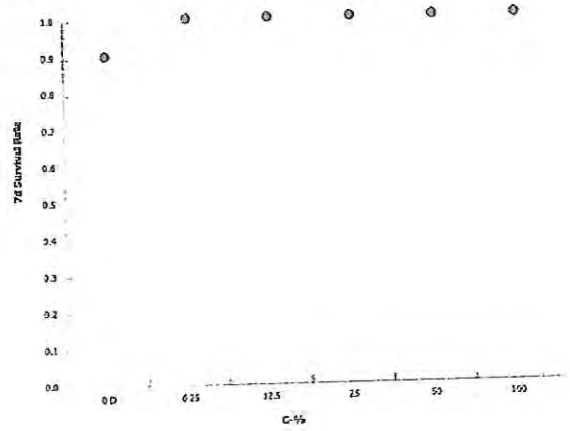
CETIS Analytical Report

Report Date: 16 Aug-13 16:26 (p 2 of 2)
Test Code: 13-1555a | 18-3787-0917

Ceriodaphnia 7-d Survival and Reproduction Test — New England Bioassay

Analysis ID:	18-9898-6871	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	16 Aug-13 16:26	Analysis:	STP 2x2 Contingency Tables	Official Results:	Yes

Graphics



CETIS Analytical Report

Report Date: 16 Aug-13 16:26 (p 1 of 2)
Test Code: 13-1555a | 18-3787-0917

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID:	07-5882-4116	Endpoint:	Reproduction	CETIS Version:	CETISv1.8.7
Analyzed:	16 Aug-13 16:26	Analysis:	Nonparametric-Control vs Treatments	Official Results:	Yes
Batch ID:	07-6366-7388	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	30 Jul-13 11:30	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	
Ending Date:	05 Aug-13 09:50	Species:	Ceriodaphnia dubia	Brine:	
Duration:	5d 22h	Source:	In-House Culture	Age:	<24h
Sample ID:	13-3622-4967	Code:	4FA52CC7	Client:	Phoenix Environmental Labs
Sample Date:	29 Jul-13	Material:	WWTF Effluent	Project:	
Receive Date:	30 Jul-13	Source:	Naugatuck WPCF		
Sample Age:	35h	Station:			

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	19.2%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Dilution Water		6.25	98	75	6	18	0.6322	Asymp	Non-Significant Effect
		12.5	87.5	75	3	18	0.2759	Asymp	Non-Significant Effect
		25	100	75	5	18	0.6974	Asymp	Non-Significant Effect
		50	85	75	3	18	0.2076	Asymp	Non-Significant Effect
		100	83.5	75	2	18	0.1720	Asymp	Non-Significant Effect

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	33.6	15 - NL	Yes	Passes Acceptability Criteria
PMSD	0.1924	0.13 - 0.47	Yes	Passes Acceptability Criteria

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	92.55	18.51	5	0.4642	0.8011	Non-Significant Effect
Error	2153.1	39.87222	54			
Total	2245.65		59			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	27.6	15.09	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7639	0.9459	<0.0001	Non-normal Distribution

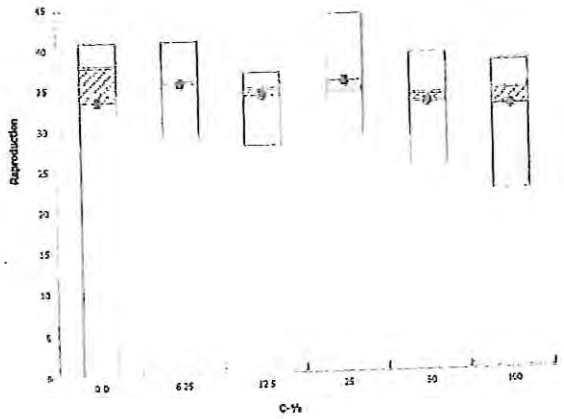
Reproduction Summary

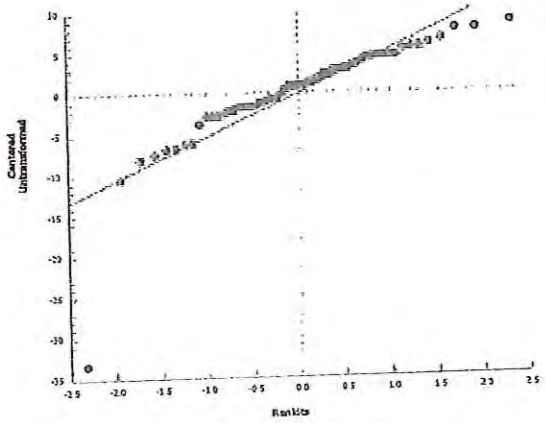
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Dilution Water	10	33.6	24.84	42.36	38	0	41	3.874	36.46%	0.0%
6.25		10	35.7	33.09	38.31	36	29	41	1.155	10.23%	-6.25%
12.5		10	34.2	32.27	36.13	35	28	37	0.8537	7.89%	-1.79%
25		10	35.8	32.66	38.94	34.5	29	44	1.389	12.27%	-6.55%
50		10	33.1	29.93	36.27	34	25	39	1.402	13.39%	1.49%
100		10	32.5	28.61	36.39	34.5	22	38	1.721	16.74%	3.27%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	38	34	39	38	0	33	32	40	41	41
6.25		34	32	38	37	34	41	40	29	37	35
12.5		28	35	34	36	33	37	32	35	37	35
25		35	29	40	33	38	33	39	34	44	33
50		37	36	39	34	34	27	36	32	25	31
100		30	37	37	31	25	38	36	34	22	35

Graphics


Reproduction
0.0
6.25
12.5
25
50
100
C-%


Centered Untransformed
Ranks

CETIS Analytical Report

Report Date: 16 Aug-13 16:26 (p 1 of 2)
Test Code: 13-1555a | 18-3787-0917

Ceriodaphnia 7-d Survival and Reproduction Test

New England Bioassay

Analysis ID:	08-9932-8068	Endpoint:	Reproduction	CETIS Version:	CETISv1.8.7
Analyzed:	16 Aug-13 16:26	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes
Batch ID:	07-6366-7388	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	30 Jul-13 11:30	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	
Ending Date:	05 Aug-13 09:50	Species:	Ceriodaphnia dubia	Brine:	
Duration:	5d 22h	Source:	In-House Culture	Age:	<24h
Sample ID:	13-3622-4967	Code:	4FA52CC7	Client:	Phoenix Environmental Labs
Sample Date:	29 Jul-13	Material:	WWTF Effluent	Project:	
Receive Date:	30 Jul-13	Source:	Naugatuck WPCF		
Sample Age:	35h	Station:			

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	237404	200	Yes	Two-Point Interpolation

Test Acceptability Criteria

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	33.6	15 - NL	Yes	Passes Acceptability Criteria

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	51.35	3.721	N/A	1.947	NA	26.88
IC10	>100	N/A	N/A	<1	NA	NA
IC15	>100	N/A	N/A	<1	NA	NA
IC20	>100	N/A	N/A	<1	NA	NA
IC25	>100	N/A	N/A	<1	NA	NA
IC40	>100	N/A	N/A	<1	NA	NA
IC50	>100	N/A	N/A	<1	NA	NA

Reproduction Summary

			Calculated Variate						
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	10	33.6	0	41	3.874	12.25	36.46%	0.0%
6.25		10	35.7	29	41	1.155	3.653	10.23%	-6.25%
12.5		10	34.2	28	37	0.8537	2.7	7.89%	-1.79%
25		10	35.8	29	44	1.389	4.392	12.27%	-6.55%
50		10	33.1	25	39	1.402	4.433	13.39%	1.49%
100		10	32.5	22	38	1.721	5.442	16.74%	3.27%

Reproduction Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Dilution Water	38	34	39	38	0	33	32	40	41	41
6.25		34	32	38	37	34	41	40	29	37	35
12.5		28	35	34	36	33	37	32	35	37	35
25		35	29	40	33	38	33	39	34	44	33
50		37	36	39	34	34	27	36	32	25	31
100		30	37	37	31	25	38	36	34	22	35

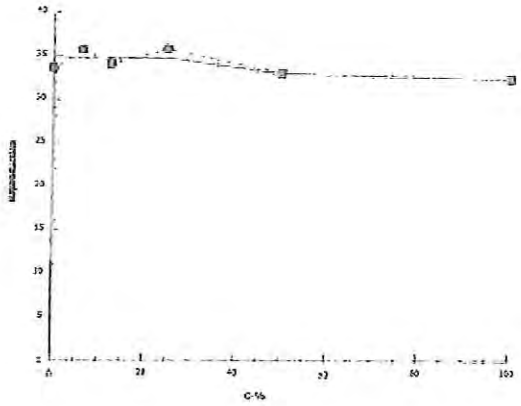
CETIS Analytical Report

Report Date: 16 Aug-13 16:26 (p 2 of 2)
Test Code: 13-1555a | 18-3787-0917

Ceriodaphnia 7-d Survival and Reproduction Test — New England Bioassay

Analysis ID:	08-9932-8068	Endpoint:	Reproduction	CETIS Version:	CETISv1.8.7
Analyzed:	16 Aug-13 16:26	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes

Graphics



NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

FACILITY NAME & ADDRESS: Naugatuck WPCF

NEB PROJECT NUMBER: 05.m44745.00

DILUTION WATER SOURCE: Naugatuck River

TEST ORGANISM: Ceriodaphnia dubia

START DATE: 7/30/13 TIME: 1130

ANALYST	PD	CW	KO	PD	PD	CW		
NEB Lab Synthetic Control	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.8	24.4	24.6	24.4	24.6	24.6		
D.O., mg/L Initial	7.5	7.8	7.8	7.7	7.4	8.4		
pH, s.u. Initial	7.5	7.3	7.3	7.0	7.5	7.5		
Conductivity, µS Initial	179	175	179	175	176	180		
Temp., °C Final	25.1	24.7	24.5	24.9	24.9	24.0		
D.O., mg/L Final	7.3	7.8	7.3	7.5	7.7	8.3		
pH, s.u. Final	7.6	7.6	7.6	7.9	7.8	7.9		
Conductivity, µS Final	235	223	269	221	222	222		
Naugatuck River Diluent	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.1	24.5	24.4	24.0	24.2	25.9		
D.O., mg/L Initial	7.8	8.4	8.4	8.6	7.3	8.0		
pH, s.u. Initial	7.2	7.0	7.1	7.0	7.3	7.2		
Conductivity, µS Initial	290	284	342	333	168	170		
Temp., °C Final	25.1	25.2	25.6	24.9	25.3	24.0		
D.O., mg/L Final	7.4	7.8	7.4	7.6	7.4	8.6		
pH, s.u. Final	7.5	7.5	7.2	7.8	7.7	7.8		
Conductivity, µS Final	330	321	388	383	210	207		
6.25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.2	24.6	24.9	24.0	24.2	25.9		
D.O., mg/L Initial	7.7	8.2	8.2	8.6	7.4	7.9		
pH, s.u. Initial	7.1	7.0	7.1	7.0	7.1	7.3		
Conductivity, µS Initial	322	310	373	354	206	211		
Temp., °C Final	25.3	25.5	26.0	24.9	25.4	24.0		
D.O., mg/L Final	7.3	7.7	7.0	7.5	7.4	8.0		
pH, s.u. Final	7.5	7.5	7.3	7.8	7.6	7.6		
Conductivity, µS Final	352	356	416	401	249	244		
12.5%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.2	24.6	24.5	24.0	24.2	25.9		
D.O., mg/L Initial	7.7	8.3	8.2	8.6	7.3	7.3		
pH, s.u. Initial	7.1	7.0	7.1	7.0	7.0	7.3		
Conductivity, µS Initial	352	347	400	388	248	248		
Temp., °C Final	25.5	25.8	26.0	25.0	25.4	24.0		
D.O., mg/L Final	7.3	7.3	7.1	7.5	7.4	8.1		
pH, s.u. Final	7.5	7.6	7.3	7.7	7.6	7.6		
Conductivity, µS Final	387	385	430	430	294	279		

NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

FACILITY NAME & ADDRESS: Naugatuck WPCF		
NEB PROJECT NUMBER:	TEST ORGANISM: Ceriodaphnia dubia	
DILUTION WATER SOURCE: Naugatuck River	START DATE: 7/30/13	TIME: 1130

25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.1	24.7	24.4	24.0	24.2	25.9		
D.O., mg/L Initial	7.7	8.2	8.2	8.5	7.4	8.1		
pH, s.u. Initial	7.0	7.0	7.0	7.0	7.0	7.3		
Conductivity, µS Initial	419	405	456	443	332	344		
Temp., °C Final	25.6	25.9	26.0	25.1	25.5	24.0		
D.O., mg/L Final	7.0	7.3	7.0	7.5	7.2	8.0		
pH, s.u. Final	7.6	7.5	7.2	7.8	7.6	7.6		
Conductivity, µS Final	445	453	488	490	411	400		
50%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	24.9	24.4	24.0	24.2	25.8		
D.O., mg/L Initial	7.6	8.2	8.1	8.4	7.5	8.3		
pH, s.u. Initial	6.9	6.9	6.9	6.9	6.9	7.2		
Conductivity, µS Initial	542	531	570	553	488	497		
Temp., °C Final	25.6	25.9	26.0	25.2	25.5	24.0		
D.O., mg/L Final	7.4	7.6	7.1	7.5	7.3	8.8		
pH, s.u. Final	7.5	7.4	7.3	7.8	7.6	7.6		
Conductivity, µS Final	559	563	585	595	537	530		
100%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.0	25.3	24.2	24.0	24.2	24.2		
D.O., mg/L Initial	7.3	8.1	7.8	8.5	7.8	9.0		
pH, s.u. Initial	6.8	6.8	6.7	6.8	6.9	7.2		
Conductivity, µS Initial	786	763	788	763	788	814		
Temp., °C Final	25.6	26.0	26.0	25.1	25.5	24.0		
D.O., mg/L Final	7.5	7.6	7.1	7.7	7.5	9.0		
pH, s.u. Final	7.5	7.5	7.3	7.8	7.7	7.6		
Conductivity, µS Final	832	825	851	831	850	868		
	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial								
D.O., mg/L Initial								
pH, s.u. Initial								
Conductivity, µS Initial								
Temp., °C Final								
D.O., mg/L Final								
pH, s.u. Final								
Conductivity, µS Final								

NEB 'S SURVIVAL DATA SHEET FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

& ADDRESS: Naugatuck WPCF		
T NUMBER: 05.084745.00	NEB TEST NUMBER: 13-1555b	COC #: C33-3230/3231
. ORGANISM: *Pimephales promelas*	AGE: < 24 hours	LOT #: P013(7-30)
START DATE: 7/30/13 TIME: 1115	END DATE: 8/6/13	TIME: 1020

Effluent Concentration	Replicate Number	Number of Survivors: Day 0	1	2	3	4	5	6	7	Remarks
	ANALYST	KS	MG	MV	KS	PD	PD	KS	MG	
NEB Lab Synthetic Control	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
Naugatuck River Diluent	A	10	10	9 1X	8 1X	8	8	8	8	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10 4X	2 9X	1 1X	1	1	
6.25%	A	10	10	10	8 2X	5 3X	3 2X	2 1X	2	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	9 1X	9	9	9	
	D	10	10	10	10	10	10	10	10	
12.5%	A	10	9 1X	9	9	9	9	9	9	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	9 1X	9	9	9	9	
25%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
50%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	
100%	A	10	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	10	

☐ DO concentration fell below 4.0 mg/L

☐ All test solutions were aerated at <100 bubbles/minute as of _____

NEW ENGLAND BIOASSAY- WEIGHT DATA FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Facility Name and Address: Naugatuck WPCP	
NEB Project Number: 05.0044745.00	NEB Test Number: 13-1555b
Test Dates: 7/30/13 - 8/6/13	Weighing Date: 8/13/13
Drying Temperature (°C): 100	Drying Time (hours): 6
Analyst Initial Weights (A): KE	Analyst – Final Weights (B): KS

Effluent Concentration	Replicate Number	A Weight of boat (mg)	B Dry weight: foil and larvae (mg)
NEB Lab Synthetic Control	A	950.50	957.40
	B	946.70	953.30
	C	952.08	958.50
	D	949.86	957.25
Naugatuck River Diluent	A	947.11	952.54
	B	946.18	951.81
	C	949.51	956.15
	D	948.42	949.41
6.25%	A	947.28	948.99
	B	950.101	957.08
	C	948.73	955.36
	D	948.39	955.07
12.5%	A	951.42	957.40
	B	948.81	954.38
	C	945.00	951.58
	D	948.104	954.73
25%	A	950.43	956.65
	B	946.310	951.34
	C	946.85	952.64
	D	948.71	954.24
50%	A	950.34	956.43
	B	948.00	954.32
	C	948.04	954.50
	D	951.81	958.29
100%	A	953.53	959.62
	B	951.98	958.07
	C	954.22	960.38
	D	951.85	957.79 958.08

Analyst_____

CT-TOX: BINOMIAL, MOVING AVERAGE, PROBIT, AND SPEARMAN METHODS

MINIMUM REQUIRED TRIM IS TOO LARGE: 99.4,SO SK IS NOT CALCULABLE.

