

October 26, 2010
File No. 05.0043654.00



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Mr. Joseph Martella
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02903

Re: Former Gas Holder Dismantling Project
Status Update
Former Tidewater MGP and Power Plant Site
200 Taft Street
Pawtucket, Rhode Island

Dear Mr. Martella,

Per our recent discussions, we have prepared this letter to summarize the status of the former gas holder dismantling project currently being completed at the above referenced Tidewater site (herein referred to as the "Site"). The holder dismantling work is being performed consistent with all applicable Rhode Island Department of Environmental Management (RIDEM), City of Pawtucket, and Occupational Safety and Health Administration (OSHA) requirements. This project is being conducted on behalf of The Narragansett Electric Company d/b/a/ National Grid (National Grid) by the TFord Company under the supervision of GZA GeoEnvironmental, Inc. The holder dismantling project was initiated in August 2010 and is currently anticipated to be completed in early November 2010. Site restoration activities, involving the placement of clean¹, imported fill materials will follow the dismantling project. We currently anticipate these site restoration activities will be completed in December 2010.

This status update includes air quality monitoring data which is being collected and analyzed as an integral part of our environmental protection and monitoring program associated with this effort. The data are attached and discussed herein.

Project Status

The Tidewater Manufactured Gas Plant (MGP) used industrial processes to produce gas from coal and oil from the late 1880s through the late 1960s. The gas was used primarily for the same purposes that natural gas is used today. This manufactured gas was stored in the two large steel holders on-Site for subsequent distribution to the neighboring community. Prior to the start of the dismantling project, these holders contained a relatively small amount of sludge which was a by-product of the former gas storage operations, as well as accumulated rainwater. The two former gas holders associated with the historic MGP located on the northwest side of the Site adjacent to Tidewater Street are currently being dismantled and removed by National Grid's contractor. These former

¹ All imported fill materials will be compliant with RIDEM Method 1 Residential Direct Exposure Criteria (RDEC).



holders are referred to as Nos. 7 and 8. A figure depicting the location of these former holders is attached. The dismantling portion of this project was initiated in August 2010 and is expected to be complete in early November 2010. The following summarizes the primary activities performed to date:

- Prior to cleaning and dismantling the holders, rainwater that had accumulated was removed, treated and discharged to the Seekonk River. This treatment and discharge was performed consistent with a Rhode Island Pollutant Elimination System (RIPDES) permit issued by RIDEM. This preliminary activity was initiated in April 2010 and completed in July 2010.
- Loose/flaking paint and asbestos containing materials were removed from the exterior of each holder in preparation for dismantling.
- Sludge by-products, which accumulated in the bottom of the holders were removed, processed and treated on-Site for subsequent off-Site disposal. This work was also initiated in August 2010. To date, all sludge has been removed, processed and transferred into sealed containers for off-Site shipment. We currently anticipate that these wastes will be shipped off-Site by November 8, 2010. These sludges contain certain volatile and semi-volatile organic compounds and exhibit a “moth-ball like” odor due primarily to naphthalene. Due to the presence of these constituents and the potential odors associated with them, certain environmental controls and monitoring measures were employed throughout this project. These measures and air monitoring results are discussed further below.
- Dismantling and off-Site recycling of the steel tank structures. The steel holders are carefully cut into small pieces, loaded and trucked off-Site for recycling. Holder No. 7 was dismantled and removed between September 13, 2010 and September 22, 2010. Holder No. 8 is currently being removed and we expect it will be completed by November 12, 2010.
- Once Holder 8 is removed, the footprint of both holders will be backfilled with clean, imported fill materials and grassed.

Environmental Protection and Monitoring

As described above, the presence of volatile and semi-volatile constituents within the sludges removed from the tanks and the dismantling activities require that environmental control and monitoring measures be employed during this type of project. These measures, which are listed below, were implemented and monitored for the purpose of protecting the health and safety of both on-Site workers and the neighboring community and mitigating any odors:

- A real-time, state of the art perimeter air monitoring system (AirLogics System) which detects both particulates and volatile organic compounds at the project boundaries has been used. In the event certain air quality levels are detected, the system alerts on-Site personnel and either work is stopped or other air quality safeguards are implemented. This perimeter monitoring system operates 24 hours per day, 7 days a week. Further details related to the AirLogics system and other



air quality monitoring performed during this effort are presented below. On October 22, 2010, we provided you AirLogics data collected through October 18, 2010 along with an explanatory letter.

- To supplement the AirLogics system, air quality samples for laboratory analysis from up and downwind locations have been collected on an approximately bi-weekly schedule during this work. Air quality samples included collection of VOC, SVOC, lead and total suspended particulate samples. This laboratory data are discussed further below.
- Potential odors associated with the presence of naphthalene in the sludge materials were monitored using a zNose™ Model 4200. As described previously, the presence of naphthalene results in a moth-ball like odor. Naphthalene also has a relatively low odor threshold. The zNose is a portable Gas Chromatograph (GC) and was used on this project during the time period when sludge removal and handling were primarily being done (September 20, 2010 to October 8, 2010). The real time data from the zNose (typically 15-minute averages) were used primarily for the purpose of “calibrating” odors to the levels detected by the zNose and making adjustments to work practices and the use of odor suppressant measures as necessary. This supplemental field screening data are attached to this letter.
- Noise has been routinely monitored at the work zone perimeter to ensure that it is consistent with acceptable levels.
- Specifically designed foams and mister units are in-place to mitigate any odors which, as described above, were primarily related to the handling of the sludges containing naphthalene. On-site personnel routinely evaluated these odors (both on and off-Site) and made adjustments to these odor control measures as necessary. As indicated above, the sludge removal and handling operations are now complete; therefore any odors have been significantly reduced.
- Water is routinely added to the surface of the work area to control dust migration.
- 24 hour, 7 days a week on-Site security during the work.
- Truck traffic continues to be coordinated such as not to interfere with the neighboring school/community.

Environmental Monitoring Results

This section presents a summary of the air quality environmental monitoring performed to date. As described above, an AirLogics real time monitoring system has been in place since initiation of the sludge removal and dismantling portion of the project to monitor air quality at the work zone perimeter. The continuous AirLogics data have also been supplemented with periodic up and downwind air quality sampling events. In addition, during the most significant sludge handling period, we employed a zNose instrument specifically calibrated for the detection of naphthalene. The screening level obtained from the zNose were used primarily to quantify/calibrate observed odors and make adjustments to work practices and odor suppressant techniques. The zNose field screening data represent short duration (approximately 15 minute) samples and are therefore not considered comparable to the laboratory data described below which are based on 8 hour sampling durations.

AirLogics Data



As described in the letter to you from Michele Leone of National Grid dated October 22, 2010, the Air Logics system operating at the Tidewater Site is an automated real-time perimeter air monitoring system which continuously analyzes Total Volatile Organic Compounds (TVOCs) and Particulate Matter (PM10) concentrations at each monitoring location. The Air Logics stations for the Tidewater demolition work were mobilized and set-up prior to initiation of any demolition activities and have been in operation 24 hours a day, seven days a week. The attached Plan identifies the locations of Air Logics stations 1 through 6 operating on Site.

