2007 ONSITE VAPOR INTRUSION SAMPLING

ARCH CHEMICALS, INC. ROCHESTER PLANT SITE ROCHESTER, NEW YORK

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for

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1.0 INTRODUCTION

MACTEC Engineering and Consulting, Inc. (MACTEC) has been contracted by Arch Chemicals, Inc., (Arch) to perform environmental investigation activities at their facility in Rochester, NY. MACTEC has prepared this report on behalf of Arch to describe the results of the 2007 on-site vapor intrusion sampling program at their Rochester facility.

1.1 SITE HISTORY

Arch is the current owner of the Rochester Plant located at 100 McKee Road, a private industrial road in the southwestern section of Rochester, New York (Figure 1). The plant property is approximately 15.3 acres.

Manufacturing operations have consisted of organic and inorganic chemical production. The primary products are specialty organic chemicals, many of which are produced in small quantities. Due to the nature of the manufacturing operations at Rochester, a large number of organic raw materials, intermediates, and products have been handled at the plant. In 1948, Genesee Research (a fully-owned subsidiary of the Puritan Company) first established a facility at the site for manufacturing automotive specialty products (e.g., brake fluids, polishes, anti-freeze, and specialty organic chemicals). In 1954, Mathieson Chemical Corporation acquired Puritan and merged with Olin Industries to become Olin Mathieson Chemical Corporation. Production of brake fluid and anti-freeze continued for a time, but in the early 1960s production of specialty organic chemicals including Zinc OmadineTM and chloropyridines began. In 1969, Olin Mathieson changed its name to Olin Corporation (Olin), and in 1999 Olin spun off its specialty chemicals business to form an independent company known as Arch Chemicals, Inc. The Arch Rochester plant is the sole manufacturer of chloropyridines in the United States.

The Rochester Plant has been the subject of various environmental investigations since the early 1980s, including a two-phased RI conducted in 1994-1996. These investigations have documented the presence of site-related chemicals, primarily chloropyridines and volatile organic compounds, in soil and groundwater at the site.

A Feasibility Study (FS) was completed in January 2000, in which a range of possible site remedial actions were evaluated. The FS was performed to fulfill part of the requirements of the previous Order on Consent between the NYSDEC and Olin, dated August 23, 1993.

On March 29, 2002, the NYSDEC issued a Record of Decision that selected a remedial action for addressing impacted groundwater beneath and downgradient of the site. This portion of the overall site remedy, contaminated groundwater, is referred to as Operable Unit No. 2 (OU-2). Contaminated soil and bedrock onsite (i.e., source areas) may be addressed separately in the future as Operable Unit No. 1 (OU-1).

Beginning in 2005, and at the request of the NYSDEC, Arch has been conducting annual vapor intrusion sampling at its Rochester plant. The sampling consists of sub-slab and indoor air samples collected at six locations within the facility buildings, plus one ambient (outdoor) air sample. The sampling event described in this report represents the third year of vapor intrusion sampling at the Rochester plant.

1.2 ORGANIZATION OF REPORT

This Investigation Report consists of five sections, and four appendices:

- Section 1 Introduction
- Section 2 Sampling Procedures
- Section 3 Results
- Section 4 Conclusions and Recommendations
- Section 5 References

Appendix A includes meteorological data covering the sampling time period. Appendix B contains the Field Data Records, while Appendix C provides the laboratory analytical data. Calculations supporting the risk evaluation are included in Appendix D.

2.0 SAMPLING PROCEDURES

For the 2007 onsite vapor intrusion sampling event, samples were collected using SUMMA[®] canisters for the analysis of volatile organic compounds (VOCs) and chloropyridines (2-dichloropyridine and 2,6-dichloropyridine). Sampling stations were the same as in previous sampling events, as shown on Figure 2, and used the sub-slab vapor probes installed in 2005. At each indoor location, concurrent sub-slab vapor and indoor air samples were collected. An outdoor (ambient) air sample was also collected concurrently. The samples were collected on March 14, 2007. Meteorological data during the sampling event was obtained from the National Weather Service website for the Monroe County airport station, which is within a few miles of the site. Meteorological data obtained included: wind speed, wind direction, temperature, dewpoint, and atmospheric pressure. These data are provided in Appendix A.

2.1 SAMPLE COLLECTION

Sampling was conducted during a regular daytime working shift at the plant to correspond with the daily exposure period of interest in characterizing risks for commercial/industrial workers. The following equipment and supplies were used during completion of air sampling:

- 6-L SUMMA[®] canisters
- Vacuum gauge (0-30 inches of mercury [in. Hg] range)
- Stainless steel inlet filter
- Teflon tubing (for connection to the sub-slab sampling probe)
- Fixed-orifice flow controller
- ¹/₄-inch Swagelock nuts

The analytical laboratory provided batch-certified SUMMA[®] canisters that had been evacuated to a pressure of -30 in. Hg prior to sampling. During sampling, canisters collected time-weighted samples by regulating the flow rate into the canister through a stainless steel pre-cleaned flow controller. The controller's orifice was sized appropriately to obtain an approximately 8-hr. time-weighted average sample with a final vacuum pressure less than 5 in. Hg.

The following steps were followed when setting up a canister for sampling:

- Check the initial vacuum of the labeled canister by removing the brass cap from the canister and connecting the vacuum gauge to the canister, then opening the valve. The pressure should read 30 in. Hg, ± 2 in. Hg. Record the canister starting pressure. Make sure the vacuum gauge is capped off on the outlet or the canister will fill immediately and cannot be used.
- 2. Close the canister valve (hand tight) and remove the vacuum gauge. Do not over tighten the valve, but ensure the valve is closed. Make sure the valve is closed before removing the gauge or the canister will fill immediately and cannot be used.
- 3. Remove the brass cap and plastic plug from the flow controller. Fixed-orifice flow controllers will be used, so there is no setting of the flow rate in the field.
- 4. Connect the flow controller outlet to the canister. Tighten the nut (on the flow controller) 1/4 turn beyond finger tight. Verify the tightness of the connection by attempting to rotate the flow controller. It should <u>not</u> be possible to rotate the controller.
- 5. Connect the filter to the flow controller inlet. Tighten the filter to the flow controller using a wrench. The filter prevents dust or particulates from entering the flow controller.

- 6. For sub-slab samples, remove the plug from the sampling probe and install the barbed connector onto the probe. Connect a length of new Teflon tubing from the probe to the inlet of the sample train.
- 7. Once all connections are complete, open the canister valve fully to initiate sampling. Record the sample start time.

After sampling was complete, the following procedures were performed:

- 1. Close the valve on the canister and remove the canister from the sample location.
- 2. Check the final pressure of the labeled canister by removing the flow controller and filter, connecting the vacuum gauge to the canister, and opening the valve. The pressure should be less than 5 in. Hg. Record the final vacuum on the canister label.
- 3. Close the canister valve and then remove the vacuum gauge.
- 4. Send the labeled canister accompanied with a chain-of-custody form to the laboratory for analysis.

A Sampling Data Sheet was used to record all data on sampling times and canister readings (see Appendix A, Field Data Records). Other observations and field notes were recorded in the field log book.

For quality control purposes, a duplicate sample was collected at one indoor air sampling location.

Sub-slab sample probe connections were tested for potential leaks during sampling using reagent-grade isopropanol (a.k.a.. 2-propanol) saturated wipes provided by the analytical laboratory. The wipes were wrapped around the barbed fitting connection after the tubing was attached and remained in place throughout the sampling period. Isopropanol was then analyzed in the collected samples as part of the laboratory's standard target analyte list.

3.0 RESULTS

Samples were analyzed for VOCs and chloropyridines by Con-Test Analytical Laboratory in East Longmeadow, Massachusetts. VOCs and chloropyridine were analyzed using USEPA Method TO-15 with standard reporting limits. The list of analytes reflects the laboratory's standard TO-15 reporting list, plus 2-chloropyridine and 2,6-dichloropyridine.

The laboratory analytical reports for the VOCs and chloropyridines are included in Appendix C. The following sections provide an evaluation of the reported data for the purpose of identifying target compounds that may have a complete migration pathway from sub-slab soil gas to indoor air in the Arch Chemicals on-site buildings, and to assess the potential health risks associated with exposure to those target compounds in indoor air.

3.1 DATA QUALITY

Laboratory TO-15 analytical results for VOCs (including 2-chloropyridine and 2,6-dichloropyridine) were reviewed for the following parameters:

- Holding Times
- Quality Control Blanks
- Initial Calibration
- Continuing Calibration

- Laboratory Control Samples
- Laboratory Duplicate Precision
- Leak Testing (Isopropanol)

All criteria were met with the following exceptions.

Acetone is reported in the method blank associated with samples IA-07-001, IA-07-002, IA-07-003, IA-01-004, and SG-07-189. Methylene chloride is reported in the method blank associated with sample SG-07-190. Action limits were established at ten times the reported blank concentrations for acetone and methylene chloride. Results for acetone in samples IA-07-001, IA-07-002, IA-07-003, IA-01-004, and SG-07-189 are greater than the action limit. The result for methylene chloride in sample SG-07-190 is non-detect. No further action required.

In the continuing calibration associated with a subset of samples: the percent difference for hexachlorobutadiene (27 and 42), 1,2,4-trichlorobenzene (42), vinyl acetate (30 and 33), 2-chloropyridine (28), 2-butanone (27), and 2,6-dichloropyridine (32) exceed the QC limit of 25. The associated samples are IA-07-001, IA-07-002, IA-07-003, IA-07-004, IA-07-005, and SG-07-179. The result for hexachlorobutadiene, 2,6-dichloropyridine, and 1,2,4-trichlorobenzene in associated samples are non-detect and were qualified estimated (UJ). The result for 2-chloropyridine, vinyl acetate, and 2-butanone in associated samples were qualified estimated (J/UJ). The response factor for 2-chloropyridine (0.049) is less than the QC limit of 0.050. The result for 2-chloropyridine in samples IA-07-002DUP, IA-07-006, OA-07-001, and SG-07-192 were qualified estimated (J).

In the laboratory control sample (LCS) associated with a subset of samples: the percent recovery for ethanol (160), hexachlorobutadiene (142), and 1,2,4-trichlorobenzene (142) exceed the upper QC limit of 130. The result for ethanol in associated samples IA-07-001, IA-07-002, and IA-01-004 were qualified estimated (J). The results for hexachlorobutadiene and 1,2,4-trichlorobenzene are non-detect, no further action required.

In the laboratory control sample (LCS) associated with a subset of samples: the percent recovery for vinyl acetate (67) is less than the lower QC limit of 70. The result for vinyl acetate in associated samples SG-07-188, SG-07-193, and SG-07-191RE are non-detect and were qualified estimated (UJ).

In the laboratory control sample (LCS) associated with a subset of samples: the percent recovery for 2-hexanone (68) is less than the lower QC limit of 70. The result for 2-hexanone in sample SG-07-190 is non-detect and was qualified estimated (UJ).

A field duplicate was collected for sample IA-07-002. The relative percent difference (RPD) between the sample and duplicate analysis for chloroform (136), chloromethane (67), dichlorodifluoromethane (51), 1,1-dichloroethene (123), hexane (130), and methylene chloride (140) exceed the quality control (QC) limit of 50. The result for chloroform, chloromethane, dichlorodifluoromethane, 1,1-dichloroethene, hexane, and methylene chloride in samples IA-07-002 and IA-07-002DUP were qualified estimated (J/UJ)

The leak-detection chemical isopropanol was detected in all sub-slab vapor samples. New York State guidance on vapor intrusion sampling (NYSDOH, 2006) indicates that the concentration of the leak detection chemical should be less than 10 percent in the analyzed sample to be considered a valid sample. Concentrations of isopropanol in all collected samples were less than one percent, indicating an effective seal of the sub-slab soil vapor point.

With these qualifications, the data is judged to be usable for its intended purpose.

3.2 DATA EVALUATION

The objective of this analysis is to identify contaminants that may occur in indoor air at concentrations that are present in indoor air as a result of sub-slab soil gas intrusion into the indoor air and pose a potential health risk. This analysis involved characterizing cancer and non-cancer risks to workers who may be exposed to contaminants detected in the indoor air, and evaluation of indoor air data using the soil gas data, background data, and published air guideline values. The background data used in this analysis include the outdoor air samples collected during the air sampling events in 2005 through 2007, as well as ranges of indoor air VOC concentrations developed through a NYSDOH study of homes (1997 – 2003) presented in NYSDOH guidance (NYSDOH, 2006). Air Guideline Values derived by NYSDOH are published for methylene chloride, tetrachloroethene, and trichloroethene (NYSDOH, 2006).

Table 1 presents the analytical indoor air and soil gas data and comparison to risk-based screening levels. The risk-based screening levels used for data comparisons in Table 1 are based on values published by USEPA in the "Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil" (USEPA, 2002a). The screening levels developed by USEPA are based on residential exposures (i.e., continuous exposures) and are protective for an excess lifetime cancer risk of 1×10^{-6} and a hazard index of 1. As shown in Table 1, risk-based screening levels that are protective for worker exposures (i.e., exposures 8 hours per day, 5 days per week) were derived from the USEPA-published residential screening values. The worker-based screening levels, rather than the residential-based screening levels are not applicable for the Arch manufacturing facility. The shaded values in Table 1 indicate that detected concentrations in each of the areas sampled exceed risk-based screening levels for workers, indicating that a more thorough evaluation of potential risks is required. The remainder of this subsection presents the risk characterization.

3.2.1 Risk Characterization Methods.

Indoor air samples were collected from three areas within the Building: An office (Office), the Warehouse Area (Warehouse), and the Production Area (Production Area). Each of these areas may be occupied daily by workers at the facility. However, the duration of daily exposure at each of these areas for a single worker could range from as little as an hour or less, to as much as a full work-day shift (8 hours). Daily occupancy would generally not exceed the duration of a work-day shift.

For this evaluation, it was conservatively assumed that workers occupy a single area for a full work-day, each work-day, over their duration of employment at the facility. Consequently, it was assumed that exposure to indoor air at each area (i.e., office, warehouse, production) occurs 8 hours per day, 5 days per week, over a 25 year period. These exposure assumptions correspond to USEPA-recommended reasonable maximum exposure (RME) parameters for full-time indoor workers (USEPA, 2002b).

The exposure point concentrations (EPCs) for indoor air at each area are the arithmetic mean concentrations of the air samples that have been collected over the three rounds of sampling (April, 2005; March, 2006; March, 2007). Use of the arithmetic mean concentrations as EPCs are appropriate because:

• Workers move throughout a given work area during the day and, therefore, are exposed to air throughout the area (i.e., they are not stationary at a single point in the Warehouse or Production area, but rather move throughout those areas). In reality, workers likely move throughout the entire facility and are, therefore, likely only exposed to air at a given area (e.g., warehouse) a portion of each day.

- Air is a dynamic medium that is constantly in motion due to mechanical ventilation of the buildings. Consequently, the concentrations measured at a single point in a given area do not represent the concentrations that occur throughout the area.
- Consideration of indoor air concentrations measured during the three rounds of air sampling provides an estimate of the long-term air concentrations workers may potentially be exposed to.

Arithmetic mean concentrations were calculated using a value of one-half the sample quantitation limit for results reported non-detect (i.e., a value equal to one-half the "U" qualified value was used in the averaging). For analytes reported in fewer than the three rounds of sampling that have been performed, the average concentrations were calculated using the available data.

The Office Area EPCs are represented by the average concentrations reported in samples from location IA-001. The Production Area EPCs are represented by the average concentrations in samples from locations IA-002, IA-003, and IA-004. The Warehouse EPCs are represented by the average concentrations reported in samples IA-005 and IA-006.

The background concentrations were represented by the average concentrations reported in samples from the outdoor location (OA-001).

Concentrations of 2-propanol in the samples collected in 2007 are likely the result of the chemical's use as a leak detection indicator. For this reason, and because of its low toxicity, 2-propanol was not considered in the risk evaluation.

Risks were calculated using the following algorithms, which are consistent with USEPA guidance (e.g., USEPA 2002a and USEPA 2002b) and generally accepted risk assessment practices.

Cancer ELCR		(EPC x EF x ED x ET x URF) / (ATc x CF)
Hazard HI	Index: =	(EPC x EF x ED x ET) / (ATn x CF x RfC)
Where:		
EPC	=	Exposure Point Concentration for indoor air (ug/m ³)
ELCR	=	Excess lifetime cancer risk (unitless)
HI	=	Hazard Index (unitless)
ATc	=	Averaging time, cancer (70 years or 25550 days)
ATn	=	Averaging time, non-cancer (equal to ED, in days)
CF	=	Conversion factor (24 hours/day)
EF	=	Exposure frequency (250 days/year)
ED	=	Exposure duration (25 years)
ET	=	Exposure time (8 hours/day)
URF	=	Unit risk factor (risk per ug/m ³)
RfC	=	Reference concentration (ug/m ³)

The sources of values for the URF and RfC are the Integrated Risk Information System (IRIS; USEPA on-line data base), USEPA National Center for Environmental Assessment (NCEA), and USEPA Health Effects Assessment Summary Tables (HEAST). URF and RfC values for 2-chloropyridine and 2,6-dichloropyridine are not published in USEPA sources, but were developed by Arch in support of on-going environmental investigations at the facility. The risk calculations referred to in this analysis are presented in Appendix D.

<u>Pathway Completeness Evaluation.</u> Although employees may be exposed to all of the constituents detected in indoor air samples, not all constituents detected in indoor air are present as a result of vapor intrusion from subsurface sources. In order for the presence of a constituent in indoor air to be attributable to vapor intrusion from subsurface sources, the constituent must be present in both soil gas and indoor air samples collected during the same sampling event. In addition, constituents present in indoor air solely due to vapor intrusion typically exhibit concentrations at least 100-fold lower than their corresponding soil gas concentrations (USEPA, 2002).

The pathway completeness evaluation for each of the areas within the Main Plant Building is presented in the risk characterization findings. The pathway completeness evaluation was used to identify the constituents detected in indoor air for which a potentially complete vapor intrusion pathway may exist. Of the constituents with potentially complete vapor intrusion pathways, the detected indoor air concentrations were compared to published background values, NYSDOH Air Guideline Values, and risk-based indoor air screening levels. Health risks were evaluated for the constituents with indoor air concentrations in excess of the highest of these values, as follows:

- 1) Health risks were calculated for all of the constituents;
- 2) Health risks were calculated for only the constituents detected in indoor air that are not associated with manufacturing operations at the facility;
- 3) Health risks to workers/employees were evaluated for the constituents detected in indoor air that are known to be associated with manufacturing operations via comparison of detected concentrations to worker exposure limits (PELs).

3.2.2 Risk Characterization Findings.

The results of the risk characterization are summarized below for each general area of the Main Plant Building.

Office Area. Table 2 presents the pathway completeness evaluation and risk analysis for the indoor air quality at the Office Area. A review of Table 2 indicates that the vapor intrusion pathway is potentially complete for only two constituents: 2-chloropyridine, and methylene chloride. Of these two constituents, the indoor air concentration of methylene chloride (10 ug/m^3) was well below the NYSDOH air guideline value (60 ug/m^3).

The concentration of 2-chloropyridine in indoor air is greater than the risk-based screening value and sitespecific outdoor concentration, and there are no published background values for 2-chloropyridine. However, 2-chloropyridine is manufactured at the facility. The indoor air concentration measured in March, 2007 (24 ug/m³) is the same as the concentration measured in March, 2006 (Table 2), yet the soil gas concentrations changed by nearly 3-fold over that same time period. The soil gas concentration measured in March 2007 (34 ug/m³) is nearly equal to the indoor air concentration. If the presence of 2chloropyridine in indoor air at the office location was due to vapor intrusion, the soil gas concentration would likely be at least 10 to 100-times greater than the indoor air concentration, and the indoor air concentration would show a variation over time similar to the variation over time in soil gas concentration. Collectively, this suggests that the presence of 2-chloropyridine in indoor air is due to the use and manufacture of the chemical at the facility, and not due to vapor intrusion. The cancer risk associated with inhalation exposure to 2-chloropyridine in indoor air at the Office Area is 1E-05 and the hazard index is 0.5. However, since 2-chloropyridine is used/manufactured at the facility and is not likely present in indoor air due to vapor intrusion, the most appropriate method for evaluating potential health risks to workers is via workplace exposure limits. The detected indoor air concentration of 24 ug/m³ is well below the Arch workplace air standard of 2,300 ug/m³.

In summary, there are only two constituents detected in indoor air at the Office Area that may be present as a result of vapor intrusion (methylene chloride and 2-chloropyridine). Of these two constituents, only 2-chloropyridine is present at concentrations greater than background, risk-based or NYSDOH guideline values. However, the presence of 2-chloropyridine in indoor air is most likely to due its use/manufacture at the facility. The measured concentration in indoor air is two-orders of magnitude lower than the Arch workplace air standard.

Warehouse Area. Table 3 presents the pathway completeness evaluation and risk analysis for the indoor air quality at the Warehouse Area. A review of Table 3 indicates that the vapor intrusion pathway is potentially complete for 19 constituents. Of these, 11 constituents were detected at maximum concentrations below published background values, NYSDOH air guideline values, and/or risk-based screening values. Of the remaining eight constituents, five were detected at concentrations greater than screening values (2-chloropyridine, 2,6-dichloropyridine, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and chloroform), and three do not have any published screening values (4-ethyltoluene, cyclohexane, and heptane). These eight constituents are further evaluated in this risk analysis.

A review of the Warehouse Area soil gas and indoor air concentrations presented in Table 3 indicates that for these constituents, indoor air concentrations were generally higher than soil gas concentrations in the March 2007 sampling round. This suggests that the presence of these constituents in indoor air cannot be solely attributable to vapor intrusion, because even under ideal equilibrium conditions the soil gas and indoor air concentrations would only equal each other. Moreover, 2-chloropyridine and 2,6-dichloropyridine are manufactured and stored at the facility, and chloroform is a manufacturing process-related contaminant that is present in facility wastewater. This suggests that the presence of these three constituents in indoor air is most likely due to the use and storage of the constituents at the facility, and not to vapor intrusion.

The health risks associated with inhalation exposures to all eight of the constituents evaluated in this risk analysis is a cancer risk of 3E-04 and a hazard index of 25. Virtually all of the cancer risk and the majority of the non-cancer risk is associated with chloropyridines. The health risks associated with constituents that are not directly related to use and manufacturing at the facility (trimethylbenzenes, 4-ethyltoluene, cyclohexane, and heptane) is a hazard index of 10; none of these constituents are potentially carcinogenic. This hazard index is primarily associated with trimethylbenzenes. The presence of trimethylbenzenes in the warehouse is potentially linked to the routine presence of trucks at the loading docks, since trimethylbenzenes are known constituents of diesel exhaust and petroleum products.

