

**Countywide Recycling & Disposal Facility
Ambient Air Monitoring
Monthly Report #16
September 20, 2008**

**To Fulfill the Requirements Set Forth in Order 5.A. of the Ohio EPA
Director's Findings and Orders Dated March 28, 2007**

**Republic Services of Ohio II, LLC
Countywide Recycling & Disposal Facility
3619 Gracemont Street SW
East Sparta, Ohio 44262**

Prepared by
Lawhon & Associates, Inc.
975 Eastwind Drive, Suite 190
Westerville, OH 43081

**Countywide Recycling & Disposal Facility
Ambient Air Monitoring
Monthly Report #16
September 20, 2008
Monitoring Events #71 through 76**

1.0 INTRODUCTION

Beginning on Monday May 21, 2007 ambient air sampling is being conducted every six days as mandated by Order 5.A. of the Ohio EPA Director's Findings and Orders dated March 28, 2007. This report covers the analytical results from the following Monitoring Events.

Event #71: Sunday July 20 to Monday July 21

Event #72: Saturday July 26 to Sunday July 27

Event #73: Friday August 1 to Saturday August 2

Event #74: Thursday August 7 to Friday August 8

Event #75: Wednesday August 13 to Thursday August 14

Event #76: Tuesday August 19 to Wednesday August 20

Starting in early August 2008, we began making incremental but significant changes in the community monitoring stations and sampling protocol in an effort to identify and (if possible) eliminate sources of variability that may have been contributing to anomalously high results for benzene and a few other VOCs. The following changes were made during the time frame covered by Monthly Report #16:

- All four of the monitoring stations were secured in chain-link enclosures topped with razor wire;
- The Wetland monitor has been moved from a temporary location on high ground off of Gracemont Street back to the low-lying, flood-prone public lands accessible from Dueber Avenue;
- The Campground monitor has been moved to the far side of the gravel parking area farther away from the road;
 - Construction equipment and a petroleum storage tank were observed within 100 feet of the new location for this monitor
- The School monitor has been relocated from the roof to an area near to and just west of the tennis courts;
- Beginning with Event #75 on August 13/14, an additional Summa canister was co-located at one of the four monitoring sites. The co-located sample location revolves amongst the monitoring sites on a pre-determined schedule;
- The tubing previously used to collect samples from a height of two meters (per Ohio EPA specifications) is no longer being used with the Summa Canisters. In order to achieve a collection height of two meters for the TO-15 samples, the Summa canisters are suspended from a wire strung across the enclosure; and

- Rigorous requirements for handling remaining tubing used in the sampling devices have been implemented to minimize potential for contamination during transport of the equipment.

As specified by the Ohio EPA in Bryan Zima's March 28, 2007 letter to Jason Perdion of Baker & Hostetler, air samples were analyzed for the following groups of compounds:

- Volatile Organic Compounds (VOCs): EPA Method TO-15 modified with Tentatively Identified Compounds (TICs)
- Sulfur Compounds: EPA Method TO-15 modified
- Aldehydes and Ketones: EPA Method TO-11A
- Hydrogen Fluoride and Hydrogen Chloride: NIOSH Method 7903

EPA Method TO-15 Modified analyses were performed by Test America Laboratories, Inc. 5815 Middlebrook Pike, Knoxville, TN 37921. EPA Method TO-11A and NIOSH Method 7903 were performed by Integrated Analytical Laboratory (IAL), Randolph, NJ. Certification numbers: ELAP-11402; NJDEP-14751; AIHA-100201.

In order to identify conditions that may be of concern, results from the community monitoring are compared to conservative risk-based concentrations for chemicals in air in non-occupational settings. The most conservative (lowest) comparison is to USEPA Region 9 Preliminary Remediation Goals (PRGs), followed by the Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). The differences between these screening levels are briefly discussed below.

The USEPA Region 9 PRG is the concentration of a chemical in the ambient air that is estimated to be without significant risk to a person who would breathe that level of chemical continuously over many decades. The Region 9 PRGs are derived using conservative mathematical formulas and do not represent the level of a chemical in the air (or other environmental media) where health effects are likely to occur. Region 9 PRGs are generally accepted as conservative screening values, such that if the concentration of a chemical in the air is less than the corresponding PRG, most public health officials and regulators are confident that there is no risk to human health. On the other hand, an analytical result that exceeds the corresponding PRG does not mean that there is an unacceptable risk to public health. The chemical that were detected in these Monitoring Events are commonly found at low levels in ambient air. For some compounds such as benzene, the mathematically-derived Region 9 PRG of 0.25 ug/m³ is lower than the average background concentration of 1.96 ug/m³ in ambient air in Ohio (Ohio EPA, *Portsmouth Ohio Air Quality Study 2003*). Consequently, finding certain chemicals in ambient air at levels above PRGs that are very close to analytical detection limits is not uncommon and may simply reflect fluctuations in background sources. It should be noted that not all of the compounds found in the air samples have corresponding PRGs.

Analytical results for VOCs are also compared to the ATSDR Acute and Chronic Minimum Risk Levels (MRLs) where available. A MRL is an estimate of the daily

human exposure to a hazardous substance that is likely to be without appreciable risk of adverse non-cancer health effects over a specified duration of exposure. Unlike PRGs which address either cancer or non-cancer health effects for a chemical (depending upon which is more conservative, i.e. results in a lower concentration), the ATSDR MRLs do not consider cancer health effects. PRGs and MRLs are useful screening levels that assist risk assessors in identifying those chemicals that may pose a health concern. Neither PRGs nor MRLs represent levels of exposure that have been documented to cause actual health effects.

Chemicals that were detected below PRGs or MRLs will not be discussed unless those particular results help to explain other findings.

Ambient environmental/climate conditions are discussed in Section 2.0. Results of the monitoring are discussed in Section 3.0 and summarized in Section 4.0 of this report. Analytical results from the laboratory are provided in the Appendices.

2.0 AMBIENT CONDITIONS

The descriptions of ambient conditions are taken from the Daily Odor Monitoring Summary compiled by Countywide's consultant, Diversified Engineering.

Event #71: Sunday/Monday July 20/21, 2008:

July 20: Average temperature in degrees F: 76, Max. 88, Min. 66.

Winds were 5 mph with max gusts of 43 mph from variable directions.

Average relative humidity 82% with 0.69 inches of precipitation recorded.

Complaints: There were no odor complaints during this time.