SPEARMAN-KARBER

TRIM: .00%
LC50: .000
95% CONFIDENCE LIMITS ARE UNRELIABLE.

CONC. %	NUMBER EXPOSED	NUMBER DEAD	PERCENT DEAD	BINOMIAL PROB.(%)
6.25	40.	0.	.00	.9095D-10
12.50	40.	1.	2.50	.3729D-08
25.00	40.	0.	.00	.9095D-10
50.00	40.	0.	.00	.9095D-10
100.00	40.	0.	.00	.9095D-10

THE BINOMIAL TEST SHOWS THAT 100.00 AND +INFINITY CAN BE USED AS STATISTICALLY SOUND CONSERVATIVE 95 PERCENT CONFIDENCE LIMITS SINCE THE ACTUAL CONFIDENCE LEVEL ASSOCIATED WITH THESE LIMITS IS 100.0000 PERCENT.
THE LC50 FOR THIS DATA SET IS GREATER THAN 100.00

WHEN THERE ARE LESS THAN TWO CONCENTRATIONS AT WHICH THE PERCENT DEAD IS BETWEEN 0 AND 100, NEITHER THE MOVING AVERAGE NOR THE PROBIT METHOD CAN GIVE ANY STATISCALLY SOUND RESULTS.

DATE: 7-30-13
SAMPLE: Naugatuck WPCF

TEST NUMBER: 13-1555b DURATION: 48 h
SPECIES: Pimephales promelas

METHOD	LC50	CONFIDENCE LIMITS LOWER	UPPER	SPAN
BINOMIAL	*******	100.000	*******	*******
MAA	*******	*******	*******	*******
PROBIT	*******	*******	*******	*******
SPEARMAN	.000	*******	*******	*******

NOTE: MORTALITY PROPORTIONS WERE NOT MONOTONICALLY INCREASING.
ADJUSTMENTS WERE MADE PRIOR TO SPEARMAN-KARBER ESTIMATION.

**** = LIMIT DOES NOT EXIST

Rep	Final Weight (mg)	Initial Weight (mg)	Total Weight (mg)	Average per fish (mg)	Mean fish weight (mg)	Standard Deviation
1	957.4	950.5	6.90	0.690	0.6827	0.04240578
2	953.3	946.7	6.60	0.66		
3	958.5	952.08	6.42	0.642		
4	957.25	949.86	7.39	0.739		
1	952.54	947.11	5.43	0.543	0.4672	0.2511472
2	951.81	946.18	5.63	0.563		
3	956.15	949.51	6.64	0.664		
4	949.41	948.42	0.99	0.099		
1	948.99	947.28	1.71	0.171	0.5373	0.24433089
2	957.08	950.61	6.47	0.647		
3	955.36	948.73	6.63	0.663		
4	955.07	948.39	6.68	0.668		
1	957.4	951.42	5.98	0.598	0.6055	0.04154114
2	954.38	948.81	5.57	0.557		
3	951.58	945	6.58	0.658		
4	954.73	948.64	6.09	0.609		
1	956.65	950.43	6.22	0.622	0.5630	0.0518395
2	951.34	946.36	4.98	0.498		
3	952.64	946.85	5.79	0.579		
4	954.24	948.71	5.53	0.553		
1	956.43	950.34	6.09	0.609	0.6338	0.01796988
2	954.32	948	6.32	0.632		
3	954.5	948.04	6.46	0.646		
4	958.29	951.81	6.48	0.648		
1	959.62	953.53	6.09	0.609	0.6143	0.00670199
2	958.07	951.98	6.09	0.609		
3	960.38	954.22	6.16	0.616		
4	958.08	951.85	6.23	0.623		
1			0.00	0.000	0.0000	0
2			0.00	0.000		
3			0.00	0.000		
4			0.00	0.000		

Test ID # 13-1555b

COC # C33-3930/31

Proj # 05.0044745.00

NEW ENGLAND BIOASSAY
OBSERVATION DATA FORM

Client: Naugatuck Investigator: KS Test Species: P. pramelus

Sample: Municipal effluent Observation Date: 8/2/13 Test Date: 7/30/13

Concentration or Dilution	No. of Live Organisms	Day 3 Observations
Syn. Cont.	40	All organisms appear healthy and normal unless noted
River Dil	34	4 dead rep D, 3 w/fungus 1 w/o; 1 dead rep A w/ fungus
6.25%	38	2 dead rep A all w/ fungus
12.5%	38	1 dead rep D w/o fungus
25%	40	
50%	40	
100%	40	
		Day 4 Observations 8/3/13 PD
		All organisms appear healthy + normal unless noted
Syn. Control	40	
River Dil.	30	4 dead in rep D with fungus
6.25%	34	3 dead in rep A; 1 dead in rep C all with fungus
12.5%	38	
25%	40	
50%	40	
100%	40	

Test ID # 13-15556
COC # C33-3230/31
Proj # 05.0044745.CD

NEW ENGLAND BIOASSAY
OBSERVATION DATA FORM

Client: Naugatuck Investigator: PD Test Species: P. promelas

Sample: Municipal effluent Observation Date: 8/4/13 Test Date: 7/30/13

Concentration or Dilution	No. of Live Organisms	Day 5 Observations
		All organisms appear healthy + normal unless noted
Syn. Control	40	
River Dil.	29	1 dead in rep D with fungus
6.25%	32	2 dead in rep A with fungus
12.5%	38	
25%	40	
50%	40	
100%	40	
		Day 6 8/5/13 KS
		All organisms appear healthy + normal unless noted
Syn. Cont	40	
River Dil	29	
6.25%	31	1 dead in rep A w/ fungus
12.5%	38	
25%		
50%		
100%		

Test ID # 13-1555b

COC # C33-3230/31

Proj # 05.0044745.00

NEW ENGLAND BIOASSAY
OBSERVATION DATA FORM

Client: Dowgatuck Investigator: MG Test Species: P. promelas

Sample: Municipal effluent Observation Date: 8/6/13 Test Date: 7/30/13

Concentration or Dilution	No. of Live Organisms	Day 7 Observations
		All organisms appear healthy and normal unless noted
Control	40	
Diluent	29	
6.25%	31	
12.5%	38	
25%	40	
50%	40	
100%	40	

NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

FACILITY NAME & ADDRESS: Naugatuck WPCF

NEB PROJECT NUMBER: 05.M44745.00

DILUTION WATER SOURCE: Naugatuck River

TEST ORGANISM: Pimephales promelas Po 13(7-30)

START DATE: 7/30/13

TIME: 11/5

ANALYST	PD	CW	RO	PD	PD	CW	KS	
NEB Lab Synthetic Control	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.8	24.4	24.6	24.4	24.6	24.6	24.6	
D.O., mg/L Initial	7.5	7.8	7.8	7.7	7.4	8.4	7.9	
pH, s.u. Initial	7.5	7.3	7.3	7.0	7.5	8 7.5	7.7	
Conductivity, µS Initial	179	175	179	175	176	180	174	
Temp., °C Final	24.5	24.0	24.2	24.0	24.3	25.1	25.1	
D.O., mg/L Final	6.3	6.3	6.3	6.1	6.6	5.5	5.9	
pH, s.u. Final	7.6	7.5	7.4	7.2	7.4	7.5	7.4	
Conductivity, µS Final	216	202	204	195	201	194	195	
Naugatuck River Diluent	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.1	24.5	24.4	24.0	24.2	25.9	24.9	
D.O., mg/L Initial	7.8	8.4	8.4	8.6	7.3	8.0	8.6	
pH, s.u. Initial	7.2	7.0	7.1	7.0	7.3	7.2	7.4	
Conductivity, µS Initial	290	284	342	333	168	170	165	
Temp., °C Final	24.5	24.2	24.4	24.0	24.1	25.0	25.2	
D.O., mg/L Final	6.2	6.4	6.2	6.9	6.9	5.6	5.7	
pH, s.u. Final	7.5	7.3	7.2	7.3	7.4	7.4	7.1	
Conductivity, µS Final	331	312	370	361	205	191	187	
6.25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.2	24.6	24.9	24.0	24.2	25.9	25.1	
D.O., mg/L Initial	7.7	8.2	8.2	8.6	7.4	7.9	8.4	
pH, s.u. Initial	7.1	7.0	7.1	7.0	7.1	7.3	7.3	
Conductivity, µS Initial	322	310	373	354	206	211	208	
Temp., °C Final	24.9	24.0	24.2	24.0	24.0	24.9	25.1	
D.O., mg/L Final	6.1	6.3	6.2	6.7	6.8	6.0	5.9	
pH, s.u. Final	7.4	7.3	7.2	7.2	7.3	7.2	7.0	
Conductivity, µS Final	351	338	391	381	245	228	235	
12.5%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.2	24.6	24.5	24.0	24.2	25.9	25.2	
D.O., mg/L Initial	7.7	8.3	8.2	8.6	7.3	7.3	8.3	
pH, s.u. Initial	7.1	7.0	7.1	7.0	7.0	7.3	7.2	
Conductivity, µS Initial	352	347	400	388	248	248	258	
Temp., °C Final	24.6	24.1	24.1	24.0	24.1	24.9	25.3	
D.O., mg/L Final	6.2	6.2	6.0	6.3	6.6	5.6	5.7	
pH, s.u. Final	7.4	7.2	7.1	7.2	7.2	7.1	6.9	
Conductivity, µS Final	389	381	428	418	283	266	284	

NEB 's DATA SHEET FOR ROUTINE CHEMICAL AND PHYSICAL DETERMINATIONS

FACILITY NAME & ADDRESS: Naugatuck WPCF	
NEB PROJECT NUMBER: 05-AN4745.00	TEST ORGANISM: Pimephales promelas Pp 13 (9-36)
DILUTION WATER SOURCE: Naugatuck River	START DATE: 7/30/13 TIME: 1115

25%	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial	24.1	24.7	24.4	24.0	24.2	25.9	25.2	
D.O., mg/L Initial	7.7	8.2	8.2	8.5	7.4	8.1	8.3	
pH, s.u. Initial	7.0	7.0	7.0	7.0	7.0	7.3	7.2	
Conductivity, µS Initial	419	405	8456	443	332	344	327	
Temp., °C Final	24.10	24.2	24.3	24.2	24.3	25.1	25.4	
D.O., mg/L Final	6.2	6.2	6.1	6.1	6.4	5.7	5.8	
pH, s.u. Final	7.3	7.2	7.1	7.2	7.1	7.1	6.9	
Conductivity, µS Final	450	428	486	4101	3610	355	352	
50%	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**REMARKS**
Temp., °C Initial	24.0	24.9	24.4	24.0	24.2	25.8	25.5	
D.O., mg/L Initial	7.6	8.2	8.1	8.4	7.5	8.3	8.3	
pH, s.u. Initial	6.9	6.9	6.9	6.9	6.9	7.2	7.2	
Conductivity, µS Initial	542	531	570	553	488	497	484	
Temp., °C Final	24.7	24.3	24.0	24.0	24.2	24.7	25.4	
D.O., mg/L Final	6.2	6.0	6.1	6.8	6.6	5.5	5.6	
pH, s.u. Final	7.4	7.2	7.1	7.2	7.2	7.1	6.9	
Conductivity, µS Final	562	553	599	589	525	506	515	
100%	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**REMARKS**
Temp., °C Initial	24.0	25.3	24.2	240	24.2	24.2	26.0	
D.O., mg/L Initial	7.3	8.1	7.8	8.5	7.8	9.0	8.3	
pH, s.u. Initial	6.8	6.8	6.7	6.8	6.9	7.2	7.2	
Conductivity, µS Initial	786	763	788	763	788	804	810	
Temp., °C Final	24.8	24.3	24.0	24.0	24.1	24.8	25.2	
D.O., mg/L Final	6.4	6.0	6.3	7.0	6.6	6.0	5.7	
pH, s.u. Final	7.3	7.1	7.2	7.2	7.2	7.3	7.1	
Conductivity, µS Final	805	793	835	816	831	800	835	
	1	2	3	4	5	6	7	REMARKS
Temp., °C Initial								
D.O., mg/L Initial								
pH, s.u. Initial								
Conductivity, µS Initial								
Temp., °C Final								
D.O., mg/L Final								
pH, s.u. Final								
Conductivity, µS Final								

INITIAL CHEMISTRY INFORMATION

CLIENT: Naugatuck WPCF

JOB # 05.0044745.00

TEST #: *C. dubia* ID No. 13-1555a *P. promelas* ID No. 13-1555b

SAMPLE TYPE:	Effluent #1	River Water #1	Effluent #2	River Water #2	Effluent #3	River Water #3
RECEIPT DATE	7/30/13	7/30/13	8/1/13	8/1/13	8/3/13	8/3/13
COC #	C33-3330	C33-3331	C33-3345	C33-3346	C33-3290	C33-3291
PH (SU)	6.60	6.8	7.5	7.5	7.2	7.2
Temperature (°C)	5.6	5.8	4.6	4.8	15.5	16.4, 15.8
Dissolved Oxygen (mg/L)	8.4	8.7	8.6	8.8	8.6	8.4
Specific Conductivity (µmhos/cm)	759	282	768	336	821	172
Salinity (ppt)	<1	<1	<1	<1	<1	<1
TRC - DPD (mg/L)	0.007	0.016	0.016	0.017	0.014	0.017
TRC - Amperometric (mg/L)	—	—	—	—	—	—
Hardness (mg/L as $CaCO_3$)	102	50	102	56	104 ~~110~~	30
Alkalinity (mg/L as $CaCO_3$)	30	30	30	35	45	20
Color	colorless	colorless	colorless	very light yellow	colorless	light yellow
Clarity	clear	clear	clear	~~very light yellow~~	clear	clear
INITIALS	MG	MG	KS	KS	CW	CW