The Air Logics system evaluates real time perimeter TVOC and particulate concentrations continuously. In addition to the continuous logging of data, the system compares the collected data to Site action levels for TVOCs and particulate so that any adjustments to work activities can be made if necessary. Specifically, the Site action levels are set as a two tier system consisting of a "Warning Level" and a "Stop Work" level. The "Warning Levels" are used to alert Site personnel of activities or operations on-Site that may be contributing to elevated TVOC and particulate concentrations thus triggering the alteration of Site activities and/or the implementation of additional Site engineering controls (e.g., application of odor suppressant foams or mists, wetting of surfaces, etc.). The "Stop Work" levels are used to notify personnel that activities must be immediately stopped and evaluated to determine the cause of the elevated TVOC or particulate concentration. Notification of "Warning" or "Stop Work" levels are communicated to Site personnel via immediate text message with specific information regarding time, concentrations observed, and station location. The Air Logics monitoring stations are also complemented by a real time on-Site weather station which records wind direction, speed, and temperature. The real-time TVOC and particulate data collected by each Air Logics station are also accompanied by the wind speed and direction data. The Air Logics stations continuously collect and log raw TVOC, particulate, and weather data once every minute. The raw data are used to produce a 15-minute average of TVOCs and particulate. The 15-minute average data is a rolling 15-minute average in which each TVOC and particulate reading obtained every minute is averaged with the readings from the previous 14-minutes. This averaging takes place continuously.

TVOC data at each Air Logics unit are obtained by a photoionization detector (PID) which is calibrated daily (on work days) located within each unit. The "Warning Level" for TVOCs at the Tidewater Site is >0.5 parts per million (ppm) to <5.0 ppm, 15-minute average concentration with a "Stop Work" level of >5.0 ppm, 15-minute average concentration. The particulate data at each location are obtained by a particulate meter which is calibrated daily (on work days) located within each unit. The particulate "Warning Level" is >100 ug/m³ to <150 ug/m³, 15 minute average concentration with a "Stop Work" level of >150 ug/m³, 15-minute average concentration for 15 consecutive minutes. These TVOC and particulate "Warning" and "Stop Work" Levels have been conservatively set relative to industry standards due to the Site surroundings.



Daily Air Logics data for each station are provided within monthly station reports which were provided to you on October 22, 2010. The monthly summary reports include all the raw data collected each day for TVOC and particulate, the rolling 15-minute averages each day, wind direction and speed, summary of warning levels, and a graphical presentation of the days data. Attached to this letter is a graphical summary of all daily average TVOC data collected by the AirLogics system to date.

As indicated in the daily reports provided to you last week and the attached graphical summary, TVOC data collected by the system were rarely above background levels (typically defined as 0.1 to 0.2 ppm). Primarily as a result of how low the warning level for TVOC was set for this project (0.5 ppm), the operator was alerted on several occasions. This low threshold warning was put in place in consideration of the Site setting and surroundings and allowed us to closely monitor perimeter air quality. Note the attached graphical summary of the AirLogics data represents daily averages and therefore does not show these periodic warning levels. For further details, please refer to the daily summaries included on the CD provided to you on October 22, 2010. To date, no TVOC "Stop Work" levels (>5ppm) have been observed at the Air Logics stations. Given the frequency of the monitoring performed by the AirLogics system, this data set indicates no significant TVOC levels have been detected at the work zone perimeters to date. Particulate "Stop Work" levels have been observed at stations 4, 5, and 6 over the past several weeks. These conditions were typically associated with either dust generation during the demolition process or interference from the mist associated with the perimeter odor suppression fogger units. Dust conditions have been routinely addressed via the application of water.

Supplemental Confirmatory Sampling

Supplemental air quality samples were collected and analyzed during the demolition project for the purpose of confirming the real time data generated by the AirLogics system. The supplemental confirmatory sampling was performed for VOCs using USEPA Method TO-15 SUMMA canisters, USEPA Method TO-13 for polycyclic aromatic hydrocarbons (PAHs) using high volume PUF samplers, and Reference Method 40CFR50 App G for lead. There have been a total of seven sampling events performed to date during the project. Each of these samples was collected over an 8-hour period during the workday. The results of the confirmatory sampling are presented in the attached summary table. As indicated in the attached table, sampling locations for each event are labeled either upwind or downwind and the actual locations are shown on the attached sketch. For all seven sampling events, the downwind locations were either A or B located south/southeast of the former holders and the upwind locations were located to the north/northwest of the holders (locations C, D, and F). These wind directions were generally consistent throughout the project and indicate that potential receptors along Taft Street were generally crosswind from the demolition activities.



As indicated in the attached summary table, detected concentrations of lead were higher in the downwind samples (locations A or B) which ranged from 0.076 ug/m³ to 1.84 ug/m³. These measured concentrations were conservatively compared to the National Ambient Air Quality Standard (NAAQS) for lead. The NAAQS applies to regional ambient air quality for protection of potential health effects to the general population, and in the case of lead represents a quarterly 3 month average. Applying the NAAQS to residents adjacent to a construction activity such as this is not what the standard is intended for, but is commonly used as a conservative comparison value. The NAAQS for lead over a fixed 3 month period is 1.5 ug/m³. The highest measured concentration, which represents an 8 hour measurement period, was 1.84 ug/m³. Given the vastly different averaging times, it is unlikely that the measured concentrations would exceed the quarterly NAAQS.

As indicated in the attached summary table, 18 VOCs were detected in the samples out of an analyte list of 62 VOCs, and 6 PAHs were detected out of an analyte list of 18 PAHs. The downwind sampling locations contained more frequent detections at higher levels when compared to the upwind data. As described previously, on each sampling day, locations A or B positioned on the south/southeast side of the former tanks were identified as the downwind locations. No sensitive receptors are located in close proximity to these downwind locations.

As indicated previously, the compound associated with odors (moth ball-like) is naphthalene. In order to aid in the interpretation of the naphthalene results presented in the attached summary table, the measured concentrations were compared directly to a very conservative risk-based screening level of 3 ug/m³. This screening level is based on the subchronic inhalation reference concentration (RfC) obtained from the USEPA Integrated Risk Information System (IRIS) which is developed based on a 24 hour exposure at this level. There were three naphthalene results obtained from downwind locations A or B which are above this conservative 3 ug/m³ screening level: August 31, 2010 (25.7 ug/m³), September 16, 2010 (10.6 ug/m³), and October 5 (5.39 ug/m³). One of the upwind samples (October 13, 2010 at Station C) also exhibited a naphthalene result above 3 ug/m³ (4.86 ug/m³). All other results were below the RfC. While these samples results can be put in context by direct comparison to the RfC, this comparison should be considered very conservative and does not take into account adjustment for dispersion from the sampling location to the location of a potential receptor, dilution via infiltration into an indoor air environment, actual exposure duration, and wind direction. While not directly applicable to non-occupational exposures, to provide further context for these relatively low detects of naphthalene, the Permissible Exposure Limit (PEL) as defined by the Occupational Health and Safety Administration (OSHA) is 50,000 ug/m³ based on an 8-hour time weighted average.

Closing

As discussed on-Site with you last week, Holder No. 7 has been removed and removal of Holder No. 8 is nearing completion. We expect to complete the removal of Holder No. 8 by November 12, 2010. All of the odorous sludges have been removed from the holders,



processed and are currently staged on-Site in sealed roll-off containers. We expect these roll-offs will be shipped off-Site by November 8, 2010. We trust that the information provided herein and in the attached meets your current needs. We believe the environmental controls and monitoring employed for this project provided an appropriate level of protection for both on-site workers and the surrounding community. Please feel free to contact either of the undersigned or Michele Leone at National Grid should you have any questions.