Given that the facility is an operating chemical manufacturing plant and that none of the eight constituents evaluated in this risk analysis for the Warehouse Area are likely present in indoor air as a result of vapor intrusion, the most appropriate method for evaluating potential health risks to workers is via workplace exposure limits. The following table presents a comparison of the indoor air EPCs at the Warehouse Area to OSHA Permissible Exposure Limits (PELs).

Constituent	EPC (mg/m ³)	PEL (mg/m ³)
2-Chloropyridine	0.399	Not available; however, Arch's
		company indoor air monitoring
		threshold is 2.3
2,6-Dichloropyridine	0.253	Not available; assumed to be
		similar to 2-chloropyridine
1,2,4-Trimethylbenzene	0.196	Not available
1,3,5-Trimethylbenzene	0.075	Not available
4-Ethyltoluene	0.094	Not available
Chloroform	0.0023	240
Cyclohexane	0.00055	1050
Heptane	0.0064	2000

In summary, there are 19 constituents detected in indoor air at the Warehouse Area that may be present as a result of vapor intrusion, but only eight of which were detected at concentrations greater than background values, NYDOH air guideline values, or risk-based values (2-chloropyridine, 2,6-dichloropyridine, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and chloroform), or which do not have any of these screening values (4-ethyltoluene, cyclohexane, and heptane). Since the indoor air concentrations of all of these constituents are greater than the soil gas concentrations and at least three of the constituents (2-chloropyridine, 2,6-dichloropyridine and chloroform) are manufactured or are present in materials used at the facility, it is unlikely that the presence of these constituents in indoor air is due to vapor intrusion. The indoor air concentrations of these constituents are well below their workplace air standards.

Production Area. Table 4 presents the pathway completeness evaluation and risk analysis for the indoor air quality at the Production Area. A review of Table 4 indicates that the vapor intrusion pathway is potentially complete for 23 constituents. Of these, 18 constituents were detected at maximum concentrations below published background values, NYSDOH air guideline values, and/or risk-based screening values. Of the remaining five constituents, four were detected at concentrations greater than these screening values (2-chloropyridine, 2,6-dichloropyridine, carbon tetrachloride, and chloroform) and one does not have a screening value (ethanol). These five constituents are further evaluated in this risk analysis.

A review of the soil gas and indoor air concentrations presented in Table 4 indicates that for these constituents, indoor air concentrations were generally lower than soil gas concentrations in the March, 2007 sampling round. This suggests that, conceptually, the presence of these constituents in indoor air could be attributable to vapor intrusion. However, a comparison of soil gas and indoor air concentrations indicates that for 2-chloropyridine and 2,6-dichloropyridine, the soil gas concentrations are similar to the indoor air concentrations, whereas for carbon tetrachloride, chloroform, and ethanol the soil gas concentrations are generally 50 to 500 times greater than the indoor air concentrations. 2-Chloropyridine and 2,6-dichloropyridine and stored at the facility, and chloroform is a manufacturing process-related contaminant. This suggests that the presence of chloropyridines, and possibly chloroform, in indoor air is most likely due to the use and storage of the constituents at the facility, and not to vapor intrusion.

The health risks associated with inhalation exposures to all five of the constituents at the Production Area is a cancer risk of 4E-04 and a hazard index of 19. Virtually all of the cancer risk and the majority of the non-cancer risk is associated with chloropyridines. The health risks associated with constituents that are not directly related to use and manufacturing at the facility (primarily carbon tetrachloride) are a cancer risk of 3E-06 and a hazard index of 0.007.

Given that the facility is an operating chemical manufacturing plant and that the chloropyridines are manufactured at the facility, the most appropriate method for evaluating potential health risks to workers is via workplace exposure limits. The following table presents a comparison of the indoor air EPCs at the Production Area to PELs.

Constituent	EPC (mg/m ³)	PEL (mg/m^3)
2-Chloropyridine	0.77	Not available; however, Arch's
		company indoor air monitoring
		threshold is 2.3
2,6-Dichloropyridine	0.042	Not available; assumed to be
		similar to 2-chloropyridine
Carbon tetrachloride	0.0022	2.0
Chloroform	0.012	240
Ethanol	0.045	1,900

In summary, there are 23 constituents detected in indoor air at the Production Area that may be present as a result of vapor intrusion, but only four of which were detected at concentrations greater than background values, NYDOH air guideline values, or risk-based values (2-chloropyridine, 2,6dichloropyridine, carbon tetrachloride, and chloroform). The minimal difference between indoor air concentrations and soil gas concentrations for 2-chloropyridine and 2,6-dichloropyridine, as well as their use/manufacture at the facility, suggest that their presence in indoor air is not due to vapor intrusion. The differences in soil gas concentrations of other constituents (e.g., carbon tetrachloride and ethanol) suggest that their presence in indoor air may be attributable to vapor intrusion. However, health risks associated with these constituents are negligible. Moreover, the indoor air concentrations of all of these constituents are well below their workplace air standards.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The results of 2007 on-site vapor intrusion sampling event indicate that the following chemicals may be present in indoor air as a result of soil gas intrusion, exceed background and/or guideline values, and pose risks in excess of the NYSDOH point of departure of 1E-06 for cancer risk or HI of 1 for non-cancer risk:

Office Area:	2-chloropyridine
Warehouse Area:	2-chloropyridine, 2,6-dichloropyridine, 1,2,4-trimethylbenzene, 1,3,5-
	trimethylbenzene, and chloroform
Production Area:	2-chloropyridine, 2,6-dichloropyridine, carbon tetrachloride, and chloroform

However, comparison of soil gas and indoor air data for these compounds suggests that the primary source of these compounds in indoor air at the Office Area and Warehouse Area is not soil gas. Of the chemicals listed above, only carbon tetrachloride is not associated with current activities at the facility, but the risks posed by carbon tetrachloride are minimal (carcinogenic risk of 3E-06 or less; HI values well below 1). For chemicals that are associated with current activities, all are well below their applicable worker protection thresholds. Indoor air quality is monitored annually by Arch as part of its industrial health and safety program.

As was the case with the 2005 and 2006 sampling, soil vapor concentrations were generally found to be highest under the building slab in the chemical production area of the plant, and diminish rapidly toward the south (i.e., under the warehouse building) and to the northwest (i.e., beneath the office area). However, in the 2007 data it is noted that there is an increase in chloropyridine compounds in the sub-slab soil vapor over the prior year in the warehouse samples.

The monitoring conducted over the past three years has established that vapor intrusion is not a significant exposure pathway for workers at the Arch facility. In regard to the potential for offsite vapor migration at concentrations that may pose a risk to occupants of adjacent properties, the NYSDEC requested (3/16/2007 email from J. Craft) that Arch evaluate the need for additional soil vapor sampling for chloropyridines at the facility property boundary. The results of onsite vapor intrusion sampling conducted to date indicate that additional soil vapor sampling in the direction of the Firth Rixson facility is not necessary because of the low observed concentrations of chloropyridine compounds in the Office Area sub-slab samples within the Arch plant. However, Arch does agree to conduct a limited additional soil vapor sampling event along its southern property boundary to confirm that chloropyridine vapors are not migrating offsite at unacceptable concentrations in the direction of the American Recycling and Manufacturing (ARM) building. It is proposed that this sampling consist of three subsurface soil vapor probes installed along the southern fence line on Arch's property adjacent to the ARM building. With the concurrence of the NYSDEC, Arch will conduct this sampling during the second half of 2007.

5.0 **REFERENCES**

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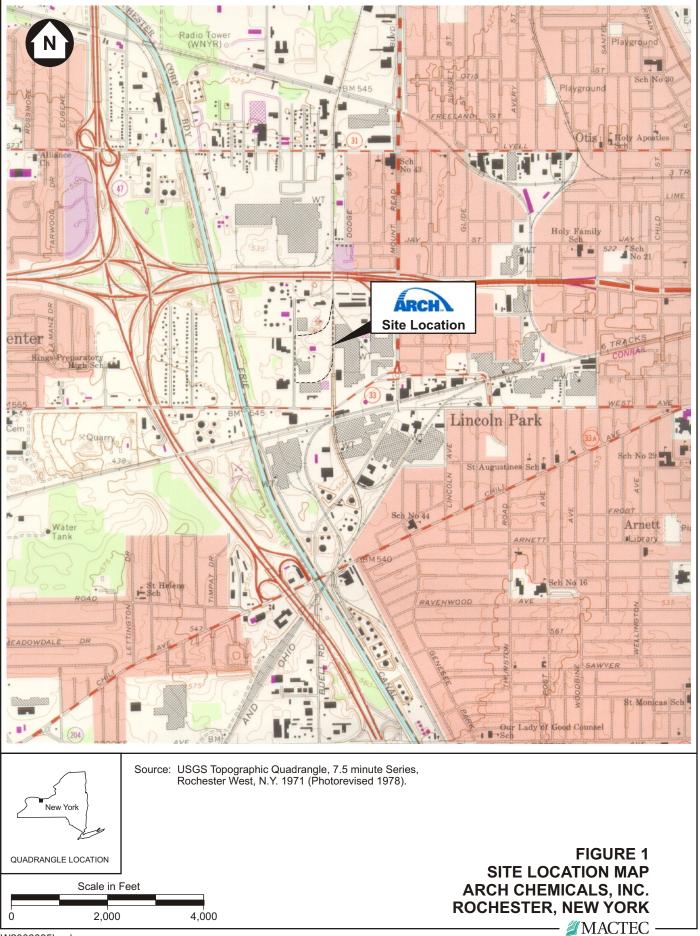
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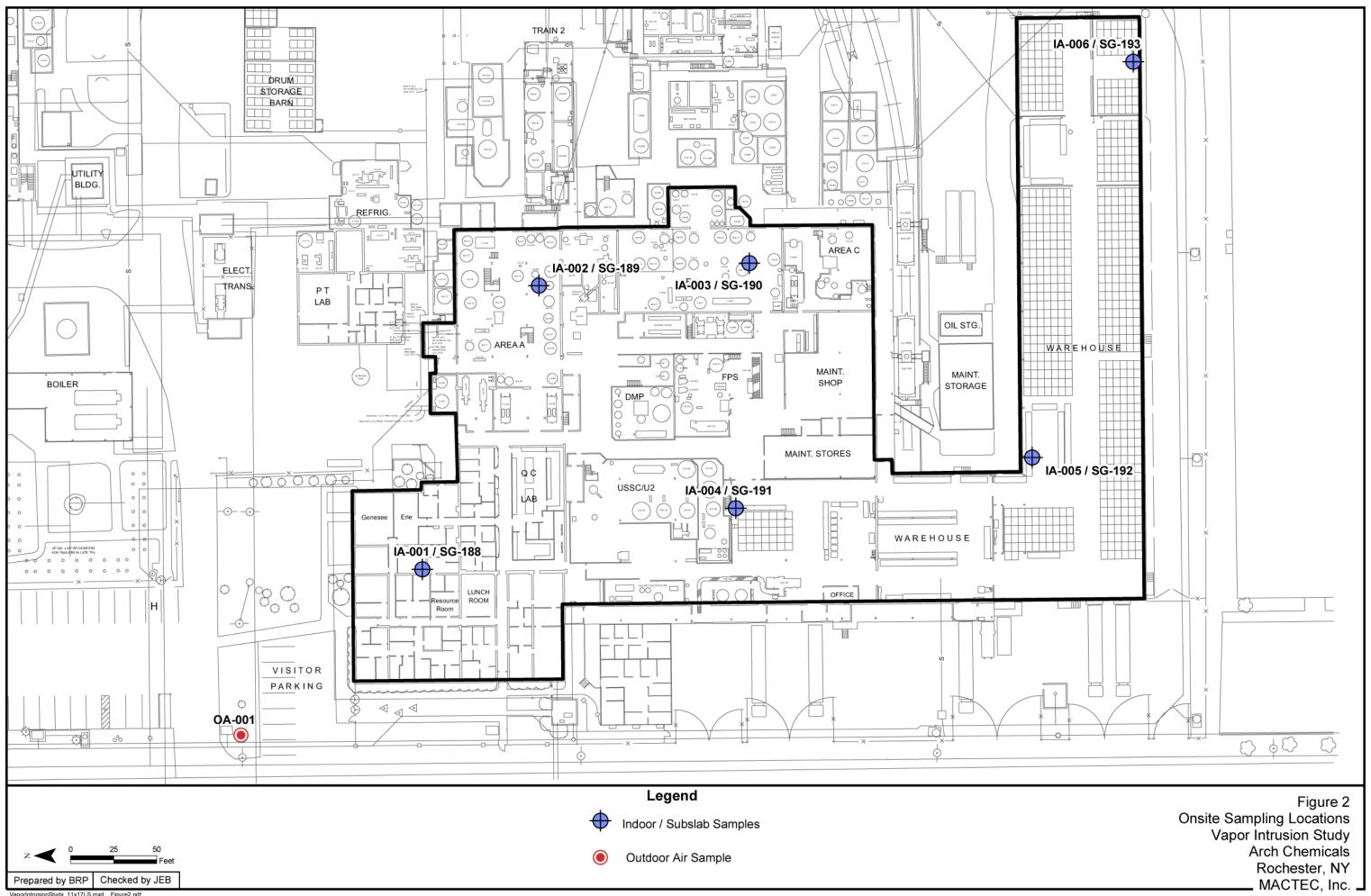
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FIGURES



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ionStudy_11x17LS.mxd Figure2.pdf

TABLES

Table 1 Comparison of Indoor Air and Soil Gas Data ($\mu g/m^3)$ to Risk-Based Screening Levels

	Risk-E	Based											Air Samples	5									
	Screenin	0	1	office					р	roduction are	ea			1		warehouse	1	W	arehouse (co	nt)		outdoor	
	Indoor Air Generic (Residential)	Indoor Air Commercial/ Industrial	IA-001 4/6/05	IA-001 3/2/06	IA-001 3/14/07	IA-002 4/6/05	IA-002 3/2/06	IA-002 3/14/07	IA-003 4/6/05	IA-003 3/2/06	IA-003 3/14/07	IA-004 4/6/05	IA-004 3/2/06	IA-004 3/14/07	IA-005 4/6/05	IA-005 3/2/06	IA-005 3/14/07	IA-006 4/6/05	IA-006 3/2/06	IA-006 3/14/07	OA-001 4/6/05	OA-001 3/2/06	OA-001 3/14/07
2,6-Dichloropyridine	(1.63		1.1	4		22	100 U		97	100 U		<mark>12</mark>	<mark>22</mark>		0.43 U	<mark>50</mark>		0.48	<mark>960</mark>		0.46 U	1.2 U
2-Chloropyridine		1.63		<mark>24</mark>	24 0.00 I I		1500	<u>590</u>		<u>550</u>	950		450	<u>580</u>		4.5	<u>380</u>		<u>10</u>	1200		2.3 U	2.5
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	2200 0.042	9636 0.22		1.1 U 1.4 U	0.68 U 1.8 U		1.1 U 1.4 U	0.22 U 0.56 U		1.1 U 1.4 U	0.37 0.28 U		1.1 U 1.4 U	0.35 0.28 U		1.1 U 1.4 U	0.11 U 0.28 U		2.7 U 3.4 U	0.68 U 1.8 U		1.1 U 1.4 U	0.68 U 1.8 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	30000	131400		1.4 U 1.5 U	1.8 U 2 U		1.4 U 1.5 U	0.56 U 0.64 U		1.4 U 1.5 U	0.28 0		1.4 U 1.5 U	0.28 0		1.4 U 1.5 U	0.28 0		3.4 U 3.8 U	1.8 U 2 U		1.4 U 1.5 U	1.8 U 2 U
1,1,2-Trichloroethane	0.15	0.79		1.0 U	1.3 U		1.0 U	0.04 U		1.0 U	0.00 0.2 U		1.0 U	0.2 U		1.0 U	0.33 0.2 U		2.7 U	1.3 U		1.0 U	1.3 U
1,1-Dichloroethane	500	2190		0.81 U	1 U		0.81 U	0.32 U		0.81 U	0.16 U		0.81 U	0.16 U		0.81 U	0.16 U		2 U	1 U		0.81 U	1 U
1,1-Dichloroethene	200	876		0.79 U	1 U		0.79 U	0.32 U		0.79 U	0.24		0.79 U	0.16 U		0.79 U	0.16 U		2 U	1 U		0.79 U	1 U
1,2,4-Trichlorobenzene	200	876		3.7 UJ	1.8 U		3.7 UJ	0.56 U		3.7 UJ	0.28 U		3.7 UJ	0.28 U		3.7 UJ	0.28 U		9.6 U	1.8 U		3.7 U	1.8 U
1,2,4-Trimethylbenzene 1,2-Dibromoethane	6.0 0.011	26.3 0.058		0.98 U 1.5 U	2.9 2 U		<mark>74</mark> 1.5 U	0.4 U 0.64 U		16 1.5 U	2.7 0.32 U		<mark>44</mark> 1.5 U	4.3 0.32 U		<mark>69</mark> 1.5 U	29 0.32 U		15 3.8 U	670 2 U		1.5 1.5 U	1.3 U 2 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.011	0.050		1.3 U 1.4 U	1.8 U		1.3 U 1.4 U	0.56 U		1.3 U	0.32 U 0.28 U		1.5 U	0.32 U 0.28 U		1.3 U 1.4 U	0.32 U 0.28 U		3.5 U	1.8 U		1.5 U 1.4 U	1.8 U
1,2-Dichlorobenzene	200	876		1.4 U	1.5 U		1.4 U	0.48 U		1.4 U	0.20 U		1.4 U	0.20 U		1.4 U	0.20 U		3 U	1.5 U		1.4 U	1.5 U
1,2-Dichloroethane	0.094	0.49	0.16 U	0.81 U	1 U	0.4 U	0.81 U	0.32 U	0.13 U	0.81 U	0.16 U	0.065	0.81 U	0.16 U	0.081 U	0.81 U	0.16 U	0.25 U	2 U	1 U	0.16 U	0.81 U	1 U
1,2-Dichloroethene (total)			0.16 U	0.79 U		0.4 U	0.79 U		0.13 U	0.79 U		0.04 U	0.79 U		0.079 U	0.79 U		0.25 U	2 U		0.16 U	0.79 U	
1,2-Dichloropropane	4.0	17.5		0.92 U	1.3 U		0.92 U	0.4 U		0.92 U	0.2 U		0.92 U	0.2 U		0.92 U	0.2 U		2.3 U	1.3 U		0.92 U	1.3 U
1,3,5-Trimethylbenzene	6.0 110	26.3		0.98 U	1.3 U		<mark>29</mark> 1.2 U	0.4 U		5.9	0.88		17	1.5		25	10		5.9	260 1.5.11		0.98 U	1.3 U
1,3-Dichlorobenzene 1,4-Dichlorobenzene	110 800	482 3504		1.2 U 1.2 U	1.5 U 1.5 U		1.2 U 1.2 U	0.48 U 0.48 U		1.2 U 1.2 U	0.24 U 0.24 U		1.2 U 1.2 U	0.24 U 0.24 U		1.2 U 1.2 U	0.24 U 0.24 U		3 U 3 U	1.5 U 1.5 U		1.2 U 1.2 U	1.5 U 1.5 U
1,4-Dioxane		0004		R			1.2 0 R	0.10 0		1.2 0 R	0.24 0		1.2 0 R	0.24 0		1.2 0 R	0.240		47 U			18 U	
2-Butanone	1000	4380		1.5 U	4.3		1.5 U	21		3.8 U	8		1.5 U	94		1.5 U	4.2		3.8 U	52		1.5 U	2.4
2-Chlorotoluene				1 U			1 U			1 U			1 U			1 U			2.6 U			1 U	i
2-Hexanone				2 U	10		2 U	0.32 U		2 U	0.46		2 U	0.16 U		2 U	0.29		5.3 U	1 U		2 U	10
4-Ethyltoluene 4-Methyl-2-pentanone	80	350		0.98 U 2 U	1.3 U 2.5		88 2 U	0.4 U 1.8		18 2 U	1 5.2		54 2 U	1.6 2.4		59 2 U	12 1.5		17 5.3 U	290 1 U		1.3 2 U	1.3 U 1.6
Acetone	350	1533		12 U	33		12 U	64		33	16		36	35		86	33		74	360		12 U	1.0
Allyl chloride				1.6 U			1.6 U			1.6 U			1.6 U			1.6 U			4.1 U			1.6 U	1 1
Benzene	0.31	1.6	1.9	0.64 U	0.75 U	0.73	0.64 U	0.87	1.1	0.93	1.3	1.5	1.1	1.3	1.6	0.99	1.1	1.5	1.6 U	1.6	1.7	2.4	1.1
Benzyl chloride	0.05	0.3			1.3 U			0.4 U			0.2 U			0.2 U			0.2 U			1.3 U			1.3 U
Bromodichloromethane	0.14	0.74	0.27 U	1.3 U	1.8 U	0.67 U	1.3 U	0.56 U	0.22 U	1.3 U	0.28 U	0.067 U	1.3 U	0.28 U	0.13 U	1.3 U	0.28 U	0.42 U	3.4 U	1.8 U	0.27 U	1.3 U	1.8 U
Bromoform Bromomethane	2.2 5.0	11.6 21.9	0.41 U	2.1 UJ 0.78 U	1 U	1 U	2.1 UJ 0.78 U	0.32 U	0.34 U	2.1 UJ 0.78 U	0.16 U	0.1 U	2.1 UJ 0.78 U	0.16 U	0.21 U	2.1 UJ 0.78 U	0.16 U	0.64 U	5.2 U 1.9 U	1 U	0.41 U	2.1 U 0.78 U	1 U
Butadiene, 1,3-	0.0087	0.046		1.1 U	0.5 U		1.1 U	0.32 U 0.16 U		1.1 U	0.10 U		1.1 U	0.08 U		1.1 U	0.10 U		2.9 U	0.5 U		1.1 U	0.5 U
Carbon Disulfide	700	3066	1.6 U	1.6 U	0.75 U	1.6 U	1.6 U	0.4	1.6 U	1.6 U	0.27	1.6 U	1.6 U	0.16	1.6 U	1.6 U	0.12 U	1.6 U	4 U	0.75 U	1.6 U	1.6 U	0.75 U
Carbon Tetrachloride	0.16	0.84	0.63 J	1.3 U	0.78 U	0.69	1.3 UJ	1.2	4.3	5.2 J	<mark>4.8</mark>	0.69	1.3 UJ	0.55	0.69	1.3 UJ	0.53	0.82	3.1 U	0.78 U	0.57	1.3 U	0.78 U
Chlorobenzene	60	263	0.92 U	0.92 U	1.3 U	6	1.2	0.4 U	0.92 U	0.92 U	0.53	0.92 U	0.92 U	0.2 U	0.92 U	0.92 U	0.2 U	0.92 U	2.3 U	1.3 U	0.92 U	0.92 U	1.3 U
Chlorodibromomethane Chloroethane	0.1 10000	0.53 43800	0.34 U	1.7 U 0.53 U	2.3 U 1.3 U	0.85 U	1.7 U 0.53 U	0.72 U 0.4 U	0.28 U	1.7 U 0.53 U	0.36 U 0.2 U	0.085 U	1.7 U 0.53 U	0.36 U 0.2 U	0.17 U	1.7 U 0.53 U	0.36 U 0.2 U	0.53 U	4.3 U 1.3 U	2.3 U 1.3 U	0.34 U	1.7 U 0.53 U	2.3 U 1.3 U
Chloroform	0.11	43800 0.58	0.2 U	0.53 U 0.98 U	1.3 U	2.2	0.53 U	12	2.7	27	6.3	1.8	35	2.9	0.41	2.5	0.2 0	0.98	6.3	3.3	0.2 U	0.33 U 0.98 U	2.1
Chloromethane	2.4	12.6	1.4	1 U	0.5 U	1.6	1 U	3.9	1.6	1.5	1	1.2	1.3	1	1.5	1.3	0.97	1.9	2.7 U	0.5 U	1 U	1.4	0.5 U
Cis-1,2-Dichloroethene	35	153		0.79 U	1 U		0.79 U	0.32 U		0.79 U	0.16 U		0.79 U	0.16 U		0.79 U	0.16 U		2 U	1 U		0.79 U	1 U
cis-1,3-Dichloropropene	0.61	3.2		0.91 U	1.3 U		0.91 U	0.4 U		0.91 U	0.2 U		0.91 U	0.2 U		0.91 U	0.2 U		2.3 U	1.3 U		0.91 U	1.3 U
Cyclohexane	000	070		0.69 U	0.75 U		0.69 U	0.24 U		0.69 U	0.12 U		0.69 U	0.12 U		0.69 U	0.12 U		1.7 U	0.95		0.69 U	0.75 U
Dichlorodifluoromethane Ethanol	200	876		2.6 J	1.3 U 410		2.5 UJ	2.7 75		4.9 J	2.2 61		4.9 J	2 0.16 U		4.9 J	0.3 38		6.4 U	1.3 U 340		3.4	1.3 U 33
Ethyl acetate	3200	14016			1.8 U			0.56 U			0.28 U			0.28 U			5.4			1.8 U			1.8 U
Ethylbenzene	2.2	11.6	1.4 J	0.87 U	2.7	30	3.1 U	0.32 U	0.91 J	1 U	2.9	1.2 J	2.6 U	5.7	2.6 J	1.7 U	2.5	6.1 J	2.9 U	6.3	0.61	1.1 U	2.4
Heptane				0.82 U	1.3		0.82 U	0.56		0.82 U	0.38		1.3	1		3.6	4.6		3.2	14		0.86	1 U
Hexachlorobutadiene	0.11	0.58		2.1 UJ	2.8 U		2.1 UJ	0.88 U		2.1 UJ	0.44 U		2.1 UJ	0.44 U		2.1 UJ	0.44 U		5.3 U	2.8 U		2.1 U	2.8 U
Hexane Isooctane	200	876		1.8 U 0.93 U	1 U		1.8 U 0.93 U	1		1.8 U 0.93 U	1		1.8 U 0.93 U	1.4		1.8 U 0.93 U	2.1		6.3 2.3 U	3.1		2.4 1.9	1 U
Methyl Tertbutyl Ether	3000	13140		0.93 U 1.8 U	1 U		0.93 U 1.8 U	0.32 U		0.93 U 1.8 U	0.16 U		0.93 U 1.8 U	0.16 U		0.93 U 1.8 U	0.16 U		2.3 U 4.7 U	1 U		1.9 1.8 U	1 U
Methylene Chloride	5.2	27.3	5.6 J	1.7 U	1.4	11 J	1.7 U	5.4	5.9 J	1.7	2.1	6.3 J	2.2	2	5.6 J	1.7 U	1.2	25	280	13	5.6 J	1.7 U	3.2
o-Xylene	7000	30660		0.87 U	2.8		0.87 U	0.32 U		0.87 U	3.8		1.4 U	6		1.3 U	2.9		2.2 U	6.3		1.4 U	2.3
Propylene	4000	4000		0.05.17	0.5 U		0.05.17	0.16 U		0.05.17	0.08 U		0.05.11	0.08 U		0.05.17	0.08 U		0.1.1	0.5 U		0.05.1	0.5 U
Styrene t-Butyl alcohol	1000	4380		0.85 U 15 U	1.2		0.85 U 15 U	0.32 U		0.85 U 15 U	0.29		0.85 U 15 U	0.49		0.85 U 15 U	0.43		2.1 U 39 U	1 U		0.85 U 15 U	1 U
Tetrachloroethene	0.81	4.3	0.52	15 U 1.4 U	0.85 U	2.3	2.3	0.28 U	0.95	15 0	1.1	0.53	15 U 1.4 U	0.79	0.6	15 U 1.4 U	0.43	0.5	39 U 3.4 U	0.85 U	0.36	15 U 1.4 U	0.85 U
Tetrahydrofuran	0.01		0.02	15 U	1.5 U	2.0	15 U	28	0.00	15 U	12	0.00	15 U	100	0.0	15 U	0.72	5.0	38 U	1.5 U	0.00	15 U	1.5 U
Toluene	400	1752	11 J	0.94 U	22	4.1 J	1.5 U	0.32 U	4.9 J	2.5 U	13	3.3 J	3.3 U	21	6 J	7.2 U	14	6.4 J	8.3 U	22	4.5 J	6.4 U	17
trans-1,2-Dichloroethene	70	307		0.79 U	1 U		0.79 U	0.32 U		0.79 U	0.16 U		0.79 U	0.16 U		0.79 U	0.16 U		2 U	1 U		0.79 U	1 U
trans-1,3-Dichloropropene	0.61	3.2	0.44	0.91 U	1.3 U	0.54.11	0.91 U	0.4 U	07	0.91 U	0.2 U	0.00	0.91 U	0.2 U	0.00	0.91 U	0.2 U	0.40	2.3 U	1.3 U	0.01.17	0.91 U	1.3 U
Trichloroethene Trichlorofluoromethane	0.022 700	0.12 3066	0.41	1.1 U 3.9	0.68 U 11	0.54 U	1.1 U 1.1 U	0.22 U 1.8	0.7	1.1 U 2	0.11 U	0.32	1.1 U 2 1	0.3 1.6	0.33	1.1 U	0.11 U	0.49	2.7 U	0.68 U	0.21 U	1.1 U 1.7	0.68 U
Vinyl acetate	200	3066 876		3.9	11 1 U		1.1 U	0.32 U		۷	1.6 0.16 U		2.1	1.6 1.8		2.5	1.9 1.4		2.8 U	2.7 1 U		1.7	1.5 1 U
Vinyl bromide		0.0		0.87 U			0.87 U	0.02 0		0.87 U	0.10 0		0.87 U			0.87 U			2.2 U			0.87 U	
Vinyl Chloride	0.28	1.5	0.1 U	0.51 U	0.75 U	0.26 U	0.51 U	0.24 U	0.084 U	0.51 U	0.12 U	0.026 U	0.51 U	0.12 U	0.051 U	0.51 U	0.12 U	0.16 U	1.3 U	0.75 U	0.1 U	0.51 U	0.75 U
Xylene, m/p	7000	30660		2.2 U	8.9		2.5 U	0.32 U		2.2 U	12		4.8 U	19		4.8 U	8.7		5.6 U	15		3.7 U	7.7
Xylenes, Total	7000	30660		0.87 U			2.6 U			0.87 U			6.5 U			6.1 U			2.2 U			5.2 U	<u> </u>