NOTE: NA = NOT APPLICABLE

Data Reviewed By: [signature] Date Reviewed: 8/22/13

TABLE A–14

Table of Random Permutations of 16

Naugatuck
Cd Test ID: 13-1555a
Pp Test ID: 13-1555b

7	12	15	15	1	2	7	16	10	2	14	15	7	13	13	10	6	1	8	10							
13	3	8	16	7	10	11	10	13	5	11	7	13	16	7	7	5	13	2	14							
3	1	4	6	14	13	3	14	9	13	13	2	9	15	6	2	8	4	5	8							
11	8	16	14	15	6	2	6	2	16	8	5	12	3	9	13	4	3	10	4							
14	9	1	6	3	9	14	13	8	6	5	8	14	7	3	15	13	11	4	7							
2	16	10	13	5	5	13	2	11	7	3	12	5	14	12	16	2	2	9	15							
4	6	13	7	2	15	1	9	1	4	7	10	6	9	11	9	7	6	16	11							
6	14	6	10	4	14	4	15	3	3	4	16	2	6	5	1	12	10	6	9							
10	15	2	1	13	12	16	3	4	8	10	1	15	5	14	12	14	12	3	2							
12	10	7	12	9	11	9	8	12	14	15	4	11	8	16	8	9	14	14	1							
15	7	5	2	16	7	8	12	6	15	6	13	16	12	15	4	11	8	12	6							
16	2	11	8	8	8	15	5	16	1	1	9	8	1	8	14	16	5	13	5							
9	13	14	3	6	4	10	11	5	12	9	3	10	4	4	3	10	9	1	3							
8	11	9	4	11	3	12	7	7	10	12	14	3	10	1	6	15	16	15	12							
1	5	12	11	16	16	5	4	14	9	16	11	1	2	10	5	1	15	7	13							
5	4	3	9	13	1	6	1	15	11	2	6	4	11	2	11	3	7	11	16							
11	8	16	5	5	13	1	13	2	16	14	12	9	8	7	5	13	3	13	3							
2	2	8	8	11	16	4	3	8	11	10	14	15	1	2	11	4	5	15	9							
6	13	2	13	10	5	9	15	11	10	12	6	16	15	16	9	10	12	16	15							
14	12	4	16	16	11	14	10	5	12	3	3	12	14	15	13	6	4	1	16							
8	6	3	9	4	10	6	4	16	2	2	9	8	16	4	6	5	15	7	8							
9	15	12	10	3	2	12	6	1	15	4	13	(7)	7	9	12	14	8	8	11							
3	10	11	12	13	12	5	11	7	8	9	5	14	11	10	1	3	13	3	5							
16	1	13	14	8	14	15	5	3	7	11	15	(6)	12	5	7	11	1	14	4							
1	14	14	2	9	15	16	14	6	14	7	8	(3)	13	11	8	7	7	12	7							
4	4	6	4	13	3	11	8	15	9	8	1	13	6	3	3	15	9	9	12							
15	5	1	11	10	6	3	7	10	5	5	11	10	10	12	15	16	14	5	2							
5	3	5	6	7	7	13	2	14	3	16	4	(5)	5	13	4	9	16	2	6							
12	7	15	15	15	9	8	12	12	13	15	10	(1)	1	6	16	2	6	11	1							
10	11	10	3	2	4	2	1	4	6	6	7	11	9	14	10	8	11	4	13							
7	9	7	7	11	1	7	15	13	1	13	2	(4)	2	1	2	12	3	10	15							
13	16	9	10	1	8	10	9	9	4	1	16	(2)	3	8	14	1	10	6	1							
1	6	7	4	8	6	5	2	8	15	4	6	6	1	4	5	7	13	2	10							
9	15	11	3	11	15	9	10	1	3	8	2	15	7	9	8	16	1	14	3							
10	16	4	5	12	9	16	11	7	1	7	16	11	8	3	3	12	2	3	4							
4	14	1	9	5	5	4	13	6	8	15	5	12	3	7	16	5	11	8	1							
7	3	13	14	15	2	1	14	16	5	14	9	(2)	16	1	12	6	14	4	13							
16	11	2	1	14	16	6	9	3	4	16	14	(3)	15	11	11	3	9	12	5							
3	10	16	16	13	7	13	1	11	14	9	10	15	2	10	2	10	7	10	16							
11	13	9	13	4	13	8	3	5	13	10	12	5	12	5	14	13	16	5	6							
15	2	3	12	9	12	2	4	13	10	3	13	14	4	2	1	14	8	6	12							
14	1	14	6	10	1	3	12	4	2	2	4	13	3	16	9	9	3	7	14							
13	12	5	11	3	11	15	8	2	7	11	7	8	14	6	4	4	4	15	11							
12	5	10	7	2	14	7	15	14	16	13	1	9	10	12	10	11	10	9	8							
8	9	8	10	6	4	11	7	10	11	6	8	(4)	9	8	15	8	6	11	9							
2	7	6	2	1	8	10	6	15	12	1	11	7	11	13	6	1	15	13	15							
6	4	15	8	16	10	14	16	9	6	12	3	10	6	14	7	2	12	16	7							
5	8	12	15	7	3	12	5	12	9	5	15	(1)	13	15	13	15	5	1	2							
13	4	10	4	16	13	16	13	5	3	6	14	1	16	8	7	2	3	3	12							
5	14	4	6	8	2	15	1	13	14	16	4	15	4	3	12	12	1	4	7							
2	2	2	15	14	16	9	12	16	6	10	15	14	9	10	1	14	8	8	16							
7	12	15	8	12	3	5	14	7	12	5	13	16	1	7	5	11	2	9	3							
6	9	7	14	9	14	10	11	15	11	12	1	12	12	14	16	3	11	11	8							
14	5	16	7	10	8	11	8	14	13	7	11	6	3	11	4	4	6	6	9							
15	11	8	9	7	12	8	7	1	15	9	3	3	7	13	11	10	4	5	1							
11	6	6	1	4	1	3	16	12	5	4	9	13	13	6	3	15	9	1	14							
4	10	3	16	2	11	7	9	6	9	1	8	4	11	5	2	15	10	12	4							
1	8	1	13	1	15	4	4	11	4	2	16	5	8	1	9	5	12	16	6							
9	7	14	2	6	4	14	10	9	8	15	10	7	10	9	10	5	14	10	11							
12	1	9	10	15	5	2	15	10	2	14	2	8	2	4	13	8	5	15	5							
3	3	12	11	5	9	8	6	3	10	13	12	9	6	2	15	7	15	7	13							
10	15	11	5	13	7	12	5	2	7	11	5	10	15	12	3	1	13	13	10							
8	13	13	3	3	10	13	2	4	1	8	6	11	14	15	6	9	16	2	2							
16	16	5	12	11	6	1	3	8	16	3	7	2	5	16	14	13	7	14	15							

Source: Reprinted, with permission, from William G. Cochran and Gertrude M. Cox, *Experimental Designs* (2d. ed.; New York: John Wiley & Sons, Inc., 1957), p. 583.

Simple #27-A1

NEW ENGLAND BIOASSAY
CHAIN-OF-CUSTODY

EFFLUENT

Sampler: Tom Deller
Title: Lead Operator
Facility: Borough of Naugatuck WPCF
Address:
Naugatuck, Connecticut

RECEIVING WATER

Sampler: Tom Deller
Title: Lead Operator
Facility: Borough of Naugatuck WPCF
Address:
Naugatuck, Connecticut

Sample Information

Collection Method: ___ Grab / X Composite
Sample ID: BF12760
Start & End Dates: 7-28-13 -- 7-29-13
Start & End Times: 1:40 AM - 1:20 AM
Type of Sample: X WWTF Effluent / ___ Industrial Effluent / ___ Other ___
Is the sample: ___ Prechlorinated / X Dechlorinated / ___ Chlorine spiked in lab / ___ Unchlorinated

Collection Method: X Grab / ___ Composite
Sample ID: Naugatuck River BF12761
Date Collected: 7-29-13
Time Collected: 7:00 AM
Type of Sample: X Receiving Water / ___ Other ___
Is the sample: X Unchlorinated

Site Description:

Sample Collection Procedures:

Sample Shipment

Method of Shipment: Phoenix
Relinquished By: T. Deller — Date: 7-29-13 — Time:
Received By: [signature] — Date: 7-29-13 — Time: 10:12
Relinquished By: [signature] — Date: 7-30-13 — Time: 0925
Received By: [signature] — Date: 7/30/13 — Time: 0825

FOR NEB USE ONLY

Temperature of Effluent Upon Receipt at Lab: 5.6 °C
Temperature of Receiving Water Upon Receipt at Lab: 5.8 °C
Effluent COC# C33-3230
Receiving Water COC# C33-3231

IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042

Sample Set # 2

NEW ENGLAND BIOASSAY
CHAIN-OF-CUSTODY

EFFLUENT

Sampler: Tom Deller
Title: LEAD Operator
Facility: Borough of Naugatuck WPCF
Address:
Naugatuck, Connecticut

RECEIVING WATER

Sampler: Tom Deller
Title: LEAD Operator
Facility: Borough of Naugatuck WPCF
Address:
Naugatuck, Connecticut

Sample Information

Collection Method: ___ Grab / X Composite

Sample ID:

Start & End Dates: 7-30-13 – 7-31-13

Start & End Times: 1:54 AM – 1:49 AM

Type of Sample: X WWTF Effluent / ___ Industrial Effluent / ___ Other ___

Is the sample: ___ Prechlorinated / X Dechlorinated / ___ Chlorine spiked in lab / ___ Unchlorinated

Collection Method: X Grab / ___ Composite

Sample ID: Naugatuck River

Date Collected: 7-31-13

Time Collected: 7:00 AM

Type of Sample: X Receiving Water / ___ Other ___

Is the sample: X Unchlorinated

Site Description:

Sample Collection Procedures:

Sample Shipment

Method of Shipment: Phoenix

Relinquished By: [signature] Date: 7-31-13 Time:

Received By: [signature] Date: 7/31/13 Time: 1:36

Relinquished By: [signature] Date: 8-1-13 Time: 0830

Received By: [signature] Date: 8-1-13 Time: 0830

FOR NEB USE ONLY

Temperature of Effluent Upon Receipt at Lab: 4.6 °C

Temperature of Receiving Water Upon Receipt at Lab: 4.8 °C

Effluent COC# C33-3245

Receiving Water COC# C33-3246

IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042

Sample Set # 3

NEW ENGLAND BIOASSAY
CHAIN-OF-CUSTODY

EFFLUENT

Sampler: Tom Dellec
Title: Lead Operator
Facility: Borough of Naugatuck WPCF
Address:
Naugatuck, Connecticut

RECEIVING WATER

Sampler: Tom Dellec
Title: Lead Operator
Facility: Borough of Naugatuck WPCF
Address:
Naugatuck, Connecticut

Sample Information

Collection Method: ___ Grab / X Composite

Sample ID:

Start & End Dates: 8-1-13 to 8-2-13

Start & End Times: 1:00AM to 1:39 AM

Type of Sample: X WWTF Effluent / ___ Industrial Effluent / ___ Other ___

Is the sample: ___ Prechlorinated / X Dechlorinated / ___ Chlorine spiked in lab / ___ Unchlorinated

Collection Method: X Grab / ___ Composite

Sample ID: Naugatuck River

Date Collected: 8-2-13

Time Collected: 7:00 AM

Type of Sample: X Receiving Water / ___ Other ___

Is the sample: X Unchlorinated

Site Description:

Sample Collection Procedures:

Sample Shipment

Method of Shipment: Phoenix

Relinquished By: [signature] Date: 8/2/13 Time:

Received By: [signature] Date: 8/3/13 Time: 0740

Relinquished By: Date: Time:

Received By: Date: Time:

FOR NEB USE ONLY

Temperature of Effluent Upon Receipt at Lab: 15.5 °C

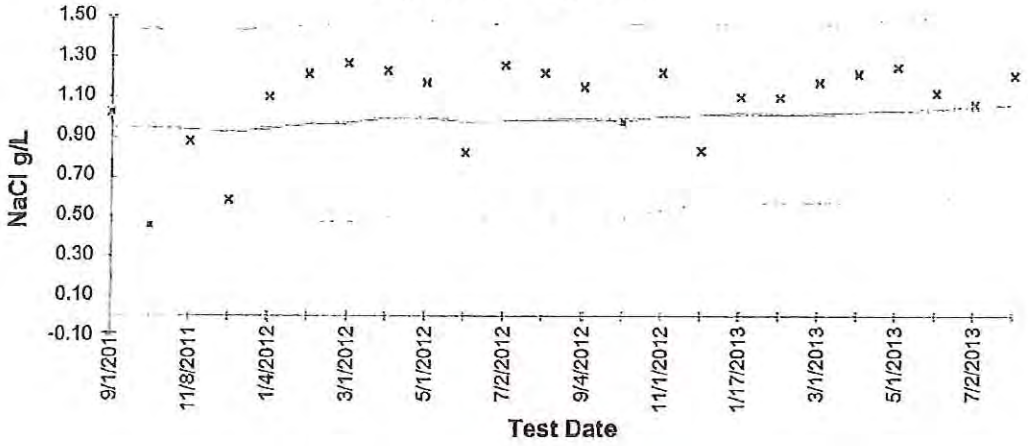
Temperature of Receiving Water Upon Receipt at Lab: 16.4/15.8°C

Effluent COC# 033-3290

Receiving Water COC# 033-3291

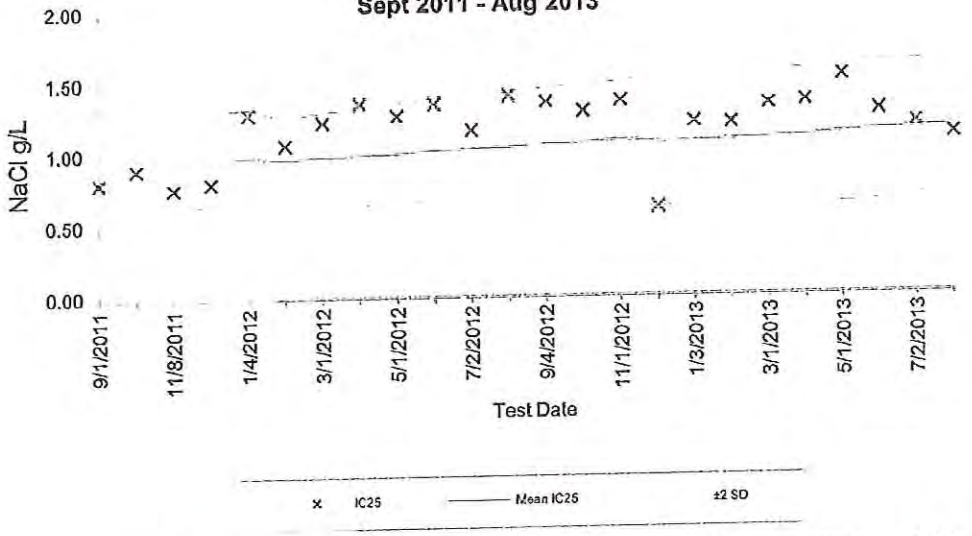
IF THIS COOLER IS MISPLACED OR THE LABEL IS LOST, PLEASE SHIP TO:
KIM WILLS, NEW ENGLAND BIOASSAY, 77 BATSON DRIVE, MANCHESTER CT 06042

Sodium Chloride Reference Toxicant Data
Ceriodaphnia dubia Chronic Toxicity
Sept 2011 - Aug 2013



Test ID	Date	IC_{25}	Mean IC_{25}	STD	-2STD	+2STD	CV %
11-1734	9/1/2011	1.02	0.95	0.24	0.47	1.43	25.1
11-2375	10/3/2011	0.45	0.95	0.25	0.45	1.44	26.0
11-2543	11/8/2011	0.87	0.94	0.25	0.45	1.43	26.2
11-2753	12/1/2011	0.57	0.92	0.26	0.41	1.44	27.8
12-185	1/4/2012	1.09	0.94	0.25	0.44	1.45	26.7
12-323	2/15/2012	1.20	0.97	0.25	0.47	1.46	25.5
12-497	3/1/2012	1.26	0.97	0.25	0.47	1.47	25.8
12-709	4/2/2012	1.22	0.99	0.25	0.50	1.49	24.8
12-941	5/1/2012	1.16	0.99	0.25	0.50	1.49	24.8
12-1220	6/13/2012	0.81	0.97	0.24	0.49	1.46	24.8
12-1308	7/2/2012	1.25	0.98	0.25	0.49	1.47	25.1
12-1564	8/1/2012	1.21	0.99	0.25	0.49	1.49	25.3
12-1866	9/4/2012	1.14	0.99	0.25	0.49	1.49	25.4
12-2194	10/4/2012	0.98	0.98	0.20	0.49	1.46	24.9
12-2356	11/1/2012	1.21	1.00	0.23	0.53	1.47	23.4
12-2532	12/3/2012	0.82	1.01	0.23	0.56	1.46	22.3
13-104	1/17/2013	1.09	1.02	0.22	0.57	1.47	22.1
13-166	2/1/2013	1.09	1.01	0.22	0.57	1.45	21.8
13-375	3/1/2013	1.16	1.01	0.22	0.57	1.46	21.9
13-807	4/2/2013	1.20	1.02	0.23	0.57	1.47	22.0
13-898	5/1/2013	1.24	1.03	0.23	0.57	1.49	22.2
13-1305	6/3/2013	1.11	1.04	0.23	0.58	1.49	22.1
13-1434	7/2/2013	1.06	1.06	0.21	0.63	1.48	20.0
13-1661	8/1/2013	1.20	1.06	0.21	0.63	1.48	20.0

Reference Toxicant Data
7-day Chronic Toxicity Test
***P. promelas* Growth Data**
Sept 2011 - Aug 2013