July 21: Average temperature in degrees F: 75, Max. 87, Min. 66

Winds were 1 mph with max speed of 8 mph out of the WSW.

Average relative humidity 83% with no precipitation recorded.

Complaints: A complaint occurred at 3:42pm from 8200 Dueber Ave in East Sparta. Pump maintenance; temporary cap repair; and pipeline construction were potentially odor-causing activities noted on the Daily Odor Monitoring Summary.

Event #72: Saturday/Sunday July 26/27, 2008:

July 26: Average temperature in degrees F: 73, Max. 84, Min. 62.

Winds were calm with max gusts of 17 mph out the SSW.

Average relative humidity 80% with 0.35 inches of precipitation recorded.

Complaints: A complaint occurred at 5:14pm from 2940 Haut St. in East Sparta. Trench work in Area D was a potentially odor-causing activity noted on the Daily Odor Monitoring Summary.

July 27: Average temperature in degrees F: 70, Max. 82, Min. 60

Winds were 1 mph with max speed of 9 mph out of the NNW.

Average relative humidity 77% with 0.01 inches of precipitation recorded.

Complaints: There were no odor complaints during this time.

Event #73: Friday/Saturday August 1/2, 2008:

August 1: Average temperature in degrees F: 75, Max. 86, Min. 64.

Winds were calm with max gusts of 28 mph of out the W.

Average relative humidity 82% with 0.26 inches of precipitation recorded.

Complaints: There were no odor complaints during this time.

August 2: Average temperature in degrees F: 73, Max. 84, Min. 63

Winds were calm with max gusts of 20 mph out of the N.

Average relative humidity 83% with 0.01 inches of precipitation recorded.

Complaints: There were no odor complaints during this time.

Event #74: Thursday/Friday August 7/8, 2008:

August 7: Average temperature in degrees F: 70, Max. 81, Min. 60.

Winds were 3 mph with max gusts of 20 mph of out the NW.

Average relative humidity 71% with no precipitation recorded.

Complaints: There were no odor complaints during this time.

August 8: Average temperature in degrees F: 66, Max. 78, Min. 54

Winds were 2 mph with max gusts of 22 mph out of the N.

Average relative humidity 66% with no precipitation recorded.

Complaints: There were no odor complaints during this time.

Event #75: Wednesday/Thursday August 13/14, 2008:

August 13: Average temperature in degrees F: 68, Max. 82, Min. 54.

Winds were calm with max speed of 8 mph of out the ENE.

Average relative humidity 70% with no precipitation recorded.

Complaints: A complaint occurred at 8:32pm from 12102 Sherman Church Ave in Bolivar. Pump maintenance; cap area D and N work; and pipeline construction were potentially odor-causing activities noted on the Daily Odor Monitoring Summary.

August 14: Average temperature in degrees F: 70, Max. 77, Min. 62

Winds were 2 mph with max gusts of 25 mph out of the ENE.

Average relative humidity 80% with 0.35 inches of precipitation recorded.

Complaints: There were no odor complaints during this time.

Event #76: Tuesday/Wednesday August 19/20, 2008:

August 19: Average temperature in degrees F: 69, Max. 82, Min. 57.

Winds were 3 mph with max speed of 9 mph of out the NNE.

Average relative humidity 71% with no precipitation recorded.

Complaints: There were no odor complaints during this time.

August 20: Average temperature in degrees F: 66, Max. 84, Min. 50

Winds were 2 mph with max speed of 8 mph out of the NE.

Average relative humidity 62% with 0.01 inches of precipitation recorded.

Complaints: There were no odor complaints during this time.

3.0 ANALYTICAL RESULTS

The laboratory analyzed the air samples for a large number of chemicals. Only those results that exceeded Region 9 PRGs and/or ATSDR MRLs will be discussed in the body of this report (see Section 1.0). Other compounds may have been detected in a sample, but were quantified at concentrations below the respective PRG. Analytical results from the laboratory are provided in the Appendices.

3.1 Volatile Organic Compounds

Compounds detected by Method TO-15 modified (TO-15M) are summarized in Tables 1 through 6. TO-15M analyzes air samples collected in a summa canister for the presence of an extensive list of volatile organic compounds. In addition to a "standard analyte" list, we have requested that the laboratory tentatively identify and estimate the concentration of numerous compounds that are not on the "standard" list. These Tentatively Identified Compounds (TICs) include some compounds for which there are other specific analytical methods, such as acetaldehyde which is a target analyte for EPA Method TO-11A (TO-11A). All of the TO-15M analyses presented in this monthly report were performed by Test America. Laboratory data reports are provided in the Appendices. The QA/QC packages from Test America are not included in the Appendices because of their large size but can be made available upon request. L&A's QA/QC team is in the process of reviewing and validating the data presented in this report. Any unusual findings will be addressed as an addendum.

It should be noted that the EPA Method TO-15 Target Analyte List used by Test America includes several compounds that Integrated Analytical Laboratories reports as Tentatively Identified Compounds (TICs). On the other hand Test America quantifies fewer TICs than Integrated Analytical.

Only VOCs that were detected at concentrations exceeding the respective Region 9 PRG (most conservative screening level) in one or more samples during a monitoring event are presented in the summary tables that follow. The results from the analytical laboratory can be found in the Appendix noted.

Event #71: Sunday/Monday July 20/21, 2008:

Analytical results are summarized in Table 1 and provided in Appendix A.

Event #71: VOCs Detected Above PRGs
Concentrations in ug/m³

Compound	Acute MRL	Chronic MRL	PRG	School Variable/upwind	Cell Tower Variable/upwind	Campground Variable/downwind	Wetland Variable/downwind
Benzene	28.75	9.58	0.25	3.8	6.3	3	2.1J
Carbon tetrachloride	188.02	188.02	0.13	ND	ND	0.83J	ND
Chloroethane	1032.52	NA	2.3	5.6	5.7	1.3	4.6
Vinyl chloride	1278.12	76.69	0.11	2.6	2.2J	0.95	ND

Bold indicates result exceeded Region 9 PRG

Shading indicates result exceeded ATSDR Minimum Risk Level (MRL)

Laboratory Data Qualifiers

B = Compound was detected in the blank

J = Estimated concentration below laboratory reporting limit

Event #72: Saturday/Sunday July 26/27, 2008:

Analytical results are summarized in Table 2 and provided in Appendix B.