Generic Indoor Air Screening Values are taken from Table 2c of the EPA Vapor Intrusion Guidance (EPA, 2002) and are based on a target cancer risk of 1E-06 and a target hazard index of 1 for residential exposures to indoor air.

Generic Soil Gas Screening Values are taken from Table 2c of the EPA Vapor Intrusion Guidance, and are based on an attenuation factor of 0.1 and a target cancer risk of 1E-06 and a target hazard index of 1 for migration of soil gas to residences with basements and subsequent residential exposures to indoor air.

The Commercial/Industrial indoor air and soil gas screening values were derived by adjusting the generic (residential-based) values for exposure time, exposure frequency, and exposure duration

applicable to full-time occupational exposures, as follows:

For risk-based values based on cancer risk, the adjustment to an exposure of 8-hours per day, 250 days per year, for 25 years is: (24/8) x (365/250) x (30/25) = 5.25

For risk-based values based on non-cancer risk, the adjustemtn to an exposrue of 8-hours per day, 250 days per year is: (24/8) x (365/250) = 4.38

The values for 2-chloropyridine and 2,6-dichloropyridine are derived using a unit risk value of 6.2E-06 (Arch, January 2005) and commercial/industrial parameters (8 hours per day, 250 days per year, 25 years). Shading indicates that a detected concentration exceeds the Commercial/Industrial risk-based value

--- Not applicable: constituent not detected at a concentration greater than screening value.

EPA, 2002. Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils. OSWER. November 29, 2002.

Table 1 Comparison of Indoor Air and Soil Gas Data ($\mu g/m^3)$ to Risk-Based Screening Levels

	Risk-E					n			-		Soil Gas	Samples						-		
	Screenin	0	00.400	office	00.400	00.400	00.400		tion area	00.400	00.400		uction area	(/	00.400	00,400		house	0.0 400	0.0 100
	Soil Gas Generic	Soil Gas Commercial/	SG-188 (IA-001)	SG-188 (IA-001)	SG-188 (IA-001)	SG-189 (IA-002)	SG-189 (IA-002)	SG-189 (IA-002)	SG-190 (IA-003)	SG-190 (IA-003)	SG-190 (IA-003)	SG-191 (IA-004)	SG-191 (IA-004)	SG-191 (IA-004)	SG-192 (IA-005)	SG-192 (IA-005)	SG-192 (IA-005)	SG-193 (IA-006)	SG-193 (IA-006)	SG-193 (IA-006)
	(Residential)	Industrial	(IA-001) 4/6/05	(IA-001) 3/2/06	(IA-001) 3/14/07	(IA-002) 4/6/05	(IA-002) 3/2/06	(IA-002) 3/14/07	(IA-003) 4/6/05	(IA-003) 3/2/06	(IA-003) 3/14/07	(IA-004) 4/6/05	(IA-004) 3/2/06	(IA-004) 3/14/07	(IA-005) 4/6/05	(IA-005) 3/2/06	(IA-005) 3/14/07	(IA-006) 4/6/05	(IA-006) 3/2/06	(IA-006) 3/14/07
2,6-Dichloropyridine		16.3		0.43 U	10 U		26	110	., 0, 00	5300	220		8	10 U		1.9	3/14/07	., 0, 00	0.72	9.1
2-Chloropyridine		16.3		13	34		460	700		360000	920		270	26		40	420		13	1000
1,1,1-Trichloroethane	22000	96360		1.1 U	5.4 U		1700 U	54 U		65 U	5.4 U		440 U	5.4 U		1.1 U	0.54 U		1.1 U	0.68 U
1,1,2,2-Tetrachloroethane	0.42	2.2		1.4 U	14 U		2200 U	<mark>180</mark>		82 U	14 U		550 U	14 U		1.4 U	1.4 U		1.4 U	1.8 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	300000	1314000		1.5 U	16 U		2500 U	160 U		92 U	16 U		610 U	16 U		1.5 U	1.6 U		1.5 U	2 U
1,1,2-Trichloroethane	1.5	7.9		1.1 U	10 U		1700 U	100 U		65 U	10 U		440 U	10 U		1.1 U	1 U		1.1 U	1.3 U
1,1-Dichloroethane 1,1-Dichloroethene	5000 2000	21900 8760		0.81 U 0.79 U	8 U 8 U		1300 U 1500	80 U 80 U		49 U 83	8 U 110		320 U 320 U	8 U 8 U		0.81 U 0.79 U	0.8 U 0.8 U		0.81 U 0.79 U	1 U 1 U
1,2,4-Trichlorobenzene	2000	8760		3.7 UJ	14 U		5900 U	140 U		220 U	14 U		1500 U	14 U		3.7 UJ	0.8 U 1.4 U		3.7 U	1.8 U
1,2,4-Trimethylbenzene	60	263		0.98 U	10 U		1600 U	140 U		59 U	14 U		390 U	14 U		9.8	1.4 0		4.1	40
1,2-Dibromoethane	0.11	0.58		1.5 U	16 U		2500 U	160 U		92 U	16 U		610 U	16 U		1.5 U	1.6 U		1.5 U	2 U
1,2-Dichloro-1,1,2,2-tetrafluoroethane				1.4 U	14 U		2200 U	140 U		84 U	14 U		560 U	14 U		1.4 U	1.4 U		1.4 U	1.8 U
1,2-Dichlorobenzene	2000	8760		1.2 U	12 U		1900 U	120 U		72 U	12 U		480 U	12 U		1.2 U	1.2 U		1.2 U	1.5 U
1,2-Dichloroethane	0.94	4.9	0.81 U	0.81 U	8 U	8100 U	1300 U	80 U	81 U	49 U	8 U	400 U	320 U	<mark>19</mark>	0.81 U	0.81 U	0.8 U	0.81 U	0.81 U	1 U
1,2-Dichloroethene (total)			0.79 U	0.79 U		7900 U	1300 U		79 U	48 U		400 U	320 U		0.79 U	0.79 U		0.79 U	0.79 U	
1,2-Dichloropropane	40	175		0.92 U	10 U		1500 U	100 U		55 U	10 U		370 U	10 U		0.92 U	10		0.92 U	1.3 U
1,3,5-Trimethylbenzene 1,3-Dichlorobenzene	60 1100	263 4818		0.98 U 1.2 U	10 U 12 U		1600 U 1900 U	100 U 120 U		59 U 72 U	10 U 12 U		390 U 480 U	10 U 12 U		3.5 1.2 U	6.2 1.2 U		1.3 1.2 U	19 1.5 U
1,4-Dichlorobenzene	8000	35040		1.2 U 1.2 U	12 U 12 U		1900 U 1900 U	120 U		72 U 72 U	12 U 12 U		480 U 480 U	12 U 12 U		1.2 U 1.2 U	1.2 U 1.2 U		1.2 U 1.2 U	1.5 U
1,4-Dioxane		00010		1.2 0 R	12 0		29000 U	.200		1100 U	12 0		7200 U	12 0		1.2 0 R	2 0		1.2 U	1.0 0
2-Butanone	10000	43800		1.5 U	6 U		2400 U	60 U		88 U	92		590 U	6 U		1.6 U	2.8		1.8 U	5.8
2-Chlorotoluene				1 U			1700 U			62 U			410 U			1 U			1 U	
2-Hexanone				2 U	8 U		3300 U	80 U		120 U	8 U		820 U	8 U		2 U	0.8 U		2 U	1 U
4-Ethyltoluene	000	0501		0.98 UJ	10 U		1600 U	100 U		59 U	10 U		390 U	10 U		8.8	7.2		4.6	26
4-Methyl-2-pentanone	800	3504		2 U	8 U		3300 U	80 U		120 U	8 U		820 U	8 U		2 U	0.8 U		2 U	10
Acetone Allyl chloride	3500	15330		12 UJ 1.6 U	4 U		19000 U 2500 U	40 U		710 U 94 U	76		4800 U 630 U	46		12 U 1.6 U	94		12 U 1.6 U	170
Benzene	3.1	16	1.5	0.64 U	6 U	6400 U	1000 U	1500	210	94 0 93	130	320 U	260 U	6 U	2.4	0.64 U	0.64	0.73	0.64 U	0.75 U
Benzyl chloride	0.5	3	1.0	0.04 0	10 U	0100 0	1000 0	100 U	210	00	10 U	020 0	200 0	10 U	2.7	0.04 0	1 U	0.10	0.04 0	1.3 U
Bromodichloromethane	1.4	7.4	1.3 U	1.3 U	14 U	13000 U	2100 U	140 U	130 U	80 U	14 U	670 U	540 U	120	1.3 U	1.3 U	1.4 U	1.3 U	1.3 U	1.8 U
Bromoform	22	116	2.1 U	2.1 UJ		21000 U	3300 U		210 U	120 U		1000 U	830 U		2.1 U	2.1 UJ		2.1 U	2.1 U	
Bromomethane	50	219		0.78 U	8 U		1200 U	80 U		47 U	8 U		310 U	8 U		0.78 U	0.8 U		0.78 U	1 U
Butadiene, 1,3-	0.087	0.46		1.1 U	4 U		1800 U	40 U		66 U	4 U		440 U	4 U		1.1 U	0.4 U		1.1 U	0.5 U
Carbon Disulfide	7000	30660	5.6 J	1.6 U	6 U	50000	2500 U	330	160 U	170	42	1000	620	6 U	4.4 J	1.6 U	0.6 U	3.7 J	1.6 U	0.75 U
Carbon Tetrachloride Chlorobenzene	1.6 600	8.4 2628	1.3 U 0.92 U	1.3 UJ 0.92 U	6.2 U 10 U	13000 U 9200 U	2000 U 1500 U	62 U 270	8800 830	4300 1000	230 1000	630 U 460 U	500 U 370 U	<mark>200</mark> 10 U	1.8 0.92 U	1.3 J 0.92 U	0.62 U 1 U	1.3 U 0.92 U	1.3 U 0.92 U	0.78 U 1.3 U
Chlorodibromomethane	1.0	5.3	1.7 U	1.7 U	18 U	17000 U	2700 U	180 U	170 U	100 U	18 U	400 U 850 U	680 U	10 U	0.32 U 1.7 U	1.7 U	1.8 U	1.7 U	0.32 U 1.7 U	2.3 U
Chloroethane	100000	438000	0	0.53 U	10 U	11000 0	840 U	550		32 U	10 U	000 0	210 U	10 U	1.7 0	0.53 U	1.0 U	1.1 0	3.2	1.3 U
Chloroform	1.1	5.8	1.4	0.98 U	10 U	980000	250000	470000	18000	8800	4900	73000	42000	51000	0.98 U	0.98 U	1.3	0.98 U	1	1.3 U
Chloromethane	24	126	1 U	1 U	4 U	10000 U	1700 U	78	100 U	62 U	4 U	520 U	410 U	4 U	2.9	1 U	0.4 U	1 U	1 U	0.5 U
Cis-1,2-Dichloroethene	350	1533		0.79 U	8 U		1300 U	80 U		48 U	14		320 U	8 U		0.79 U	0.8 U		0.79 U	1 U
cis-1,3-Dichloropropene	6.1	32.0		0.91 U	10 U		1500 U	100 U		54 U	10 U		360 U	10 U		0.91 U	1 U		0.91 U	1.3 U
Cyclohexane	0000	0700		0.69 U	6 U		130000	150000		93	6 U		280 U	6 U		0.69 U	0.6 U		0.69 U	3.9
Dichlorodifluoromethane Ethanol	2000	8760		2.5 UJ	10 U 8 U		4000 U	100 U 1500		150 U	10 U 8 U		990 U	10 U 8 U		5.4 J	1 U 0.8 U		3	1.3 U 1 U
Ethyl acetate	32000	140160			8 U 14 U			1500 140 U			8 U 14 U			8 U 14 U			0.8 U 1.4 U			1.8 U
Ethylbenzene	22	116	3.3 J	0.87 U	8 U	8700 U	1400 U	140 0	87 U	52 U	14 0	430 U	350 U	8 U	6.1 J	1.1 U	5.1	6.9 J	1.5 U	6.5
Heptane	-	-		0.82 U	8 U		2000	1400		49 U	24		330 U	14		0.82 U	5.1		0.82 U	9.7
Hexachlorobutadiene	1.1	5.8		2.1 UJ	22 U		3400 U	220 U		130 U	22 U		850 U	22 U		2.1 UJ	2.2 U		2.1 U	2.8 U
Hexane	2000	8760		1.8 U	8 U		35000	48000		110 U	49		700 U	8 U		1.8 U	1.9		1.8 U	1 U
Isooctane				0.93 UJ			1500 U			56 U			370 U			0.93 U			0.93 U	
Methyl Tertbutyl Ether	30000	131400	4 7 17	1.8 U	8 U	400000	2900 U	80 U	500	110 U	8 U	0700	720 U	8 U	4 7 1 '	1.8 U	0.8 U	4 7 11	1.8 U	1 U
Methylene Chloride o-Xylene	52 70000	273 306600	1.7 U	1.7 U 0.87 U	10 8 U	130000	5900 1400 U	7600 80 U	<mark>520</mark>	110 52 U	92 8 U	2700	690 U 350 U	6 U 8 U	1.7 U	1.7 U 1 U	1.1 5.8	1.7 U	19 1.3 U	0.75 U 8.3
Propylene	10000	300000		0.07 0	8 U 4 U		1400 0	80 U 40 U		52 U	8 U 4 U		330 U	8 U 4 U		10	5.8 0.4 U		1.5 U	8.3 0.5 U
Styrene	10000	43800		0.85 U	4 U 8 U		1400 U	40 U 80 U		51 U	4 U 8 U		340 U	4 U 8 U		0.85 U	0.4 U 0.8 U		0.85 U	0.5 U 1 U
t-Butyl alcohol				15 U	00		24000 U	50 0		910 U	00		6100 U			15 U	0.0 0		15 U	
Tetrachloroethene	8.1	43	1.4 U	1.4 U	6.8 U	88000	21000	9000	6300	5600	3200	1600	540 U	140	6.5	3.3	1.8	1.4 U	1.4 U	0.85 U
Tetrahydrofuran				15 U	12 U		24000 U	120 U		880 U	12 U		5900 U	12 U		15 U	1.2 U		15 U	1.5 U
Toluene	4000	17520	45 J	1.5 U	8 U	57000	9400 U	8100	410	240 U	220	720	1100 U	8 U	68 J	3.8 U	8.2	49 J	6 U	6.2
trans-1,2-Dichloroethene	700	3066		0.79 U	8 U		1300 U	80 U		48 U	8 U		320 U	8 U		0.79 U	0.8 U		0.79 U	1 U
trans-1,3-Dichloropropene	6.1	32.0	4417	0.91 U	10 U	11000 12	1500 U	100 U	100	54 U	10 U	E AO LA	360 U	10 U	4 4 11	0.91 U	10	4 4 11	0.91 U	1.3 U
Trichloroethene Trichlorofluoromethane	0.22 7000	1.2 30660	1.1 U	7 J	5.4 U 12 U	11000 U	3400 1900	4000	<mark>160</mark>	170 67 U	<mark>98</mark> 12 U	540 U	430 U 450 U	180 12 11	1.1 U	1.1 U	0.54 U	1.1 U	1.1 U	0.68 U
Vinyl acetate	2000	30660 8760		3.8 J	12 U 8 U		1900	120 U 80 U		0/ 0	12 0		400 U	12 U 8 U		2.1	2 0.8 U		1.7	1.7 1 U
Vinyl bromide	2000	0100		0.87 U	0.0		1400 U	30 0		52 U	15		350 U	00		0.87 U	0.0 0		0.87 U	
Vinyl Chloride	2.8	14.7	0.51 U	0.51 U	6 U	5100 U	1400 0	2200	89	38	56	260 U	200 U	6 U	0.51 U	0.51 U	0.6 U	0.51 U	0.51 U	0.75 U
Xylene, m/p	70000	306600		2.2 U	8 U		3500 U	190		130 U	26		870 U	14		3.5 U	18		4 U	27
		306600		0.87 U			1400 U	1	1	52 U	1		350 U	1	1	4.8 U	1		5.2 U	

Generic Indoor Air Screening Values are taken from Table 2c of the EPA Vapor Intrusion Guidance (EPA, 2002) and are based on a target cancer risk of 1E-06 and a target hazard index of 1 for residential exposures to indoor air.