Test ID	Date	IC_{25}	Mean IC_{25}	STD	-2STD	+2STD	CV %
11-1735	9/1/2011	0.82	0.98	0.17	0.63	1.32	17.60
11-2376	10/3/2011	0.89	0.97	0.17	0.63	1.32	17.76
11-2560	11/8/2011	0.75	0.98	0.17	0.64	1.31	17.07
11-2754	12/1/2011	0.79	0.98	0.16	0.66	1.30	16.27
12-186	1/4/2012	1.28	0.98	0.17	0.65	1.32	16.80
12-298	2/1/2012	1.05	0.97	0.15	0.67	1.27	15.43
12-498	3/1/2012	1.21	0.99	0.16	0.68	1.30	15.74
12-738	4/2/2012	1.36	1.00	0.17	0.66	1.34	17.07
12-942	5/1/2012	1.25	1.01	0.18	0.65	1.36	17.67
12-1187	6/1/2012	1.35	1.03	0.18	0.66	1.40	17.76
12-1333	7/2/2012	1.15	1.04	0.18	0.67	1.41	17.75
12-1565	8/1/2012	1.41	1.05	0.20	0.65	1.44	18.74
12-2018	9/4/2012	1.34	1.07	0.20	0.67	1.47	18.67
12-2164	10/1/2012	1.27	1.07	0.20	0.67	1.48	18.96
12-2370	11/1/2012	1.35	1.09	0.20	0.68	1.50	18.72
12-2627	12/13/2012	0.62	1.08	0.23	0.62	1.53	21.10
13-65	1/3/2013	1.20	1.08	0.23	0.63	1.54	21.10
13-171	2/1/2013	1.19	1.09	0.23	0.63	1.55	20.97
13-642	3/1/2013	1.32	1.10	0.23	0.63	1.56	21.24
13-808	4/2/2013	1.34	1.11	0.23	0.64	1.58	21.08
13-1055	5/1/2013	1.51	1.13	0.25	0.63	1.63	21.96
13-1316	6/3/2013	1.27	1.15	0.25	0.65	1.64	21.43
13-1483	7/2/2013	1.19	1.16	0.24	0.69	1.63	20.29
13-1723	8/1/2013	1.09	1.17	0.23	0.70	1.63	19.94

Coolant: IPK ☐ ICE ☐ N ☐

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 0 °C Pg of

Data Delivery:
☐ Fax #:
☐ Email:

Customer: VEOLIA WATER
Address: 500 CHERRY ST EXT.
NAUGATUCK, CT 06770

Project: NAUGATUCK
Report to: TOM DELLER
Invoice to: Chronic Tox Monday

Project P.O: Chronic Tox Monday
Phone #: 203-723-1433 EXT 2004
Fax #:

Sampler's Signature: T.Deller 7/29/13 Date:

Client Sample - Information - Identification

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	PH, ALKALINITY	CONDUCTIVITY, TSS	HARDNESS	TOTAL + DISSOLVED CU, ZN	AMMONIA	CUBE	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [X] 250ml [X] 500ml [ ] 1000ml	PL H2SO4 [X] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
12760	EFFLUENT	W/W	7-28-13	24hr	X	X	X	X	X	X						2	X	X		
12761	RIVER	AQ	7-29-13	9:00AM	X	X	X	X	X	X						2	X	X		

Relinquished by:	Accepted by:	Date:	Time:
T.Deller		7.29.13	10:12
		7/29/13	15:13

Comments, Special Requirements or Regulations:
Chronic Tox Monday
Day 1

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

Cooler: Yes [ ] No [ ]
Coolant: WET [ ] ICE [ ] DRY [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 0 °C Pg of

Data Delivery:
[ ] Fax #:
[ ] Email:

Customer: VEOLIA WATER
Address: 500 CHERRY ST EXT.
NAUGATUCK, CT 06770

Project: NAUGATUCK
Report to: TOM DELLER
Invoice to: Chronic Tox Wednesday

Project P.O: Chronic Tox Wednesday
Phone #: 203-723-1433 Ext 2004
Fax #:

Sampler's Signature: T. Deller 7/31/13 Date:

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

PHOENIX USE ONLY SAMPLE #	Client Sample - Information - Identification: Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request: pH	Alkalinity	Conductivity	Hardness	Total + Dissolved TSS	Ammonia	CORE	Soil VOA Vials [ ] methanol [ ] H_2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H_2SO_4	PL As is [X] 250ml [X] 500ml [ ] 1000ml	PL H_2SO_4 [X] 250ml [X] 500ml [ ] 1000ml	PL HNO_3 250ml	PL NaOH 250ml	Bacteria Bottle
14173	EFFLUENT	WW	7-30-13	24hr	x	x	x	x	x		1						2	1	1		
14174	RIVER	AQ	7-31-13	7:00AM	x	x	x	x	x		1						2	1	1		

Relinquished by:	Accepted by:	Date:	Time:
T. Deller		7.31.13	1:36
		7/31/13	1512

Comments, Special Requirements or Regulations:
Chronic Tox Wednesday

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[ ] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

Data Format
[ ] Excel
[ ] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other

State where samples were collected: CT

* SURCHARGE APPLIES

Cooler: Yes [✓] No [ ]
Coolant: IPK [✓] ICE [ ] N [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 6 °C Pg of

Data Delivery:
[ ] Fax #:
[ ] Email:

Customer: VEOLIA WATER
Address: 500 CHERRY ST EXT.
NAUGATUCK, CT 06770

Project: NAUGATUCK
Report to: TOM DELLER
Invoice to: CHRONIC FRIDAY

Project P.O: CHRONIC FRIDAY
Phone #: 203-723-1433 EXT 2004
Fax #:

Sampler's Signature: T.Deller 8/2/13 Date:

Client Sample - Information - Identification

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
SE=Sediment SL=Sludge S=Soil/Solid W=Wipe O=Other

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	pH, Alkalinity, Conductivity, TSS, Hardness, Total and Dissolved Cu, Zn, Ammonia	Cubes	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [X] 500ml [X] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
15627	EFFWENT	w/w	8-1-13	24hr	X	1					X	X	X			
15628	RIVER	AQ	8-2-13	7:00AM	X	2					X	X	X			

Relinquished by:	Accepted by:	Date:	Time:
T.Deller		8/2/13	1310
		8/2/13	15:51

Comments, Special Requirements or Regulations:
CHRONIC FRIDAY

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[ ] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

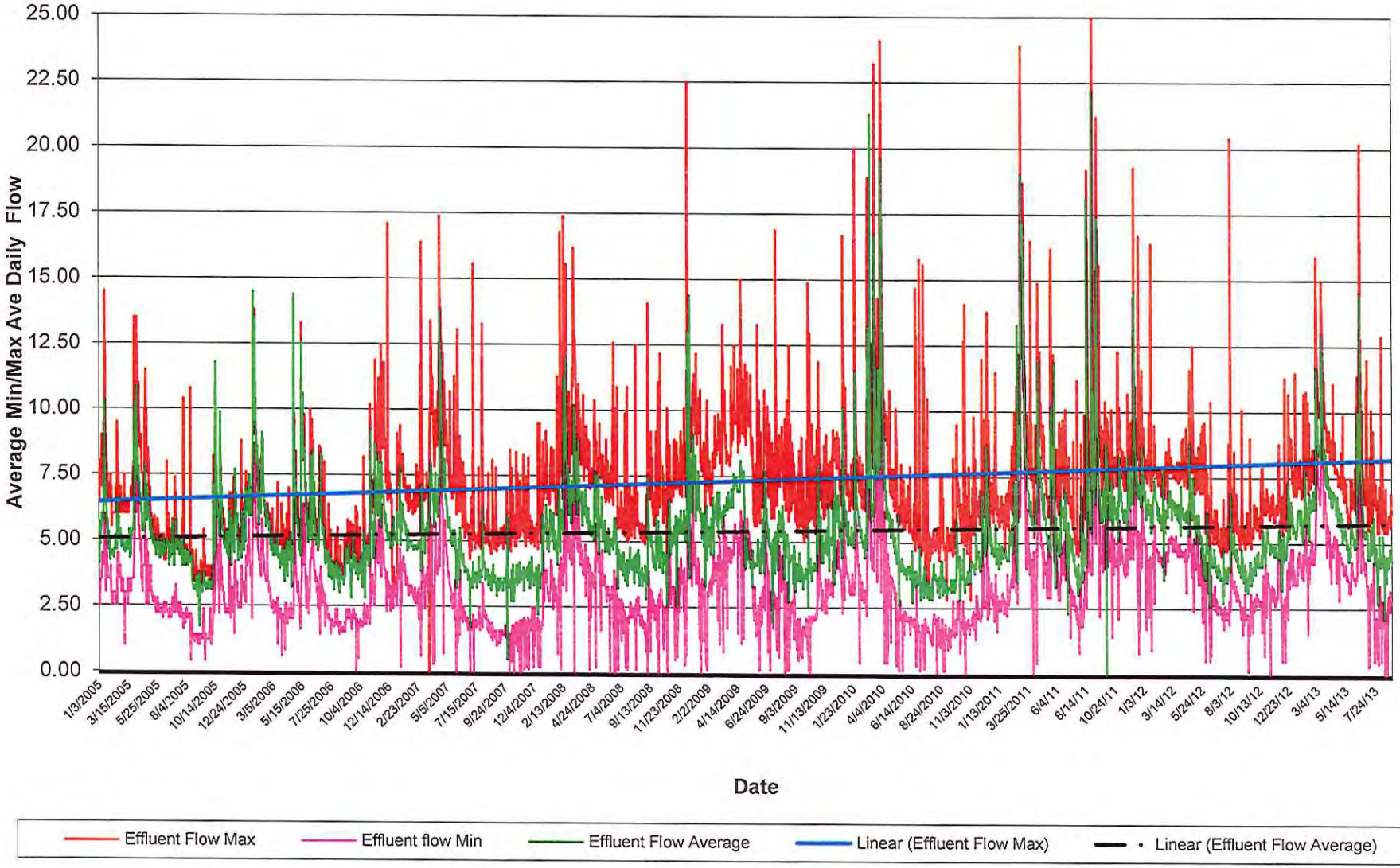
MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

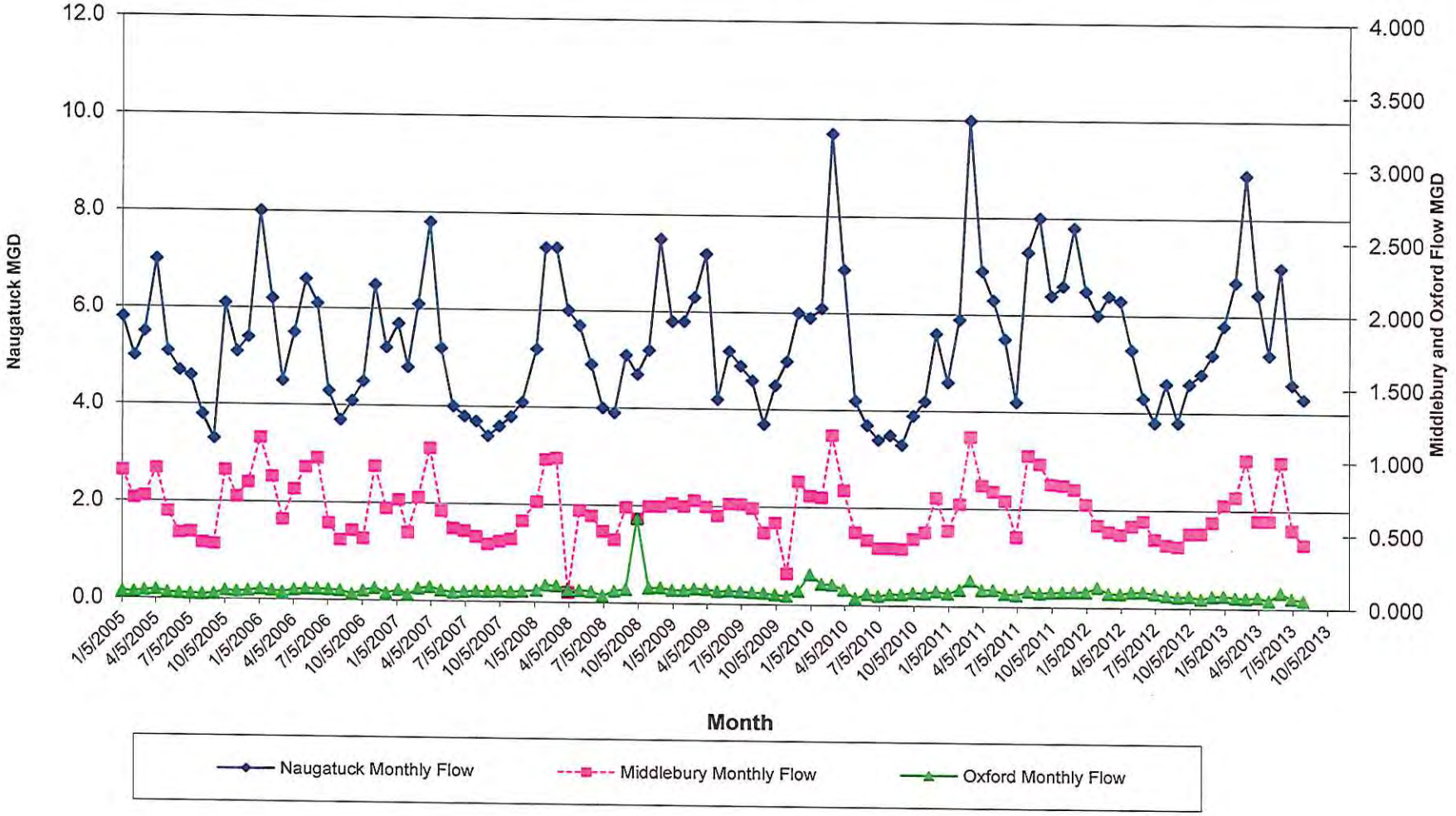
Data Format
[ ] Excel
[ ] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

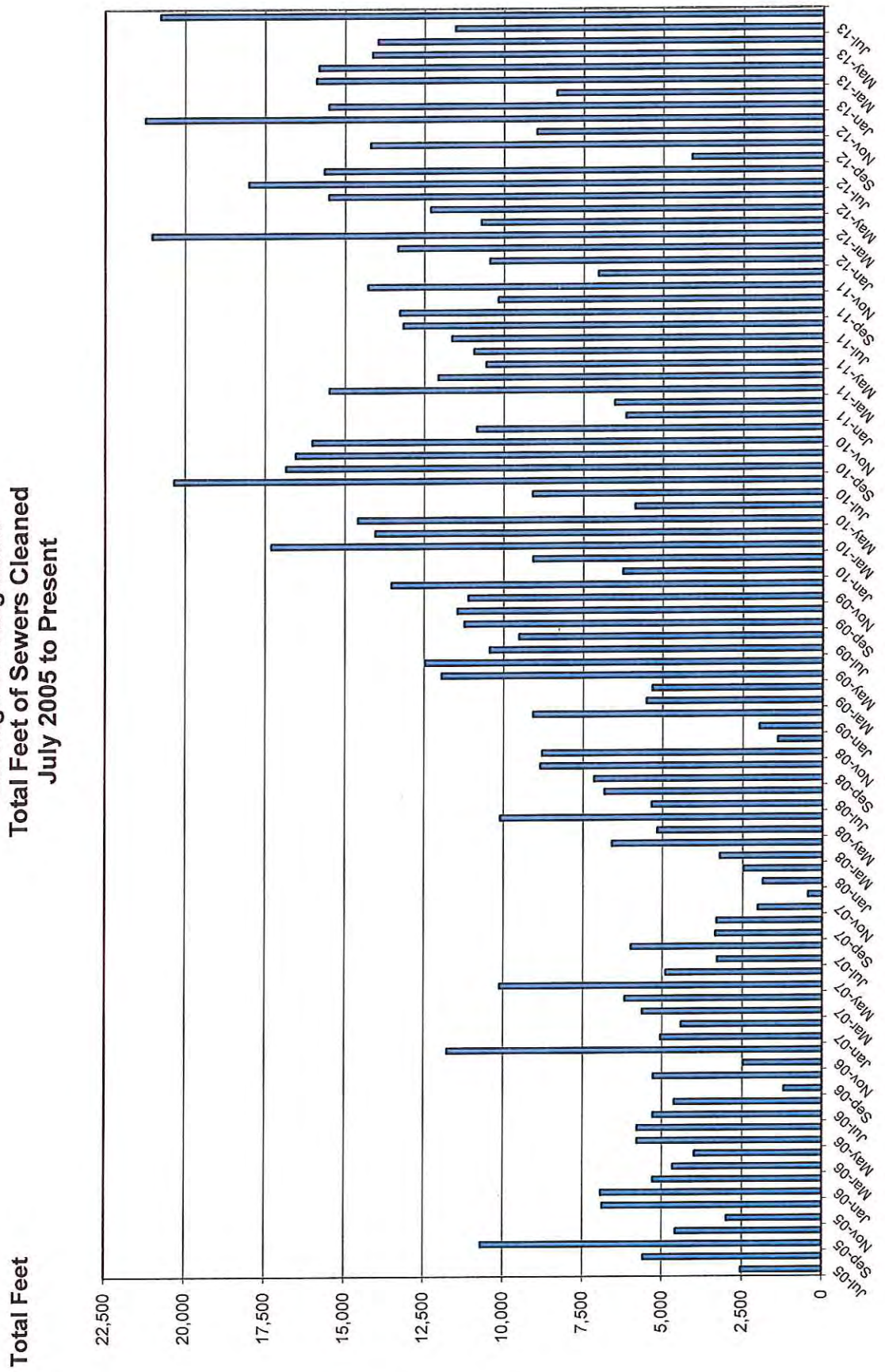
Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

Naugatuck WPCF Daily Min/Max/Total Flow Data
2005 to Present



Naugatuck, Middlebury and Oxford
2005 to Present
Monthly Average Flows




Borough of Naugatuck
Total Feet of Sewers Cleaned
July 2005 to Present
Total Feet
22,500
20,000
17,500
15,000
12,500
10,000
7,500
5,000
2,500
0
Jul-05
Sep-05
Nov-05
Jan-06
Mar-06
May-06
Jul-06
Sep-06
Nov-06
Jan-07
Mar-07
May-07
Jul-07
Sep-07
Nov-07
Jan-08
Mar-08
May-08
Jul-08
Sep-08
Nov-08
Jan-09
Mar-09
May-09
Jul-09
Sep-09
Nov-09
Jan-10
Mar-10
May-10
Jul-10
Sep-10
Nov-10
Jan-11
Mar-11
May-11
Jul-11
Sep-11
Nov-11
Jan-12
Mar-12
May-12
Jul-12
Sep-12
Nov-12
Jan-13
Mar-13
May-13
Jul-13

ODOR COMPLAINT REPORT

CALLER INFORMATION: DATE: 8/5/13 TIME: night 10:14pm

CALL TAKEN BY: Control Room

NAME OF COMPLAINTANT: Toni Cestari PHONE NUMBER: 203-314-8075

ADDRESS/LOCATION WHERE ODOR IS BEING DETECTED:

80 Lewis Street Naugatuck

STRENGTH OF ODOR: FAINT ___ NOTICABLE ___ DEFINITE ✓ STRONG ___ OVERWHELMING ___

DESCRIPTION OF ODOR: AMMONIA ___ CABBAGE ___ FECAL ___ FISHY ___ GARLIC ___ MEDICINAL ___ ROTTEN EGGS ___ SKUNKY ___ SOLVENT/FUEL ___ OTHER ___

DOES THE CALLER WANT A FOLLOW-UP CALL? YES ___ NO ___

DON'T FORGET TO THANK THE CALLER FOR THEIR CONCERN!!