Event #72: VOCs Detected Above PRGs
Concentrations in ug/m³

Compound	Acute MRL	Chronic MRL	PRG	School Upwind/cross	Cell Tower Upwind/cross	Campground Downwind/cross	Wetland Downwind/cross
Benzene	28.75	9.58	0.25	2.8J	15	3.5J	2.3J
Chloroethane	1032.52	NA	2.3	4.5	14	11	4.3
Vinyl chloride	1278.12	76.69	0.11	2.8J	8.0J	6.3	ND

Bold indicates result exceeded Region 9 PRG

Shading indicates result exceeded ATSDR Minimum Risk Level (MRL)

Laboratory Data Qualifiers:

B = Compound was detected in the blank

J = Estimated concentration below laboratory reporting limit

Event #73: Friday/Saturday August 01/02, 2008:

Analytical results are summarized in Table 3 and provided in Appendix C.

Event #73: VOCs Detected Above PRGs
Concentrations in ug/m³

Compound	Acute MRL	Chronic MRL	PRG	School Crosswind/cross	Cell Tower Crosswind/cross	Campground Crosswind/up	Wetland Downwind/cross
Benzene	28.75	9.58	0.25	2.8	3.2J	1.15	1.93
Chloroethane	1032.52	NA	2.3	2.4	5.3	2.5	1.8J
Tetrahydrofuran	NA	NA	0.99	1.3J	ND	ND	ND
Vinyl chloride	1278.12	76.69	0.11	0.94J	2.8J	1.3J	ND

Bold indicates result exceeded Region 9 PRG

Shading indicates result exceeded ATSDR Minimum Risk Level (MRL)

Laboratory Data Qualifiers:

B = Compound was detected in the blank

J = Estimated concentration below laboratory reporting limit

Event #74: Thursday/Friday August 07/08, 2008:

Analytical results are summarized in Table 4 and provided in Appendix D.

**Event #74: VOCs Detected Above PRGs
Concentrations in ug/m³**

Compound	Acute MRL	Chronic MRL	PRG	School Crosswind/cross	Cell Tower Crosswind/cross	Campground Crosswind/up	Wetland Downwind/cross
Benzene	28.75	9.58	0.25	0.89	0.38J	0.42J	0.46J
Carbon tetrachloride	188.02	188.02	0.13	0.54J	0.47J	0.47J	0.51J
Chloroform	488.26	97.65	0.083	0.20J	ND	ND	ND

Bold indicates result exceeded Region 9 PRG

Shading indicates result exceeded ATSDR Minimum Risk Level (MRL)

Laboratory Data Qualifiers:

B = Compound was detected in the blank

J = Estimated concentration below laboratory reporting limit

Event #75: Wednesday/Thursday August 13/14, 2008:

Analytical results are summarized in Table 5 and provided in Appendix E. Beginning with this sampling event, a co-located sample was collected at one of the community monitoring sites on a revolving schedule. For Event #75, the additional sample was co-located at the Cell Tower. Results in () designated the co-located sample.

**Event #75: VOCs Detected Above PRGs
Concentrations in ug/m³**

Compound	Acute MRL	Chronic MRL	PRG	School Downwind/down	Cell Tower Downwind/down	Campground Upwind/up	Wetland Upwind/cross
Benzene	28.75	9.58	0.25	0.87B*	1.0B*(1.3B)	0.82B*	0.72B*
Carbon tetrachloride	188.02	188.02	0.13	0.7J	0.65J(0.70J)	0.62J	0.71J

*Benzene was also found in the blank at similar concentrations

Bold indicates result exceeded Region 9 PRG

Shading indicates result exceeded ATSDR Minimum Risk Level (MRL)

Laboratory Data Qualifiers:

B = Compound was detected in the blank

J = Estimated concentration below laboratory reporting limit

Event #76: Tuesday/Wednesday August 19/20, 2008:

Analytical results are summarized in Table 6 and provided in Appendix F. For Event #76, the additional sample was co-located at the School. Results in () designated the co-located sample.

**Event #76: VOCs Detected Above PRGs
Concentrations in ug/m³**

Compound	Acute MRL	Chronic MRL	PRG	School Downwind/down	Cell Tower Downwind/down	Campground Upwind/up	Wetland Upwind/cross
Benzene	28.75	9.58	0.25	1.6(0.77)	0.65	0.89	0.66
Carbon tetrachloride	188.02	188.02	0.13	0.76J(0.85J)	0.67J	0.71J	0.77J
Tetrahydrofuran	NA	NA	0.99	0.69J(ND)	1.0J	ND	ND

Bold indicates result exceeded Region 9 PRG
 Shading indicates result exceeded ATSDR Minimum Risk Level (MRL)
 Laboratory Data Qualifiers:

- B = Compound was detected in the blank
- J = Estimated concentration below laboratory reporting limit

3.2 Sulfur Compounds

Carbon disulfide was the only sulfur compound detected during the five rounds of sampling reviewed in this report. All detections were extremely low concentrations and are included on the TO-15M Summary Tables.

3.3 Aldehydes and Ketones

In order to obtain a continuous 24 hours of data, three separate gel collection tubes were sequentially exposed to ambient air for a period of approximately 8-hours each. Consequently there are three separate sample results for each location for each monitoring event. Analysis for aldehydes and ketones by TO-11A was performed by Integrated Analytical Laboratories.

Event #71: Sunday/Monday July 20/21, 2008:

The laboratory report is in Appendix A.

Event #71: Aldehydes Concentrations in ug/m³

Aldehyde	PRG	School Variable/upwind			Cell Tower Variable/upwind			Campground Variable/downwind			Wetland Variable/downwind		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	0.15	0.38	0.25	0.33	0.75*	0.29	0.38	0.42	0.38	0.38	0.25	0.21	0.25

*Breakthrough from front to back of tube. i.e. (10% or more of the mass of the compound found in the front section of the tube was detected in the back section of the tube).

Event #72: Saturday/Sunday July 26/27, 2008:

The laboratory report is in Appendix B.

Event #72: Aldehydes Concentrations in ug/m³

Aldehyde	PRG	School Upwind/cross			Cell Tower Upwind/cross			Campground Downwind/cross			Wetland Downwind/cross		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	0.15	0.25	0.25	0.21	0.25	0.33	0.88*	0.29	1.04	0.25	ND	ND	0.63

*Break through from front to back of sorbent tube (i.e. 10% or more of the mass of the compound found in the front section of the tube was detected in the back section of the tube).