Generic Soil Gas Screening Values are taken from Table 2c of the EPA Vapor Intrusion Guidance, and are based on an attenuation factor of 0.1 and a target cancer risk of 1E-06 and a target hazard

index of 1 for migration of soil gas to residences with basements and subsequent residential exposures to indoor air.

The Commercial/Industrial indoor air and soil gas screening values were derived by adjusting the generic (residential-based) values for exposure time, exposure frequency, and exposure duration

applicable to full-time occupational exposures, as follows:

For risk-based values based on cancer risk, the adjustment to an exposure of 8-hours per day, 250 days per year, for 25 years is: (24/8) x (365/250) x (30/25) = 5.25

For risk-based values based on non-cancer risk, the adjustemtn to an exposrue of 8-hours per day, 250 days per year is: (24/8) x (365/250) = 4.38

The values for 2-chloropyridine and 2,6-dichloropyridine are derived using a unit risk value of 6.2E-06 (Arch, January 2005) and commercial/industrial parameters (8 hours per day, 250 days per year, 25 years).

Shading indicates that a detected concentration exceeds the Commercial/Industrial risk-based value -- - Not applicable: constituent not detected at a concentration greater than screening value.

EPA, 2002. Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils. OSWER. November 29, 2002.

Table 2
Pathway Completeness and Risk Analysis
Office

Image: constraint of the stand of	oor Air > ground, nd Risk-
Lend IA-001 IA-01 IA-001 IA-001 IA-01 IA-01 IA-01 IA-01 IA-01 <thia-01< th=""> IA-01 IA-01</thia-01<>	ground, nd Risk-
Image: biolog Image: b	nd Risk-
2.6-Dichloropyridine ug/m3 1.1 4 0.43 U 10 U 0.46 U 1.2 U Y Y Y - N N 2-Chloropyridine ug/m3 1.1 U 0.68 U 1.3 34 2.3 U 2.5 Y Y - N <th>le?</th>	le?
2-Chtoropyndine ug/m3 24 24 24 13 34 2.3 2.5 V Y <th< th=""><th></th></th<>	
Low operation Low operation <thlow operation<="" th=""> <thlow operation<="" t<="" th=""><th></th></thlow></thlow>	
1,1,2-2-Trichloro-1,2,2-Trifluoroethane ug/m3 1,4 U 1,8 U -1,4 U 1,8 U -0,25 N N N N N 1,1,2-Trichloro-1,2,2-Trifluoroethane ug/m3 1,1 U 1,5 U 1,6 U 1,6 U 1,6 U 1,6 U 1,5 U 2 U N	
1,1,2-Trichloroethane ug/m3 1,5 U 2 U N N N N 1,1,2-Trichloroethane ug/m3 1,1 U 1,3 U 1,1 U 1,0 U 1,1 U 1,0 U 1,1 U 1,0 U 1,1 U 1,0 U 0,2 D N	
1,1,2-Trichloroethane ug/m3 1.1 U 0.25 N	
1,1-Dichloroethaneug/m300.81 U1 U0.81 U8 U0.81 U1 U $c.0.25$ NIIINN1,1-Dichloroetheneug/m30.79 U1.0 U0.79 U8 U0.79 U1 U $c.0.25$ NNNNN1,2.4-Trinkthylbenzeneug/m30.98 U2.90.98 U10 U3.7 UJ1.4 U3.7 UJ1.4 U3.7 UJ1.8 UNNN1,2-Dichloroethaneug/m30.98 U2.90.98 U10 U1.5 U2.0 CNNNNN1,2-Dichloroethaneug/m31.4 U1.8 U1.5 U1.5 U1.6 U1.5 U2.0 CNNNNN1,2-Dichloroethaneug/m31.4 U1.8 U1.4 U1.4 U1.4 U1.4 U1.4 U1.4 UNNNN1,2-Dichloroethaneug/m30.16 U0.81 U1.2 U1.2 U1.2 U1.2 U1.2 U1.2 UNNNN1,2-Dichloroethaneug/m30.16 U0.81 U0.81 U0.81 U0.8 U1.3 U $c.0.25$ NNNNN1,2-Dichloroethaneug/m30.16 U0.81 U0.81 U1.3 U $c.0.25$ NNNNN1,2-Dichloroethaneug/m30.16 U0.79 U0.8 U0.8 U0.8 U1.3 U $c.0.25$ NNNNN1,3-Dichloroet	
1,1-Dichlorobethene ug/m3 0,79 U 1 U 0,79 U 1 U <0.79 U	
1,2,4-Trichlorobenzene ug/m3 3.7 UJ 1.8 U N N N 1,2,4-Trimethylbenzene ug/m3 0.98 U 2.9 0.98 U 1.0 U 1.5 1.3 U 0.78 - 4.4 Y Y N N N N 1,2-Dichloro-thane ug/m3 1.5 U 2 U 1.5 U 1.6 U 1.5 U 2.0 0.78 - 4.4 N	
1,2,4-Trimethylbenzene ug/m3 0.98 U 2.9 0.98 U 1.0 U 1.5 U 1.3 U 0.78 - 4.4 Y Y N N N 1,2-Dichlorochane ug/m3 1.5 U 2 U 1.5 U 16 U 1.5 U 2 U <0.25 N	
1,2-Dibromoethane ug/m3 1 1.5 U 2 U 1.5 U 1.5 U 2 U <0.25	
1,2-Dichloro-1,1,2,2-tetrafiluoroethane ug/m3 1.4 U 1.4 U <th></th>	
1,2-Dichlorobenzeneug/m31.2 U1.5 U1.2 U1.2 U1.2 U1.5 U < 0.25 NNNN1,2-Dichloroethaneug/m30.16 U0.81 U1 U0.81 U0.81 U0.81 U8 U0.16 U0.81 U1 U < 0.25 NNNNN1,2-Dichloroethene (total)ug/m30.16 U0.79 U0.79 U0.79 U0.79 U0.79 U0.79 U0.16 U0.81 U0.81 U0.81 U0.81 U0.79 UNNN1,2-Dichloroptopaneug/m30.98 U1.3 U0.92 U10 U0.98 U1.3 U < 0.25 NNNNN1,3-Dichlorobenzeneug/m30.98 U1.3 U0.98 U1.3 U < 0.25 NNNNN1,4-Dichlorobenzeneug/m31.2 U1.5 U1.2 U12 U1.2 U1.5 U < 0.25 NNNNN1,4-Dichlorobenzeneug/m31.2 U1.5 U1.2 U1.2 U1.5 U < 0.25 NNNNNN1,4-Dichlorobenzeneug/m31.2 U1.5 U1.2 U1.2 U1.5 U < 0.25 NNNNNNN1,4-Dichlorobenzeneug/m3NNNNNNNNNNNNNNNNNNNNNNNNNN <th></th>	
1,2-Dichloroethane ug/m3 0.16 U 0.81 U 1 U 0.81 U 0.16 U 0.79	
1,2-Dichloroethene (total) ug/m3 0.16 U 0.79 U	
1,2-Dichloropropane ug/m3 0.92 U 1.3 U 0.92 U 1.3 U <0.25	
1,3,5-Trimethylbenzene ug/m3 0.98 U 1.3 U 0.98 U 1.0 U 0.98 U 1.3 U <0.25 - 1.7	
1,3-Dichlorobenzene ug/m3 1.2 U 1.5 U 1.2 U<	
1,4-Dichlorobenzene ug/m3 1.2 U 1.5 U 1.2 U 1.2 U 1.2 U 1.2 U 1.5 U 1.5 U N N N N 1,4-Dioxane ug/m3 R R R R 18 U N <th></th>	
1,4-Dioxane ug/m3 R R 18 U N N 2-Butanone ug/m3 1.5 U 4.3 1.5 U 6 U 1.5 U 2.4 N Y N N	
2-Butanone ug/m3 1.5 U 4.3 1.5 U 6 U 1.5 U 2.4 Y N N	
2-Hexanone ug/m3 2U 1U 2U 8U 2U 1U N N	
4-Ethyltoluene ug/m3 0.98 U 1.3 U 0.98 UJ 10 U 1.3 1.3 U N N	
4-Methyl-2-pentanone ug/m3 2U 2.5 2U 8U 2U 1.6 Y N N	
Acetone ug/m3 12 U 33 12 UJ 4 U 12 U 14 10 - 46 Y Y N N N	
Allyl chloride ug/m3 1.6 U 1.6 U 1.6 U N N	
Benzene ug/m3 1.9 0.64 U 0.75 U 1.5 0.64 U 6 U 1.7 2.4 1.1 1.2 - 5.7 Y N N Y N	
Benzyl chloride ug/m3 1.3 U 10 U 1.3 U N N	
Bromodichloromethane ug/m3 0.27 U 1.3 U 1.3 U 1.4 U 0.27 U 1.3 U 1.8 U N N	
Bromoform ug/m3 0.41 U 2.1 U 2.1 U 0.41 U 2.1 U N N	
Bromomethane ug/m3 0.78 U 1 U 0.78 U 8 U 0.78 U 1 U <0.25	
Butadiene, 1,3- ug/m3 1.1 U 0.5 U 1.1 U 4 U 1.1 U 0.5 U N N	
Carbon Disulfide ug/m3 1.6 U 0.75 U 5.6 J 1.6 U 6 U 1.6 U 0.75 U N	
Carbon Tetrachloride ug/m3 0.63 J 1.3 U 0.78 U 1.3 UJ 6.2 U 0.57 1.3 U 0.78 U Y Y N N	
Chlorobenzene ug/m3 0.92 U 0.92 U 0.92 U 10 U 0.92 U 1.3 U <0.25	
Chlorodibromomethane ug/m3 0.34 U 1.7 U 2.3 U 1.7 U 1.7 U 1.8 U 0.34 U 1.7 U 2.3 U	
Chloroethane ug/m3 0.53 U 1.3 U 0.53 U 10 U 0.53 U 1.3 U N N Chloroform ug/m3 0.2 U 0.98 U 1.3 U 0.08 U 0.2 U 0.98 U 2.1 U 0.08 U 2.1 U 0.07 U N N	
Chloromethane ug/m3 1.4 1.U 0.5 U 1 U 1 U 1.4 0.5 U <0.25 - 2.0	
Cis-1,2-Dichloroethene ug/m3 0.79 U 1 U 0.79 U 1 U <0.25	
cis-1,3-Dichloropropene ug/m3 0.91 U 1.3 U 0.91 U 10 U 0.91 U 1.3 U N N Cvclohexane ug/m3 0.69 U 0.75 U 0.69 U 6 U 0.69 U 0.75 U N N N	
Ethyl acetate ug/m3 1.8 U 14 U 1.8 U Y N N N Heptane ug/m3 0.82 U 1.3 0.82 U 8 U 0.86 1 U Y N N N	
Heptane ug/m3 0.82 0 1.3 0.82 0 8 0 0.80 1 0 1 0 1 0 Hexachlorobutadiene ug/m3 2.1 UJ 2.8 U 2.1 UJ 22 U 2.1 U 2.8 U N N	
Hexane ug/m3 1.8 U 1 U 1.8 U 8 U 2.4 1 U 0.63 - 6.5 N Isolation N <th></th>	
Noticatie Ug/ns 0.95 0 0.95 0 0.95 0 N N Methyl Tertbutyl Ether ug/m3 1.8 U 1.0 1.8 U 1.0 2.25 - 6.7 N N N	
Methylene Chloride ug/m3 5.6 J 1.7 U 1.7 U 1.7 U 1.7 U 1.7 U 3.2 0.38 - 6.3 60 Y N N Y Y N	
o-Xylene ug/m3 0.87 U 2.8 0.87 U 8 U 1.4 0.7 0 3.2 0.36 - 6.5 60 F N N F F N N N N N	
Oraylene ug/m3 0.870 2.8 0.670 80 1.40 2.3 0.59-5.1 1 1 1 N	
Styrene ug/m3 0.85 U 1.2 0.85 U 8 U 0.85 U 1 U <0.25 - 0.68	
t-Butyl alcohol ug/m3 15 U 15	
Tetrachloroethene ug/m3 0.52 1.4 U 0.85 U 1.4 U 0.86 U 0.36 1.4 U 0.85 U <0.25 - 1.2	
Prepa	

Table 2 Pathway Completeness and Risk Analysis Office

			Air Samples	5	So	il Gas Samp	les		Outdoor Ai	r								Pathway Potentially
															Average Indoor Air >			Complete & Indoor Air >
					SG-188	SG-188	SG-188							Average	Published		Pathway	Higest of Background,
		IA-001	IA-001	IA-001	(IA-001)	(IA-001)	(IA-001)	OA-001	OA-001	OA-001	Published	NYSDOH Air	Detected in	Indoor Air >	Background or	Detected in	Potentially	Air Guideline, and Risk-
		4/6/05	3/2/06	3/14/07	4/6/05	3/2/06	3/14/07	4/6/05	3/2/06	3/14/07	Background	Guideline	Indoor Air?	Outdoor Air?	NYSDOH Guideline?	Soil Gas?	Complete?	Based Value?
Tetrahydrofuran	ug/m3		15 U	1.5 U		15 U	12 U		15 U	1.5 U			N			N	N	
Toluene	ug/m3	11 J	0.94 U	22	45 J	1.5 U	8 U	4.5 J	6.4 U	17	4.2 - 25		Y	Y	N	Y	N	
trans-1,2-Dichloroethene	ug/m3		0.79 U	1 U		0.79 U	8 U		0.79 U	1 U			N			N	N	
trans-1,3-Dichloropropene	ug/m3		0.91 U	1.3 U		0.91 U	10 U		0.91 U	1.3 U			Ν			N	N	
Trichloroethene	ug/m3	0.41	1.1 U	0.68 U	1.1 U	<mark>7</mark> J	5.4 U	0.21 U	1.1 U	0.68 U	<0.25	5	Y	Y	N	Y	N	
Trichlorofluoromethane	ug/m3		3.9	11		3.8 J	12 U		1.7	1.5			Y	Y		Y	N	
Vinyl acetate	ug/m3			1 U			8 U			1 U			Ν			N	N	
Vinyl bromide	ug/m3		0.87 U			0.87 U			0.87 U				N			N	N	
Vinyl Chloride	ug/m3	0.1 U	0.51 U	0.75 U	0.51 U	0.51 U	6 U	0.1 U	0.51 U	0.75 U	<0.25		N			N	N	
Xylene, m/p	ug/m3		2.2 U	8.9		2.2 U	8 U		3.7 U	7.7			Y	Y		N	N	
Xylenes, Total	ug/m3		0.87 U			0.87 U			5.2 U				N			N	N	
	•	•	•	•	•	•			•	•	-		-	•	Exce	ess Lifetime C	ancer Risk [a	1E-05 [b
																На	zard Index [a]	0.5 [b

Notes:

Shaded values in Indoor Air, Soil Gas, or Outdoor Air indicate that the detected concentration exceeded the commercial/industrial risk-based value presented in Table 1.

Published Background is the NYSDOH background data base for homes in NYS (1997 - 2003) (NYSDOH, 2005)

The NYSDOH Guideline value is the Air Guideline Value (NYSDOH, 2005)

NYSDOH, 2005: Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Public Comment Draft. February, 2005

Pathway is potentially complete if a constituent was detected in both soil gas and indoor air during the most recent sampling round.

[a] Risks are calculated in Attachment A and are based on full-time commercial/industrial worker exposures.

[b] Risks for constituents detected in indoor air are calculated for each constituent denoted with a "Y" and summed to yield total cancer risk and hazard index values.

[c] - Risks for constituents detected in indoor air that are not associated with facility operations (i.e., risks are calculated for each constituent denoted with a "N").

Y - Yes; values that are bolded represent new findings as of the most recent sampling round; values that are italicized represent findings based on previous sampling rounds N - No; values that are bolded represent new findings as of the most recent sampling round; values that are italicized represent findings based on previous sampling rounds