ODOR INVESTIGATION:

(FROM CONTROL ROOM WEATHER STATION)

WIND DIRECTION: WSW WIND SPEED: 1 MPH WEATHER: TEMP 61F RAIN – HUMID – DRY ___ UNSEASONABLY WARM/COLD ___

COMPLETE PLANT SURVEY LISTING POSSIBLE SOURCES OF ODORS CONTRIBUTING TO THE COMPLAINT:

ODOR CONTROL EQUIPMENT STATUS:

PRIMARY SCRUBBER: ON ✓ OFF ___ PH 6.2 ORP 850 MAKE UP WATER: 0.5-1 GPM ✓ SPRAYS ✓ OK

FILTER BLDG SCRUBBER: ON ✓ OFF ___ PH 7.8 ORP 850 MAKE UP WATER: 1-3 GPM ✓ SPRAYS ✓ OK

PERMANGANATE FEEDERS:

AERATION: (ON) OFF ___ VERIFIED OPERATIONAL (YES) NO ___

SLUDGE STORAGE: (ON) OFF ___ VERIFIED OPERATIONAL: (YES) NO ___

ODOR COUNTERACTANT SYSTEM: (ON) OFF ___ VERIFIED OPERATIONAL: YES ✓ SPRAYS good

---

COMPLAINT REVIEWED BY: J Batalski DATE: 8-6, 8-7 TIME: 9 am

RETURN CALL MADE BY: – DATE: ___ TIME: ___

RETURN CALL RESULTS:

See 8-10-13 complaint from Mrs. Cestari.

WeatherLink 6.0.0 08/19/13 9:23a: Naugy Weather - [Browse Records]

File Setup Reports Browse Window Help

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D	In Temp	In Hum
8/05/13	6:20p	74.2	74.2	73.9	48	53.2	3.0	WSW	0.25	7.0	WSW	74.2	73.9	73.9	30.070	0.00	0.00	0.000	0.032	89.2	47
8/05/13	6:25p	74.7	74.7	74.2	50	54.8	2.0	WSW	0.17	6.0	WSW	74.7	74.7	74.7	30.074	0.00	0.00	0.000	0.034	89.2	47
8/05/13	6:30p	75.0	75.0	74.7	48	54.0	3.0	WSW	0.25	7.0	WSW	75.0	74.9	74.9	30.078	0.00	0.00	0.000	0.035	89.5	47
8/05/13	6:35p	75.2	75.2	75.0	48	54.2	2.0	WSW	0.17	5.0	WSW	75.2	75.1	75.1	30.079	0.00	0.00	0.000	0.035	89.5	47
8/05/13	6:40p	75.1	75.2	75.1	48	54.1	4.0	WSW	0.33	8.0	WSW	75.1	75.0	75.0	30.079	0.00	0.00	0.000	0.035	89.5	47
8/05/13	6:45p	74.3	75.1	74.3	49	53.9	4.0	WSW	0.33	8.0	WSW	74.3	74.1	74.1	30.079	0.00	0.00	0.000	0.032	89.5	47
8/05/13	6:50p	74.1	74.3	74.1	50	54.3	1.0	WSW	0.08	4.0	WSW	74.1	73.8	73.8	30.080	0.00	0.00	0.000	0.032	89.5	47
8/05/13	6:55p	74.0	74.2	74.0	50	54.2	2.0	WSW	0.17	6.0	WSW	74.0	73.7	73.7	30.080	0.00	0.00	0.000	0.031	89.5	47
8/05/13	7:00p	73.4	74.0	73.4	51	54.2	2.0	WSW	0.17	6.0	WSW	73.4	73.1	73.1	30.080	0.00	0.00	0.000	0.029	89.5	47
8/05/13	7:05p	73.4	73.4	73.4	52	54.7	1.0	WSW	0.08	4.0	WSW	73.4	73.2	73.2	30.080	0.00	0.00	0.000	0.029	89.5	48
8/05/13	7:10p	73.7	73.7	73.4	55	56.5	1.0	WSW	0.08	5.0	WSW	73.7	73.8	73.8	30.082	0.00	0.00	0.000	0.030	89.5	48
8/05/13	7:15p	73.5	73.8	73.5	55	56.3	1.0	WSW	0.08	5.0	WSW	73.5	73.6	73.6	30.084	0.00	0.00	0.000	0.030	89.5	48
8/05/13	7:20p	73.0	73.5	73.0	55	55.9	0.0	WSW	0.00	3.0	WSW	73.0	73.0	73.0	30.089	0.00	0.00	0.000	0.028	89.5	48
8/05/13	7:25p	72.7	73.0	72.7	60	58.0	0.0	WSW	0.00	4.0	WSW	72.7	72.9	72.9	30.090	0.00	0.00	0.000	0.027	89.5	48
8/05/13	7:30p	72.2	72.7	72.2	62	58.5	0.0	---	0.00	0.0	---	72.2	72.4	72.4	30.093	0.00	0.00	0.000	0.025	89.5	49
8/05/13	7:35p	71.6	72.2	71.6	63	58.3	0.0	WSW	0.00	1.0	WSW	71.6	71.6	71.6	30.097	0.00	0.00	0.000	0.023	89.0	49
8/05/13	7:40p	70.9	71.6	70.9	64	58.1	0.0	---	0.00	0.0	---	70.9	70.7	70.7	30.101	0.00	0.00	0.000	0.020	88.6	49
8/05/13	7:45p	70.2	70.9	70.2	65	57.9	0.0	---	0.00	0.0	---	70.2	69.9	69.9	30.102	0.00	0.00	0.000	0.018	88.1	49
8/05/13	7:50p	69.6	70.2	69.6	66	57.7	0.0	---	0.00	0.0	---	69.6	69.5	69.5	30.099	0.00	0.00	0.000	0.016	88.1	50
8/05/13	7:55p	69.0	69.5	69.0	68	58.0	0.0	WSW	0.00	1.0	WSW	69.0	69.2	69.2	30.100	0.00	0.00	0.000	0.014	88.1	50
8/05/13	8:00p	68.4	69.0	68.4	69	57.8	0.0	---	0.00	0.0	---	68.4	68.8	68.8	30.102	0.00	0.00	0.000	0.012	88.4	50
8/05/13	8:05p	68.0	68.4	68.0	69	57.4	0.0	---	0.00	0.0	---	68.0	68.5	68.5	30.106	0.00	0.00	0.000	0.010	88.6	50
8/05/13	8:10p	67.5	68.0	67.5	69	57.0	0.0	---	0.00	0.0	---	67.5	67.9	67.9	30.107	0.00	0.00	0.000	0.009	88.8	50
8/05/13	8:15p	67.1	67.5	67.1	70	57.0	0.0	---	0.00	0.0	---	67.1	67.5	67.5	30.106	0.00	0.00	0.000	0.007	89.0	50
8/05/13	8:20p	66.7	67.1	66.7	73	57.8	0.0	WSW	0.00	2.0	WSW	66.7	67.2	67.2	30.107	0.00	0.00	0.000	0.006	89.0	49
8/05/13	8:25p	66.4	66.7	66.4	75	58.2	0.0	---	0.00	0.0	---	66.4	67.0	67.0	30.106	0.00	0.00	0.000	0.005	89.2	49
8/05/13	8:30p	65.9	66.3	65.9	74	57.4	0.0	WSW	0.00	1.0	WSW	65.9	66.3	66.3	30.109	0.00	0.00	0.000	0.003	89.2	49
8/05/13	8:35p	65.7	65.9	65.7	75	57.6	0.0	---	0.00	0.0	---	65.7	66.1	66.1	30.115	0.00	0.00	0.000	0.002	89.2	49
8/05/13	8:40p	65.4	65.6	65.4	74	56.9	0.0	WSW	0.00	2.0	WSW	65.4	65.7	65.7	30.117	0.00	0.00	0.000	0.001	89.2	49
8/05/13	8:45p	65.1	65.3	65.1	76	57.3	0.0	---	0.00	0.0	---	65.1	65.5	65.5	30.118	0.00	0.00	0.000	0.000	89.2	49
8/05/13	8:50p	64.8	65.1	64.8	75	56.7	0.0	WSW	0.00	1.0	WSW	64.8	65.1	65.1	30.119	0.00	0.00	0.001	0.000	89.2	50
8/05/13	8:55p	64.5	64.8	64.5	76	56.8	0.0	WSW	0.00	1.0	WSW	64.5	64.8	64.8	30.117	0.00	0.00	0.002	0.000	89.5	50
8/05/13	9:00p	64.3	64.5	64.3	78	57.3	0.0	---	0.00	0.0	---	64.3	64.7	64.7	30.118	0.00	0.00	0.002	0.000	89.5	49
8/05/13	9:05p	63.9	64.3	63.9	78	56.9	0.0	---	0.00	0.0	---	63.9	64.2	64.2	30.120	0.00	0.00	0.004	0.000	89.5	49
8/05/13	9:10p	63.7	63.9	63.7	78	56.7	0.0	---	0.00	0.0	---	63.7	64.0	64.0	30.119	0.00	0.00	0.005	0.000	89.5	49
8/05/13	9:15p	63.4	63.6	63.4	78	56.4	0.0	WSW	0.00	1.0	WSW	63.4	63.6	63.6	30.120	0.00	0.00	0.006	0.000	89.5	49
8/05/13	9:20p	63.1	63.4	63.1	80	56.8	0.0	---	0.00	0.0	---	63.1	63.4	63.4	30.121	0.00	0.00	0.007	0.000	89.5	49
8/05/13	9:25p	62.9	63.1	62.9	80	56.6	0.0	WSW	0.00	1.0	WSW	62.9	63.2	63.2	30.122	0.00	0.00	0.007	0.000	89.5	49
8/05/13	9:30p	62.9	62.9	62.9	81	57.0	0.0	WSW	0.00	1.0	WSW	62.9	63.2	63.2	30.125	0.00	0.00	0.007	0.000	89.5	49
8/05/13	9:35p	62.8	62.9	62.8	81	56.9	0.0	WSW	0.00	1.0	WSW	62.8	63.1	63.1	30.128	0.00	0.00	0.008	0.000	89.5	49
8/05/13	9:40p	62.6	62.8	62.6	82	57.0	0.0	WSW	0.00	1.0	WSW	62.6	62.9	62.9	30.126	0.00	0.00	0.008	0.000	89.5	49
8/05/13	9:45p	62.4	62.6	62.4	82	56.8	0.0	---	0.00	0.0	---	62.4	62.7	62.7	30.127	0.00	0.00	0.009	0.000	89.5	49
8/05/13	9:50p	62.2	62.4	62.2	83	57.0	0.0	---	0.00	0.0	---	62.2	62.5	62.5	30.127	0.00	0.00	0.010	0.000	89.5	49
8/05/13	9:55p	61.9	62.2	61.9	83	56.7	0.0	WSW	0.00	1.0	WSW	61.9	62.1	62.1	30.127	0.00	0.00	0.011	0.000	89.5	49
8/05/13	10:00p	61.8	61.9	61.8	85	57.2	0.0	---	0.00	0.0	---	61.8	62.1	62.1	30.125	0.00	0.00	0.011	0.000	89.5	49
8/05/13	10:05p	61.4	61.8	61.4	84	56.5	0.0	WSW	0.00	2.0	WSW	61.4	61.6	61.6	30.126	0.00	0.00	0.012	0.000	89.5	50
8/05/13	10:10p	60.9	61.4	60.9	83	55.7	2.0	WSW	0.17	5.0	WSW	60.9	61.0	61.0	30.127	0.00	0.00	0.014	0.000	89.5	50
8/05/13	10:15p	60.7	60.9	60.7	85	56.2	1.0	SW	0.08	5.0	SW	60.7	60.9	60.9	30.125	0.00	0.00	0.015	0.000	89.5	49
8/05/13	10:20p	60.7	60.7	60.7	84	55.8	0.0	SW	0.00	1.0	SW	60.7	60.8	60.8	30.124	0.00	0.00	0.015	0.000	89.2	49

start | Inbox - john.batorski... | Document2 - Microsof... | Microsoft Excel | WeatherLink 6.0.0 0...

ODOR COMPLAINT REPORT

CALLER INFORMATION: DATE: 8/6/13 TIME: night - 10:14pm

CALL TAKEN BY: Control Room

NAME OF COMPLAINTANT: Toni Cestari PHONE NUMBER: 203-314-8075

ADDRESS/LOCATION WHERE ODOR IS BEING DETECTED:

80 Lewis Street, Naugatuck

STRENGTH OF ODOR: FAINT ___ NOTICABLE ___ DEFINITE ✓ STRONG ___ OVERWHELMING ___

DESCRIPTION OF ODOR: AMMONIA ___ CABBAGE ___ FECAL ___ FISHY ___ GARLIC ___ MEDICINAL ___ ROTTEN EGGS ___ SKUNKY ___ SOLVENT/FUEL ___ OTHER ___

DOES THE CALLER WANT A FOLLOW-UP CALL? YES ___ NO ___

DON'T FORGET TO THANK THE CALLER FOR THEIR CONCERN!!