Very Truly Yours,

GZA GeoEnvironmental, Inc.

for 

James J. Clark, P.E.
Principal

for 

Adam M. Fasano, CIH
Associate Principal



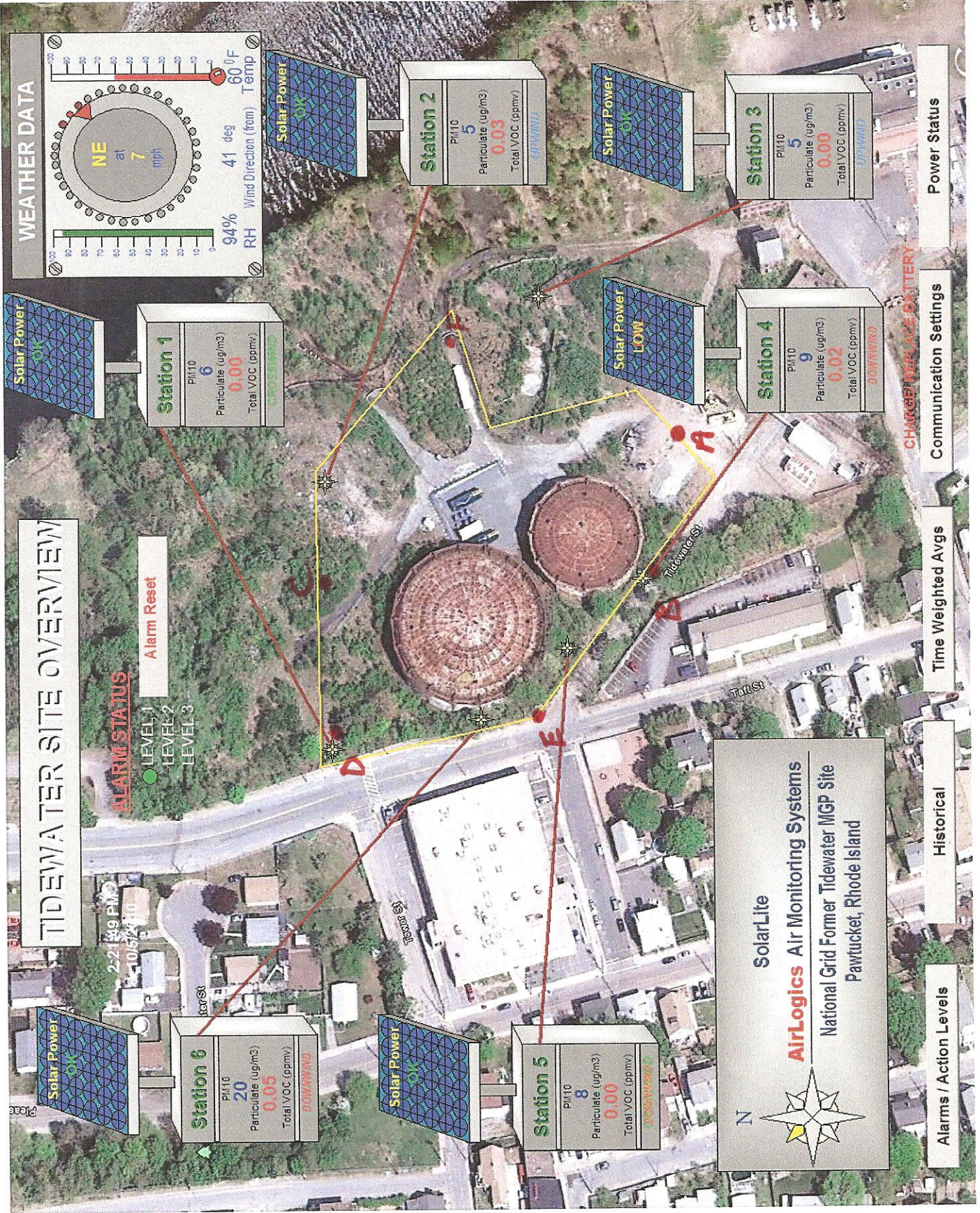
Margaret S. Kilpatrick, P.E.
Senior Project Manager

JJC/MSK:tja

Attachments: Site Overview Plan Showing Perimeter Air Sampling Locations
AirLogics System Daily Average Graph
Confirmatory Air Sampling Results
zNose Field Screening Data

Cc: Michele Leone, National Grid

**SITE OVERVIEW PLAN SHOWING PERIMETER
AIR SAMPLING LOCATIONS**



TIDEWATER SITE OVERVIEW

ALARM STATUS

- LEVEL 1
- LEVEL 2
- LEVEL 3

Alarm Reset

WEATHER DATA

94% RH

60.0 F Temp

41 deg Wind Direction (from)