Event #73: Friday/Saturday August 01/02, 2008:

The laboratory report is in Appendix C.

**Event #73: Aldehydes
Concentrations in ug/m³**

Aldehyde	PRG	School			Cell Tower			Campground			Wetland		
		Crosswind/cross			Crosswind/cross			Crosswind/up			Downwind/ cross		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	0.15	0.28	0.26	0.29	0.42	0.37	0.50	0.45	0.27	0.42	ND	0.24	0.27

Event #74: Thursday/Friday August 07/08, 2008:

The laboratory report is in Appendix D.

**Event #74: Aldehydes
Concentrations in ug/m³**

Aldehyde	PRG	School			Cell Tower			Campground			Wetland		
		Crosswind/ cross			Crosswind/ cross			Crosswind/up			Downwind/cross		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	0.15	0.41	3.4	5.6	4.9	1.2	14	2.5	4.4	12	1.9	6.9	0.23*
Acetaldehyde	0.87	0.25	1.0	1.3	2.0	0.32	2.8	1.3	1.5	3.1	1.0	2.9	ND

*Break through from front to back of sorbent tube (i.e. 10% or more of the mass of the compound found in the front section of the tube was detected in the back section of the tube).

Event #75: Wednesday/Thursday August 13/14, 2008:

The laboratory report is in Appendix E.

Event #75: Aldehydes

Concentrations in ug/m³

Aldehyde	PRG	School			Cell Tower			Campground			Wetland		
		Downwind/down			Downwind/down			Upwind/up			Upwind/cross		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	0.15	1.6*	1.8	2.0	4.4	2.9	1.8	.54	1.5	0.77	6.3	.35	4.3
Acetaldehyde	0.87	0.82	0.72	0.77	1.1	1.0	0.35	0.32	1.0	0.68	2.0	.42	5.0

*Break through from front to back of sorbent tube (i.e. 10% or more of the mass of the compound found in the front section of the tube was detected in the back section of the tube).

Event #76: Tuesday/Wednesday August 19/20, 2008:

The laboratory report is in Appendix F.

Event #76: Aldehydes

Concentrations in ug/m³

Aldehyde	PRG	School Downwind/down			Cell Tower Downwind/down			Campground Upwind/up			Wetland Upwind/cross		
		1	2	3	1	2	3	1	2	3	1	2	3
Formaldehyde	0.15	0.72	12	0.45	0.82	1.0	0.50	5.9	4.0	.50	10	5.9	1.0
Acetaldehyde	0.87	ND	1.4	ND	0.50	0.59	0.42	1.4	1.0	0.31	2.6	1.9	0.45

3.4 Hydrogen Chloride and Hydrogen Fluoride

As with the aldehyde and ketone samples, three separate gel collection tubes were sequentially exposed to ambient air for a period of approximately 8-hours each. Consequently there are three separate sample results for each location for each monitoring event. The concentrations of HF and HCl in the air are quantified based on the mass of fluoride and chloride ion captured on the gel inside the tubes and the volume of air that was passed through the tube.

Analytical results for sampling events #71 through #76 are summarized below. All detected concentrations were very low and did not approach levels of potential concern.

Event #71: Sunday/Monday July 20/21, 2008:

Hydrogen fluoride was found in the second and third tube from the Campground (1.4, 1.5 ug/m³); and in the first and third tubes from the Cell Tower (1.4, 1.6 ug/m³). No hydrogen chloride was detected in any of the samples.

Event #72: Saturday/Sunday July 26/27, 2008:

No hydrogen fluoride was detected in any of the samples. Hydrogen chloride was found in the first tube from the Campground (8.7 ug/m³).

Event #73: Friday/Saturday August 01/02, 2008:

Neither hydrogen fluoride nor hydrogen chloride was detected in any of the samples during this monitoring event.

Event #74: Thursday/Friday August 07/08, 2008:

Hydrogen fluoride was detected in most of the sample tubes during this event as follows: School (2.3, 2.3, 1.3 ug/m³); Campground (2.7, 2.5, 3.2 ug/m³); Wetland (1.7, 4.7, 3.2 ug/m³); and Cell Tower (5.3, ND, 4.5 ug/m³). Hydrogen chloride was found only in the second tube from the Wetland (4.0 ug/m³).

Event #75: Wednesday/Thursday August 13/14, 2008:

Hydrogen fluoride was detected in most of the sample tubes during this event as follows: School (2.3, 1.7, 1.7 ug/m³); Campground (ND, 1.9 ug/m³, ND); Cell Tower (1.5, 2.4 ug/m³, ND); and Wetland (2.0, 1.5, 2.4 ug/m³). No hydrogen chloride was detected in any of the samples.

Event #76: Tuesday/Wednesday August 19/20, 2008:

Hydrogen fluoride was detected in most of the sample tubes during this event as follows: School (3.2, 3.0, 1.5 ug/m³); Campground (4.8, 2.4 ug/m³, ND); Cell Tower (3.8, 3.6 ug/m³, ND); and Wetland (5.2, 3.1, 1.8 ug/m³). No hydrogen fluoride was detected in any of the samples.

4.0 SUMMARY

4.1 Volatile Organic Compounds

The following VOCs were detected at concentrations above the respective Region 9 PRGs in one or more of the samples summarized in this report: benzene, carbon tetrachloride, chloroethane, chloroform, tetrahydrofuran, and vinyl chloride. Benzene was detected at a concentration (15 ug/m³) exceeding the ATSDR Chronic MRL (9.58 ug/m³) in the sample from the Cell Tower taken on July 26/27. However, the concentrations of all of these chemicals were extremely low and in many cases were reported as estimated values by the laboratory. An additional Summa canister was co-located at the Cell Tower during Event #75 and at the School during Event #76. As can be seen from the text in Section 3.1 and TO-15 Summary Tables 5 and 6, there is good agreement between the two samples from each location. The small amount of variability is to be expected from the analytical laboratory-especially when measuring such very low concentrations.

It should be noted that for all of the compounds that were measured at concentrations (or estimated concentrations as designated by a "J" qualifier) above the Region 9 PRGs, the PRG value is either very near or in some cases below the reporting limit for the analytical laboratory. Consequently almost any quantifiable detection of the chemical will exceed the highly conservative Region 9 PRG. The ATSDR MRLs provide a more realistic basis of comparison since all of the MRLs are above the range of laboratory reporting limits for those compounds that have MRLs.