ODOR INVESTIGATION:

(FROM CONTROL ROOM WEATHER STATION)

WIND DIRECTION: ESE WIND SPEED: 2 mph WEATHER: TEMP 66 RAIN — HUMID — DRY — UNSEASONABLY WARM/COLD ___

COMPLETE PLANT SURVEY LISTING POSSIBLE SOURCES OF ODORS CONTRIBUTING TO THE COMPLAINT:

ODOR CONTROL EQUIPMENT STATUS:

PRIMARY SCRUBBER: ON ✓ OFF ___ PH 6.7 ORP 830 MAKE UP WATER: 0.5-1 GPM ___ SPRAYS gpm 0

FILTER BLDG SCRUBBER: ON ✓ OFF ___ PH 6.8 ORP 867 MAKE UP WATER: 1-3 GPM ___ SPRAYS gpm 0

PERMANGANATE FEEDERS:

AERATION: ON ✓ OFF ___ VERIFIED OPERATIONAL: YES ✓ NO ___

SLUDGE STORAGE: ON ✓ OFF ___ VERIFIED OPERATIONAL: YES ✓ NO ___

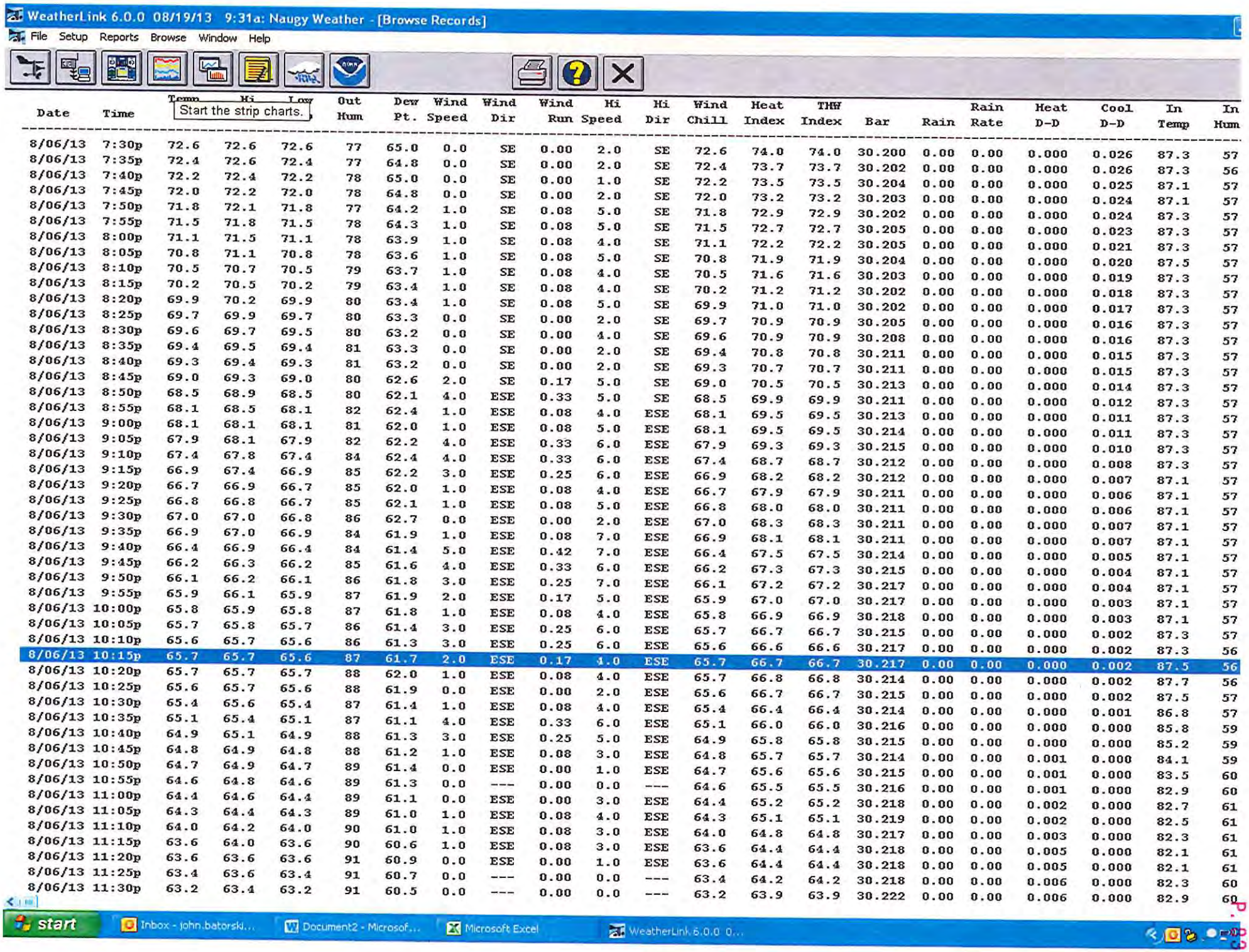
ODOR COUNTERACTANT SYSTEM: ON ✓ OFF ___ VERIFIED OPERATIONAL: YES ___ SPRAYS gpm 0

COMPLAINT REVIEWED BY: ___ DATE: ___ TIME: ___

RETURN CALL MADE BY: ___ DATE: ___ TIME: ___

RETURN CALL RESULTS:

Please see 8-10 call info



Date	Time	Temp	Hi	Low	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D	In Temp	In Hum
8/06/13	7:30p	72.6	72.6	72.6	77	65.0	0.0	SE	0.00	2.0	SE	72.6	74.0	74.0	30.200	0.00	0.00	0.000	0.026	87.3	57
8/06/13	7:35p	72.4	72.6	72.4	77	64.8	0.0	SE	0.00	2.0	SE	72.4	73.7	73.7	30.202	0.00	0.00	0.000	0.026	87.3	56
8/06/13	7:40p	72.2	72.4	72.2	78	65.0	0.0	SE	0.00	1.0	SE	72.2	73.5	73.5	30.204	0.00	0.00	0.000	0.025	87.1	57
8/06/13	7:45p	72.0	72.2	72.0	78	64.8	0.0	SE	0.00	2.0	SE	72.0	73.2	73.2	30.203	0.00	0.00	0.000	0.024	87.1	57
8/06/13	7:50p	71.8	72.1	71.8	77	64.2	1.0	SE	0.08	5.0	SE	71.8	72.9	72.9	30.202	0.00	0.00	0.000	0.024	87.3	57
8/06/13	7:55p	71.5	71.8	71.5	78	64.3	1.0	SE	0.08	5.0	SE	71.5	72.7	72.7	30.205	0.00	0.00	0.000	0.023	87.3	57
8/06/13	8:00p	71.1	71.5	71.1	78	63.9	1.0	SE	0.08	4.0	SE	71.1	72.2	72.2	30.205	0.00	0.00	0.000	0.021	87.3	57
8/06/13	8:05p	70.8	71.1	70.8	78	63.6	1.0	SE	0.08	5.0	SE	70.8	71.9	71.9	30.204	0.00	0.00	0.000	0.020	87.5	57
8/06/13	8:10p	70.5	70.7	70.5	79	63.7	1.0	SE	0.08	4.0	SE	70.5	71.6	71.6	30.203	0.00	0.00	0.000	0.019	87.3	57
8/06/13	8:15p	70.2	70.5	70.2	79	63.4	1.0	SE	0.08	4.0	SE	70.2	71.2	71.2	30.202	0.00	0.00	0.000	0.018	87.3	57
8/06/13	8:20p	69.9	70.2	69.9	80	63.4	1.0	SE	0.08	5.0	SE	69.9	71.0	71.0	30.202	0.00	0.00	0.000	0.017	87.3	57
8/06/13	8:25p	69.7	69.9	69.7	80	63.3	0.0	SE	0.00	2.0	SE	69.7	70.9	70.9	30.205	0.00	0.00	0.000	0.016	87.3	57
8/06/13	8:30p	69.6	69.7	69.5	80	63.2	0.0	SE	0.00	4.0	SE	69.6	70.9	70.9	30.208	0.00	0.00	0.000	0.016	87.3	57
8/06/13	8:35p	69.4	69.5	69.4	81	63.3	0.0	SE	0.00	2.0	SE	69.4	70.8	70.8	30.211	0.00	0.00	0.000	0.015	87.3	57
8/06/13	8:40p	69.3	69.4	69.3	81	63.2	0.0	SE	0.00	2.0	SE	69.3	70.7	70.7	30.211	0.00	0.00	0.000	0.015	87.3	57
8/06/13	8:45p	69.0	69.3	69.0	80	62.6	2.0	SE	0.17	5.0	SE	69.0	70.5	70.5	30.213	0.00	0.00	0.000	0.014	87.3	57
8/06/13	8:50p	68.5	68.9	68.5	80	62.1	4.0	ESE	0.33	5.0	SE	68.5	69.9	69.9	30.211	0.00	0.00	0.000	0.012	87.3	57
8/06/13	8:55p	68.1	68.5	68.1	82	62.4	1.0	ESE	0.08	4.0	ESE	68.1	69.5	69.5	30.213	0.00	0.00	0.000	0.011	87.3	57
8/06/13	9:00p	68.1	68.1	68.1	81	62.0	1.0	ESE	0.08	5.0	ESE	68.1	69.5	69.5	30.214	0.00	0.00	0.000	0.011	87.3	57
8/06/13	9:05p	67.9	68.1	67.9	82	62.2	4.0	ESE	0.33	6.0	ESE	67.9	69.3	69.3	30.215	0.00	0.00	0.000	0.010	87.3	57
8/06/13	9:10p	67.4	67.8	67.4	84	62.4	4.0	ESE	0.33	6.0	ESE	67.4	68.7	68.7	30.212	0.00	0.00	0.000	0.008	87.3	57
8/06/13	9:15p	66.9	67.4	66.9	85	62.2	3.0	ESE	0.25	6.0	ESE	66.9	68.2	68.2	30.212	0.00	0.00	0.000	0.007	87.1	57
8/06/13	9:20p	66.7	66.9	66.7	85	62.0	1.0	ESE	0.08	4.0	ESE	66.7	67.9	67.9	30.211	0.00	0.00	0.000	0.006	87.1	57
8/06/13	9:25p	66.8	66.8	66.7	85	62.1	1.0	ESE	0.08	5.0	ESE	66.8	68.0	68.0	30.211	0.00	0.00	0.000	0.006	87.1	57
8/06/13	9:30p	67.0	67.0	66.8	86	62.7	0.0	ESE	0.00	2.0	ESE	67.0	68.3	68.3	30.211	0.00	0.00	0.000	0.007	87.1	57
8/06/13	9:35p	66.9	67.0	66.9	84	61.9	1.0	ESE	0.08	7.0	ESE	66.9	68.1	68.1	30.211	0.00	0.00	0.000	0.007	87.1	57
8/06/13	9:40p	66.4	66.9	66.4	84	61.4	5.0	ESE	0.42	7.0	ESE	66.4	67.5	67.5	30.214	0.00	0.00	0.000	0.005	87.1	57
8/06/13	9:45p	66.2	66.3	66.2	85	61.6	4.0	ESE	0.33	6.0	ESE	66.2	67.3	67.3	30.215	0.00	0.00	0.000	0.004	87.1	57
8/06/13	9:50p	66.1	66.2	66.1	86	61.8	3.0	ESE	0.25	7.0	ESE	66.1	67.2	67.2	30.217	0.00	0.00	0.000	0.004	87.1	57
8/06/13	9:55p	65.9	66.1	65.9	87	61.9	2.0	ESE	0.17	5.0	ESE	65.9	67.0	67.0	30.217	0.00	0.00	0.000	0.003	87.1	57
8/06/13	10:00p	65.8	65.9	65.8	87	61.8	1.0	ESE	0.08	4.0	ESE	65.8	66.9	66.9	30.218	0.00	0.00	0.000	0.003	87.1	57
8/06/13	10:05p	65.7	65.8	65.7	86	61.4	3.0	ESE	0.25	6.0	ESE	65.7	66.7	66.7	30.215	0.00	0.00	0.000	0.002	87.3	57
8/06/13	10:10p	65.6	65.7	65.6	86	61.3	3.0	ESE	0.25	6.0	ESE	65.6	66.6	66.6	30.217	0.00	0.00	0.000	0.002	87.3	56
8/06/13	10:15p	65.7	65.7	65.6	87	61.7	2.0	ESE	0.17	4.0	ESE	65.7	66.7	66.7	30.217	0.00	0.00	0.000	0.002	87.5	56
8/06/13	10:20p	65.7	65.7	65.7	88	62.0	1.0	ESE	0.08	4.0	ESE	65.7	66.8	66.8	30.214	0.00	0.00	0.000	0.002	87.7	56
8/06/13	10:25p	65.6	65.7	65.6	88	61.9	0.0	ESE	0.00	2.0	ESE	65.6	66.7	66.7	30.215	0.00	0.00	0.000	0.002	87.5	57
8/06/13	10:30p	65.4	65.6	65.4	87	61.4	1.0	ESE	0.08	4.0	ESE	65.4	66.4	66.4	30.214	0.00	0.00	0.000	0.001	86.8	57
8/06/13	10:35p	65.1	65.4	65.1	87	61.1	4.0	ESE	0.33	6.0	ESE	65.1	66.0	66.0	30.216	0.00	0.00	0.000	0.000	85.8	59
8/06/13	10:40p	64.9	65.1	64.9	88	61.3	3.0	ESE	0.25	5.0	ESE	64.9	65.8	65.8	30.215	0.00	0.00	0.000	0.000	85.2	59
8/06/13	10:45p	64.8	64.9	64.8	88	61.2	1.0	ESE	0.08	3.0	ESE	64.8	65.7	65.7	30.214	0.00	0.00	0.001	0.000	84.1	59
8/06/13	10:50p	64.7	64.9	64.7	89	61.4	0.0	ESE	0.00	1.0	ESE	64.7	65.6	65.6	30.215	0.00	0.00	0.001	0.000	83.5	60
8/06/13	10:55p	64.6	64.8	64.6	89	61.3	0.0	---	0.00	0.0	---	64.6	65.5	65.5	30.216	0.00	0.00	0.001	0.000	82.9	60
8/06/13	11:00p	64.4	64.6	64.4	89	61.1	0.0	ESE	0.00	3.0	ESE	64.4	65.2	65.2	30.218	0.00	0.00	0.002	0.000	82.7	61
8/06/13	11:05p	64.3	64.4	64.3	89	61.0	1.0	ESE	0.08	4.0	ESE	64.3	65.1	65.1	30.219	0.00	0.00	0.002	0.000	82.5	61
8/06/13	11:10p	64.0	64.2	64.0	90	61.0	1.0	ESE	0.08	3.0	ESE	64.0	64.8	64.8	30.217	0.00	0.00	0.003	0.000	82.3	61
8/06/13	11:15p	63.6	64.0	63.6	90	60.6	1.0	ESE	0.08	3.0	ESE	63.6	64.4	64.4	30.218	0.00	0.00	0.005	0.000	82.1	61
8/06/13	11:20p	63.6	63.6	63.6	91	60.9	0.0	ESE	0.00	1.0	ESE	63.6	64.4	64.4	30.218	0.00	0.00	0.005	0.000	82.1	61
8/06/13	11:25p	63.4	63.6	63.4	91	60.7	0.0	---	0.00	0.0	---	63.4	64.2	64.2	30.218	0.00	0.00	0.006	0.000	82.3	60
8/06/13	11:30p	63.2	63.4	63.2	91	60.5	0.0	---	0.00	0.0	---	63.2	63.9	63.9	30.222	0.00	0.00	0.006	0.000	82.9	60

ODOR COMPLAINT REPORT

CALLER INFORMATION: DATE: 8/10/13 TIME: 9:50pm

CALL TAKEN BY: Mike Hr.

NAME OF COMPLAINTANT: Toni Cestari PHONE NUMBER:

ADDRESS/LOCATION WHERE ODOR IS BEING DETECTED:

80 Lewis St. ✓

STRENGTH OF ODOR: FAINT ___ NOTICABLE___ DEFINITE✓ STRONG___ OVERWHELMING___

DESCRIPTION OF ODOR: AMMONIA___ CABBAGE___ FECAL___ FISHY___ GARLIC___ MEDICINAL ___ ROTTEN EGGS___ SKUNKY ___ SOLVENT/FUEL___ OTHER ___

DOES THE CALLER WANT A FOLLOW-UP CALL? YES___ NO___

DON'T FORGET TO THANK THE CALLER FOR THEIR CONCERN!!