7 mph at NE

Station 1

PM10 6

Particulate (ug/m3) 0.00

Total VOC (ppmv) 0.00

Solar Power OK

Station 2

PM10 5

Particulate (ug/m3) 0.03

Total VOC (ppmv) 0.00

Solar Power OK

Station 3

PM10 5

Particulate (ug/m3) 0.00

Total VOC (ppmv) 0.00

Solar Power OK

Station 4

PM10 9

Particulate (ug/m3) 0.02

Total VOC (ppmv) 0.00

Solar Power LOW

Station 5

PM10 8

Particulate (ug/m3) 0.00

Total VOC (ppmv) 0.00

Solar Power OK

Station 6

PM10 20

Particulate (ug/m3) 0.05

Total VOC (ppmv) 0.00

Solar Power OK

SolarLite

AirLogics Air Monitoring Systems

National Grid Former Tidewater MGP Site

Pawtucket, Rhode Island

Power Status

Communication Settings

Time Weighted Avgs

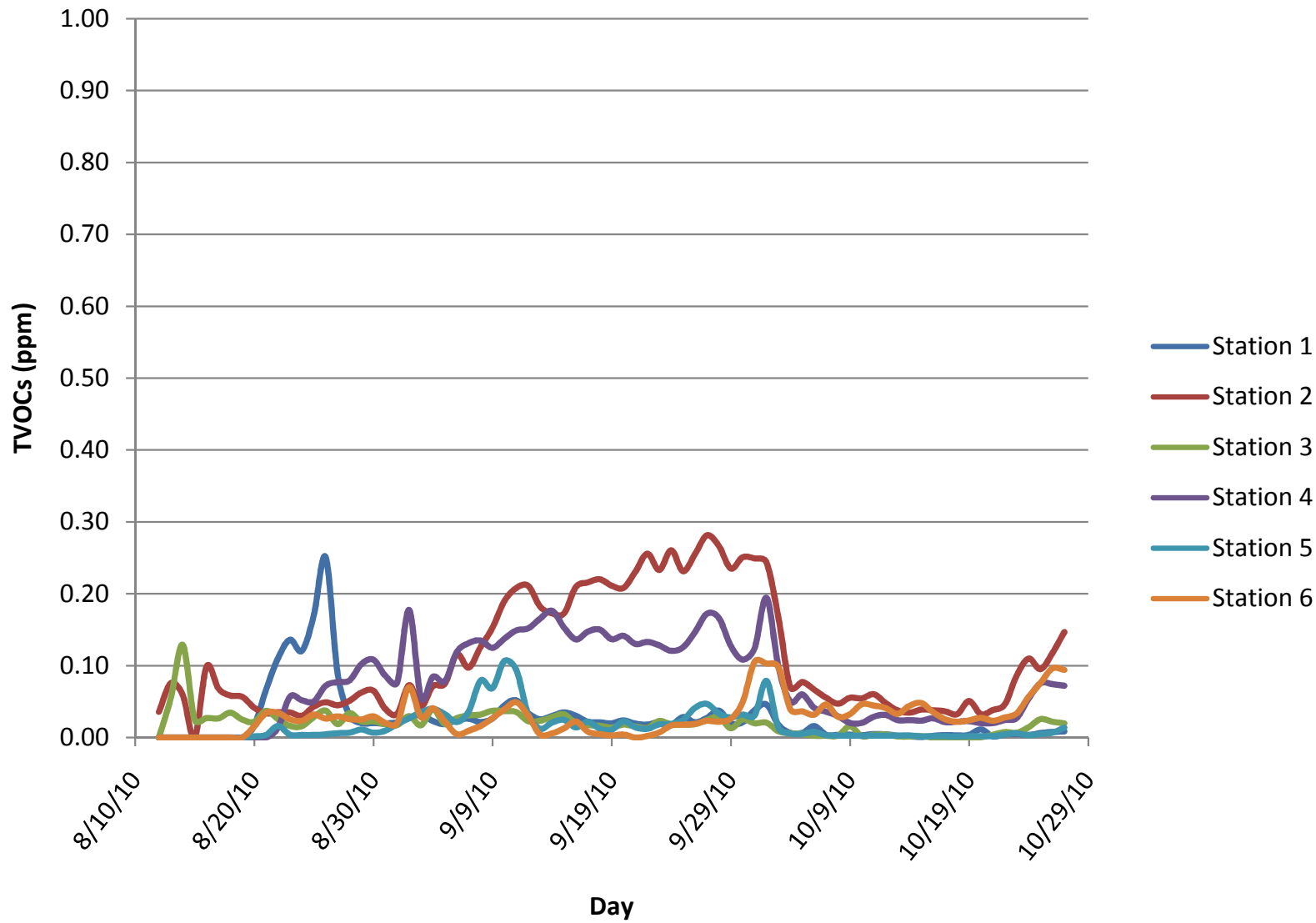
Historical

Alarms / Action Levels

A = Z-nose monitoring location & confirmatory sample location

AIRLOGICS SYSTEM DAILY AVERAGE GRAPH

AirLogics Daily Averages August 12-October 18, 2010



CONFIRMATORY AIR SAMPLING RESULTS

CONFIRMATORY AIR SAMPLING RESULTS
Tidewater Demolition Project
Pawtucket, RI

TO-15	Units	8/13/2010		8/16/2010		8/31/2010		9/16/2010		9/20/2010		10/5/2010		10/13/2010															
		PAWVOC-Station-U-100813		PAWVOC-Station-D-100813		PAWVOC-Station-U-100816		PAWVOC-Station-D-100816		PAWVOC-Station-U-100916		PAWVOC-Station-D-100916		PAWVOC-Station-U-101005		PAWVOC-Station-D-101005													
		Location F Upwind	Location A Downwind	Location F Upwind	Location A Downwind	Location D Upwind	Location A Downwind	Location D Upwind	Location A Downwind	Location D Upwind	Location A Downwind	Location F Upwind	Location A Downwind	Location C Upwind	Location B Downwind	Location C Upwind	Location A Downwind												
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL												
VOLATILE ORGANIC COMPOUNDS (VOCs)																													
1,1,1-Trichloroethane	µg/m ³	NA	-	NA	-	ND	3.7	ND	4.8	ND	4.4	ND	4.4	ND	4.4	ND	4.4	ND	4.2	ND	4.4	NR	-	NR	-				
1,1,2,2-Tetrachloroethane	µg/m ³	NA	-	NA	-	ND	4.6	ND	6	ND	5.6	ND	5.5	ND	5.5	ND	5.5	ND	5.3	ND	5.5	NR	-	NR	-				
1,1,2-Trichloroethane	µg/m ³	NA	-	NA	-	ND	3.7	ND	4.8	ND	4.4	ND	4.4	ND	4.4	ND	4.4	ND	4.2	ND	4.4	NR	-	NR	-				
1,1-Dichloroethane	µg/m ³	NA	-	NA	-	ND	2.7	ND	3.5	ND	3.3	ND	3.2	ND	3.2	ND	2.9	ND	3.3	ND	3.2	ND	3.1	ND	3.2	NR	-	NR	-
1,1-Dichloroethene	µg/m ³	NA	-	NA	-	ND	2.7	ND	3.5	ND	3.2	ND	3.2	ND	3.2	ND	2.9	ND	3.2	ND	3.2	ND	3.1	ND	3.2	NR	-	NR	-
1,2,4-Trichlorobenzene	µg/m ³	NA	-	NA	-	ND	20	ND	26	ND	24	ND	24	ND	22	ND	24	ND	24	ND	23	ND	24	NR	-	NR	-		
1,2,4-Trimethylbenzene	µg/m ³	NA	-	NA	-	ND	3.3	ND	4.3	ND	4	81	3.9	5.6	3.9	ND	3.6	ND	4	9.2	3.9	ND	3.8	ND	4	NR	-	NR	-
1,2-Dibromoethane (EDB)	µg/m ³	NA	-	NA	-	ND	5.2	ND	6.7	ND	6.3	ND	6.1	ND	6.1	ND	5.6	ND	6.2	ND	6.1	ND	6	ND	6.2	NR	-	NR	-
1,2-Dichlorobenzene	µg/m ³	NA	-	NA	-	ND	4	ND	5.3	ND	4.9	ND	4.8	ND	4.8	ND	4.4	ND	4.9	ND	4.8	ND	4.6	ND	4.8	NR	-	NR	-
1,2-Dichloroethane	µg/m ³	NA	-	NA	-	ND	2.7	ND	3.5	ND	3.3	ND	3.2	ND	3.2	ND	2.9	ND	3.3	ND	3.2	ND	3.1	ND	3.2	NR	-	NR	-
1,2-Dichloropropane	µg/m ³	NA	-	NA	-	ND	3.1	ND	4	ND	3.8	ND	3.7	ND	3.7	ND	3.4	ND	3.7	ND	3.6	ND	3.7	NR	-	NR	-		
1,3,5-Trimethylbenzene	µg/m ³	NA	-	NA	-	ND	3.3	ND	4.3	ND	4	30	3.9	ND	3.9	ND	3.6	ND	4	ND	3.9	ND	3.8	ND	4	NR	-	NR	-
1,3-Butadiene	µg/m ³	NA	-	NA	-	ND	1.5	ND	1.9	ND	1.8	ND	1.8	ND	1.8	ND	1.6	ND	1.8	ND	1.8	ND	1.7	ND	1.8	NR	-	NR	-
1,3-Dichlorobenzene	µg/m ³	NA	-	NA	-	ND	4	ND	5.3	ND	4.9	ND	4.8	ND	4.8	ND	4.4	ND	4.9	ND	4.8	ND	4.6	ND	4.8	NR	-	NR	-
1,4-Dichlorobenzene	µg/m ³	NA	-	NA	-	ND	4	ND	5.3	ND	4.9	ND	4.8	ND	4.8	ND	4.4	ND	4.9	ND	4.8	ND	4.6	ND	4.8	NR	-	NR	-