-- Not applicable

Table 3 Pathway Completeness and Risk Analysis Warehouse Area

Processe Processe Processe Processe Processe <th< th=""><th></th><th>Γ</th><th></th><th></th><th>Air Sa</th><th>mples</th><th></th><th></th><th></th><th></th><th>Soil Gas</th><th>Samples</th><th></th><th></th><th></th><th>Outdoor Air</th><th></th><th></th><th></th><th></th><th></th><th>1</th><th></th><th></th><th>Pathway Potentially</th></th<>		Γ			Air Sa	mples					Soil Gas	Samples				Outdoor Air						1			Pathway Potentially
Change in the set of									(IA-005)	(IA-005)	(IA-005)	(IA-006)	(IA-006)	(IA-006)							Indoor Air >	Published Background or		Potentially	Complete & Indoor Air > Higest of Background, Air Guideline, and Risk-
	2,6-Dichloropyridine	ug/m3		0.43 U	<u>50</u>		0.48	<mark>960</mark>		1.9	<mark>31</mark>		0.72	9.1		0.46 U	1.2 U	Ŭ		Y	Y		Y	Ý	Y
1.2.2-6-000000000000000000000000000000000	2-Chloropyridine	-																		Y	Y		Y	Y	Y
1.3 Trans. Tax 3.7 M. 2019 Gam Gam </th <th></th> <th>-</th> <th></th> <th>N</th> <th></th> <th></th> <th>N</th> <th>N</th> <th></th>		-																		N			N	N	
1.1 intercentant into into into into into into into into		-																<0.25		N	V		N	N	
10-00000000000000000000000000000000000																		<0.25		r N	r		N	N	
b)>b)> b)> b)>>		-									-		-							N			N	N	
14-14 - 16 - 16 - 16 - 16 - 16 - 16 - 16	1,1-Dichloroethene	U																		N			N	N	
Addressman winds - - - - <th< th=""><th>1,2,4-Trichlorobenzene</th><th>-</th><th></th><th>3.7 UJ</th><th>0.28 U</th><th></th><th>9.6 U</th><th>1.8 U</th><th></th><th>3.7 UJ</th><th>1.4 U</th><th></th><th>3.7 U</th><th>1.8 U</th><th></th><th>3.7 U</th><th>1.8 U</th><th></th><th></th><th>N</th><th></th><th></th><th>N</th><th>Ν</th><th></th></th<>	1,2,4-Trichlorobenzene	-		3.7 UJ	0.28 U		9.6 U	1.8 U		3.7 UJ	1.4 U		3.7 U	1.8 U		3.7 U	1.8 U			N			N	Ν	
1.2 derive forward 1.9 ml	1,2,4-Trimethylbenzene	ug/m3					15	<mark>670</mark>		9.8	18			-		1.5	1.3 U	0.78 - 4.4		Y	Y	Y		Y	Y
Schwarzen Ward Ward Ward Ward Schwarzen Ward Schwarzen Ward Schwarzen Ward W	1,2-Dibromoethane	-																<0.25					N	N	
13-000 13-000 13-000 14-0000 14-0000 14-0000		U																					N	N	
L3 Outstand Land Land <thland< th=""> <thland< th=""> <thland< th=""></thland<></thland<></thland<>	· · · · · · · · · · · · · · · · · · ·	-	0.004.11			0.05.11			0.04.11			0.01.11			0.46.11								N	N	
Science Science <t< th=""><th>· · · · · · · · · · · · · · · · · · ·</th><th>-</th><th></th><th></th><th>0.16 0</th><th></th><th></th><th>10</th><th></th><th></th><th>0.8 0</th><th></th><th></th><th>10</th><th></th><th></th><th>10</th><th><0.25</th><th></th><th>N</th><th>1</th><th></th><th>N</th><th>N</th><th></th></t<>	· · · · · · · · · · · · · · · · · · ·	-			0.16 0			10			0.8 0			10			10	<0.25		N	1		N	N	
3.5.7 9.000 7.5.7 9.000 <th< th=""><th></th><th>-</th><th>0.013 0</th><th></th><th>0211</th><th>0.20 0</th><th></th><th>13 U</th><th>0.790</th><th></th><th>1 []</th><th>0.130</th><th></th><th>13 U</th><th>0.10 0</th><th></th><th>13 U</th><th><0.25</th><th></th><th>N</th><th>1</th><th></th><th>N</th><th>N</th><th></th></th<>		-	0.013 0		0211	0.20 0		13 U	0.790		1 []	0.130		13 U	0.10 0		13 U	<0.25		N	1		N	N	
Schellungemene Game Schellungemene Game Schellungemene Game Schellungemene Schel	1,3,5-Trimethylbenzene	-						260												Y	Y	Y	Y	Y	Y
dechonomenane oppn of transmission oppn of transmis	1,3-Dichlorobenzene	-						1.5 U												N	1		N	N	
cisiance upma 1 1 0 2 1 1 0 1 1 0 1 0 1 0 1 0 <th< th=""><th>1,4-Dichlorobenzene</th><th>ug/m3</th><th></th><th>1.2 U</th><th>0.24 U</th><th></th><th>3 U</th><th>1.5 U</th><th></th><th>1.2 U</th><th>1.2 U</th><th></th><th>1.2 U</th><th>1.5 U</th><th></th><th>1.2 U</th><th>1.5 U</th><th></th><th></th><th>N</th><th></th><th></th><th>N</th><th>N</th><th></th></th<>	1,4-Dichlorobenzene	ug/m3		1.2 U	0.24 U		3 U	1.5 U		1.2 U	1.2 U		1.2 U	1.5 U		1.2 U	1.5 U			N			N	N	
Schlander upb I U D I U D I U D I U D N N N	1,4-Dioxane	U																		N			N	N	
Sethesing in the spectral integration of the spectral integratintegrate integration of the spectral integration of the	2-Butanone	U U			4.2			52			2.8			5.8			2.4			Y	Y		Y	Y	N
bit		-			0.00						0.0.11						4.11			N	X		N	N	
Mathyle Appartance Wash Set of the Set of		U U						-												ř V	ř			N	V
booken upp upp<		-																		Y	1 Y			N	T
Nich Nick Nick <th< th=""><th></th><th>-</th><th></th><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th><th>10 - 46</th><th></th><th>Ý</th><th>Ý</th><th></th><th></th><th>Y</th><th>N</th></th<>		-						-						-				10 - 46		Ý	Ý			Y	N
sintane upma 1 <th1< th=""><th>Allyl chloride</th><th>U U</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>N</th><th></th><th></th><th>Ň</th><th>N</th><th></th></th1<>	Allyl chloride	U U																		N			Ň	N	
bernomethane upma 0.13 U 1.3 U 0.24 U 0.43 U 1.3 U 0.24 U 1.3 U 0.7 U 1.3 U 1.3 U 0.7 U 0.7 U N N N <th< th=""><th>Benzene</th><th>-</th><th>1.6</th><th>0.99</th><th>1.1</th><th>1.5</th><th>1.6 U</th><th>1.6</th><th>2.4</th><th>0.64 U</th><th>0.64</th><th>0.73</th><th>0.64 U</th><th>0.75 U</th><th>1.7</th><th>2.4</th><th>1.1</th><th>1.2 - 5.7</th><th></th><th>Y</th><th>N</th><th>Ν</th><th>Y</th><th>Y</th><th>N</th></th<>	Benzene	-	1.6	0.99	1.1	1.5	1.6 U	1.6	2.4	0.64 U	0.64	0.73	0.64 U	0.75 U	1.7	2.4	1.1	1.2 - 5.7		Y	N	Ν	Y	Y	N
biomomentane upma 0.21 U C 0.4 U 2.1 U C 0.4 U 2.1 U C 0.4 U 2.1 U C 0.4 U 0.7 U <th>Benzyl chloride</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>1.3 U</th> <th></th> <th></th> <th>1 U</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>1.3 U</th> <th></th> <th></th> <th>N</th> <th></th> <th></th> <th>N</th> <th>N</th> <th></th>	Benzyl chloride							1.3 U			1 U						1.3 U			N			N	N	
biomembrane ugms 1.1 U 0.16 U 1.1 U 0.78 U	Bromodichloromethane				0.28 U			1.8 U			1.4 U			1.8 U			1.8 U						N	N	
Judiadiene, 1,3- ugm3 1.1 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 1.1 0.5 0.5 1.1 0.5 0.5 1.1 0.5 0.5 1.1 0.5 0.5 1.1 0.5 0.5 1.1 0.55 0.5 1.1 0.55 0.5 1.1 0.55 0.5 1.1 0.55 0.5 1.1 0.5 0.5 1.1 0.55 0.5	Bromoform		0.21 U			0.64 U			2.1 U			2.1 U			0.41 U								N	N	
Date Ind U <th></th> <th>-</th> <th></th> <th><0.25</th> <th></th> <th>N</th> <th></th> <th></th> <th>N</th> <th>N</th> <th></th>		-																<0.25		N			N	N	
Date Umb 0.69 1.3.U 0.52 0.3.U 0.7.U 1.3.U 0.7.U 0.7.		•	1611			1611			441			271			1611					N N				N N	
Characterine ugm3 0.62 U 0.82 U <th0.82 th="" u<=""> 0.82 U <th0.82< th=""><th></th><th>-</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th><0.25 - 0.68</th><th></th><th>Y</th><th>Y</th><th>Y</th><th>Y</th><th>N</th><th></th></th0.82<></th0.82>		-																<0.25 - 0.68		Y	Y	Y	Y	N	
Chironalizamentana ugm3 0.7 U 1.7 U 0.5 U 4.3 U 2.5 U 1.7 U 1.7 U 1.7 U 1.7 U 1.7 U 1.7 U 2.3 U 0.5 U 1.3 U 0.5 U 0.5 U 1.3 U 0.5 U		-																		N	•		Ň	N	
Debroof ug/m 0.41 2.51 0.49 0.79 0.49 0.79	Chlorodibromomethane																						N	Ν	
Choromethane ugm 1.5 1.3 0.97 1.9 2.7 U 0.6 U 0.4 U 1 U 0.6 U 0.6 U 0.25 - 2.0 Y Y N Y N	Chloroethane	ug/m3		0.53 U	0.2 U		1.3 U	1.3 U		0.53 U	1 U		3.2	1.3 U		0.53 U	1.3 U			N			Y	Ν	
Disingle Dicklore of the function of the state of the function of the function of the state of the state of t	Chloroform	-																		Y	Y		Y	Y	Y
bicli-0bl/divormethane ug/m3 0.91 U 0.91 U 1.3 U 0.91 U <th>Chloromethane</th> <th>-</th> <th>1.5</th> <th></th> <th></th> <th>1.9</th> <th></th> <th></th> <th>2.9</th> <th></th> <th></th> <th>1 U</th> <th></th> <th></th> <th>1 U</th> <th></th> <th></th> <th></th> <th></th> <th>Y</th> <th>Y</th> <th>N</th> <th>Y</th> <th>N</th> <th></th>	Chloromethane	-	1.5			1.9			2.9			1 U			1 U					Y	Y	N	Y	N	
Cycloheane ug/m3	·	-																<0.25		N	1		N	N	
Dichlordiluromethane ug/m3 4.9 0.3 6.4 U 1.3 U 3.4 1.3 U Y <th></th> <th>-</th> <th></th> <th>N V</th> <th>~</th> <th></th> <th>N V</th> <th>N V</th> <th>Y</th>		-																		N V	~		N V	N V	Y
thy 2.6 y 1.7 y 2.6 y 1.7 y 2.7 y 3.8 y 6.1 y 2.9 y 6.3 y 6.1 y 1.1 y 5.1 y 6.6 y 1.5 y 6.5 y 0.61 y 1.1 y 2.4 y 0.43 - 2.8 y y Y	-	-																		Ý	т У		Y Y	N	
Thinol ug/m3 <	Ethylbenzene		2.6 J			6.1 J			6.1 J		-	6.9 J	-		0.61	-		0.43 - 2.8		Ý	Ý	Y	Ý	Y	Ν
Ethylacetate ug/m3 ug/m3 ug/m3 ug/m3 ug/m3 ug/m3 ug/m3 ug/m3 ug/m3 3.6 4.6 3.2 1.8 U 0.8 U 5.1 0.8 U 9.7 0.8 U 1.8 U 0.8 U 9.7 0.8 U 9.7 0.8 U 1.8 U 9.7	Ethanol	-										2.0 0								Ý	Ý		Ň	Ň	
Heptane ug/m3 K 3.6 4.6 K 3.2 1.4 K 0.82 5.1 0.82 9.7 0.86 1.0 K K Y	Ethyl acetate																			Y	Y		Y	Y	Ν
Hexane ug/m3 ug/m3 I.8 U 1.8 U 0.3 I 1.8 U 0.93 U 1.9 U 1.8 U 1.9 U 0.25 U 0.8 U 1.8 U <t< th=""><th>Heptane</th><th>-</th><th></th><th>3.6</th><th>4.6</th><th></th><th></th><th></th><th></th><th></th><th>5.1</th><th></th><th>0.82 U</th><th>9.7</th><th></th><th>0.86</th><th>1 U</th><th></th><th></th><th></th><th>Y</th><th></th><th>•</th><th>Y</th><th>Y</th></t<>	Heptane	-		3.6	4.6						5.1		0.82 U	9.7		0.86	1 U				Y		•	Y	Y
sooctane ug/m3	Hexachlorobutadiene	-																		N	1			N	
Methyl Terbulyl Ether ug/m3 4.8 U 0.16 U 4.7 U 1 U 1.8 U 0.8 U 1.8 U 0.8 U 1.8 U 1.8 U 0.8 U 1.8 U 1.8 U 1.8 U 1.8 U 0.8 U 1.8 U 1.8 U 0.8 U 1.8 U 0.8 U 1.8 U 1.7 U </th <th>Hexane</th> <th></th> <th></th> <th></th> <th>2.1</th> <th></th> <th></th> <th>3.1</th> <th></th> <th></th> <th>1.9</th> <th></th> <th></th> <th>1 U</th> <th></th> <th></th> <th>1 U</th> <th>0.63 - 6.5</th> <th></th> <th>Y</th> <th>Y</th> <th>N</th> <th>-</th> <th>Y</th> <th>N</th>	Hexane				2.1			3.1			1.9			1 U			1 U	0.63 - 6.5		Y	Y	N	-	Y	N
Methylene Chloride ug/m3 5.6 J 1.7 U 1.2 U 280 13 1.7 U		U U			0.40.17						0.0.11							-0.05 0.7			1			N	
by yine ug/m3 1.3 U 2.9 2.2 U 6.3 1 U 5.8 1.3 U 8.3 0.39 - 3.1 0.39 - 3.1 Y Y N Y Y N Y Y N Y N Y Y N Y N Y Y N Y N Y N Y N Y N Y N Y N Y N Y N Y N Y N		-	561			25			1711			1711			561				60	IN V	v	м	N V	N V	N
Arrive Left		-	0.0 J			20			1.7 0			1.7 U			J.0 J				00	Ý	т У		Y	Y	N
styrene ug/m3 0.85 U 0.43 2.1 U 1 U 0.85 U 0.85 U 1 U 0.85 U 0.85 U 1 U 0.85 U 0.				1.5 0			2.2 0			10			1.5 0			1.4 0		0.00 - 0.1		N		r N	N	N	
Butyl alcohol ug/m3 15 U 15 U 39 U 15 U 16 U 16 U 17 U 17 U 18	Styrene			0.85 U			2.1 U			0.85 U			0.85 U			0.85 U		<0.25 - 0.68		Y	Y	Ν	N	N	
Tetrachloroethene ug/m3 0.6 1.4 U 0.43 0.5 3.4 U 0.85 U 6.5 3.3 1.8 1.4 U 0.85 U 6.5 1.4 U 0.85 U 6.5 1.4 U 0.85 U 1.4 U 0.85 U 6.5 1.4 U 1.4 U 1.4 U 0.85 U 1.5 U Y </th <th>t-Butyl alcohol</th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th>N</th> <th>1</th> <th></th> <th>N</th> <th>N</th> <th></th>	t-Butyl alcohol				-			-						-			-			N	1		N	N	
	Tetrachloroethene	ug/m3	0.6	1.4 U		0.5		0.85 U	6.5	3.3	1.8	1.4 U		0.85 U	0.36	1.4 U	0.85 U	<0.25 - 1.2	100	Y	Y	N		Y	Ν
Foluene ug/m3 6J 7.2U 14 6.4J 8.3U 22 68J 3.8U 8.2 49J 6U 6.2 4.5J 6.4U 17 4.2-25 Y Y N Y N Y N Y N	Tetrahydrofuran																			Y	Y			N	
	Toluene	ug/m3	6 J	7.2 U	14	6.4 J	8.3 U	22	68 J	3.8 U	8.2	49 J	6 U	6.2	4.5 J	6.4 U	17	4.2 - 25		Y	Y	N	Y	Y	N

Table 3 Pathway Completeness and Risk Analysis Warehouse Area

				Air Sa	mples					Soil Gas	Samples				Outdoor Air						1			Pathway Potentially
		A-005 /6/05	IA-005 3/2/06	IA-005 3/14/07	IA-006 4/6/05	IA-006 3/2/06	IA-006 3/14/07	SG-192 (IA-005) 4/6/05	SG-192 (IA-005) 3/2/06	SG-192 (IA-005) 3/14/07	SG-193 (IA-006) 4/6/05	SG-193 (IA-006) 3/2/06	SG-193 (IA-006) 3/14/07	OA-001 4/6/05	OA-001 3/2/06	OA-001 3/14/07	Published Background	NYSDOH Air Guideline	Detected in Indoor Air?	Average Indoor Air > Outdoor Air?	Average Indoor Air > Published Background or NYSDOH Guideline?	Detected in Soil Gas?	Pathway Potentially Complete?	Complete & Indoor Air > Higest of Background, Air Guideline, and Risk- Based Value?
trans-1,2-Dichloroethene	ug/m3		0.79 U	0.16 U		2 U	1 U		0.79 U	0.8 U		0.79 U	1 U		0.79 U	1 U			N			N	Ň	
trans-1,3-Dichloropropene	ug/m3		0.91 U	0.2 U		2.3 U	1.3 U		0.91 U	1 U		0.91 U	1.3 U		0.91 U	1.3 U			N			N	N	
Trichloroethene	ug/m3 0).33	1.1 U	0.11 U	0.49	2.7 U	0.68 U	1.1 U	1.1 U	0.54 U	1.1 U	1.1 U	0.68 U	0.21 U	1.1 U	0.68 U	<0.25	5	Y	Y	Ν	N	N	
Trichlorofluoromethane	ug/m3		2.5	1.9		2.8 U	2.7		2.1	2		1.7	1.7		1.7	1.5			Y	Y		Y	Y	N
Vinyl acetate	ug/m3			1.4			1 U			0.8 U			1 U			1 U			Y	Y		N	N	
Vinyl bromide	ug/m3		0.87 U			2.2 U			0.87 U			0.87 U			0.87 U				N			N	N	
Vinyl Chloride	ug/m3 0.0	051 U	0.51 U	0.12 U	0.16 U	1.3 U	0.75 U	0.51 U	0.51 U	0.6 U	0.51 U	0.51 U	0.75 U	0.1 U	0.51 U	0.75 U	<0.25		N			N	N	
Xylene, m/p	ug/m3		4.8 U	8.7		5.6 U	15		3.5 U	18		4 U	27		3.7 U	7.7			Y	Y		Y	Y	N
Xylenes, Total	ug/m3		6.1 U			2.2 U			4.8 U			5.2 U			5.2 U				N			N	N	
					-	-					-	•					•	•		-	Exc	ess Lifetime C	ancer Risk [a]	3E-04 [k
																						На	zard Index [a]	25 [t

Notes:

Shaded values in Indoor Air, Soil Gas, or Outdoor Air indicate that the detected concentration exceeded the commercial/industrial risk-based value presented in Table 1.

Published Background is the NYSDOH background data base for homes in NYS (1997 - 2003) (NYSDOH, 2005)

The NYSDOH Guideline value is the Air Guideline Value (NYSDOH, 2005)

NYSDOH, 2005: Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Public Comment Draft. February, 2005 Pathway is potentially complete if a constituent was detected in both soil gas and indoor air during the most recent sampling round.

[a] Risks are calculated in Attachment A and are based on full-time commercial/industrial worker exposures.

b] Risks for constituents detected in indoor air are calculated for each constituent denoted with a "Y" and summed to yield total cancer risk and hazard index values.

[c] - Risks for constituents detected in indoor air that are not associated with facility operations (i.e., risks are calculated for each constituent denoted with a "N").

Y - Yes; values that are bolded represent new findings as of the most recent sampling round; values that are italicized represent findings based on previous sampling rounds N - No; values that are bolded represent new findings as of the most recent sampling round; values that are italicized represent findings based on previous sampling rounds