All of the benzene concentrations measured during the monitoring events were within the range of background levels reported in the literature and by other investigators. As mentioned in previous Monthly Reports, there are numerous local and area sources of benzene and related compounds, including lawn mowing, emissions from the heavy equipment working on the nearby expansion area of the landfill, motor vehicles near the monitoring equipment, the Marathon refinery on the south side of Canton, and the landfill.

In comparison to the levels of VOCs presented in previous Monthly Reports, it is apparent that levels measured during July and mid-August have declined. It appears that the revisions to the monitoring protocol and equipment described in Section 1.0 may have eliminated at least some of the sources of variability associated with previously reported high concentrations. At this point the influence of climatic conditions during the late summer months (i.e. transition from heavy precipitation, high humidity to low humidity) on the levels of VOCs detected is not known.

4.2 Aldehydes (Carbonyl Compounds)

Low levels of formaldehyde, and occasionally acetaldehyde were detected at all sampling locations. There were no evident differences in concentrations detected in upwind vs. downwind locations relative to the landfill. It is likely that the low concentrations of formaldehyde and acetaldehyde simply reflect regional air quality, have numerous sources and are not related to emissions from the landfill. The Region 9 PRG for formaldehyde (0.15 ug/m³) is very close to the laboratory reporting limit for this chemical. Consequently, almost any measurable level of formaldehyde will exceed the Region 9 PRG.

4.3 Hydrogen Fluoride and Hydrogen Chloride

Low concentrations of these two inorganic acids were found sporadically at all monitoring locations. Hydrogen fluoride was detected more frequently than hydrogen chloride. As with the aldehydes, there were no apparent differences in the concentrations detected in upwind vs. downwind locations with respect to the landfill. The occasional low levels of HF and HCl detected in the ambient air do not present a risk to public health and are not clearly related to any single source.

4.4 Laboratory Issues

All of the Method TO-15 analyses presented in this report were performed by Test America Laboratories. Several differences are apparent when comparing Test America to Integrated Analytical with regard to reporting format. The TO-15 target analyte list differs slightly between the two laboratories. For example, tetrahydrofuran is a target analyte for Test America, but is reported as a TIC by Integrated Analytical. On the other hand, Integrated Analytical typically reports and quantifies a greater number of TICs than Test America. Test America displays data-qualifiers on their reports, while Integrated Analytical typically does not. Methylene chloride was clearly identified as a laboratory contaminant by Test America, supporting our earlier suspicions that the sporadic detections of this compound over the past year are at least in part attributable to laboratory artifact.

Integrated Analytical continues to perform the analyses for Method TO-11A (carbonyl compounds) and NIOSH Method 7903 for hydrogen fluoride-hydrogen chloride.

4.5 Conclusions

The analytical results from the five monitoring Events summarized in this Monthly Report #16 show a marked decline in levels of VOCs, particularly benzene over previous months. We consider the time period covered by this report to represent a “break” from some previous practices that may have introduced difficult to identify sources of random variability into the sampling system. Our specific conclusions are summarized below:

- The levels of benzene reported from the community monitoring stations declined markedly during the time period covered by Monthly Report #16 as compared to previous months.

- Out of 26 separate air samples, benzene exceeded the health-based ATSDR Chronic MRL on only one occasion. The sample taken on July 26/27 from the Cell Tower location reported 15 ug/m³ benzene compared to the MRL of 9.58 ug/m³. No other benzene result exceeded an ATSDR MRL. No other VOC approached or exceeded the corresponding ATSDR MRL.
- Because there are numerous local and regional sources of VOCs, it is expected that many of these compounds will continue to be detected at low levels as the community monitoring program moves forward.
- There are no clear trends with regard to the specific compounds or the concentrations of those compounds detected with respect whether the monitoring location was upwind or downwind of the landfill during the monitoring event.
- It is likely that multiple factors contribute to the declining levels of VOCs reported from the community monitoring. Some of these factors-such as the influence of local meteorological conditions and the possibility of tampering-are not controllable. It appears that improvements to the monitoring protocols and equipment may have reduced/eliminated some sources of variability. The transition from summer into autumn may also present a source of variability that should be easier to identify (if it exists) now that the monitoring equipment set-up has been revised.
- The results presented in this Monthly Report #16 support our conclusions that the occurrence of low levels of VOCs, aldehydes and inorganic acids in the air of the community surrounding Countywide reflect local and regional sources (which may include the landfill); and that the levels of these chemicals in the ambient air do not represent either an immediate or long-term threat to public health.

**Countywide Recycling & Disposal Facility
Ambient Air Monitoring
Monthly Report #16**

September 20, 2008

EPA Method TO-15 SUMMARY TABLES

Countywide Recycling & Disposal Facility

EPA Method TO-15 Modified: Volatile Organic Compounds

Table 1: Event #71 July 20/21, 2008

Analyte	Monitoring Location			PRG	Chronic MRL	Acute MRL	Chronic MRL	PRG	Monitoring Location				
	School		Cell Tower						Campground		Wetland		
	Var/Upwind	Var/Downwind	Var/Upwind						Var/Downwind	Var/Downwind	Var/Downwind	Var/Downwind	Var/Downwind
All results in ug/m ³													
Method TO-15 Modified													
Acetone	61762	30881	3300	410	400	140	200						
Benzene	29	10	0.25	3.8	6.3	3	2.1J						
Bromomethane	194	19	5.2	ND	ND	0.28J	ND						
tert-Butyl alcohol	NA	NA	NA	96	220	11	72						
Carbon disulfide	NA	934	730	ND	ND	0.46J	ND						
Carbon tetrachloride	188	188	0.13	ND	ND	0.83J	ND						
Chloroethane	39583	NA	2.3	5.6	5.7	1.3	4.6						
Chloromethane	1033	103	95	9.5	11	3.9	4.7						
Cyclohexane	NA	NA	6200	14	3.9	0.69J	3.3J						
Dichlorodifluoromethane	NA	NA	210	2.7J	ND	2.6	2.9J						
Ethylbenzene	43419	1303	1100	1.5	ND	0.71J	ND						
4-Ethyltoluene	NA	NA	NA	ND	ND	ND	ND						
Heptane	NA	NA	NA	24	160	10	18						
Hexane	NA	2115	210	6.8J	58	1.8	4.4J						
Methyl ethyl ketone	NA	NA	5100	72	110	25	57						
Methyl isobutyl ketone	NA	NA	3100	4.8J	4.8J	1.1J	3.5J						
Methylene chloride	2084	1042	4.1	4.9JB	32B	2.1B	5.3JB						
Styrene	8520	852	1100	ND	ND	ND	ND						
Tetrahydrofuran	NA	NA	0.99	ND	ND	ND	ND						
Toluene	3768	301	400	8.5	7.2	3.5	4.6						
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	ND	ND	0.55J	ND						
Trichlorofluoromethane	NA	NA	730	1.7J	2.0J	1.5	1.5J						
1,2,4-Trimethylbenzene	NA	NA	6.2	1.6J	ND	1.7	ND						
1,3,5-Trimethylbenzene	NA	NA	6.2	ND	ND	0.43J	ND						
2,2,4-Trimethylpentane	NA	NA	NA	ND	ND	ND	ND						
Vinyl Chloride	1278	77	0.11	2.6	2.2J	0.95	ND						
m/p-Xylene	8687	8687	110	4.6	ND	2.4	2.5J						
o-Xylene	8687	8687	110	1.8J	ND	1	ND						