1,4-Dioxane	µg/m ³	NA	-	NA	-	ND	9.7	ND	13	ND	12	ND	12	ND	12	ND	10	ND	12	ND	12	ND	11	ND	12	NR	-	NR	-
2,2,4-Trimethylpentane	µg/m ³	NA	-	NA	-	ND	3.2	ND	4.1	ND	3.8	ND	3.7	ND	3.7	ND	3.4	ND	3.8	ND	3.7	ND	3.6	ND	3.8	NR	-	NR	-
2-Butanone (Methyl Ethyl Ketone)	µg/m ³	NA	-	NA	-	ND	2	3.8	2.6	14	2.4	3.1	2.4	4.1	2.4	2.2	2.1	ND	2.4	ND	2.4	ND	2.3	ND	2.4	NR	-	NR	-
2-Hexanone	µg/m ³	NA	-	NA	-	ND	11	ND	14	ND	13	ND	13	ND	13	ND	12	ND	13	ND	13	ND	13	ND	13	NR	-	NR	-
2-Propanol	µg/m ³	NA	-	NA	-	ND	6.6	ND	8.6	ND	8	ND	7.9	ND	7.9	ND	7.1	ND	8	ND	7.9	ND	7.6	ND	7.9	NR	-	NR	-
3-Chloropropene	µg/m ³	NA	-	NA	-	ND	8.4	ND	11	ND	10	ND	10	ND	10	ND	9.1	ND	10	ND	10	ND	9.7	ND	10	NR	-	NR	-
4-Ethyltoluene	µg/m ³	NA	-	NA	-	ND	3.3	ND	4.3	ND	4	100	3.9	8.3	3.9	ND	3.6	ND	4	17	3.9	ND	3.8	ND	4	NR	-	NR	-
4-Methyl-2-pentanone	µg/m ³	NA	-	NA	-	ND	2.8	ND	3.6	ND	3.3	ND	3.3	ND	3.3	ND	3	ND	3.3	ND	3.3	ND	3.2	ND	3.3	NR	-	NR	-
Acetone	µg/m ³	NA	-	NA	-	8.6	6.4	11	8.3	41	7.7	22	7.6	9.6	7.6	9.3	6.9	9.2	7.7	12	7.6	24	7.4	ND	7.6	NR	-	NR	-
alpha-Chlorotoluene	µg/m ³	NA	-	NA	-	ND	3.5	ND	4.5	ND	4.2	ND	4.1	ND	4.1	ND	3.8	ND	4.2	ND	4.1	ND	4	ND	4.2	NR	-	NR	-
Benzene	µg/m ³	NA	-	NA	-	ND	2.2	ND	2.8	ND	2.6	140	2.6	6.5	2.6	ND	2.3	ND	2.6	15	2.6	3.8	2.5	3.3	2.6	NR	-	NR	-
Bromodichloromethane	µg/m ³	NA	-	NA	-	ND	4.5	ND	5.9	ND	5.5	ND	5.4	ND	5.4	ND	4.8	ND	5.4	ND	5.4	ND	5.2	ND	5.4	NR	-	NR	-
Bromoform	µg/m ³	NA	-	NA	-	ND	7	ND	9	ND	8.4	ND	8.3	ND	8.3	ND	7.5	ND	8.4	ND	8.3	ND	8	ND	8.3	NR	-	NR	-
Bromomethane	µg/m ³	NA	-	NA	-	ND	2.6	ND	3.4	ND	3.2	ND	3.1	ND	3.1	ND	2.8	ND	3.1	ND	3.1	ND	3	ND	3.1	NR	-	NR	-
Carbon Disulfide	µg/m ³	NA	-	NA	-	6	2.1	ND	2.7	3.7	2.5	ND	2.5	ND	2.5	ND	2.2	ND	2.5	ND	2.5	ND	2.4	2.8	2.5	NR	-	NR	-
Carbon Tetrachloride	µg/m ³	NA	-	NA	-	ND	4.2	ND	5.5	ND	5.1	ND	5	ND	5	ND	4.6	ND	5.1	ND	5	ND	4.9	ND	5.1	NR	-	NR	-
Chlorobenzene	µg/m ³	NA	-	NA	-	ND	3.1	ND	4	ND	3.8	ND	3.7	ND	3.7	ND	3.3	ND	3.7	ND	3.7	ND	3.6	ND	3.7	NR	-	NR	-
Chloroethane	µg/m ³	NA	-	NA	-	ND	1.8	ND	2.3	ND	2.2	ND	2.1	ND	2.1	ND	1.9	ND	2.1	ND	2.1	ND	2	ND	2.1	NR	-	NR	-
Chloroform	µg/m ³	NA	-	NA	-	ND	3.3	ND	4.3	ND	4	ND	3.9	ND	3.9	ND	3.5	ND	4	ND	3.9	ND	3.8	ND	3.9	NR	-	NR	-
Chloromethane	µg/m ³	NA	-	NA	-	ND	5.6	ND	7.2	ND	6.7	ND	6.6	ND	6.6	ND	6	ND	6.7	ND	6.6	9.2	6.4	ND	6.6	NR	-	NR	-
cis-1,2-Dichloroethene	µg/m ³	NA	-	NA	-	ND	2.7	ND	3.5	ND	3.2	ND	3.2	ND	3.2	ND	2.9	ND	3.2	ND	3.2	ND	3.1	ND	3.2	NR	-	NR	-
cis-1,3-Dichloropropene	µg/m ³	NA	-	NA	-	ND	3.1	ND	4	ND	3.7	ND	3.6	ND	3.6	ND	3.3	ND	3.7	ND	3.6	ND	3.5	ND	3.6	NR	-	NR	-
Cumene	µg/m ³	NA	-	NA	-	ND	3.3	ND	4.3	ND	4	11	3.9	ND	3.9	ND	3.6	ND	4	ND	3.9	ND	3.8	ND	4	NR	-	NR	-
Cyclohexane	µg/m ³	NA	-	NA	-	ND	2.3	ND	3	ND	2.8	ND	2.8	ND	2.8	ND	2.5	ND	2.8	ND	2.8	ND	2.7	ND	2.8	NR	-	NR	-
Dibromochloromethane	µg/m ³	NA	-	NA	-	ND	5.8	ND	7.4	ND	6.9	ND	6.8	ND	6.8	ND	6.2	ND	6.9	ND	6.8	ND	6.6	ND	6.8	NR	-	NR	-
Ethanol	µg/m ³	NA	-	NA	-	ND	5.1	ND	6.6	16	6.1	15	6	10	6	11	5.5	ND	6.1	12	6	10	5.8	ND	6.1	NR	-	NR	-
Ethyl Benzene	µg/m ³	NA	-	NA	-	ND	2.9	ND	3.8	ND	3.5	170	3.5	11	3.5	ND	3.1	ND	3.5	24	3.5	ND	3.4	5.1	3.5	NR	-	NR	-
Freon 11	µg/m ³	NA	-	NA	-	ND	3.8	ND	4.9	ND	4.6	ND	4.5	ND	4.5	ND	4.1	ND	4.6	ND	4.5	ND	4.4	ND	4.5	NR	-	NR	-
Freon 113	µg/m ³	NA	-	NA	-	ND	5.2	ND	6.7	ND	6.2	ND	6.1	ND	6.1	ND	5.6	ND	6.2	ND	6.1	ND	5.9	ND	6.2	NR	-	NR	-
Freon 114	µg/m ³	NA	-	NA	-	ND	4.7	ND	6.1	ND	5.7	ND	5.6	ND	5.6	ND	5.1	ND	5.7	ND	5.6	ND	5.4	ND	5.6	NR	-	NR	-
Freon 12	µg/m ³	NA	-	NA	-	ND	3.3	ND	4.3	ND	4	ND	4	ND	4	ND	3.6	ND	4	ND	4	ND	3.8	ND	4	NR	-	NR	-
Heptane	µg/m ³	NA	-	NA	-	ND	2.8	ND	3.6	ND	3.3	6.4	3.3	ND	3.3	ND	3	ND	3.3	5.6	3.3	ND	3.2	ND	3.3	NR	-	NR	-
Hexachlorobutadiene	µg/m ³	NA	-	NA	-	ND	29	ND	37	ND	35	ND	34	ND	34	ND	31	ND	34	ND	34	ND	33						