-- Not applicable

Table 4 Pathway Completeness and Risk Analysis Production Area

						Air Samp	les							Soil	Gas Sam	oduction A					Outdoor A	ir					Indeer Airs			Dethway Detentially
																											Indoor Air > Published			Pathway Potentially Complete & Indoor Air >
											SG-189	SG-189	SG-189		SG-190	SG-190	SG-191	SG-191	SG-191								Background		Pathway	Higest of Background,
		IA-002 4/6/05	IA-002 3/2/06	IA-002 3/14/07		IA-003 3/2/06	IA-003 3/14/07	IA-004 4/6/05	IA-004 3/2/06	IA-004 3/14/07	(IA-002) 4/6/05	(IA-002) 3/2/06	(IA-002) 3/14/07	(IA-003) 4/6/05	(IA-003) 3/2/06	(IA-003) 3/14/07	(IA-004) 4/6/05	(IA-004) 3/2/06	(IA-004) 3/14/07	OA-001 4/6/05	OA-001 3/2/06	OA-001 3/14/07	Published Background	NYSDOH Air Guideline	Detected in Indoor Air?	Indoor Air > Outdoor Air?	or NYSDOH Guideline?	Detected in Soil Gas?	Potentially Complete?	Air Guideline, and Risk- Based Value?
2,6-Dichloropyridine	ug/m3	., 0, 00	22 22	100 U		97	100 U	., 0, 00	12	22	., 0, 00	26	110	., 0, 00	5300	220	1,0,00	8	10 U	., 0, 00	0.46 U	1.2 U	u	Caldolino	Y	Y		Y	Y	Y
2-Chloropyridine	ug/m3		<mark>1500</mark>	<u>590</u>		550	950		<mark>450</mark>	<mark>580</mark>		460	700		#####	<mark>920</mark>		270	26		2.3 U	2.5			Y	Y		Y	Y	Y
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	ug/m3 ug/m3		1.1 U 1.4 U	0.22 U 0.56 U		1.1 U 1.4 U	0.37 0.28 U		1.1 U 1.4 U	0.35 0.28 U		1700 U 2200 U	54 U 180		65 U 82 U	5.4 U 14 U		440 U 550 U	5.4 U 14 U		1.1 U 1.4 U	0.68 U 1.8 U	<0.25 - 1.4 <0.25		Y	Y	N	N Y	N N	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3		1.5 U	0.64 U	, J	1.5 U	0.55		1.4 U	0.58		2500 U	160 U		92 U	14 U		610 U	14 U		1.4 U	1.0 U	NO.20		Y	Y		N	N	
1,1,2-Trichloroethane	ug/m3		1.1 U	0.4 U		1.1 U	0.2 U		1.1 U	0.2 U		1700 U	100 U		65 U	10 U		440 U	10 U		1.1 U	1.3 U	<0.25		Ν			Ν	N	
1,1-Dichloroethane 1,1-Dichloroethene	ug/m3 ug/m3		0.81 U 0.79 U	0.32 U 0.32 U		0.81 U 0.79 U	0.16 U 0.24		0.81 U 0.79 U	0.16 U 0.16 U		1300 U 1500	80 U 80 U		49 U 83	8 U 110		320 U 320 U	8 U 8 U		0.81 U 0.79 U	1 U 1 U	<0.25 <0.25		N	~	×	N	N	N
1,2,4-Trichlorobenzene	ug/m3		3.7 UJ	0.32 U 0.56 U		3.7 UJ	0.24 0.28 U		3.7 UJ	0.18 U		5900 U	140 U		220 U	14 U		1500 U	14 U		3.7 U	1.8 U	<0.25		N	, T	1	N	N	IN
1,2,4-Trimethylbenzene	ug/m3		74	0.4 U		16	2.7		44	4.3		1600 U	100 U		59 U	10 U		390 U	10 U		1.5	1.3 U	0.78 - 4.4		Y	Y	Y	Ν	N	
1,2-Dibromoethane	ug/m3		1.5 U	0.64 U		1.5 U	0.32 U		1.5 U	0.32 U		2500 U	160 U		92 U	16 U		610 U	16 U		1.5 U	2 U	<0.25		N			N	N	
1,2-Dichloro-1,1,2,2-tetrafluoroethane 1,2-Dichlorobenzene	ug/m3 ug/m3		1.4 U 1.2 U	0.56 U 0.48 U		1.4 U 1.2 U	0.28 U 0.24 U		1.4 U 1.2 U	0.28 U 0.24 U		2200 U 1900 U	140 U 120 U		84 U 72 U	14 U 12 U		560 U 480 U	14 U 12 U		1.4 U 1.2 U	1.8 U 1.5 U	<0.25		N			N N	N	
1,2-Dichloroethane	ug/m3	0.4 U	0.81 U	0.32 U		0.81 U	0.24 U	0.065	0.81 U	0.16 U	8100 U	1300 U	80 U	81 U	49 U	8 U	400 U	320 U	12 0	0.16 U	0.81 U	1.0 U	<0.25		Y	Y	N	Y	Y	Ν
1,2-Dichloroethene (total)	ug/m3	0.4 U	0.79 U		0.13 U	0.79 U		0.04 U	0.79 U		7900 U	1300 U		79 U	48 U		400 U	320 U		0.16 U	0.79 U				N			Ν	N	
1,2-Dichloropropane	ug/m3		0.92 U	0.4 U		0.92 U	0.2 U		0.92 U 17	0.2 U		1500 U	100 U		55 U	10 U		370 U	10 U		0.92 U	1.3 U	< 0.25		N	X	X	N	N	
1,3,5-Trimethylbenzene 1,3-Dichlorobenzene	ug/m3 ug/m3		<mark>29</mark> 1.2 U	0.4 U 0.48 U		5.9 1.2 U	0.88 0.24 U		17 1.2 U	1.5 0.24 U		1600 U 1900 U	100 U 120 U		59 U 72 U	10 U 12 U		390 U 480 U	10 U 12 U		0.98 U 1.2 U	1.3 U 1.5 U	<0.25 - 1.7 <0.25		Y N	ř	r	N	N N	
1,4-Dichlorobenzene	ug/m3		1.2 U	0.48 U	J	1.2 U	0.24 U		1.2 U	0.24 U		1900 U	120 U		72 U	12 U		480 U	12 U		1.2 U	1.5 U			N			N	N	
1,4-Dioxane	ug/m3		R			R			R			29000 U	1		1100 U			7200 U			18 U				Ν			N	N	
2-Butanone	ug/m3		1.5 U	21		3.8 U	8		1.5 U	94		2400 U	60 U		88 U	92		590 U	6 U		1.5 U 1 U	2.4			Y N	Ý		Y	Y N	N
2-Chlorotoluene 2-Hexanone	ug/m3 ug/m3		1 U 2 U	0.32 U	,	1 U 2 U	0.46		1 U 2 U	0.16 U		1700 U 3300 U	80 U		62 U 120 U	8 U		410 U 820 U	8 U		1 U 2 U	1 U			IN Y	Y		N N	N	
4-Ethyltoluene	ug/m3		88	0.4 U		18	1		54	1.6		1600 U	100 U		59 U	10 U		390 U	10 U		1.3	1.3 U			Ŷ	Ý		N	N	
4-Methyl-2-pentanone	ug/m3		2 U	1.8		2 U	5.2		2 U	2.4		3300 U	80 U		120 U	8 U		820 U	8 U		2 U	1.6	10 10		Y	Y		N	N	
Acetone Allyl chloride	ug/m3 ug/m3		12 U 1.6 U	64		33 1.6 U	16		36 1.6 U	35		19000 U 2500 U	40 U		710 U 94 U	76		4800 U 630 U	46		12 U 1.6 U	14	10 - 46		Y N	Y	N	Y	Y N	N
Benzene	ug/m3	0.73	0.64 U	0.87	1.1	0.93	1.3	1.5	1.0 0	1.3	6400 U	1000 U	1500	210	94 0	130	320 U	260 U	6 U	1.7	2.4	1.1	1.2 - 5.7		Y	N	Ν	Y	Y	Ν
Benzyl chloride	ug/m3			0.4 U	J		0.2 U			0.2 U			100 U			10 U			10 U			1.3 U			N			N	N	
Bromodichloromethane	ug/m3	0.67 U	1.3 U	0.56 U		1.3 U	0.28 U	0.067 U	1.3 U	0.28 U	13000 U	2100 U	140 U	130 U	80 U	14 U	670 U	540 U	120	0.27 U	1.3 U	1.8 U			N			N	N	
Bromoform Bromomethane	ug/m3 ug/m3	1 U	2.1 UJ 0.78 U	0.32 U	0.34 U	2.1 UJ 0.78 U	0.16 U	0.1 U	2.1 UJ 0.78 U	0.16 U	21000 U	3300 U 1200 U	80 U	210 U	120 U 47 U	8 U	1000 U	830 U 310 U	8 U	0.41 U	2.1 U 0.78 U	1 U	<0.25		N			N	N	
Butadiene, 1,3-	ug/m3		1.1 U	0.32 U		1.1 U	0.10 U		1.1 U	0.10 U		1200 U	40 U		66 U	4 U		440 U	4 U		1.1 U	0.5 U	<0.25		N			N	N	
Carbon Disulfide	ug/m3	1.6 U	1.6 U	0.4	1.6 U	1.6 U	0.27	1.6 U	1.6 U	0.16	<mark>50000</mark>	2500 U	330	160 U	170	42	1000	620	6 U	1.6 U	1.6 U	0.75 U			Y	Y		Y	Y	Ν
Carbon Tetrachloride	ug/m3	0.69	1.3 UJ	1.2	4.3	5.2 J	4.8	0.69	1.3 UJ	0.55	13000 U	2000 U	62 U	8800	4300	230	630 U	500 U	200	0.57	1.3 U	0.78 U	<0.25 - 0.68		Y	Y	Y	Y	Y	Y
Chlorobenzene Chlorodibromomethane	ug/m3 ug/m3	6 0.85 U	1.2 1.7 U	0.4 U 0.72 U		0.92 U 1.7 U	0.53 0.36 U	0.92 U 0.085 U	0.92 U 1.7 U	0.2 U 0.36 U	9200 U 17000 U	1500 U 2700 U	270 180 U	830 170 U	1000 100 U	1000 18 U	460 U 850 U	370 U 680 U	10 U 18 U	0.92 U 0.34 U	0.92 U 1.7 U	1.3 U 2.3 U	<0.25		Y N	Ŷ	Ŷ	Y N	Y N	Ν
Chloroethane	ug/m3	0.00 0	0.53 U	0.4 U		0.53 U	0.30 U	0.000 0	0.53 U	0.2 U	17000 0	840 U	550	1700	32 U	10 U	000 0	210 U	10 U	0.54 0	0.53 U	1.3 U			N			N	N	
Chloroform	ug/m3	2.2	15	12	2.7	27	6.3	1.8	35	2.9	<mark>#####</mark>	<mark>250000</mark>	<mark>#####</mark>	<mark>18000</mark>	8800	4900	73000	<mark>42000</mark>	<mark>51000</mark>	0.2 U	0.98 U	2.1	<0.25 - 0.54		Y	Y	Y	Y	Y	Y
Chloromethane Cis-1,2-Dichloroethene	ug/m3	1.6	1 U 0.79 U	3.9 0.32 U	1.6	1.5 0.79 U	1	1.2	1.3 0.79 U	1 0.16 U	10000 U	1700 U 1300 U	78 80 U	100 U	62 U 48 U	4 U 14	520 U	410 U 320 U	4 U 8 U	1 U	1.4 0.79 U	0.5 U 1 U	<0.25 - 2.0		Y	Y	N	Y	Y	Ν
cis-1,3-Dichloropropene	ug/m3 ug/m3		0.79 U 0.91 U	0.32 U 0.4 U		0.79 U 0.91 U	0.16 U 0.2 U		0.79 U 0.91 U	0.16 U 0.2 U		1500 U	100 U		48 U 54 U	14 10 U		320 U 360 U	0 U 10 U		0.79 U 0.91 U	1.3 U	<0.25		N			r N	N N	
Cyclohexane	ug/m3		0.69 U	0.24 U		0.69 U	0.12 U		0.69 U	0.12 U		130000	#####		93	6 U		280 U	6 U		0.69 U	0.75 U			N			Y	N	
Dichlorodifluoromethane	ug/m3		2.5 UJ	2.7		4.9 J	2.2		4.9 J	2		4000 U	100 U		150 U	10 U		990 U	10 U		3.4	1.3 U			Y	Y		N	N	
Ethylbenzene Ethanol	ug/m3	30	3.1 U	0.32 U 75	J 0.91 J	1 U	2.9 61	1.2 J	2.6 U	5.7 0.16 U	8700 U	1400 U	110 1500	87 U	52 U	10 8 U	430 U	350 U	8 U 8 U	0.61	1.1 U	2.4 33	0.43 - 2.8		Y	Y	Y	Y	Ý	N
Ethyl acetate	ug/m3 ug/m3			0.56 U	J		0.28 U			0.16 U 0.28 U			140 U			0 U 14 U			0 U 14 U			33 1.8 U			Ý	ř Y		r Y	r Y	N
Heptane	ug/m3		0.82 U	0.56		0.82 U	0.38		1.3	1		2000	1400		49 U	24		330 U	14		0.86	1 U			Ý	Ň		Y	Ý	N
Hexachlorobutadiene	ug/m3		2.1 UJ	0.88 U	J	2.1 UJ	0.44 U		2.1 UJ	0.44 U		3400 U	220 U		130 U	22 U		850 U	22 U		2.1 U	2.8 U	0 00 0 -		N			N	N	
Hexane sooctane	ug/m3 ug/m3		1.8 U 0.93 U	1		1.8 U 0.93 U	1		1.8 U 0.93 U	1.4		<mark>35000</mark> 1500 U	<mark>48000</mark>		110 U 56 U	49		700 U 370 U	8 U	I	2.4 1.9	1 U	0.63 - 6.5		Y N	N	N	Y N	Y N	N
Methyl Tertbutyl Ether	ug/m3		1.8 U	0.32 U	J	1.8 U	0.16 U		1.8 U	0.16 U		2900 U	80 U		110 U	8 U		720 U	8 U		1.9 1.8 U	1 U	<0.25 - 6.7		N			N	N	
Methylene Chloride	ug/m3	11 J	1.7 U	5.4	5.9 J	1.7	2.1	6.3 J	2.2	2	<mark>#####</mark>	5900	7600	520	110	92	2700	690 U	6 U	5.6 J	1.7 U	3.2	0.38 - 6.3	60	Y	Y	Ν	Y	Y	Ν
o-Xylene	ug/m3		0.87 U	0.32 U		0.87 U	3.8		1.4 U	6		1400 U	80 U		52 U	8 U		350 U	8 U	I	1.4 U	2.3	0.39 - 3.1		Y	Y	N	N	N	
Propylene Styrene	ug/m3 ug/m3		0.85 U	0.16 U 0.32 U		0.85 U	0.08 U 0.29		0.85 U	0.08 U 0.49		1400 U	40 U 80 U		51 U	4 U 8 U		340 U	4 U 8 U	I	0.85 U	0.5 U 1 U	<0.25 - 0.68		N Y	Y	Ν	N N	N N	
-Butyl alcohol	ug/m3		15 U	5.52 0		15 U	5.25		15 U	0.40		24000 U			910 U			6100 U		I	15 U		-0.20 0.00		N			N	N	
Tetrachloroethene	ug/m3	2.3	2.3		J 0.95	1.5	1.1	0.53	1.4 U	0.79	<mark>88000</mark>	21000	9000	6300	5600	3200	1600	540 U	140	0.36	1.4 U	0.85 U	<0.25 - 1.2	100	Y	Y	Ν	Y	Y	Ν
Fetrahydrofuran	ug/m3	4.1 J	15 U	28	J 4.9 J	15 U	12 13	3.3 J	15 U	100	57000	24000 U	120 U	410	880 U	12 U	700	5900 U	12 U	451	15 U	1.5 U	4.2 25		Y	Y	 N	N	N	N
Γoluene rans-1,2-Dichloroethene	ug/m3 ug/m3	4.IJ	1.5 U 0.79 U	0.32 U 0.32 U		2.5 U 0.79 U	13 0.16 U	3.3 J	3.3 U 0.79 U	21 0.16 U	37000	9400 U 1300 U	8100 80 U	410	240 U 48 U	220 8 U	720	1100 U 320 U	8 U 8 U	4.5 J	6.4 U 0.79 U	17 1 U	4.2 - 25		Y N	N	IN	Y N	Y N	Ν
rans-1,3-Dichloropropene	ug/m3		0.91 U	0.4 U		0.91 U	0.2 U		0.91 U	0.2 U		1500 U	100 U		54 U	10 U		360 U	10 U	I	0.91 U	1.3 U			N			N	N	
Trichloroethene		0.54 U	1.1 U	0.22 U	J 0.7	1.1 U	0.11 U	0.32	1.1 U	0.3	11000 U	3400	4000	160	170	<mark>98</mark>	540 U	430 U	180	0.21 U		0.68 U	<0.25	5	Y	Y	Ν	Y	Y	N
Trichlorofluoromethane Vinyl acetate	ug/m3 ug/m3		1.1 U	1.8 0.32 U		2	1.6 0.16 U		2.1	1.6 1.8		1900	120 U 80 U		67 U	12 U 13		450 U	12 U 8 U		1.7	1.5 1 U			Y Y	Y		Y Y	Y	N
/inyl acetate	ug/m3		0.87 U	0.32 0	, 	0.87 U	0.10 0		0.87 U	1.0		1400 U	30 0		52 U	13		350 U	00		0.87 U	10			r N	T		r N	N	IN I
/inyl Chloride	ug/m3	0.26 U	0.51 U		U 80.0	0.51 U		0.026 U	0.51 U	0.12 U	5100 U	1400	2200	89	38	<mark>56</mark>	260 U	200 U	6 U	0.1 U	0.51 U	0.75 U	<0.25		N			Y	N	
Xylene, m/p	ug/m3		2.5 U	0.32 U	J	2.2 U	12		4.8 U	19		3500 U	190		130 U	26		870 U	14		3.7 U	7.7			Y	Y		Y	Y	Ν
Kylenes, Total	ug/m3		2.6 U	1		0.87 U			6.5 U			1400 U			52 U			350 U		I	5.2 U	1			Ν			N R Lifetime C	N ancor Pisk [a]	
Notes: Shaded values in Indoor Air, Soil Gas, o	or Outdoor		ate that the	detector	d concentra	tion excess	had the cor	mercial/ind	dustrial rick	hased vel		d in Table	1														Exces		ancer Risk [a] zard Index [a]	4E-04 [b] 19 [b]
Published Background is the NYSDOH									addinat HSK	suscu val	ao proserile		••															1104	Eard much [d]	10 [U]

Published Background is the NYSDOH background data base for homes in NYS (1997 - 2003) (NYSDOH, 2005)

The NYSDOH Guideline value is the Air Guideline Value (NYSDOH, 2005)

NYSDOH, 2005: Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Public Comment Draft. February, 2005

Pathway is potentially complete if a constituent was detected in both soil gas and indoor air during the most recent sampling round.

[a] Risks are calculated in Attachment A and are based on full-time commercial/industrial worker exposures.

[b] Risks for constituents detected in indoor air are calculated for each constituent denoted with a "Y" and summed to yield total cancer risk and hazard index values.

[c] - Risks for constituents detected in indoor air that are not associated with facility operations (i.e., risks are calculated for each constituent denoted with a "N").

Y - Yes; values that are bolded represent new findings as of the most recent sampling round; values that are italicized represent findings based on previous sampling rounds

N - No; values that are bolded represent new findings as of the most recent sampling round; values that are italicized represent findings based on previous sampling rounds

-- Not applicable

APPENDIX A

METEROLOGICAL DATA

www.crh.noaa.gov



Weather observations for the past three days



	404			Enter Your "(City, ST"		<>	Go						
D						Te	empera	ature (^a	°F)	Pres	sure	Pre	ecipitat	tion
a t	Time (edt)	Wind (mph)	Vis. (mi.)	Weather	Sky Cond.	A :=	Durat	6 h	our	altimeter	sea	4 hr	0 h r	C ha
e	(out)	()	()			Air	Dwpt	Max.	Min.	(in)	level (mb)	1 hr	3 hr	6 hr
15	06:54	NW 12	7.00	Light Snow	BKN026 BKN038 OVC050	35	29			30.05	1017.7			
15	05:54	W 8	10.00	Overcast	OVC047	36	29			29.98	1015.6			
15	04:54	Vrbl 3	9.00	Light Snow	FEW025 SCT035 OVC045	35	32			29.96	1014.9	0.04	0.06	
15	03:54	NW 14 G 20	8.00	Overcast	BKN039 OVC046	38	30			29.95	1014.5	0.02		
15	02:54	NW 17 G 22	10.00	Light Rain	FEW035 OVC046	42	32			29.92	1013.4			
15	01:54	W 5	10.00	Overcast	OVC040	45	40	56	45	29.87	1011.6	0.01		0.08
15	00:54	W 5	10.00	Light Rain	FEW030 OVC038	47	41			29.87	1011.7	0.02		
14	23:54	NW 8	10.00	Light Rain	OVC036	48	42			29.88	1011.9			
14	22:54	NW 8	4.00	Light Rain	FEW008 SCT025 OVC031	50	45			29.86	1011.1	0.03	0.05	
14	21:54	NW 9	2.00	Light Rain Fog/Mist	BKN008 OVC023	54	51			29.83	1010.3	0.01		
14	20:54	NW 9	5.00	Light Rain Fog/Mist	BKN006 OVC017	56	53			29.81	1009.3	0.01		
14	19:54	SW 8	8.00	Light Rain	BKN015 OVC024	56	53	59	56	29.78	1008.5			
14	18:54	SW 10	10.00	Light Rain	OVC013	58	54			29.77	1008.0			
14	17:54	SW 12	10.00	Overcast	OVC013	59	54			29.76	1007.8			
14	16:54	SW 12	10.00	Overcast	OVC015	58	53			29.76	1007.8			
14	15:54	S 9	9.00	Overcast	OVC015	57	53			29.75	1007.6			
14	14:54	SW 12 G 18	8.00	Overcast	OVC019	56	52			29.75	1007.5			
14	13:54	SW 16	3.00	Light Rain Fog/Mist	OVC021	56	52	62	55	29.77	1008.3	0.02		0.02
14	12:54	S 15	6.00	Light Rain	BKN026 OVC032	57	52			29.79	1008.7			
14	11:54	S 15	7.00	Light Rain	OVC023	57	51			29.79	1008.9			
14	10:54	S 12	7.00	Light Rain	BKN028 OVC060	60	49			29.80	1009.3			
14	09:54	S 12	10.00	Overcast	BKN028 OVC250	60	47			29.80	1009.2			
14	08:54	SW 12	10.00	Overcast	FEW035 SCT075 OVC250	58	46			29.81	1009.4			
14	07:54	S 10	10.00	Mostly Cloudy	FEW035 BKN075	56	45	59	55	29.81	1009.6			

					BKN250							
14	06:54	SW 12	10.00	Mostly Cloudy	FEW030 SCT080 BKN250	57	45			29.82	1009.6	
14	05:54	S 13	10.00	Overcast	BKN090 BKN110 OVC250	57	45			29.82	1009.7	
14	04:54	S 10	10.00	Overcast	BKN060 OVC200	58	45			29.82	1009.6	
14	03:54	S 13	10.00	Overcast	BKN050 OVC200	58	45			29.83	1010.1	
14	02:54	S 13	10.00	Overcast	OVC150	58	45			29.85	1010.7	
14	00:54	SW 14	10.00	Mostly Cloudy	FEW100 BKN200	57	42			29.85	1010.7	
13	23:54	S 16	10.00	Partly Cloudy	SCT200	57	41			29.85	1010.8	
13	22:54	S 16	10.00	Fair	CLR	57	40			29.87	1011.5	
13	21:54	S 13	10.00	Fair	CLR	58	41			29.88	1011.9	
13	20:54	SW 12	10.00	Partly Cloudy	FEW150 SCT200	57	42			29.88	1012.1	
13	19:54	SW 13	10.00	Mostly Cloudy	FEW100 SCT150 BKN200	60	42	66	60	29.88	1012.0	
13	18:54	SW 13	10.00	Mostly Cloudy	FEW100 SCT150 BKN200	62	43			29.87	1011.5	
13	17:54	SW 15	10.00	Mostly Cloudy	FEW100 SCT150 BKN200	64	44			29.85	1010.9	
13	16:54	SW 20	10.00	Partly Cloudy	FEW150 SCT200	66	43			29.86	1011.1	
13	15:54	SW 17	10.00	Mostly Cloudy	BKN160 BKN250	65	42			29.87	1011.5	
13	14:54	SW 16	10.00	Mostly Cloudy	BKN160 BKN250	63	40			29.88	1012.1	
13	13:54	SW 12	10.00	Mostly Cloudy	SCT180 BKN250	60	35	60	46	29.91	1012.9	
13	12:54	S 9	10.00	Mostly Cloudy	FEW045 BKN140 BKN160	56	32			29.94	1014.0	
13	11:54	S 13	10.00	Mostly Cloudy	SCT045 BKN200	53	31			29.95	1014.5	
13	10:54	S 14	10.00	Overcast	FEW045 SCT120 OVC140	50	29			29.96	1014.8	
13	09:54	SW 10	10.00	Overcast	SCT120 OVC140	48	29			29.98	1015.5	
13	08:54	S 10	10.00	Overcast	SCT100 BKN120 OVC140	47	28			29.99	1015.8	
13	07:54	SW 9	10.00	Mostly Cloudy	FEW050 SCT075 BKN250	46	27	47	44	29.99	1015.9	
13	06:54	SW 8	10.00	Overcast	BKN045 OVC055	46	28			30.00	1016.2	
13	05:54	SW 7	10.00	Overcast	BKN049 OVC060	46	28			30.00	1016.2	
13	02:54	S 6	10.00	Overcast	FEW050 OVC055	45	26			30.06	1018.0	
13	01:54	S 6	10.00	Overcast	BKN060 OVC075	44	25	45	42	30.07	1018.4	
13	00:54	S 7	10.00	Overcast	FEW060 OVC070	44	24			30.08	1019.0	
12	23:54	S 8	10.00	Overcast	BKN048 BKN060 OVC080	44	22			30.10	1019.5	
12	22:54	S 6	10.00	Overcast	BKN050 OVC060	42	23			30.12	1020.5	
12	21:54	S 5	10.00	Overcast	BKN050 OVC080	43	20			30.12	1020.6	
12	20:54	Calm	10.00	Overcast	BKN055 OVC080	43	19			30.12	1020.5	
12	19:54	SE 6	10.00	Overcast	BKN055 OVC075	43	19	51	43	30.13	1020.7	
12	18:54	S 6	10.00	Overcast	BKN060 OVC085	43	20			30.14	1021.2	

12	17:54	W 10	10.00	Overcast	BKN075 OVC140	45	19			30.15	1021.3			
12	16:54	W 14	10.00	Overcast	BKN085 OVC140	46	16			30.15	1021.6			
12	15:54	W 13	10.00	Overcast	SCT110 OVC140	50	16			30.16	1021.6			
12	14:54	W 12	10.00	Overcast	FEW110 BKN160 OVC200	50	12			30.16	1021.8			
12	13:54	SW 9	10.00	Overcast	SCT180 OVC250	50	21	50	31	30.18	1022.4			
12	12:54	SW 9	10.00	Mostly Cloudy	BKN250	46	22			30.21	1023.3			
12	11:54	S 10	10.00	Overcast	FEW180 OVC250	44	20			30.22	1023.8			
12	10:54	S 9	10.00	Overcast	FEW180 OVC250	42	19			30.24	1024.5			
12	09:54	SW 9	10.00	Overcast	FEW180 OVC250	37	20			30.25	1024.9			
12	08:54	SW 9	10.00	Overcast	SCT180 OVC250	34	19			30.26	1025.3			
12	07:54	SW 12	10.00	Mostly Cloudy	BKN180 BKN250	31	20	31	28	30.27	1025.6			
12	06:54	SW 9	10.00	Mostly Cloudy	FEW200 BKN250	30	20			30.27	1025.7			
D a t	Time (edt)	Wind (mph)	Vis. (mi.)	Weather	Sky Cond.	Air	Dwpt		Min. our	altimeter (in)	sea level (mb)	1 hr	3 hr	6 hr
е						T	empera	ature (°F)	Pres	sure	Pre	ecipitat	ion

National Weather Service Central Region Headquarters Kansas City, Missouri Disclaimer Last Modified: March 29, 2004 Privacy Policy Credits

APPENDIX B

FIELD DATA RECORDS

Site Location: AR	CH Chen	nical, Rochester,	N.Y.					Sampled By: Wolfg	ang Calicchio
Project Number:	36160360	09.01						Sampling Date:	3/14/07
Sample II	Dianister	Sampling Lo	flow ocation at 1	Start Time	End Time	То	tal Sample Time	Canister Start Pressure (in. Hg)	Canister End Pressure (in. Hg)
IA-07-001	CT 1814	Location 1	CT 47	0750	1310	Hrs.	Min.	-29.2	0
SG-07-188	1658	Location 1	112	0750	1050	Hrs.	Min.	-28,5	0.00
IA-07-002	860	Location 2	1 33	0\$35	1634.	Hrs.	Min.	-29.0	- 3.4
SG-07-189	1706	Location 2	ET 3PO	0835	16571	Hrs.	Min.	-29.4	-7.0
IA-07-003	3492	Location 3	CTIG	0818	1055	Hrs.	Min.	-29.0	-0.1
SG-07-190	3522	Location 3	RT099	0818	1550	Hrs.	Min.	-29.3	-4,3
IA-07-004	1317	Location 4	1 384	0738	1545	Hrs.	Min.	-29.1	-5.4
SG-07-191	3343	Location 4	CT ZO	0738	0830	Hrs.	Min.	-29.3	0.00
IA-07-005	3530	Location 5	34	0807	1706 "	Hrs.	Min.	-29.3	-1.0
SG-07-192	3534	Location 5	48	0807	1708.	Hrs.	Min.	-27.8	-1.0
IA-07-006	1311	Location 6	74 2/14/	7 0731	1441	Hrs.	Min.	-25.8	- 41
SG-07-193	3512	Location 6	OH 10	0731	1322	Hrs.	Min.	-29,2	- 0,2
OA-07-001	3501	Background Can		S 809	1614	Hrs.	Min.	-2.P.6	~ 3.(
IA-07-002DUP	1 1719	Dup Location 2	770	0235	1636.	Hrs.	Min.	-27.9	VIMICE -3.7
56-07-1911	le 1711	Loca tion 4	CT36	0901	1330	Hrs.	Min.	-29,0	-0.2
						Hrs.	Min.		
						Hrs.	Min.		
						Hrs.	Min.		
						Hrs.	Min.		