Analyte	Monitoring Location			
	School Var/Upwind	Cell Tower Var/Upwind	Campground Var/downwind	Wetland Var/Downwind
	All results in ug/m3			

Analyte	Monitoring Location							
	School		Cell Tower		Campground		Wetland	
	Var/upwind	Var/downwind	Var/Upwind	Var/downwind	Var/Downwind	Var/Downwind	Var/Downwind	
All results in ug/m3								
Tentatively Identified Compounds								
Heptane, 3-methylene	NA	NA	Y	Y	Y	Y	Y	Y
1-Propene-2-methyl	NA	NA	Y	Y	Y	Y	Y	Y
Butanal	NA	NA	Y	Y	Y	Y	Y	ND
Octane	NA	NA	ND	Y	ND	ND	ND	ND
Propene	NA	NA	ND	Y	ND	ND	ND	ND
			2 Unknowns	2 Unknowns	3 Unknowns	3 Unknowns	1 Unknown	
ND = Not Detected								
NA = Not Available								
Bold indicates result exceeds Region 9 PRG								
Shading indicates result exceeds ATSDR MRL								
Laboratory Data Qualifiers:								
B = Compound present in blank								
J = Estimated concentration below laboratory reporting limit								
D = Dilution								
E = Exceeds calibration range of instrument								
TICs: Compound has been tentatively identified but the estimated concentration is highly uncertain.								

Countywide Recycling & Disposal Facility

EPA Method TO-15 Modified: Volatile Organic Compounds

Table 2: Event #72 July 26/27, 2008

Analyte	School			Cell Tower			Monitoring Location		
	Upwind/Cross			Upwind/Cross			Campground		
	All results in ug/m3								
Method TO-15 Modified	Acute MRL	Chronic MRL	PRG	Upwind/Cross	Upwind/Cross	Upwind/Cross	Downwind/Cross	Downwind/Cross	Wetland
Acetone	61762	30881	3300	400	740	780	370		
Benzene	29	10	0.25	2.8J	15	3.5J	2.3J		
Bromomethane	194	19	5.2	ND	ND	ND	ND		
1,3-Butadiene	NA	NA	0.061	ND	ND	ND	ND		
tert-Butyl alcohol	NA	NA	NA	53	83J	100	38.0		
Carbon disulfide	NA	934	730	6.1J	ND	ND	ND		
Carbon tetrachloride	188	188	0.13	ND	ND	ND	ND		
Chloroethane	39583	NA	2.3	4.5	14	11	4.3		
Chloroform	488	98	0.083	ND	ND	ND	ND		
Chloromethane	1033	103	95	6.1J	25	17	5.5		
Cyclohexane	NA	NA	6200	ND	ND	ND	ND		
Dichlorodifluoromethane	NA	NA	210	3.1J	ND	ND	ND		
Ethylbenzene	43419	1303	1100	ND	ND	ND	ND		
4-Ethyltoluene	NA	NA	NA	ND	ND	ND	ND		
Heptane	NA	NA	NA	14.0	67	87	11.0		
Hexane	NA	2115	210	4.7J	8.6J	33.0	3.8J		
Methyl ethyl ketone	NA	NA	5100	49.0	130	100	51.0		
Methyl isobutyl ketone	NA	NA	3100	2.7J	ND	2.2J	2.2J		
Methylene chloride	2084	1042	4.1	4.4JB	28JB	6.5JB	2.4JB		
Styrene	8520	852	1100	ND	ND	ND	ND		
Tetrahydrofuran	NA	NA	0.99	ND	ND	ND	ND		
Tetrachloroethene	1356	271	0.32	5.1J	ND	ND	ND		
Toluene	3768	301	400	4.6J	4.6J	3.7J	6.3		
1,1,1-Trichloroethane	10912	3819	2300	ND	ND	ND	ND		
1,1,2-Trichloro-1,1,2-trifluoroethane	NA	NA	NA	ND	ND	ND	ND		
Trichlorofluoromethane	NA	NA	730	2.4J	ND	2.7J	1.5J		
1,2,4-Trimethylbenzene	NA	NA	6.2	ND	ND	ND	ND		
1,3,5-Trimethylbenzene	NA	NA	6.2	ND	ND	ND	ND		
2,2,4-Trimethylpentane	NA	NA	NA	ND	ND	ND	ND		
Vinyl Chloride	1278	77	0.11	2.8J	8.0J	6.3	ND		
m/p-Xylene	8687	8687	110	ND	ND	ND	3.4J		
o-Xylene	8687	8687	110	ND	ND	ND	ND		