CONFIRMATORY AIR SAMPLING RESULTS
Tidewater Demolition Project
Pawtucket, RI

	Units	8/13/2010		8/16/2010		8/31/2010		9/16/2010		9/20/2010		10/5/2010		10/13/2010																
		PAWVOC-Sta1-U-100813		PAWVOC-Sta1-D-100813		PAWVOC-Sta1-U-100816		PAWVOC-Sta1-D-100816		PAWVOC-Sta1-U-100916		PAWVOC-Sta1-D-100916		PAWVOC-Sta1-U-101005		PAWVOC-Sta1-D-101005														
		Location F Upwind		Location A Downwind		Location F Upwind		Location A Downwind		Location D Upwind		Location A Downwind		Location F Upwind		Location A Downwind		Location C Upwind		Location B Downwind										
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL									
TO-13	Semi-Volatile Organic Compounds (SVOCs)																													
	2-Chloronaphthalene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	2-Methylnaphthalene	μg/m ³	ND	0.008	0.037	0.009	NA	-	NA	-	0.045	0.009	3.338	0.214	0.184	0.008	1.635	0.082	NA	-	NA	-	0.104	0.009	0.741	0.040	0.594	0.036	0.145	0.009
	Acenaphthene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	0.019	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	Acenaphthylene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	Anthracene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	Benzo(a)anthracene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	Benzo(a)pyrene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	Benzo(b)fluoranthene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Benzo(g,h,i)perylene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Benzo(k)fluoranthene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Chrysene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Dibenz(a,h)anthracene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Fluoranthene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	0.012	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Fluorene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	0.024	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Indeno(1,2,3-c,d)pyrene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.01	ND	0.040	ND	0.036	ND	0.009
	Naphthalene	μg/m ³	0.011	0.008	0.131	0.009	NA	-	NA	-	0.253	0.009	25.678	0.214	0.879	0.008	10.626	0.082	NA	-	NA	-	1.22	0.01	5.40	0.040	4.86	0.036	0.941	0.009
	Phenanthrene	μg/m ³	0.024	0.008	0.019	0.009	NA	-	NA	-	0.056	0.009	ND	0.214	0.016	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
	Pyrene	μg/m ³	ND	0.008	ND	0.009	NA	-	NA	-	ND	0.009	ND	0.214	ND	0.008	ND	0.082	NA	-	NA	-	ND	0.009	ND	0.040	ND	0.036	ND	0.009
PM10	Total Lead	μg/m ³	ND	0.023	0.076	0.17	NA	-	NA	-	ND	0.017	0.43	0.021	1.24	0.023	1.84	0.017	NA	-	NA	-	0.05	0.017	0.16	0.022	NR	-	NR	-
40CFR50 App. B	Total Suspended Particulate (TSP)	μg/m ³	20.92	0.19	73.32	0.14	NA	-	NA	-	NA	-	NA	-	287.7	0.2	184.13	0.14	NA	-	NA	-	17.08	0.14	34.36	0.19	NR	-	NR	-

- Notes:**
1. NA = Not analyzed.
2. ND = Not detected.
3. NR = Lab results pending.
4. RL = Reporting Limit
5. Refer to attached site plan showing location designations A through F

ZNOSE FIELD SCREENING DATA

Daily zNose Naphthalene Concentrations
 Tidewater MGP
 Week of 09/20/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
9/20/2010	TWA-1	0815 to 0824	16	A
9/20/2010	TWA-2	0829 to 0844	20	A
9/20/2010	TWA-3	0847 to 0908	18	A
9/20/2010	TWA-4	0914 to 0926	19	A
9/20/2010	TWA-5	0930 to 0942	13	A
9/20/2010	TWA-6	0945 to 0958	20	A
9/20/2010	TWA-7	1001 to 1013	17	A
9/20/2010	TWA-8	1033 to 1045	20	A
9/20/2010	TWA-9	1033 to 1045	20	A
9/20/2010	TWA-10	1051 to 1121	7	A
9/20/2010	TWA-11	1127 to 1139	< 6	A
9/20/2010	TWA-12	1151 to 1204	17	A
9/20/2010	TWA-13	1209 to 1222	22	A
9/20/2010	TWA-14	1227 to 1239	13	A
9/20/2010	TWA-15	1243 to 1308	14	B
9/20/2010	TWA-16	1312 to 1327	11	B
9/20/2010	TWA-17	1330 to 1349	17	B
9/20/2010	TWA-18	1404 to 1416	12	B
9/20/2010	TWA-19	1420 to 1432	16	B
9/20/2010	TWA-20	1436 to 1448	15	B
9/20/2010	TWA-21	1452 to 1505	12	B
9/20/2010	TWA-22	1508 to 1520	13	B
9/20/2010	TWA-23	1524 to 1536	15	B
9/20/2010	TWA-24	1540 to 1552	13	B
9/20/2010	TWA-25	1559 to 1611	11	B
9/21/2010	TWA-1	0756 to 0808	< 6	C
9/21/2010	TWA-2	0812 to 0826	< 6	C
9/21/2010	TWA-3	0830 to 0842	< 6	C
9/21/2010	TWA-4	0846 to 0858	4	C
9/21/2010	TWA-5	0901 to 0917	< 6	C
9/21/2010	TWA-6	0921 to 0933	< 6	C
9/21/2010	TWA-7	0937 to 0949	< 6	C
9/21/2010	TWA-8	0953 to 1003	< 6	C
9/21/2010	TWA-9	1030 to 1042	< 7	D
9/21/2010	TWA-10	1046 to 1058	< 7	D