A. .

Comments:

		Phone: 413-525-2332 Fax: 413-525-6405 Email: info@contestla											PRUC T LON		Page of					
.4[[]]	Anaci noac cabonatom	www.contestlabs.com							1	[<u> </u>	1	1		T		# of containers
Company	Name: MACTEC		Telephon	∋:(207)	225	<u>- 5 57</u>	<u></u>		n/c_1											**Preservation
Address:			Project #	36160	360	09.	<u>o, </u>		5											~Cont.Code
	SH Congress St PORTHAN MAG	<u>C4101</u>	Client PO	1161			AN/		IS R	EQU	IEST	ED			<u>-Cont. Code:</u> A=amber glass					
Attention:	JEEE BRANDO		DATA DE	LIVERY (c	heck o	ne):			12.										1 1	G≕glass
			1	DEMAIL				-	h loverly											P=plastic
Project Lo	ocation: <u>Rochester</u>	UP							(to]							ST=sterile
Sampled	By: <u>Wolfgung Calice</u>	6123																	1 1	V= vial
						F	🗖 GIS	KEY	A CAR										1 1	S=summa can
	Provided? (For Billing purposes)	State Form Required?	F	O OTHER	1				$\left \right\rangle$											T=tedlar bag
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			0750							ana an An Tao an An	:							 	 	Comments:
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			2/14/02	319-07																
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	SG-07-191		0138	[033]			0		$\mathbb{D}_{\mathbb{C}}$				ia (analyze
Laboratory	Comments:							use the i in cond								l spec	ific sa	mple r	mav	SCA-07-RI
							H - Hig	h; M - N	fedium	ו; ב - ָּ	ow; (C - Cle	ean; L	I - Un	knowr					
Relinquishe	d by: (signature)	Date/Time:	Turnar	<u>ound **</u>	Dete	ction	Limit	Requi	reme	nts		*Matr	ix Co	le:		**Pre	eserva	ition (Code	s:
	<u> All All Annon anno 19</u>	3/11/27 17-26		7-Day	Regula	tions?	<u> </u>				_	G₩=	groun	dwate	r	l = lo	ced		X = N	la hydroxide
Received b	y: (signature)	Date/Time:		10-Day									waste			H = F			T = N	la thiosulfate
Rolinguisha	d by: (signature)	4 8		Data Er	nhance	ment Pr	-	СР? 🗆	JY 🗆	1	DW= A = a	drinkir	ig wal			Metha				
neimquishe	u vy. (signature)	RUSH *					e e e Di le c						4		E Contraction of the second se	Nitric A				
Received h	/: (signature)	□ *24-Hr □ *48-Hr Special Requirements or DL's: □ *72-Hr □ *4-Day												S = Sulfuric Acid B = Sodium bisulfate						
		* Require lab approval								!	O = other <u>solution</u> O = Other									
** TURNAR	OUND TIME STARTS AT 9:00 A.M. TH		PT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT									IT CO	T COMPLETELY OR IS							

INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

	abs.com	D 39 SPRUCE ST, 21 EAST LONGMEAD									Page of								
Company Name: MACTEC	www.contestlabs.co		e:(²⁰⁷⁻)	775	. 51	101		$\frac{1}{n/q}$					ļ						# of containe
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eceived by: (signature)	□ *24-Hr □ *48-Hr Special Requirements or DL's: □ *72-Hr □ *4-Day								S = soil/solid S = Sulfuric Acid SL = sludge B = Sodium bisulfate										
	* Require lab approval RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR C								$\mathbf{O} = \text{other } \sqrt{2} \sqrt{2} \sqrt{2} = \text{Other}$										

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APPENDIX C

LABORATORY ANALYTICAL REPORTS



REPORT DATE 4/2/2007

MACTEC, INC. - ME 511 CONGRESS STREET PORTLAND, ME 04101 ATTN: JEFF BRANDOW

CONTRACT NUMBER: PURCHASE ORDER NUMBER: MEC75070091/APO78

PROJECT NUMBER: 3616036009.01

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-04559 JOB NUMBER: 3616036009.01

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: ROCHESTER, NY

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
IA-07-001	07B08238	AIR	NOT SPECIFIED	air special test
IA-07-001	07B08238	AIR	NOT SPECIFIED	to-15 ug/m3
IA-07-002	07808240	AIR	NOT SPECIFIED	air special test
1A-07-002	07808240	AIR	NOT SPECIFIED	to-15 ug/m3
IA-07-002DUP	07B08250	AIR	NOT SPECIFIED	air special test
IA-07-002DUP	07B08250	AIR	NOT SPECIFIED	to-15 ug/m3
IA-07-003	07B08242	AIR	NOT SPECIFIED	air special test
IA-07-003	07B08242	AIR	NOT SPECIFIED	to-15 ug/m3
IA-07-004	07B08244	AIR	NOT SPECIFIED	air special test
IA-07-004	07B08244	AIR	NOT SPECIFIED	to-15 ug/m3
IA-07-005	07B08245	AIR	NOT SPECIFIED	air special test
(A-07-005	07B08245	AIR	NOT SPECIFIED	to-15 ug/m3
IA-07-006	07808247	AIR	NOT SPECIFIED	air special test
IA-07-006	07B08247	AIR	NOT SPECIFIED	to-15 ug/m3
OA-07-001	07B08249	AIR	NOT SPECIFIED	air special test
OA-07-001	07B08249	AIR	NOT SPECIFIED	to-15 ug/m3
SG-07-188	07808239	AIR	NOT SPECIFIED	air special test
SG-07-188	07B08239	AIR	NOT SPECIFIED	to-15 ug/m3
SG-07-189	07B08241	AIR	NOT SPECIFIED	air special test
SG-07-189	07B08241	AIR	NOT SPECIFIED	to-15 ug/m3
SG-07-190	07B08243	AIR	NOT SPECIFIED	air special test
SG-07-190	07B08243	AIR	NOT SPECIFIED	to-15 ug/m3
SG-07-191RE	07B08251	AIR	NOT SPECIFIED	air special test
SG-07-191RE	07B08251	AIR	NOT SPECIFIED	to-15 ug/m3
SG-07-192	07B08246	AIR	NOT SPECIFIED	air special test
SG-07-192	07B08246	AIR	NOT SPECIFIED	to-15 ug/m3
SG-07-193	07808248	AIR	NOT SPECIFIED	air special test
SG-07-193	07B08248	AIR	NOT SPECIFIED	to-15 ug/m3



REPORT DATE 4/2/2007

MACTEC, INC. - ME 511 CONGRESS STREET PORTLAND, ME 04101 ATTN: JEFF BRANDOW

CONTRACT NUMBER:

PURCHASE ORDER NUMBER: MEC75070091/APO78

PROJECT NUMBER: 3616036009.01

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-04559

JOB NUMBER: 3616036009.01

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

Comments :

LIMS BATCH NO. : LIMT-04559

NARRATIVE SUMMARY

IN METHOD TO-15, FOR SAMPLES 07B08238, 07B08240-41, AND 07B08244 METHOD BLANK CONTAINED ACETONE AT 0.43 UG/M3. FOR SAMPLE 07B08243 METHOD BLANK CONTAINED METHYLENE CHLORIDE AT 1.7 UG/M3.

IN METHOD TO-15, REPORTED RESULT FOR 2,6-DICHLOROPYRIDINE IN SAMPLE 07B08240 IS ESTIMATED. CONTINUING CALIBRATION DID NOT MEET METHOD SPECIFIED CRTIERIA.

IN METHOD TO-15, FOR SAMPLES 07B08239, 07B08243, AND 07B08245-51 ANY REPORTED VALUE FOR VINYL ACETATE IS LIKELY TO BE BIASED ON THE LOW SIDE BASED ON LABORATORY FORTIFIED BLANK RECOVERY BIAS. FOR SAMPLES 07B08238, 07B08241, AND 07B08242 REPORTED RESULTS FOR ETHANOL ARE LIKELY TO BE BIASED ON THE HIGH SIDE BASED ON LABORATORY FORTIFIED BLANK RECOVERY BIAS. FOR SAMPLES 07B08238, 07B08241, 07B08243, AND 07B08250, REPORTED RESULTS FOR 2,6-DICHLOROPYRIDINE ARE LIKELY TO BE BIASED ON THE HIGH SIDE BASED ON LABORATORY FORTIFIED BLANK RECOVERY BIAS.

IN METHOD TO-15, REPORTED RESULTS FOR ISOPROPANOL IN SAMPLES 07B08241, 07B08246, 07B08246, AND 07B08251 ARE ESTIMATED. VALUES ARE REPORTED OVER THE VERIFIED LINEAR CALIBRATION RANGE.

IN SAMPLE 07B08243, REDUCED PRECISION IS ANTICAPTED FOR REPORTED RESULT FOR CYCLOHEXANE BASED ON SAMPLE DUPLICATE RPD OUTSIDE OF CONTROL LIMITS.

THERE ARE NO OTHER ANALYTICAL ISSUES THAT AFFECT THE USABILITY OF THE DATA.

DETAILED CASE NARRATIVE

DILUTION

METHOD TO-15

SAMPLE

THE TO-15 METHOD BLANK WAS FOUND NOT TO BE CONTAMINATED WITH TARGET ANALYTES AT LEVELS ABOVE THE REPORTING LIMIT EXCEPT WHERE LISTED BELOW:

BLANK-99570 IS ASSOCIATED WITH SAMPLES 07B08238, 07B08240-41, AND 07B08244. BLANK-99571 IS ASSOCIATED WITH SAMPLES 07B08245-47 AND 07B08249-50. BLANK-99904 IS ASSOCIATED WITH SAMPLES 07B08239, 07B08248, AND 07B08251. BLANK-99905 IS ASSOCIATED WITH SAMPLES 07B08243.

FOR SAMPLES 07B08238, 07B08240-41, AND 07B08244 METHOD BLANK CONTAINED ACETONE AT 0.43 UG/M3. FOR SAMPLE 07B08243 METHOD BLANK CONTAINED METHYLENE CHLORIDE AT 1.7 UG/M3.

ALL TO-15 SAMPLES WERE ANALYZED UNDILUTED UNLESS SPECIFIED BELOW:

COMPOUND(S)

07B08238	0.8X = 500 ML	MOST
07B08238	200X	2-CHLOROPYRIDINE AND 2,6-DICHLOROPYRIDINE
07B08239	200X	MOST
07B08239	4000X	HEXANE, CHLOROFORM, AND CYCLOHEXANE
07B08240	0.4X = 1000 ML	MOST
07B08240	20X	ETHANOL



REPORT DATE 4/2/2007

MACTEC, INC. - ME 511 CONGRESS STREET PORTLAND, ME 04101 ATTN: JEFF BRANDOW

CONTRACT NUMBER: PURCHASE ORDER NUMBER: MEC75070091/APO78

PROJECT NUMBER: 3616036009.01

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-04559 JOB NUMBER: 3616036009.01

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

07B08240 07B08241	200X 20X	2-CHLOROPYRIDINE AND 2,6-DICHLOROPYRIDINE
07B08241	200X	CHLOROFORM, ISOPROPANOL, AND 2-CHLOROPYRIDINE
07B08242	0.4X = 1000 ML	MOST
07B08242	20X	
07B08242	500X	MEK, TETRAHYDROFURAN, 2-CHLOROPYRIDINE AND 2,6-DICHLOROPYRIDINE
07B08243	20X	MOST
07B08243	400X	CHLOROFORM AND ISOPROPANOL
07B08244	0.4X = 1000 ML	MOST
07B08244	20X	ACETONE, ETHANOL, ISOPROPANOL, 2-CHLOROPYRIDINE
$(A_{i}) = (A_{i})^{-1} (A_{i}$		AND 2,6-DICHLOROPYRIDINE
07B08245	2.5X	MOST
07B08245	20X	ETHANOL AND ISOPROPANOL
07B08246	20X	MOST
07B08246	4000X	ISOPROPANOL
07B08247	2.5X	MOST
07B08247	20X	ACETONE, ETHANOL, ISOPROPANOL, 1,2,4-TRICHLOROBENZENE
		AND 2,6-DICHLOROPYRIDINE
07B08247	100X	2-CHLOROPYRIDINE
07B08248	2.5X	MOST
07B08248	20X	ISOPROPANOL AND 2-CHLOROPYRIDINE
07B08249	2.5X	ALL
07B08250	2.5X	MOST
07B08250	50X	2-CHLOROPYRIDINE AND 2,6-DICHLOROPYRIDINE
07B08251	2X	MOST
07B08251	20X	2-CHLOROPYRIDINE
07B08251	200X	ISOPROPANOL

INITIAL AND CONTINUING CALIBRATIONS MET ALL REQUIRED PERFORMANCE STANDARDS FOR METHOD TO-15 EXCEPT AS LISTED BELOW;

REPORTED RESULT FOR 2,6-DICHLOROPYRIDINE IN SAMPLE 07B08240 IS ESTIMATED. CONTINUING CALIBRATION DID NOT MEET METHOD SPECIFIED CRTIERIA.

LABORATORY CONTROL SAMPLE RECOVERIES WERE ALL WITHIN CONTROL LIMITS SPECIFIED BY THE METHOD UNLESS LISTED BELOW:

LFBLANK-60747 IS ASSOCIATED WITH SAMPLES 07B08238, 07B08240-41, AND 07B08244. LFBLANK-60748 IS ASSOCIATED WITH SAMPLES 07B08245-47 AND 07B08249-50. LFBLANK-61071 IS ASSOCIATED WITH SAMPLES 07B08239, 07B08248, AND 07B08251. LFBLANK-61094 IS ASSOCIATED WITH SAMPLES 07B08243.

ETHANOL IN SAMPLES 07B08240 AND 07B08244 WAS ANALYZED FROM A DILUTION AND IS NOT ASSOCIATED WITH LFBLANK-60747.

DATA IS NOT AFFECTED BY OUTLIERS FOR HEXACHLOROBUTADIENE AND 1,2,4-TRICHLOROBENZENE SINCE ALL RESULTS ARE "NOT DETECTED" AND RECOVERY BIAS IS ON THE HIGH SIDE.

FOR SAMPLES 07B08239, 07B08243, AND 07B08245-51 ANY REPORTED VALUE FOR VINYL ACETATE IS LIKELY TO BE BIASED ON THE LOW SIDE BASED ON LABORATORY FORTIFIED BLANK RECOVERY BIAS.

FOR SAMPLES 07B08238, 07B08241, AND 07B08242 REPORTED RESULTS FOR ETHANOL ARE LIKELY TO BE BIASED ON THE HIGH SIDE BASED ON LABORATORY FORTIFIED BLANK RECOVERY BIAS.

FOR SAMPLES 07B08238, 07B08241, 07B08243, AND 07B08250, REPORTED RESULTS FOR



REPORT DATE 4/2/2007

MACTEC, INC. - ME 511 CONGRESS STREET PORTLAND, ME 04101 ATTN: JEFF BRANDOW

CONTRACT NUMBER: PURCHASE ORDER NUMBER: MEC75070091/APO78

PROJECT NUMBER: 3616036009.01

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-04559 JOB NUMBER: 3616036009.01

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

2,6-DICHLOROPYRIDINE ARE LIKELY TO BE BIASED ON THE HIGH SIDE BASED ON LABORATORY FORTIFIED BLANK RECOVERY BIAS.

ALL TO-15 SURROGATE STANDARD RECOVERIES WERE WITHIN CONTROL LIMITS SPECIFIED BY THE METHOD UNLESS LISTED BELOW: NONE OUTSIDE OF CONTROL LIMITS

TENTATIVELY IDENTIFIED COMPOUNDS (TICs) IF REQUESTED ARE LISTED BELOW: NOT REQUESTED

REPORTED RESULTS FOR ISOPROPANOL IN SAMPLES 07B08241, 07B08246, 07B08246, AND 07B08251 ARE ESTIMATED. VALUES ARE REPORTED OVER THE VERIFIED LINEAR CALIBRATION RANGE.

IN SAMPLE 07B08243, REDUCED PRECISION IS ANTICAAPTED FOR REPORTED RESULT FOR CYCLOHEXANE BASED ON SAMPLE DUPLICATE RPD OUTSIDE OF CONTROL LIMITS.

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations :

AIHA 100033 MASSACHUSETTS MA0100 CONNECTICUT PH-0567 NEW YORK ELAP/NELAP 10899 AIHA ELLAP (LEAD) 100033 NEW HAMPSHIRE NELAP 2516 VERMONT DOH (LEAD) No. LL015036 RHODE ISLAND (LIC. No. 112)

NEW JERSEY NELAP NJ MA007 (AIR)

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

 \mathcal{O}

SIGNATURE

DATE Director of

Tod Kopyscinski Director of Operations Sondra L. Slesinski Quality Assurance Officer

Edward Denson Technical Director

* See end of data tabulation for notes and comments pertaining to this sample



JEFF BRANDOW										
MACTEC, INC M	ЛE	н М.						4/2	/2007	
511 CONGRESS								Ра	ge 1 of	57
PORTLAND, ME 04101			Purcha	se Order No.:	MEC75	6070091/AP	078616	Project Number: 3616036009.01		
Project Location:	ROCHES	TER, NY						LIMS-BAT #:	LIMT-	04559
Date Received:	3/15/2007							Job Number:	36160	36009.01
Field Sample # :	IA-07-001	(LOCATION	12-002)							
Sample ID :	07B08238		Sampled : 3/1 NOT SPECIFI							
Sample Matrix:	AIR		Sample Mediu	im : SUMM	д					
н		Units	Re		ate nalyzed	Analyst	RL	SPEC Limi Lo H		P/F
SPECIAL TEST				0:	3/27/07	WSD				
			RESULTS FO	R PYRIDINES	6					
		SAMPLE RESUL	TS	R	EPORT	NG LIMIT				
ANALYTE:		(ug/m^3)			(ug/m	^3)				
2-CHLOROPYRII	DINE	590			100)				
2,6-DICHLOROP	YRIDINE	ND			100)			•	
ND= NOT DETEC	TED									
		RE	SULTS FOR M	IETHOD BLAI	٧K					
		SAMPLE RESUL	.TS	R	EPORTI	NG LIMIT				
ANALYTE:		(ug/m^3)			(ug/n	n^3)				
2-CHLOROPYRI	DINE	ND /			0.8	5				
2,6-DICHLOROF	YRIDINE	ND 🖊			0.8	5				
			RESULTS	FOR LFB						
			PERCENT	RECOVERY						
		TRUE V	ALUE RE	SULT	%REC					
ANALYTE:						and the second				
2-CHLOROPYRI	IDINE	6.0	7.	2	120 🕊					
2,6-DICHLOROF	PYRIDINE	5.0	7.	.2	144	differ.				

RL = Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

39	Spruce S	treet ° East Longmead	low, MA 01028 °	FAX 413/525-	6405 ° TEL	. 413/525	-2332	
JEFF BRANDOW MACTEC, INC ME 511 CONGRESS ST	REET		Durahasa Orda	- 14 14-0-74	*0 70004 (Af	070646	P	2/2007 age 2 of 57
PORTLAND, ME 041 Project Location: R Date Received: 3		FER, NY	Purchase Orde	rNO.: MEC7	5070091/AF	078616	Project Numbe LIMS-BAT #: Job Number:	er: 3616036009.0 LIMT-04559 3616036009.01
Field Sample # : 1/		(LOCATION IA-	003)				oop ramber.	0010000000.01
-	7B08240	Sam	pied : 3/14/2007 SPECIFIED					
Sample Matrix: A	٨R	Sam	ple Medium :S	SUMMA				
		Units	Results	Date Analyzed	Analyst	RL	SPEC Lim Lo H	lit P/F Hi
SPECIAL TEST				03/28/07	WSD			
		RESU	JLTS FOR PYRI	DINES				
ANALYTE:	S	SAMPLE RESULTS (ug/m^3)			ING LIMIT m^3)			
2-CHLOROPYRIDI	NE	950		10	00			
2,6-DICHLOROPYF	RIDINE	ND 5		10	0			
ND= NOT DETECT	ED							
		RESULT	S FOR METHOD	BLANK				
ANALYTE:	S	SAMPLE RESULTS (ug/m^3)		REPORTI (ug/n				
2-CHLOROPYRIDI	NE	ND ****		0.5				
2,6-DICHLOROPYF	RIDINE	ND 3	Ð	0.5	i			
			SULTS FOR LFE RCENT RECOVE					
ANALYTE:		TRUE VALUE	RESULT	%REC				
2-CHLOROPYRIDI	NE	6.0	5.2	87 correction				
2,6-DICHLOROPYF		5.0	4.4	88	<i>,</i>			

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ND = Not Detected at or above the Reporting Limit

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* = See end of report for comments and notes applying to this sample



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET PORTLAND, ME 04101 Project Location: ROCHES Date Received: 3/15/200 Field Sample #: IA-07-00	Ster, NY 7 2 DUP (Location 1		No.: MEC75	070091/AP	078616	Pa	/2007 ge 3 of 57 ; 3616036009.01 LIMT-04559 3616036009.01
Sample ID : 07B0825		ed : 3/14/2007 PECIFIED					
Sample Matrix: AIR			UMMA				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Limi Lo H	
SPECIAL TEST			03/27/07	WSD			
	RES	ULTS FOR PYF	RIDINES				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTIN((ug/m^3				
2-CHLOROPYRIDINE	1400 5		25				
2,6-DICHLOROPYRIDINE	45		25				
ND= NOT DETECTED							
	RESULT	IS FOR METHO	DD BLANK				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3				
2-CHLOROPYRIDINE	ND		0.5				
2,6-DICHLOROPYRIDINE	ND /		0.5				
		SULTS FOR LF CENT RECOVE				,	
	TRUE VALUE	RESULT	%REC				
ANALYTE: 2-CHLOROPYRIDINE	6.0	7.2	120	State of the second sec			·
2,6-DICHLOROPYRIDINE		7.2	144	/			

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JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET PORTLAND, ME 04101 Project Location: ROCHE Date Received: 3/15/200 Field Sample #: IA-07-00	07 03 (LOCATION	1A-004)	No.: MEC75070091/A	PO78616	Р	2/2007 age 4 of 57 er: 3616036009.01 LIMT-04559 3616036009.01
Sample ID : 07B082		led : 3/14/2007 SPECIFIED				
Sample Matrix: AIR	Samp	le Medium 🛛 : SU	AMMA			
	Units	Results	Date Analyst Analyzed	RL	SPEC Lim Lo H	lit P/F ti
SPECIAL TEST			03/21/07 WSD			
	RES	ULTS FOR PYRI	DINES			
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING LIMIT (ug/m^3)			
2-CHLOROPYRIDINE	580		10			
2,6-DICHLOROPYRIDINE	22		10			
ND= NOT DETECTED						
	RESULTS	FOR METHOD	BLANK			
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING LIMIT (ug/m^3)			
2-CHLOROPYRIDINE	ND survey		0.5			
2,6-DICHLOROPYRIDINE	ND source		0.5			
		ULTS FOR LFB CENT RECOVER	ŶY			
	TRUE VALUE	RESULT	%REC			