Countywide Recycling & Disposal Facility

EPA Method TO-15 Modified: Volatile Organic Compounds

Table 3: Event #73 August 01/02, 2008

Analyte	School			Cell Tower			Monitoring Location			Wetland	
	Cross/Cross			Cross/Cross			Campground				Down/Cross
	All results in ug/m3										
Method TO-15 Modified	Acute MRL	Chronic MRL	PRG								
Acetone	61762	30881	3300	280	540	170				100	
Benzene	29	10	0.25	2.8	3.2J	1.1J				1.9J	
Bromomethane	194	19	5.2	ND	ND	ND				ND	
tert-Butyl alcohol	NA	NA	NA	67	61	28				10J	
Carbon disulfide	NA	934	730	ND	1.1J	0.75				ND	
Carbon tetrachloride	188	188	0.13	ND	ND	ND				ND	
Chloroethane	39583	NA	2.3	2.4	5.3	2.5				1.8J	
Chloroform	488	98	0.083	ND	ND	ND				ND	
Chloromethane	1033	103	95	4.7	12	8.2				5.0J	
Cyclohexane	NA	NA	NA	5.2J	ND	ND				ND	
Dichlorodifluoromethane	NA	NA	210	2.5J	ND	2.4J				3.0J	
Ethylbenzene	43419	1303	1100	ND	ND	ND				ND	
Heptane	NA	NA	NA	17	36	16				7.4J	
Hexane	NA	2115	210	4.2JB	7.6J	12				2.2JB	
Methyl ethyl ketone	NA	NA	5100	78	150	25				22	
Methyl isobutyl ketone	NA	NA	3100	4.5J	3.5J	ND				ND	
Methylene chloride	2084	1042	4.1	4.7JB	8.1JB	5.9JB				3.0JB	
Tetrachloroethene	1356	271	0.32	ND	ND	ND				ND	
Tetrahydrofuran	NA	NA	0.99	1.3J	ND	ND				ND	
Toluene	3768	301	400	5.9	5.3J	2.1J				1.8J	
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	ND	ND	ND				ND	
Trichlorofluoromethane	NA	NA	730	1.7J	2.1J	1.9J				1.6J	
1,2,4-Trimethylbenzene	NA	NA	6.2	ND	ND	ND				ND	
1,3,5-Trimethylbenzene	NA	NA	6.2	ND	ND	ND				ND	
Vinyl Chloride	1278	77	0.11	.94J	2.8J	1.3J				ND	
m/p-Xylene	8687	8687	110	3.2J	ND	ND				ND	
o-Xylene	8687	8687	110	ND	ND	ND				ND	

Countywide Recycling & Disposal Facility

EPA Method TO-15 Modified: Volatile Organic Compounds

Table 4: Event #74 August 07/08, 2008

Analyte	Monitoring Location				PRG		
	School	Cell Tower	Campground	Wetland			
	Cross/Cross	Cross/Cross	Cross/Up	Down/Cross			
Method TO-15 Modified	Acute MRL	Chronic MRL	PRG	All results in ug/m3			
Acetone	61762	30881	3300	23	28	67	23
Benzene	29	10	0.25	0.89	0.38J	0.42J	0.46J
1,3-Butadiene	NA	NA	0.061	ND	ND	ND	ND
tert-Butyl alcohol	NA	NA	NA	0.52J	0.62J	1.4J	0.43J
Carbon disulfide	NA	934	730	0.15J	0.098J	0.10J	0.34J
Carbon tetrachloride	188	188	0.13	0.54J	0.47J	0.47J	0.51J
Chloroform	488	98	0.083	0.20J	ND	ND	ND
Chloroethane	39583	NA	2.3	ND	ND	0.21J	0.097J
Chloromethane	1033	103	95	1.2	1.1	1.4	1.5
Cyclohexane	NA	NA	NA	0.22J	ND	0.33J	ND
Dichlorodifluoromethane	NA	NA	210	2.2	2.3	2.2	2.5
Ethylbenzene	43419	1303	1100	0.50J	ND	ND	ND
Heptane	NA	NA	NA	0.76J	0.43J	1.5J	0.58J
Hexane	NA	2115	210	0.85J	0.46J	0.71J	0.50J
Methyl ethyl ketone	NA	NA	5100	2.3J	3	12	3
Methyl isobutyl ketone	NA	NA	3100	ND	ND	0.79J	0.20J
Methylene chloride	2084	1042	4.1	1.5JB	1.5JB	1.4JB	1.8B
Tetrahydrofuran	NA	NA	0.99	ND	ND	ND	ND
Toluene	3768	301	400	7	1	1	1.4
Trichlorofluoromethane	NA	NA	730	1.2	1.3	1.2	1.3
1,1,1-Trichloroethane	10912	3819	2300	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	0.57J	0.58J	0.56J	0.63J
1,2,4-Trimethylbenzene	NA	NA	6.2	0.84J	ND	0.34J	ND
2,2,4-Trimethylpentane	NA	NA	NA	0.57J	ND	0.35J	0.20J
m/p-Xylene	8687	8687	110	1.4	ND	ND	ND
o-Xylene	8687	8687	110	0.52J	ND	ND	ND

Tentatively Identified Compounds									
Acetaldehyde	NA	NA	NA	ND	ND	Y	ND	1 Unknown	ND
ND = Not Detected									
NA = Not Available									
Bold indicates result exceeds Region 9 PRG									
Shading indicates result exceeds ATSDR MRL									
Laboratory Data Qualifiers									
B = Compound was present in the trip blank									
J = Estimated concentration below laboratory reporting limit									
D = Dilution									
E = Exceeds calibration range									
TICs: Compound has been tentatively identified but the estimated concentration is highly uncertain.									