ODOR INVESTIGATION:

(FROM CONTROL ROOM WEATHER STATION)

WIND DIRECTION: WSW SSW WIND SPEED: calm WEATHER: TEMP 69 RAIN — HUMID — DRY —
UNSEASONABLY WARM/COLD

COMPLETE PLANT SURVEY LISTING POSSIBLE SOURCES OF ODORS CONTRIBUTING TO THE COMPLAINT:

ODOR CONTROL EQUIPMENT STATUS:

PRIMARY SCRUBBER: ON✓ OFF___ PH 6.6 ORP 839 MAKE UP WATER: 0.5-1 GPM___
SPRAYS good

FILTER BLDG SCRUBBER: ON✓ OFF___ PH 8.2 ORP 654 MAKE UP WATER: 1-3 GPM___
SPRAYS good

PERMANGANATE FEEDERS:

AERATION: ON✓ OFF___ VERIFIED OPERATIONAL: YES✓ NO___

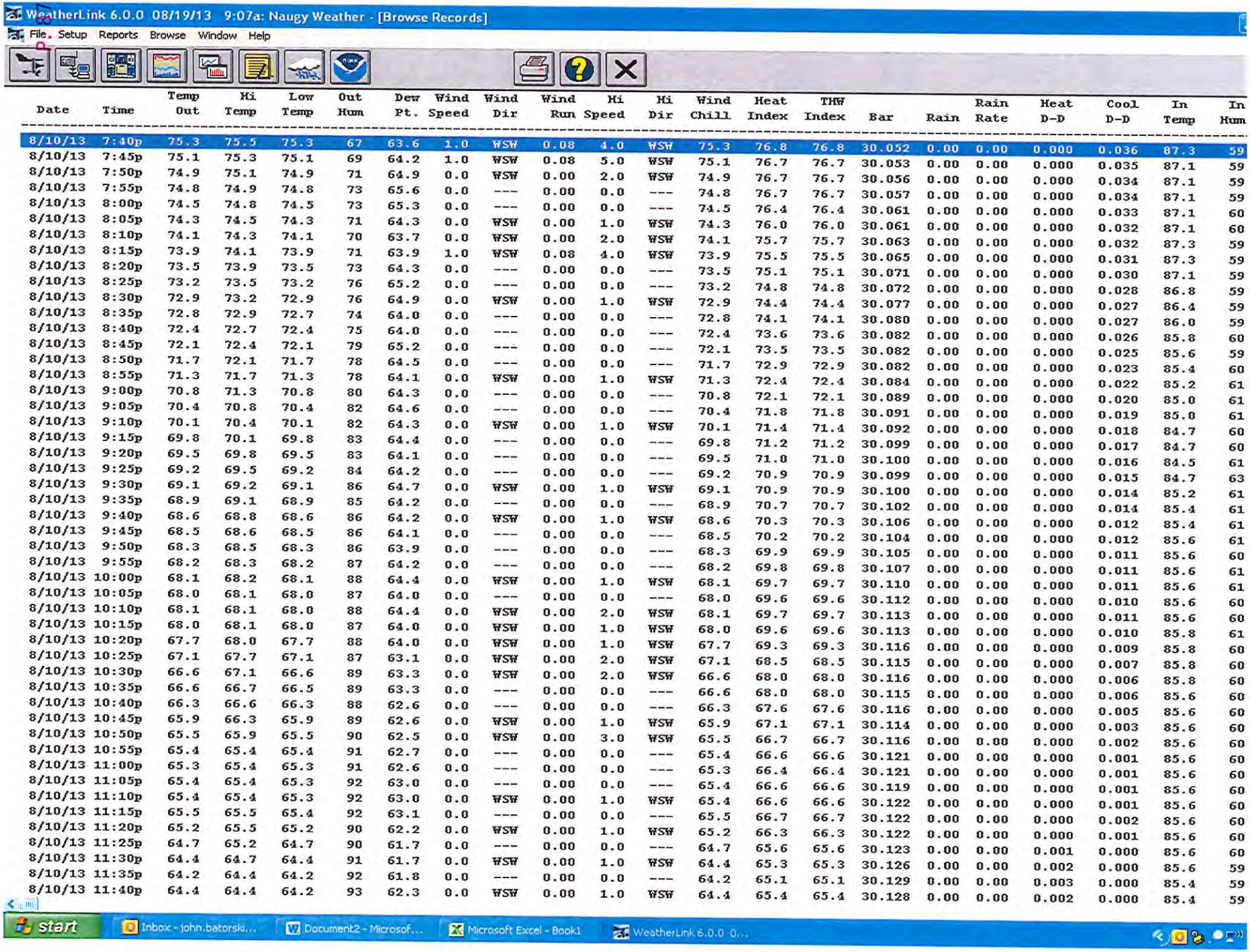
SLUDGE STORAGE: ON✓ OFF___ VERIFIED OPERATIONAL: YES✓ NO___

ODOR COUNTERACTANT SYSTEM: ON✓ OFF___ VERIFIED OPERATIONAL: YES✓ SPRAYS OK

COMPLAINT REVIEWED BY: John Batorski DATE: 8-12-13 TIME: ~ 9 AM

RETURN CALL MADE BY: John Batorski DATE: 8-12-13 TIME: ~ 8-9 AM

RETURN CALL RESULTS:
Discussed odors with Mrs. Cestari. She stated there were odors in the evening on several days.
Difficult to identify odor cause. On one day, staff was cleaning a vertical conveyor that failed - There may have been issues (8-10-13) as the conveyor was cleaned. Staff did take precautions for odors however some odors may have escaped as cleanup was in progress



Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D	In Temp	In Hum
8/10/13	7:40p	75.3	75.5	75.3	67	63.6	1.0	WSW	0.08	4.0	WSW	75.3	76.8	76.8	30.052	0.00	0.00	0.000	0.036	87.3	59
8/10/13	7:45p	75.1	75.3	75.1	69	64.2	1.0	WSW	0.08	5.0	WSW	75.1	76.7	76.7	30.053	0.00	0.00	0.000	0.035	87.1	59
8/10/13	7:50p	74.9	75.1	74.9	71	64.9	0.0	WSW	0.00	2.0	WSW	74.9	76.7	76.7	30.056	0.00	0.00	0.000	0.034	87.1	59
8/10/13	7:55p	74.8	74.9	74.8	73	65.6	0.0	---	0.00	0.0	---	74.8	76.7	76.7	30.057	0.00	0.00	0.000	0.034	87.1	59
8/10/13	8:00p	74.5	74.8	74.5	73	65.3	0.0	---	0.00	0.0	---	74.5	76.4	76.4	30.061	0.00	0.00	0.000	0.033	87.1	60
8/10/13	8:05p	74.3	74.5	74.3	71	64.3	0.0	WSW	0.00	1.0	WSW	74.3	76.0	76.0	30.061	0.00	0.00	0.000	0.032	87.1	60
8/10/13	8:10p	74.1	74.3	74.1	70	63.7	0.0	WSW	0.00	2.0	WSW	74.1	75.7	75.7	30.063	0.00	0.00	0.000	0.032	87.3	59
8/10/13	8:15p	73.9	74.1	73.9	71	63.9	1.0	WSW	0.08	4.0	WSW	73.9	75.5	75.5	30.065	0.00	0.00	0.000	0.031	87.3	59
8/10/13	8:20p	73.5	73.9	73.5	73	64.3	0.0	---	0.00	0.0	---	73.5	75.1	75.1	30.071	0.00	0.00	0.000	0.030	87.1	59
8/10/13	8:25p	73.2	73.5	73.2	76	65.2	0.0	---	0.00	0.0	---	73.2	74.8	74.8	30.072	0.00	0.00	0.000	0.028	86.8	59
8/10/13	8:30p	72.9	73.2	72.9	76	64.9	0.0	WSW	0.00	1.0	WSW	72.9	74.4	74.4	30.077	0.00	0.00	0.000	0.027	86.4	59
8/10/13	8:35p	72.8	72.9	72.7	74	64.0	0.0	---	0.00	0.0	---	72.8	74.1	74.1	30.080	0.00	0.00	0.000	0.027	86.0	59
8/10/13	8:40p	72.4	72.7	72.4	75	64.0	0.0	---	0.00	0.0	---	72.4	73.6	73.6	30.082	0.00	0.00	0.000	0.026	85.8	60
8/10/13	8:45p	72.1	72.4	72.1	79	65.2	0.0	---	0.00	0.0	---	72.1	73.5	73.5	30.082	0.00	0.00	0.000	0.025	85.6	59
8/10/13	8:50p	71.7	72.1	71.7	78	64.5	0.0	---	0.00	0.0	---	71.7	72.9	72.9	30.082	0.00	0.00	0.000	0.023	85.4	60
8/10/13	8:55p	71.3	71.7	71.3	78	64.1	0.0	WSW	0.00	1.0	WSW	71.3	72.4	72.4	30.084	0.00	0.00	0.000	0.022	85.2	61
8/10/13	9:00p	70.8	71.3	70.8	80	64.3	0.0	---	0.00	0.0	---	70.8	72.1	72.1	30.089	0.00	0.00	0.000	0.020	85.0	61
8/10/13	9:05p	70.4	70.8	70.4	82	64.6	0.0	---	0.00	0.0	---	70.4	71.8	71.8	30.091	0.00	0.00	0.000	0.019	85.0	61
8/10/13	9:10p	70.1	70.4	70.1	82	64.3	0.0	WSW	0.00	1.0	WSW	70.1	71.4	71.4	30.092	0.00	0.00	0.000	0.018	84.7	60
8/10/13	9:15p	69.8	70.1	69.8	83	64.4	0.0	---	0.00	0.0	---	69.8	71.2	71.2	30.099	0.00	0.00	0.000	0.017	84.7	60
8/10/13	9:20p	69.5	69.8	69.5	83	64.1	0.0	---	0.00	0.0	---	69.5	71.0	71.0	30.100	0.00	0.00	0.000	0.016	84.5	61
8/10/13	9:25p	69.2	69.5	69.2	84	64.2	0.0	---	0.00	0.0	---	69.2	70.9	70.9	30.099	0.00	0.00	0.000	0.015	84.7	63
8/10/13	9:30p	69.1	69.2	69.1	86	64.7	0.0	WSW	0.00	1.0	WSW	69.1	70.9	70.9	30.100	0.00	0.00	0.000	0.014	85.2	61
8/10/13	9:35p	68.9	69.1	68.9	85	64.2	0.0	---	0.00	0.0	---	68.9	70.7	70.7	30.102	0.00	0.00	0.000	0.014	85.4	61
8/10/13	9:40p	68.6	68.8	68.6	86	64.2	0.0	WSW	0.00	1.0	WSW	68.6	70.3	70.3	30.106	0.00	0.00	0.000	0.012	85.4	61
8/10/13	9:45p	68.5	68.6	68.5	86	64.1	0.0	---	0.00	0.0	---	68.5	70.2	70.2	30.104	0.00	0.00	0.000	0.012	85.6	61
8/10/13	9:50p	68.3	68.5	68.3	86	63.9	0.0	---	0.00	0.0	---	68.3	69.9	69.9	30.105	0.00	0.00	0.000	0.011	85.6	60
8/10/13	9:55p	68.2	68.3	68.2	87	64.2	0.0	---	0.00	0.0	---	68.2	69.8	69.8	30.107	0.00	0.00	0.000	0.011	85.6	61
8/10/13	10:00p	68.1	68.2	68.1	88	64.4	0.0	WSW	0.00	1.0	WSW	68.1	69.7	69.7	30.110	0.00	0.00	0.000	0.011	85.6	61
8/10/13	10:05p	68.0	68.1	68.0	87	64.0	0.0	---	0.00	0.0	---	68.0	69.6	69.6	30.112	0.00	0.00	0.000	0.010	85.6	60
8/10/13	10:10p	68.1	68.1	68.0	88	64.4	0.0	WSW	0.00	2.0	WSW	68.1	69.7	69.7	30.113	0.00	0.00	0.000	0.011	85.6	60
8/10/13	10:15p	68.0	68.1	68.0	87	64.0	0.0	WSW	0.00	1.0	WSW	68.0	69.6	69.6	30.113	0.00	0.00	0.000	0.010	85.8	61
8/10/13	10:20p	67.7	68.0	67.7	88	64.0	0.0	WSW	0.00	1.0	WSW	67.7	69.3	69.3	30.116	0.00	0.00	0.000	0.009	85.8	60
8/10/13	10:25p	67.1	67.7	67.1	87	63.1	0.0	WSW	0.00	2.0	WSW	67.1	68.5	68.5	30.115	0.00	0.00	0.000	0.007	85.8	60
8/10/13	10:30p	66.6	67.1	66.6	89	63.3	0.0	WSW	0.00	2.0	WSW	66.6	68.0	68.0	30.116	0.00	0.00	0.000	0.006	85.8	60
8/10/13	10:35p	66.6	66.7	66.5	89	63.3	0.0	---	0.00	0.0	---	66.6	68.0	68.0	30.115	0.00	0.00	0.000	0.006	85.6	60
8/10/13	10:40p	66.3	66.6	66.3	88	62.6	0.0	---	0.00	0.0	---	66.3	67.6	67.6	30.116	0.00	0.00	0.000	0.005	85.6	60
8/10/13	10:45p	65.9	66.3	65.9	89	62.6	0.0	WSW	0.00	1.0	WSW	65.9	67.1	67.1	30.114	0.00	0.00	0.000	0.003	85.6	60
8/10/13	10:50p	65.5	65.9	65.5	90	62.5	0.0	WSW	0.00	3.0	WSW	65.5	66.7	66.7	30.116	0.00	0.00	0.000	0.002	85.6	60
8/10/13	10:55p	65.4	65.4	65.4	91	62.7	0.0	---	0.00	0.0	---	65.4	66.6	66.6	30.121	0.00	0.00	0.000	0.001	85.6	60
8/10/13	11:00p	65.3	65.4	65.3	91	62.6	0.0	---	0.00	0.0	---	65.3	66.4	66.4	30.121	0.00	0.00	0.000	0.001	85.6	60
8/10/13	11:05p	65.4	65.4	65.3	92	63.0	0.0	---	0.00	0.0	---	65.4	66.6	66.6	30.119	0.00	0.00	0.000	0.001	85.6	60
8/10/13	11:10p	65.4	65.4	65.3	92	63.0	0.0	WSW	0.00	1.0	WSW	65.4	66.6	66.6	30.122	0.00	0.00	0.000	0.001	85.6	60
8/10/13	11:15p	65.5	65.5	65.4	92	63.1	0.0	---	0.00	0.0	---	65.5	66.7	66.7	30.122	0.00	0.00	0.000	0.002	85.6	60
8/10/13	11:20p	65.2	65.5	65.2	90	62.2	0.0	WSW	0.00	1.0	WSW	65.2	66.3	66.3	30.122	0.00	0.00	0.000	0.001	85.6	60
8/10/13	11:25p	64.7	65.2	64.7	90	61.7	0.0	---	0.00	0.0	---	64.7	65.6	65.6	30.123	0.00	0.00	0.001	0.000	85.6	60
8/10/13	11:30p	64.4	64.7	64.4	91	61.7	0.0	WSW	0.00	1.0	WSW	64.4	65.3	65.3	30.126	0.00	0.00	0.002	0.000	85.6	59
8/10/13	11:35p	64.2	64.4	64.2	92	61.8	0.0	---	0.00	0.0	---	64.2	65.1	65.1	30.129	0.00	0.00	0.003	0.000	85.4	59
8/10/13	11:40p	64.4	64.4	64.2	93	62.3	0.0	WSW	0.00	1.0	WSW	64.4	65.4	65.4	30.128	0.00	0.00	0.002	0.000	85.4	59

ODOR COMPLAINT REPORT

CALLER INFORMATION: DATE: Aug 14, 2013 TIME: ~9:00 AM

CALL TAKEN BY: Email from Tim Stewart

NAME OF COMPLAINTANT: Christine Mezzo Brault PHONE NUMBER: —

ADDRESS/LOCATION WHERE ODOR IS BEING DETECTED:
Inwood Drive Pump Station

see attached email

STRENGTH OF ODOR: FAINT ___ NOTICABLE ___ DEFINITE ___ STRONG ___ OVERWHELMING ___

DESCRIPTION OF ODOR: AMMONIA ___ CABBAGE ___ FECAL ___ FISHY ___ GARLIC ___ MEDICINAL ___ ROTTEN EGGS ___ SKUNKY ___ SOLVENT/FUEL ___ OTHER ___

DOES THE CALLER WANT A FOLLOW-UP CALL? YES ___ NO ___

DON'T FORGET TO THANK THE CALLER FOR THEIR CONCERN!!

ODOR INVESTIGATION: – not applicable for this complaint

(FROM CONTROL ROOM WEATHER STATION) – N/A for this complaint

WIND DIRECTION: ___ WIND SPEED: ___ WEATHER: TEMP ___ RAIN ___ HUMID ___ DRY ___ UNSEASONABLY WARM/COLD ___

COMPLETE PLANT SURVEY LISTING POSSIBLE SOURCES OF ODORS CONTRIBUTING TO THE COMPLAINT:
Odors occur as sewage is pumped from Maple & May pump station to Inwood Pump station. Odors do not always occur. The grating was covered with rubber mating and sealed. A check the following day revealed no odors.