Daily zNose Naphthalene Concentrations
Tidewater MGP
Week of 09/20/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
9/21/2010	TWA-11	1101 to 1114	< 7	D
9/21/2010	TWA-12	1117 to 1131	< 7	D
9/21/2010	TWA-13	1134 to 1147	< 7	D
9/21/2010	TWA-14	1151 to 1204	< 7	D
9/21/2010	TWA-15	1208 to 1221	< 7	D
9/21/2010	TWA-16	1225 to 1237	< 7	D
9/21/2010	TWA-17	1241 to 1253	< 7	D
9/21/2010	TWA-18	1339 to 1352	< 7	E
9/21/2010	TWA-19	1355 to 1407	< 7	E
9/21/2010	TWA-20	1410 to 1427	< 7	E
9/21/2010	TWA-21	1430 to 1442	< 7	E
9/21/2010	TWA-22	1446 to 1459	< 7	E
9/21/2010	TWA-23	1502 to 1514	< 7	E
9/21/2010	TWA-24	1518 to 1531	< 7	E
9/21/2010	TWA-25	1536 to 1548	< 7	E
9/21/2010	TWA-26	1554 to 1607	< 7	E
9/22/2010	TWA-1	0744 to 0758	< 7	E
9/22/2010	TWA-2	0802 to 0814	< 7	E
9/22/2010	TWA-3	0817 to 0830	< 7	E
9/22/2010	TWA-4	0833 to 0846	< 7	E
9/22/2010	TWA-5	0849 to 0902	< 7	E
9/22/2010	TWA-6	0906 to 0918	< 7	E
9/22/2010	TWA-7	0922 to 0935	< 7	E
9/22/2010	TWA-8	0938 to 0953	< 7	E
9/22/2010	TWA-9	1016 to 1028	< 7	B
9/22/2010	TWA-10	1031 to 1050	< 7	B
9/22/2010	TWA-11	1053 to 1106	< 7	B
9/22/2010	TWA-12	1109 to 1121	< 7	B
9/22/2010	TWA-13	1125 to 1137	< 7	B
9/22/2010	TWA-14	1140 to 1153	< 7	B
9/22/2010	TWA-15	1156 to 1208	< 7	B
9/22/2010	TWA-16	1211 to 1227	< 7	B
9/22/2010	TWA-17	1230 to 1243	< 7	B
9/22/2010	TWA-18	1248 to 1301	< 7	B
9/22/2010	TWA-19	1358 to 1412	< 7	D
9/22/2010	TWA-20	1415 to 1428	< 7	D
9/22/2010	TWA-21	1431 to 1443	< 7	D

Daily zNose Naphthalene Concentrations
Tidewater MGP
Week of 09/20/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
9/22/2010	TWA-22	1446 to 1504	< 7	D
9/22/2010	TWA-23	1508 to 1520	6	D
9/22/2010	TWA-24	1524 to 1536	< 7	D
9/22/2010	TWA-25	1541 to 1553	< 7	D
9/22/2010	TWA-26	1557 to 1610	< 7	D
9/22/2010	TWA-27	1614 to 1626	12	D
9/23/2010	TWA-1	0813 to 0826	22	A
9/23/2010	TWA-2	0829 to 0842	18	A
9/23/2010	TWA-3	0845 to 0859	21	A
9/23/2010	TWA-4	0902 to 0915	21	A
9/23/2010	TWA-5	0919 to 0932	20	A
9/23/2010	TWA-6	0935 to 0947	27	A
9/23/2010	TWA-7	0951 to 1003	20	A
9/23/2010	TWA-8	1018 to 1030	< 7	D
9/23/2010	TWA-9	1034 to 1046	< 7	D
9/23/2010	TWA-10	1050 to 1102	< 7	D
9/23/2010	TWA-11	1106 to 1118	< 7	D
9/23/2010	TWA-12	1122 to 1134	< 7	D
9/23/2010	TWA-13	1140 to 1152	6	D
9/23/2010	TWA-14	1219 to 1231	< 7	E
9/23/2010	TWA-15	1234 to 1247	< 7	E
9/23/2010	TWA-16	1251 to 1304	< 7	E
9/23/2010	TWA-17	1307 to 1321	< 7	E
9/23/2010	TWA-18	1324 to 1337	5	E
9/23/2010	TWA-19	1340 to 1357	< 7	E
9/23/2010	TWA-20	1414 to 1426	< 7	E
9/23/2010	TWA-20	1414 to 1426	< 7	B
9/23/2010	TWA-21	1435 to 1447	< 7	B
9/23/2010	TWA-22	1450 to 1504	< 7	B
9/23/2010	TWA-23	1507 to 1520	< 7	B
9/23/2010	TWA-24	1526 to 1538	< 7	B
9/23/2010	TWA-25	1543 to 1555	< 7	B
9/23/2010	TWA-26	1600 to 1613	< 7	B
9/23/2010	TWA-27	1616 to 1628	< 7	B
9/23/2010	TWA-28	1632 to 1644	< 7	B
9/23/2010	TWA-29	1647 to 1709	< 7	B

Daily zNose Naphthalene Concentrations
 Tidewater MGP
 Week of 09/20/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
9/24/2010	TWA-1	0800 to 0812	< 7	D
9/24/2010	TWA-2	0816 to 0828	< 7	D
9/24/2010	TWA-3	0833 to 0845	< 7	D
9/24/2010	TWA-4	0850 to 0902	6	D
9/24/2010	TWA-5	0907 to 0919	9	D
9/24/2010	TWA-6	0922 to 0935	9	D
9/24/2010	TWA-7	0940 to 0952	9	D
9/24/2010	TWA-8	0956 to 1008	6	D
9/24/2010	TWA-9	1012 to 1024	< 7	D
9/24/2010	TWA-10	1031 to 1043	< 7	D
9/24/2010	TWA-11	1047 to 1059	< 7	D
9/24/2010	TWA-12	1102 to 1115	6	D
9/24/2010	TWA-13	1139 to 1151	< 7	E
9/24/2010	TWA-14	1231 to 1245	< 7	E
9/24/2010	TWA-15	1248 to 1301	< 7	E
9/24/2010	TWA-16	1304 to 1316	< 7	E
9/24/2010	TWA-17	1319 to 1333	5	E
9/24/2010	TWA-18	1338 to 1351	5	E
9/24/2010	TWA-19	1356 to 1408	< 7	E
9/24/2010	TWA-20	1412 to 1424	< 7	E
9/24/2010	TWA-21	1428 to 1441	< 7	E
9/24/2010	TWA-22	1444 to 1457	< 7	E

Daily zNose Naphthalene Concentrations
 Tidewater MGP
 Week of 09/27/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
9/27/2010	TWA-1	0905 to 0917	< 7	E
9/27/2010	TWA-2	0920 to 0932	< 7	E
9/27/2010	TWA-3	0935 to 0945	21	E
9/27/2010	TWA-4	0953 to 1005	7	E
9/27/2010	TWA-5	1008 to 1020	5	E
9/27/2010	TWA-6	1024 to 1036	5	E
9/27/2010	TWA-7	1039 to 1051	7	E
9/27/2010	TWA-8	0543 to 1106	8	E
9/27/2010	TWA-9	1109 to 1122	9	E
9/27/2010	TWA-10	1125 to 1137	6	E
9/27/2010	TWA-11	1140 to 1152	6	E
9/27/2010	TWA-12	1152 to 1205	4	E
9/28/2010	TWA-1	1118 to 1130	< 6	B
9/28/2010	TWA-2	1133 to 1145	< 6	B
9/28/2010	TWA-3	1148 to 1201	< 6	B
9/28/2010	TWA-4	1204 to 1216	< 6	B
9/28/2010	TWA-5	1219 to 1231	< 6	B
9/28/2010	TWA-6	1235 to 1248	< 6	B
9/28/2010	TWA-7	1252 to 1304	< 6	B
9/28/2010	TWA-8	1307 to 1319	< 6	B
9/28/2010	TWA-9	1322 to 1335	< 6	B
9/28/2010	TWA-10	1338 to 1350	< 6	B
9/28/2010	TWA-11	1353 to 1406	< 6	B
9/28/2010	TWA-12	1409 to 1423	< 6	B
9/28/2010	TWA-13	1426 to 1443	< 6	B