Countywide Recycling & Disposal Facility

EPA Method TO-15 Modified: Volatile Organic Compounds

Table 5: Event #75 August 13/14, 2008

Analyte	School			Cell Tower			Co-located			Campground			Wetland	
	Down/Down			Down/Down			Down/Down			Upwind/Up			Up/Cross	
	All results in ug/m3													
Method TO-15 Modified	Acute MRL	Chronic MRL	PRG	20	18	29	16	17	20	18	29	16	17	
Acetone	61762	30881	3300	0.87B	1.0B	1.3B	0.82B	0.72B	0.87B	1.0B	1.3B	0.82B	0.72B	
Benzene	29	10	0.25	ND	ND	0.13J	ND	ND	ND	ND	0.13J	ND	ND	
Bromomethane	194	19	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-Butadiene	NA	NA	0.061	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl alcohol	NA	NA	NA	0.59J	0.55J	1.1J	0.71J	0.95J	0.59J	0.55J	1.1J	0.71J	0.95J	
Carbon disulfide	NA	934	730	0.23J	0.16J	0.27J	0.30J	0.24J	0.23J	0.16J	0.27J	0.30J	0.24J	
Carbon tetrachloride	188	188	0.13	0.70J	0.65J	0.70J	0.62J	0.71J	0.70J	0.65J	0.70J	0.62J	0.71J	
Chloroethane	39583	NA	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroform	488	98	0.083	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloromethane	1033	103	95	1.5	ND	1.5	ND	1.4	1.5	ND	1.5	ND	1.4	
Cyclohexane	NA	NA	6200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dichlorodifluoromethane	NA	NA	210	3.5	2.8	3.3	2.8	3.6	3.5	2.8	3.3	2.8	3.6	
Ethylbenzene	43419	1303	1100	0.47J	0.37J	0.39J	ND	0.34J	0.47J	0.37J	0.39J	ND	0.34J	
4-Ethyltoluene	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptane	NA	NA	NA	1.6J	1.1J	1.1J	1.1J	1.5J	1.6J	1.1J	1.1J	1.1J	1.5J	
Hexane	NA	2115	210	1.1J	0.76J	0.67J	0.72J	0.85J	1.1J	0.76J	0.67J	0.72J	0.85J	
Methyl ethyl ketone	NA	NA	5100	4	2.7J	3.8	2.4J	3.1	4	2.7J	3.8	2.4J	3.1	
Methyl isobutyl ketone	NA	NA	3100	0.50J	0.22J	1.5J	ND	0.84J	0.50J	0.22J	1.5J	ND	0.84J	
Methylene chloride	2084	1042	4.1	1.0JB	1.7JB	1.4JB	1.2JB	1.3JB	1.0JB	1.7JB	1.4JB	1.2JB	1.3JB	
Tetrahydrofuran	NA	NA	0.99	ND	0.42J	0.74J	ND	ND	ND	0.42J	0.74J	ND	ND	
Toluene	3768	301	400	2.2	1.6	1.5	1.3	1.4	2.2	1.6	1.5	1.3	1.4	
Trichlorofluoromethane	NA	NA	730	1.9	1.6	2	1.6	2.1	1.9	1.6	2	1.6	2.1	
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	0.78J	0.68J	0.82J	0.64J	0.92J	0.78J	0.68J	0.82J	0.64J	0.92J	
1,2,4-Trimethylbenzene	NA	NA	6.2	0.89J	0.33J	0.36J	ND	0.83J	0.89J	0.33J	0.36J	ND	0.83J	
2,2,4-Trimethylpentane	NA	NA	NA	0.37J	0.19J	ND	0.21J	0.21J	0.37J	0.19J	ND	0.21J	0.21J	
Vinyl chloride	1278	77	0.11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
m/p-Xylene	8687	8687	110	1.4	0.83J	1.2	0.67J	0.92	1.4	0.83J	1.2	0.67J	0.92	
o-Xylene	8687	8687	110	0.53	0.32J	0.31J	0.29J	0.29J	0.53	0.32J	0.31J	0.29J	0.29J	

Countywide Recycling & Disposal Facility

EPA Method TO-15 Modified: Volatile Organic Compounds

Table 6: Event #76 August 19/20, 2008

Analyte	School				Monitoring Location				
	Down/Down		Co-located School		Cell Tower		Campground		Wetland
	Down/Down	Down/Down	Down/Down	Down/Down	Down/Down	Down/Down	Upwind/Up	Upwind/Cross	
Method TO-15 Modified	Acute MRL	Chronic MRL	MRL	PRG	All results in ug/m3				
Acetone	61762	30881	3300	52	6.5J	9.9J	19	17	
Benzene	29	10	0.25	1.6	0.77	0.65	0.89	0.66	0.66
Bromomethane	194	19	5.2	ND	ND	ND	ND	ND	ND
1,3-Butadiene	NA	NA	0.061	ND	ND	ND	ND	ND	ND
tert-Butyl alcohol	NA	NA	NA	2.0J	0.49J	0.51J	0.66J	0.86J	0.86J
Carbon disulfide	NA	934	730	1.7B	0.21JB	0.32JB	0.27JB	0.30JB	0.30JB
Carbon tetrachloride	188	188	0.13	0.76J	0.85J	0.67J	0.71J	0.77J	0.77J
Chloroethane	39583	NA	2.3	ND	ND	ND	ND	ND	ND
Chloroform	488	98	0.083	ND	ND	ND	ND	ND	ND
Chloromethane	1033	103	95	1.2	1.2	0.86J	0.82J	1.1	1.1
Cyclohexane	NA	NA	6200	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NA	NA	210	3.3	3.7	3.6	0.82J	3.2	3.2
Ethylbenzene	43419	1303	1100	0.52J	0.61J	ND	ND	0.36J	0.36J
4-Ethyltoluene	NA	NA	NA	ND	ND	ND	ND	ND	ND
Heptane	NA	NA	NA	ND	0.65J	ND	ND	ND	ND
Hexane	NA	2115	210	1.1J	0.85J	ND	0.74J	0.56J	0.56J
Methyl ethyl ketone	NA	NA	5100	7.1	0.8J	1.0J	2.9	4.6	4.6
Methyl isobutyl ketone	NA	NA	3100	1.5J	0.91J	ND	0.63J	ND	ND
Methylene chloride	2084	1042	4.1	1.4JB	2.5B	1.3JB	1.4JB	1.3JB	1.3JB
Tetrahydrofuran	NA	NA	0.99	0.69J	ND	1.0J	ND	ND	ND
Toluene	3768	301	400	8.3	1.9	0.37J	1.9	1.5	1.5
Trichlorofluoromethane	NA	NA	730	1.8	2.3	2	1.8	1.8	1.8
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	0.72J	0.86J	0.87J	0.78J	0.73J	0.73J
1,2,4-Trimethylbenzene	NA	NA	6.2	0.93	0.42J	ND	0.53J	0.42J	0.42J
2,2,4-Trimethylpentane	NA	NA	NA	0.31J	ND	ND	ND	ND	ND
Vinyl chloride	1278	77	0.11	ND	ND	ND	ND	ND	ND
m/p-Xylene	8687	8687	110	1.4	1	ND	0.99	0.75J	0.75J
o-Xylene	8687	8687	110	0.57J	0.44J	ND	0.34J	ND	ND

Tentatively Identified Compounds			3 Unknowns	No TICs	No TICs	1 Unknown	1 Unknown
ND = Not Detected							
NA = Not Available							
Bold indicates result exceeds Region 9 PRG							
Shading indicates result exceeds ATSDR MRL							
Laboratory Data Qualifiers							
B = Compound was present in the trip blank							
J = Estimated concentration below laboratory reporting limit							
D = Dilution							
E = Exceeds calibration range of instrument							
TICs: Compound has been tentatively identified but the estimated concentration is highly uncertain.							