ODOR CONTROL EQUIPMENT STATUS: – N/A (not applicable) for this complaint

PRIMARY SCRUBBER: ON ___ OFF ___ PH ___ ORP ___ MAKE UP WATER: 0.5-1 GPM ___ SPRAYS clean

FILTER BLDG SCRUBBER: ON ___ OFF ___ PH ___ ORP ___ MAKE UP WATER: 1-3 GPM ___ SPRAYS clean

PERMANGANATE FEEDERS: – (N/A)

AERATION: ON ___ OFF ___ VERIFIED OPERATIONAL: YES ___ NO ___

SLUDGE STORAGE: ON ___ OFF ___ VERIFIED OPERATIONAL: YES ___ NO ___

ODOR COUNTERACTANT SYSTEM: ON ___ OFF ___ VERIFIED OPERATIONAL: YES ___ SPRAYS ___

COMPLAINT REVIEWED BY: John Batorski DATE: 8-14-13 TIME: ~ 10 AM

RETURN ~~CALL~~ email MADE BY: John Batorski DATE: 8-16-13 TIME: ~11 AM

RETURN CALL RESULTS:
Collection staff placed rubber mating over grating at the pump station. There were no odors at the pump station. Keep in mind, this is the first complaint on odors from that pump station. There is no grease in the pump station well.
Staff will monitor the station for odors.

Batorski, John

From: Batorski, John
Sent: Friday, August 16, 2013 11:14 AM
To: 'Jim Stewart'
Cc: Makuch, Christopher
Subject: RE: Inwood Drive Pumping Station
Attachments: Copy of Platts Mill Pumping rate CY 11.xls

Jim,

The "stench" occurs when the station is receiving sewage from the other pump station. As the sewage fills the pump well, some odors are released. It only happens as sewage enters that wet well and does not always occur. A rubber mat was placed over the grating to prevent any odors from escaping. There is no grease buildup in the wet well. The collections staff reports there were no odors there yesterday. Hopefully, the mat will be effective. If not, we are looking at a carbon system with a small fan which will cost a few dollars.

Attached is some operational data on the Platts Mill pump station. Rainfall is also shown and there is some correlation.

Please let me know if this is sufficient. The second pump I am told seldom operates as the lead pump is able to handle normal flows,

Thanks,

John Batorski
Plant Manager
Veolia Water North America - Northeast LLC
500 Cherry Street
Naugatuck, CT 06770
Phone: 203-723-1433, ext 2015
Fax: 203-723-8539
Cell: 203-509-6010

From: Jim Stewart [mailto:jstewart@naugatuck-ct.gov]
Sent: Wednesday, August 14, 2013 1:59 PM
To: Batorski, John
Subject: FW: Inwood Drive Pumping Station

John

can you investigate this and let me know what you find so I can report back to the Mayor

Jim

From: Bob Mezzo [mailto:bob@bobmezzo.com]
Sent: Wednesday, August 14, 2013 9:20 AM
To: Jim Stewart
Subject: Inwood Drive Pumping Station

Batorski, John

From: Jim Stewart <jstewart@naugatuck-ct.gov>
Sent: Wednesday, August 14, 2013 1:59 PM
To: Batorski, John
Subject: FW: Inwood Drive Pumping Station

John

can you investigate this and let me know what you find so I can report back to the Mayor

Jim

From: Bob Mezzo [mailto:bob@bobmezzo.com]
Sent: Wednesday, August 14, 2013 9:20 AM
To: Jim Stewart
Subject: Inwood Drive Pumping Station

Hi Jim:

Please investigate the smell referenced in the following Facebook posts:

Christine Mezzo Breault *posted to* **Bob Mezzo**
13 hours ago

Bob, can you please do something about the stench coming from pumping station 4 on the corner of Maple Hill and Inwood. It is unbearable.

Like · [Comment]

Jodi Breault Very "ripe" today.. euwww

6 hours ago · Like

Thanks and have a great day.

Bob

ODOR COMPLAINT REPORT

CALLER INFORMATION: DATE: 8/16/13 TIME: 2:47pm

CALL TAKEN BY: Odor hotline

NAME OF COMPLAINTANT: Jennifer Merrill PHONE NUMBER: 203-206-0467

ADDRESS/LOCATION WHERE ODOR IS BEING DETECTED: 163 Meadow Brook

---

STRENGTH OF ODOR: FAINT ___ NOTICABLE ___ DEFINITE ___ STRONG X OVERWHELMING ___

DESCRIPTION OF ODOR: AMMONIA ___ CABBAGE ___ FECAL ___ FISHY ___ GARLIC ___ MEDICINAL ___ ROTTEN EGGS ___ SKUNKY ___ SOLVENT/FUEL ___ OTHER ___

DOES THE CALLER WANT A FOLLOW-UP CALL? YES ___ NO ___

DON'T FORGET TO THANK THE CALLER FOR THEIR CONCERN!!

ODOR INVESTIGATION:

(FROM CONTROL ROOM WEATHER STATION) see attached weather station

WIND DIRECTION SSW WIND SPEED: 0-1 MPH-calm WEATHER: TEMP ~77 RAIN — HUMID 58% DRY — UNSEASONABLY WARM/COLD —

COMPLETE PLANT SURVEY LISTING POSSIBLE SOURCES OF ODORS CONTRIBUTING TO THE COMPLAINT:

Plant had no odors that day - no trucks unloading. Site was upwind of plant.

ODOR CONTROL EQUIPMENT STATUS:

PRIMARY SCRUBBER: ON ✓ OFF ___ PH 8.1 ORP 855 MAKE UP WATER: 0.5-1 GPM ✓ SPRAYS good

FILTER BLDG SCRUBBER: ON ✓ OFF ___ PH 8.9 ORP 832 MAKE UP WATER: 1-3 GPM ✓ SPRAYS good

PERMANGANATE FEEDERS:

AERATION: ~~ON~~ OFF ___ VERIFIED OPERATIONAL: (YES) ___ NO ___

SLUDGE STORAGE: (ON) ___ OFF ___ VERIFIED OPERATIONAL: (YES) ___ NO ___

ODOR COUNTERACTANT SYSTEM: (ON) ___ OFF ___ VERIFIED OPERATIONAL: (YES) ___ SPRAYS good

---

COMPLAINT REVIEWED BY: John Batorski DATE: 8-16-13 TIME: ~3 PM

RETURN ~~CALL~~ VISIT MADE BY: John Batorski DATE: 8-16-13 TIME: ~3 PM

RETURN CALL RESULTS:

I went directly to sight within 10 minutes of complaint and spoke to Mrs. Merrill. She stated the odor went away by the time I got there. I did not smell any odors or detect unusual odors. Wind was calm, S-SW, her flag was slightly moving indicating N-NW flow (opposite of flag & anemometer at plant). No odors on plant site, no trucks unloading

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/16/13	12:50p	75.8	75.9	75.7	52	56.9	2.0	SSE	0.17	6.0	SSE	75.8	75.9	75.9	30.240	0.00	0.00	0.000	0.038
8/16/13	12:55p	76.2	76.3	75.8	54	58.3	2.0	SSE	0.17	9.0	SSE	76.2	76.4	76.4	30.240	0.00	0.00	0.000	0.039
8/16/13	1:00p	76.6	76.6	76.3	55	59.2	5.0	S	0.42	9.0	SSE	76.6	76.9	76.9	30.240	0.00	0.00	0.000	0.040
8/16/13	1:05p	76.8	76.8	76.6	53	58.4	3.0	SSE	0.25	8.0	SSE	76.8	76.9	76.9	30.239	0.00	0.00	0.000	0.041
8/16/13	1:10p	77.2	77.2	76.8	50	57.1	3.0	SSE	0.25	6.0	SSE	77.2	77.0	77.0	30.237	0.00	0.00	0.000	0.042
8/16/13	1:15p	77.5	77.5	77.1	52	58.5	0.0	SSE	0.00	4.0	SSE	77.5	77.6	77.6	30.237	0.00	0.00	0.000	0.043
8/16/13	1:20p	77.6	78.0	77.6	49	56.9	5.0	SW	0.42	12.0	SSW	77.6	77.4	77.4	30.239	0.00	0.00	0.000	0.044
8/16/13	1:25p	77.2	77.6	77.2	50	57.1	4.0	SW	0.33	9.0	SSW	77.2	77.0	77.0	30.239	0.00	0.00	0.000	0.042
8/16/13	1:30p	76.5	77.2	76.5	49	55.9	7.0	WSW	0.58	11.0	SW	76.5	76.3	76.3	30.239	0.00	0.00	0.000	0.040
8/16/13	1:35p	76.0	76.5	76.0	51	56.6	5.0	WSW	0.42	8.0	WSW	76.0	76.1	76.1	30.240	0.00	0.00	0.000	0.038
8/16/13	1:40p	76.1	76.1	76.0	50	56.1	4.0	WSW	0.33	7.0	WSW	76.1	76.1	76.1	30.240	0.00	0.00	0.000	0.039
8/16/13	1:45p	76.9	76.9	76.1	49	56.3	1.0	WSW	0.08	5.0	WSW	76.9	76.7	76.7	30.240	0.00	0.00	0.000	0.041
8/16/13	1:50p	77.8	77.8	76.9	50	57.7	2.0	WSW	0.17	6.0	WSW	77.8	77.8	77.8	30.240	0.00	0.00	0.000	0.044
8/16/13	1:55p	78.1	78.1	77.8	50	57.9	5.0	WSW	0.42	10.0	SSW	78.1	78.1	78.1	30.238	0.00	0.00	0.000	0.045
8/16/13	2:00p	77.5	78.1	77.5	48	56.3	8.0	S	0.67	14.0	SE	77.0	77.3	76.8	30.237	0.00	0.00	0.000	0.043
8/16/13	2:05p	76.4	77.5	76.4	47	54.7	10.0	SE	0.83	18.0	ESE	74.5	76.1	74.2	30.238	0.00	0.00	0.000	0.040
8/16/13	2:10p	76.3	76.4	76.1	50	56.3	5.0	ESE	0.42	12.0	ESE	76.3	76.2	76.2	30.238	0.00	0.00	0.000	0.039
8/16/13	2:15p	76.6	76.6	76.3	52	57.7	6.0	ESE	0.50	10.0	ESE	76.6	76.6	76.6	30.237	0.00	0.00	0.000	0.040
8/16/13	2:20p	76.8	76.9	76.6	50	56.8	5.0	SE	0.42	8.0	SE	76.8	76.6	76.6	30.237	0.00	0.00	0.000	0.041
8/16/13	2:25p	76.9	76.9	76.7	50	56.8	1.0	SSE	0.08	5.0	SSE	76.9	76.7	76.7	30.235	0.00	0.00	0.000	0.041
8/16/13	2:30p	77.5	77.5	76.9	54	59.5	4.0	SSE	0.33	10.0	S	77.5	77.8	77.8	30.234	0.00	0.00	0.000	0.043
8/16/13	2:35p	76.7	77.5	76.7	56	59.8	6.0	SSW	0.50	10.0	SSW	76.7	77.1	77.1	30.235	0.00	0.00	0.000	0.041
8/16/13	2:40p	76.1	76.7	76.1	57	59.8	4.0	SSW	0.33	8.0	SSW	76.1	76.6	76.6	30.233	0.00	0.00	0.000	0.039
8/16/13	2:45p	75.8	76.1	75.8	60	60.9	4.0	SSW	0.33	6.0	SSW	75.8	76.5	76.5	30.230	0.00	0.00	0.000	0.038
8/16/13	2:50p	75.6	75.7	75.5	60	60.7	4.0	SSW	0.33	6.0	SSW	75.6	76.4	76.4	30.230	0.00	0.00	0.000	0.037
8/16/13	2:55p	75.9	75.9	75.6	59	60.5	2.0	SSW	0.17	6.0	SSW	75.9	76.5	76.5	30.230	0.00	0.00	0.000	0.038
8/16/13	3:00p	76.5	76.5	75.9	62	62.5	0.0	SSW	0.00	3.0	SSW	76.5	77.4	77.4	30.230	0.00	0.00	0.000	0.040
8/16/13	3:05p	76.9	76.9	76.6	63	63.3	1.0	SSW	0.08	3.0	SSW	76.9	78.0	78.0	30.230	0.00	0.00	0.000	0.041
8/16/13	3:10p	76.8	76.9	76.8	58	60.9	1.0	SSW	0.08	5.0	SSW	76.8	77.4	77.4	30.227	0.00	0.00	0.000	0.041
8/16/13	3:15p	76.6	76.8	76.6	60	61.7	0.0	SSW	0.00	2.0	SSW	76.6	77.4	77.4	30.228	0.00	0.00	0.000	0.040
8/16/13	3:20p	76.4	76.6	76.4	62	62.4	0.0	SSW	0.00	1.0	SSW	76.4	77.3	77.3	30.227	0.00	0.00	0.000	0.040
8/16/13	3:25p	76.8	76.8	76.4	64	63.7	0.0	SSW	0.00	2.0	SSW	76.8	78.0	78.0	30.229	0.00	0.00	0.000	0.041
8/16/13	3:30p	76.9	77.0	76.8	62	62.9	0.0	SSW	0.00	2.0	SSW	76.9	77.9	77.9	30.228	0.00	0.00	0.000	0.041
8/16/13	3:35p	76.4	76.9	76.4	57	60.0	0.0	SSW	0.00	2.0	SSW	76.4	76.9	76.9	30.227	0.00	0.00	0.000	0.040
8/16/13	3:40p	76.3	76.4	76.2	63	62.8	0.0	SSW	0.00	1.0	SSW	76.3	77.3	77.3	30.225	0.00	0.00	0.000	0.039
8/16/13	3:45p	76.3	76.4	76.3	61	61.9	0.0	SSW	0.00	2.0	SSW	76.3	77.1	77.1	30.224	0.00	0.00	0.000	0.039
8/16/13	3:50p	76.2	76.3	76.2	62	62.2	0.0	SSW	0.00	3.0	SSW	76.2	77.1	77.1	30.225	0.00	0.00	0.000	0.039
8/16/13	3:55p	75.9	76.2	75.9	61	61.5	1.0	SSW	0.08	3.0	SSW	75.9	76.7	76.7	30.225	0.00	0.00	0.000	0.038
8/16/13	4:00p	75.3	75.8	75.3	60	60.5	1.0	SSW	0.08	3.0	SSW	75.3	76.1	76.1	30.224	0.00	0.00	0.000	0.036
8/16/13	4:05p	75.1	75.3	75.1	60	60.3	1.0	SSW	0.08	3.0	SSW	75.1	76.0	76.0	30.226	0.00	0.00	0.000	0.035
8/16/13	4:10p	74.9	75.1	74.9	61	60.5	1.0	SSW	0.08	4.0	SSW	74.9	75.9	75.9	30.224	0.00	0.00	0.000	0.034
8/16/13	4:15p	75.1	75.1	74.9	66	63.0	0.0	SSW	0.00	1.0	SSW	75.1	76.5	76.5	30.223	0.00	0.00	0.000	0.035
8/16/13	4:20p	75.1	75.1	75.0	63	61.6	0.0	SSW	0.00	1.0	SSW	75.1	76.2	76.2	30.226	0.00	0.00	0.000	0.035
8/16/13	4:25p	75.1	75.1	75.0	65	62.5	0.0	SSW	0.00	1.0	SSW	75.1	76.4	76.4	30.226	0.00	0.00	0.000	0.035
8/16/13	4:30p	75.3	75.3	75.1	68	64.0	0.0	SSW	0.00	2.0	SSW	75.3	76.8	76.8	30.227	0.00	0.00	0.000	0.036
8/16/13	4:35p	75.7	75.7	75.3	66	63.5	0.0	SSW	0.00	1.0	SSW	75.7	77.0	77.0	30.226	0.00	0.00	0.000	0.037
8/16/13	4:40p	76.2	76.2	75.7	66	64.0	0.0	SSW	0.00	1.0	SSW	76.2	77.5	77.5	30.225	0.00	0.00	0.000	0.039
8/16/13	4:45p	76.6	76.6	76.2	60	61.7	0.0	SSW	0.00	3.0	SSW	76.6	77.4	77.4	30.226	0.00	0.00	0.000	0.040
8/16/13	4:50p	76.7	76.7	76.6	60	61.8	0.0	SSW	0.00	2.0	SSW	76.7	77.5	77.5	30.226	0.00	0.00	0.000	0.041
8/16/13	4:55p	77.2	77.2	76.7	62	63.2	0.0	SSW	0.00	2.0	SSW	77.2	78.2	78.2	30.222	0.00	0.00	0.000	0.042
8/16/13	5:00p	78.0	78.0	77.2	60	63.0	1.0	SSW	0.08	4.0	SSW	78.0	78.9	78.9	30.223	0.00	0.00	0.000	0.045