Daily zNose Naphthalene Concentrations
 Tidewater MGP
 Week of 09/27/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
9/29/2010	TWA-1	1133 to 1148	< 6	C
9/29/2010	TWA-2	1151 to 1204	< 6	C
9/29/2010	TWA-3	1207 to 1219	< 6	C
9/29/2010	TWA-4	1222 to 1235	< 6	C
9/29/2010	TWA-5	1246 to 1258	< 6	C
9/29/2010	TWA-6	1301 to 1315	< 6	C
9/29/2010	TWA-7	1318 to 1327	< 6	C
9/30/2010	TWA-1	1429 to 1441	< 6	D
9/30/2010	TWA-2	1444 to 1456	6	D
9/30/2010	TWA-3	1459 to 1511	7	D
9/30/2010	TWA-4	1514 to 1526	6	D
9/30/2010	TWA-5	1529 to 1542	6	D
9/30/2010	TWA-6	1545 to 1557	4	D
9/30/2010	TWA-7	1600 to 1612	< 6	D
10/1/2010	TWA-1	0805 to 0817	< 6	E
10/1/2010	TWA-2	0820 to 0832	< 6	E
10/1/2010	TWA-3	0835 to 0846	< 6	E
10/1/2010	TWA-4	0849 to 0900	< 6	E
10/1/2010	TWA-5	0903 to 0915	< 6	E
10/1/2010	TWA-6	0917 to 0929	< 6	E
10/1/2010	TWA-7	0932 to 0943	< 6	E
10/1/2010	TWA-8	1021 to 1033	< 6	D
10/1/2010	TWA-9	1036 to 1048	< 6	D
10/1/2010	TWA-10	1051 to 1103	< 6	D
10/1/2010	TWA-11	1106 to 1119	< 6	D
10/1/2010	TWA-12	1122 to 1128	< 6	D

Daily zNose Naphthalene Concentrations
Tidewater MGP
Week of 10/04/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)	Location
10/4/2010	TWA-1	0846 to 0900	5	B
10/4/2010	TWA-2	0903 to 0915	5	B
10/4/2010	TWA-3	0918 to 0930	11	B
10/4/2010	TWA-4	0933 to 0945	5	B
10/4/2010	TWA-5	0948 to 1000	4	B
10/4/2010	TWA-6	1006 to 1019	4	B
10/4/2010	TWA-7	1022 to 1034	6	B
10/4/2010	TWA-8	1037 to 1049	8	B
10/4/2010	TWA-9	1052 to 1104	11	B
10/4/2010	TWA-10	1107 to 1119	6	B
10/4/2010	TWA-11	1122 to 1134	8	B
10/4/2010	TWA-12	1137 to 1146	5	B
10/4/2010	TWA-13	1321 to 1333	6	E
10/4/2010	TWA-14	1336 to 1348	< 6	E
10/4/2010	TWA-15	1351 to 1403	< 6	E
10/4/2010	TWA-16	4064 to 1418	5	E
10/4/2010	TWA-17	1421 to 1434	4	E
10/4/2010	TWA-18	1437 to 1449	4	E
10/4/2010	TWA-19	1452 to 1504	< 6	E
10/5/2010	TWA-1	0807 to 0819	< 6	B
10/5/2010	TWA-2	0822 to 0834	5	B
10/5/2010	TWA-3	0837 to 0849	5	B
10/5/2010	TWA-4	0852 to 0905	4	B
10/5/2010	TWA-5	0908 to 0920	< 6	B
10/5/2010	TWA-6	0923 to 0935	7	B
10/5/2010	TWA-7	0938 to 0950	5	B
10/5/2010	TWA-8	0953 to 1006	6	B
10/5/2010	TWA-9	1028 to 1044	6	B
10/5/2010	TWA-10	1115 to 1127	11	B
10/5/2010	TWA-11	1130 to 1143	5	B
10/5/2010	TWA-12	1146 to 1158	4	B
10/5/2010	TWA-13	1226 to 1238	< 6	E
10/5/2010	TWA-14	1241 to 1253	10	E
10/5/2010	TWA-15	1256 to 1308	7	E
10/5/2010	TWA-16	1312 to 1324	< 6	E
10/5/2010	TWA-17	1327 to 1339	< 6	E
10/5/2010	TWA-18	1342 to 1355	< 6	E
10/5/2010	TWA-19	1359 to 1359	< 6	E

Daily zNose Naphthalene Concentrations
Tidewater MGP
Week of 10/04/2010

TWA = Time weighted average of up to five measurements collected over approximately 15 minutes.

Date	TWA Sample		Naphthalene Concentration (ppbv)		Location
10/6/2010	TWA-1	1045 to 1057	<	5	B
10/6/2010	TWA-2	1100 to 1112	<	5	B
10/6/2010	TWA-3	1115 to 1127	<	5	B
10/6/2010	TWA-4	1130 to 1133	<	5	B
10/7/2010	TWA-1	0811 to 0823	<	5	D
10/7/2010	TWA-2	0826 to 0836	<	5	D
10/7/2010	TWA-3	0842 to 0854	<	5	D
10/7/2010	TWA-4	0857 to 0909	<	5	D
10/7/2010	TWA-5	0912 to 0924	<	5	D
10/7/2010	TWA-6	0927 to 0940	<	5	D
10/7/2010	TWA-7	0948 to 0954	<	5	D
10/7/2010	TWA-8	1003 to 1015	<	5	D
10/7/2010	TWA-9	1018 to 1031	<	5	D
10/7/2010	TWA-10	1034 to 1055	<	5	D
10/7/2010	TWA-11	1058 to 1111	<	5	D
10/7/2010	TWA-12	1114 to 1126	<	5	D
10/7/2010	TWA-13	1129 to 1141	<	5	D
10/7/2010	TWA-14	1144 to 1156	<	5	D
10/7/2010	TWA-15	1324 to 1336	<	5	A
10/7/2010	TWA-16	1339 to 1351	<	5	A
10/7/2010	TWA-17	1354 to 1406	<	5	A
10/7/2010	TWA-18	1409 to 1421	<	5	A
10/7/2010	TWA-19	1425 to 1443	<	5	A
10/7/2010	TWA-20	1446 to 1458	<	5	A
10/7/2010	TWA-21	1502 to 1502	<	5	A
10/8/2010	TWA-1	0745 to 0758	<	6	B
10/8/2010	TWA-2	0801 to 0813	<	6	B
10/8/2010	TWA-3	0816 to 0828	<	6	B
10/8/2010	TWA-4	0831 to 0843	<	6	B
10/8/2010	TWA-5	0846 to 0858	<	6	B
10/8/2010	TWA-6	0901 to 0910	<	6	B
10/8/2010	TWA-7	0920 to 0932	<	6	B
10/8/2010	TWA-8	0935 to 0947	<	6	B
10/8/2010	TWA-9	0950 to 1002	<	6	B
10/8/2010	TWA-10	1005 to 1017	<	6	B
10/8/2010	TWA-11	1023 to 1035	<	6	B
10/8/2010	TWA-12	1105 to 1117	<	6	A
10/8/2010	TWA-13	1120 to 1133	<	6	A
10/8/2010	TWA-14	1136 to 1148	<	6	A
10/8/2010	TWA-15	1154 to 1206	<	6	A
10/8/2010	TWA-16	1217 to 1229	<	6	A
10/8/2010	TWA-17	1232 to 1245	<	6	A
10/8/2010	TWA-18	1248 to 1300	<	6	A
10/8/2010	TWA-19	1303 to 1306	<	6	A
10/8/2010	TWA-20	1322 to 1334	<	6	A