ANALYTE:			
2-CHLOROPYRIDINE	6.0	6.3	105
2,6-DICHLOROPYRIDINE	5.0	6.1	122

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NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL, 413/525-2332 JEFF BRANDOW 4/2/2007 MACTEC, INC. - ME **511 CONGRESS STREET** Page 5 of 57 Purchase Order No.: MEC75070091/APO78616 PORTLAND, ME 04101 Project Number: 3616036009.01 LIMS-BAT #: LIMT-04559 Project Location: ROCHESTER, NY Job Number: 3616036009.01 Date Received: 3/15/2007 (LOCATION IA-005) Field Sample # : IA-07-004 Sampled : 3/14/2007 07B08244 Sample ID : NOT SPECIFIED Sample Medium : SUMMA Sample Matrix: AIR Units Results Date RL SPEC Limit P/F Analyst Analyzed Ło Hi 03/21/07 WSD SPECIAL TEST **RESULTS FOR PYRIDINES** SAMPLE RESULTS REPORTING LIMIT (ug/m^3) ANALYTE: (ug/m^3) 10 2-CHLOROPYRIDINE 380 10 2,6-DICHLOROPYRIDINE 50 **RESULTS FOR METHOD BLANK REPORTING LIMIT** SAMPLE RESULTS ANALYTE: (ug/m^3) (ug/m^3) 0.5 ND 2-CHLOROPYRIDINE 0.5 2,6-DICHLOROPYRIDINE ND **RESULTS FOR LFB** PERCENT RECOVERY TRUE VALUE RESULT %REC ANALYTE: 102 2-CHLOROPYRIDINE 6.0 6.1 5.0 114 2,6-DICHLOROPYRIDINE 5.7

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JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET PORTLAND, ME 04101 Project Location: ROCHEST Date Received: 3/15/2007 Field Sample #: IA-07-005 Sample ID: 07B08245 Sample Matrix: AIR	(LOCATION Sa NC	mpled : 3/14/2007 DT SPECIFIED	No.: MEC75	070091/AF	PO78616	Pi	2/2007 age 6 of 57 er: 3616036009.01 LIMT-04559 3616036009.01
	Units	Results	Date Analyzed	Analyst	RL	SPEC Lin Lo' I	hit P/F Hi
			03/21/07	WSD		<u></u>	
SPECIAL TEST	RE	SULTS FOR PYRID					
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3				
2-CHLOROPYRIDINE	24		1.2				·
2,6-DICHLOROPYRIDINE	4.0		1.2				
	RES	ULTS FOR METHO	D BLANK				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3				
2-CHLOROPYRIDINE	ND M		0.5				
2,6-DICHLOROPYRIDINE	ND -		0.5				
		RESULTS FOR LFE PERCENT RECOVE					
	TRUE VALU	E RESULT	%REC				
ANALYTE:				فدر			
2-CHLOROPYRIDINE	6.0	6.1	102				
2,6-DICHLOROPYRIDINE	5.0	5.7	114	and the second s			

RL = Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

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39 Spruce	Street ° East Longmeadow	w, MA 01028 °	FAX 413/525-	6405 ° TEL	413/525	-2332	
JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET PORTLAND, ME 04101 Project Location: ROCHES Date Received: 3/15/200	STER, NY	Purchase Order	No.: MEC75	5070091/AI	2078616	Pa	2/2007 ge 7 of 57 :: 3616036009.01 LIMT-04559 3616036009.01
Field Sample # : IA-07-00	*						
Sample ID : 07B0824	-	ed : 3/14/2007	·		•		
Sample Matrix: AIR			UMMA				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Limi Lo H	
SPECIAL TEST			03/22/07	WSD			
	RES	SULTS FOR PY	RIDINES			÷	
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3		·		
2-CHLOROPYRIDINE	1200 🎽		50				
2,6-DICHLOROPYRIDINE	960		10				
	RESULT	S FOR METHO	D BLANK				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3				
2-CHLOROPYRIDINE	ND M		0.5				
2,6-DICHLOROPYRIDINE	ND	·	0.5				
		ULTS FOR LFB CENT RECOVE	RY				
ANALYTE:	TRUE VALUE	RESULT	%REC				
2-CHLOROPYRIDINE	6.0	6.4	107 🛷				
2,6-DICHLOROPYRIDINE	5.0	5.7	114				

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JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET PORTLAND, ME 04101		Purchase Order	No.: MEC75070	0091/APO78616	Pa	2/2007 ge 8 of 57 r: 3616036009.01
Project Location: ROCHES Date Received: 3/15/200				、	LIMS-BAT #: Job Number:	LIMT-04559 3616036009.01
Field Sample # : OA-07-0	01 (LOCATION	02-001)				
Sample ID : 07B0824		ed : 3/14/2007				
Sample Matrix: AIR		SPECIFIED e Medium : S	UMMA			
·	Units	Results	Date An Analyzed	alyst RL	SPEC Limi Lo H	
SPECIAL TEST		· · · · · · · · · · · · · · · · · · ·	-	SD		
	RE	SULTS FOR PY	RIDINES			
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING LIM (ug/m^3)	ИIT		
2-CHLOROPYRIDINE	2.5 🕤		1.2			
2,6-DICHLOROPYRIDINE	ND		1.2			
ND= NOT DETECTED						
	RESULT	S FOR METHO	D BLANK			
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING LIM (ug/m^3)	IT		
2-CHLOROPYRIDINE	ND me		0.5			
2,6-DICHLOROPYRIDINE	ND		0.5			
		ULTS FOR LFB CENT RECOVER	₹Y			
ANALYTE:	TRUE VALUE	RESULT	%REC			
2-CHLOROPYRIDINE	6.0	6.1	102 -	/		
2,6-DICHLOROPYRIDINE	5.0	5.7	114		,	

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SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



Date Received:	STREET	R, NY (Location Sample NOT S	Purchase Order SG - 189) ed : 3/14/2007 PECIFIED e Medium : SU		5070091/AF	°O78616	Pa Project Number	/2007 ge 9 of 57 : 3616036009.01 LIMT-04559 3616036009.01
		Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	
SPECIAL TEST				03/24/07	WSD			
		RESULT	S FOR PYRIDIN	IES				
ANALYTE:	SA	MPLE RESULTS (ug/m^3)	F	REPORTING (ug/m^3)				
2-CHLOROPYRIE	DINE	700		100				
2,6-DICHLOROPY	YRIDINE	110		100				
ND= NOT DETEC	TED		i.					
		RESULT	S FOR METHOE	BLANK				
ANALYTE:	SA	MPLE RESULTS (ug/m^3)	ł	REPORTING (ug/m^3)				
2-CHLOROPYRIC	NE	ND 4		0.5	1 A	a.		
2,6-DICHLOROPY	YRIDINE	ND .		0.5				
			JLTS FOR LFB ENT RECOVER	Y				
ANALYTE:		TRUE VALUE	RESULT	%REC				
2-CHLOROPYRIE	DINE	6.0	6.4	107 🖊				
	YRIDINE			110	/			

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ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



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JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STRI	EET				Pa	2/2007 ge 10 of 57
PORTLAND, ME 0410	1	Purchase (Order No.: MEC75	070091/APO7861		-: 3616036009.01
Project Location: RO	CHESTER, NY				LIMS-BAT #: Job Number:	LIMT-04559 3616036009.01
(Jaio) (00011000)	5/2007		in la construction de la constru		JUD NUMBER	00,00000000
Field Sample # : SG		SCATION SG-19			••	
Sample ID : 07E	308241	Sampled : 3/14/2 NOT SPECIFIED				
Sample Matrix: AIF	۲	Sample Medium	: SUMMA			
	Unit	s Result	s Date Analyzed	Analyst RL	SPEC Limi Lo H	
			03/23/07	WSD		
SPECIAL TEST		RESULTS FOR F				
ANALYTE:	SAMPLE RE (ug/m^3	SULTS	REPORTING (ug/m^3)			
2-CHLOROPYRIDINE	E 920	5	100			
2,6-DICHLOROPYRII	DINE 220		10			
ND= NOT DETECTED)					
		RESULTS FOR ME	ETHOD BLANK			
ANALYTE:	SAMPLE RE (ug/m^3		REPORTING (ug/m^:			
2-CHLOROPYRIDINI	E ND	/	0.5	·		
2,6-DICHLOROPYRI	DINE ND	and the second s	0.5			
		RESULTS FOR	סוכם			
		PERCENT REC	OVERY			
	TRU	E VALUE RESU	LT %REC			
ANALYTE:				1		
2-CHLOROPYRIDIN	E	6.0 6.4	. 107			
2,6-DICHLOROPYR	IDINE	5.0 6.9	138	det .		

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ND = Not Detected at or above the Reporting Limit

NM = Not Measured



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET PORTLAND, ME 04101 Project Location: ROCHE Date Received: 3/15/200 Field Sample #: SG-07-1	STER, NY)7 90 (LOCATION	Purchase Order SG - 191) ed : 3/14/2007	No.: MEC75	5070091/Af	PO78616	Pa	2/2007 ge 11 of 57 t 3616036009.01 LIMT-04559 3616036009.01
Sample ID : 07B0824		PECIFIED					
Sample Matrix: AIR	Sample	e Medium : Sl	UMMA				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Limi Lo Hi	
SPECIAL TEST			03/27/07	WSD			
	RESUL	TS FOR PYRID	INES				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING				
2-CHLOROPYRIDINE	26		10				
2,6-DICHLOROPYRIDINE	ND		10				
ND= NOT DETECTED							· · · · ·
	RESULT	S FOR METHO	D BLANK				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3)				
2-CHLOROPYRIDINE	ND ****		0.5				
2,6-DICHLOROPYRIDINE	ND		0.5				
		JLTS FOR LFB ENT RECOVER	۲Y				
ANALYTE:	TRUE VALUE	RESULT	%REC				
2-CHLOROPYRIDINE	6.0	7,2	120 /	••••			
2,6-DICHLOROPYRIDINE	5.0	7.2	144				

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SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET							2/2007 age 12 of 57
PORTLAND, ME 04101 Project Location: ROCHES					Project Number: 3616036009.01 "LIMS-BAT #: LIMT-04559		
Date Received: 3/15/200	7					Job Number:	3616036009.01
Field Sample # : SG-07-19 Sample ID : 07B0825		56-192) ed : 3/14/2007					
Sample ID : 0750625		PECIFIED					
Sample Matrix: AIR	Sampl	e Medium : S	UMMA				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Lim Lo H	
SPECIAL TEST			03/24/07	WSD			
	RESU	ILTS FOR PYRI	DINES				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTING (ug/m^3)				
2-CHLOROPYRIDINE	420		10				
2,6-DICHLOROPYRIDINE	31		1.0			,	
ND= NOT DETECTED							
	RESULT	S FOR METHO	D BLANK				
ANALYTE:	SAMPLE RESULTS (ug/m^3)		REPORTINC (ug/m^3				
2-CHLOROPYRIDINE	ND ***		0.5				
2,6-DICHLOROPYRIDINE	ND		0.5				
		JLTS FOR LFB					
		ENT RECOVER	ŔΥ				
ANALYTE:	TRUE VALUE	RESULT	%REC	~			
2-CHLOROPYRIDINE	6.0	6.4	107			,	
2,6-DICHLOROPYRIDINE	5.0	5.5	110 •				

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



		g,		170(410/020	-0400 161	410/020	*Z00 <u>Z</u>	
JEFF BRANDOW MACTEC, INC N								
511 CONGRESS								2007
PORTLAND, ME (Purchase Order	No: MEC7	5070091/AI	2078616	-	e 13 of 57
Project Location:	ROCHESTE	R. NY				0,00,0	Project Number: LIMS-BAT #: L	3616036009.01 .IMT-04559
Date Received:	3/15/2007	,						616036009.01
Field Sample # :	SG-07-192	(LOCATION	v SG-188)				oop Huanbor. C	
Sample ID :	07B08246		npled : 3/14/2007 T SPECIFIED					
Sample Matrix:	AIR			JMMA				
		Units	Results	Date	Amelunt		00501	
		onno	reound	Analyzed	Analyst	RL.	SPEC Limit Lo Hi	P/F
SPECIAL TEST			· · · · · · · · · · · · · · · · · · ·	03/22/07	WSD			
		RES	JLTS FOR PYRIDIN	IES				
	SA	MPLE RESULTS		REPORTIN				
ANALYTE:	0.1	(ug/m^3)		(ug/m^:				
2-CHLOROPYRIC	DINE	34 🏹		10				
2,6-DICHLOROPY	(RIDINE	ND		10				
ND= NOT DETECT	TED							
		RESU	LTS FOR METHOD	BLANK				
	SAN	APLE RESULTS	F	REPORTING	LIMIT			
ANALYTE:		(ug/m^3)		(ug/m^3)			
2-CHLOROPYRID	DINE	ND war		0.5				9 - C.
2,6-DICHLOROPY	RIDINE	ND		0.5				
			SULTS FOR LFB	Y				
		TRUE VALUE	RESULT	%REC				
ANALYTE:								
2-CHLOROPYRID	INE	6.0	6.1	102 🛩	- /			
2,6-DICHLOROPY	RIDINE	5.0	5.7	114	Martin Contraction of			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



	· · · · · · · · · · · · · · · · · · ·						
JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET							2/2007 age 14 of 57
PORTLAND, ME 04101		Purchase Order N	No.: MEC75	070091/AP	D78616	Project Numbe	r: 3616036009.01
· · · · · · · · · · · · · · · · · · ·	STER, NY					LIMS-BAT #:	LIMT-04559
Date Received: 3/15/200" Field Sample #: SG-07-15	•	56-193)				Job Number:	3616036009.01
•		oled : 3/14/2007					
Sample ID : 07B0824		SPECIFIED					
Sample Matrix: AIR	Sam	ole Medium : SU	MMA				
	Units	Results	Date	Analyst	RL	SPEC Lim	it P/ F
			Analyzed	-		Lo ł	1ì
SPECIAL TEST			03/24/07	WSD			
	R	ESULTS FOR PYR	IDINES				
ANALYTE:	SAMPLE RESULTS (ug/m^3)			FING LIMIT m^3)			
2-CHLOROPYRIDINE	1000		10	J			
2,6-DICHLOROPYRIDINE	9.1		1.:	2			
,	RESUL	TS FOR METHOD	BLANK				
	SAMPLE RESULTS		REPORTING				
ANALYTE:	(ug/m^3)		(ug/m^3				
2-CHLOROPYRIDINE	ND m		0.5				
2,6-DICHLOROPYRIDINE	ND		0.5				
		SULTS FOR LFB RCENT RECOVER	Y				
	TRUE VALUE	RESULT	%REC				
ANALYTE:							
2-CHLOROPYRIDINE	6,0	6.4	107	Marrie and			
2,6-DICHLOROPYRIDINE	5.0	5.5	110	and the second se			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



28.21		Caat congris								
JEFF BRANDOW MACTEC, INC ME	E E T							4/2/2 Page	2007 e 15 c	of 57
511 CONGRESS STR PORTLAND, ME 0410			Purchase Order	No.: MEC75	070091/AF	PO78616	Project Nu	mber:	3616(036009.01
	CHESTER, N	IY		LIMS-BAT #: LIMT-04559						
	5/2007						Job Numb	er: 3	16160	36009.01
Field Sample # : IA-	07-001 (0		12-005)							
Sample ID : 07	B08238		ampled : 3/14/2007 OT SPECIFIED							
Sample Matrix: All	२			JMMA						
Gampio maana			Results	Date	Analyst	RL	SPEC	Limit		P/F
		Units	Results	Analyzed	Analyse	1.00	Lo	Hi		
A a a b a ma		ug/m3		03/20/07	WSD	0.16				
 Acetone 		ug/m3	0.87	03/20/07	WSD	0.24				
Benzene		ug/m3	ND	03/20/07	WSD	0.40				
Benzyl Chloride	20	ug/m3	ND	03/20/07	WSD	0.56				
Bromodichloromethan	i¢	ug/m3	ND	03/20/07	WSD	0.32				
Bromomethane		ug/m3	ND	03/20/07	WSD	0.16				
✓ 1,3-Butadiene		ug/m3	21	03/20/07	WSD	0.24				
2-Butanone (MEK)		ug/m3	0.40	03/20/07	WSD	0.24				
Carbon Disulfide		ug/m3	1.2	03/20/07	WSD	0.25				
Carbon Tetrachloride		ug/m3	ND	03/20/07	WSD	0.40				
Chlorobenzene	n 0	ug/m3	ND	03/20/07	WSD	0.72				
Chlorodibromometha	16	ug/m3	ND	03/20/07	WSD	0.40				
Chloroethane		ug/m3	12	03/20/07	WSD	0.40				
Chloroform		ug/m3	3.9	03/20/07	WSD	0.16				
Chloromethane		ug/m3	ND	03/20/07	WSD	0.24				
✓ Cyclonexane		ug/m3	ND	03/20/07	WSD	0.64				
1,2-Dichlorobenzene		ug/m3	ND	03/20/07	WSD	0:48				
1,3-Dichlorobenzene		ug/m3	ND	03/20/07	WSD	0.48				
/ 1,4-Dichlorobenzene		ug/m3	ND	03/20/07	WSD	0.48				
✓ Dichlorodifluorometh		ug/m3	2.7	03/20/07	WSD	0.40				
 1,1-Dichloroethane 		ug/m3	ND	03/20/07	WSD	0.32				
✓ 1,2-Dichloroethane		ug/m3	ND	03/20/07	WSD	0.32				
✓ 1,1-Dichloroethylene	۰ ۲	ug/m3	ND	03/20/07	WSD	0.32				
✓ cis-1,2-Dichloroethy		ug/m3	ND	03/20/07	WSD	0.32				•
√ t-1,2-Dichloroethyler		ug/m3	ND	03/20/07	WSD	0.32				
 ✓ 1,2-Dichloropropane 		ug/m3	ND	03/20/07	WSD	0.40				
 cis-1,3-Dichloroprop 		ug/m3	ND	03/20/07	WSD	0.40				
✓ trans-1,3-Dichloropr		ug/m3	ND	03/20/07	WSD	0.40				
√ trans-1,3-Dichloroph			ND	03/20/07	WSD	0.56				
		ug/m3	75 🏹	03/20/07		0.32				
C Ethanol			· •• ••							

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JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET								/2007 ge 16	of 57
PORTLAND, ME 04101		Purchase Orde	r No.: MEC75	070091/Al	2078616	Project N	lumber	: 3616	036009.01
Project Location: ROCHESTER, NY						LIMS-BA			-04559
Date Received: 3/15/2007 Field Sample #: IA-07-001	CATION	v 1A-002)				Job Nun	nder:	3010	036009.01
Sample ID : 07B08238		Sampled : 3/14/2007 NOT SPECIFIED	,	1					
Sample Matrix: AIR		Sample Medium : S	SUMMA						
· · · ·	Jnits	Results	Date Analyzed	Analyst	RL	SPE Lo	EC Limi Hi		P/ F
Ethyl Acetate	.ig/m3	ND	03/20/07	WSD	0.56				
Ethylbenzene	.ug/m3	ND	03/20/07	WSD	0.32				
4-Ethyl Toluene	ug/m3	ND	03/20/07	WSD	0.40				
	ug/m3	0.56	03/20/07	WSD	0.32				
√ ↓∕Hexachlorobutadiene	ug/m3	ND J	03/20/07	WSD	0.88				
v∕Hexane	ug/m3	1.0	03/20/07	WSD	0.32				
✓ 2-Hexanone	ug/m3	ND	03/20/07	WSD	0.32				
Isopropanol	ug/m3	16	03/20/07	WSD	0.16				
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/20/07	WSD	0.32				
Methylene Chloride	ug/m3	5.4	03/20/07	WSD	0.24				
✓ 4-Methyl-2-Pentanone (MIBK)	ug/m3	1.8	03/20/07	WSD	0.32				
Propene	ug/m3	ND	03/20/07	WSD	0.16				
√Styrene	ug/m3	ND	03/20/07	WSD	0.32				
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/20/07	WSD	0.56				
Tetrachloroethylene	ug/m3	ND	03/20/07	WSD	0.28				
Tetrahydrofuran	ug/m3	28	03/20/07	WSD	0.48				
√ Toluene	ug/m3	ND	03/20/07	WSD	0.32				
1,2,4-Trichlorobenzene	ug/m3	ND ブ	03/20/07	WSD	0.56				
🗸 1,1,1-Trichloroethane	ug/m3	ND	03/20/07	WSD	0.22				
🗸 1,1,2-Trichloroethane	ug/m3	ND	03/20/07	WSD	0.40				
✓ Trichloroethylene	ug/m3	ND	03/20/07	WSD	0.22				
Trichlorofluoromethane	ug/m3	1.8	03/20/07	WSD	0.48				
🗸 1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	03/20/07	WSD	0.64				
1,2,4-Trimethylbenzene	ug/m3	ND	03/20/07	WSD	0.40				
1,3,5-Trimethylbenzene	ug/m3	ND	03/20/07	WSD	0.40				
Vinyl Acetate	ug/m3	ND	03/20/07	WSD	0.32				
Vinyl Chloride	ug/m3	ND	03/20/07	WSD	0.24				
_m/p-Xylene	ug/m3	ND	03/20/07	WSD	0.32				
Jo-Xylene	ug/m3	ND	03/20/07	WSD	0.32				

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JEFF BRANDOW MACTEC, INC M 511 CONGRESS S				4/2/2007 Page 17 of 57
PORTLAND, ME		Purchase Order No.:	MEC75070091/APO78616	-
Project Location: Date Received: Field Sample # :	ROCHESTER, NY 3/15/2007 1A-07-001 (Loc 1A-002)			LIMS-BAT #: LIMT-04559 Job Number: 3616036009.01

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

Sample Matrix:

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET				4/2/2007 Page 18 of 57
PORTLAND, ME 04101 Project Location: ROCHEST Date Received: 3/15/2007	ER, NY	Purchase Order No.:	MEC75070091/APO78616	Project Number: 3616036009.01 LIMS-BAT #: LIMT-04559 Job Number: 3616036009.01
Field Sample # : IA-07-002	(LOCATION	12-003)		
Sample ID : 07B08240	Sa	impled : 3/14/2007		

Sampled : 3/14/2007 NOT SPECIFIED Sample Medium : SUMMA

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Acetone	ug/m3	16	03/20/07	WSD	0.08		
Benzene	ug/m3	1.3	03/20/07	WSD	0.12		
Benzyl Chloride	ug/m3	ND	03/20/07	WSD	0.20		
Bromodichloromethane	ug/m3	ND	03/20/07	WSD	0.28		
Bromomethane	ug/m3	ND	03/20/07	WSD	0.16		
1,3-Butadiene	ug/m3	ND	03/20/07	WSD	0.08		
2-Butanone (MEK)	ug/m3	8.0	03/20/07	WSD	0.12		
Carbon Disulfide	ug/m3	0.27	03/20/07	WSD	0.12		
Carbon Tetrachloride	ug/m3	4.8	03/20/07	WSD	0.13		
Chlorobenzene	ug/m3	0.53	03/20/07	WSD	0.20		
Chlorodibromomethane	ug/m3	ND	03/20/07	WSD	0.36		
Chloroethane	ug/m3	ND	03/20/07	WSD	0.20		
Chloroform	ug/m3	6.3 🍒	03/20/07	WSD	0.20		
Chloromethane	ug/m3	1.0 🍒	03/20/07	WSD	0.08		
Cyclohexane	ug/m3	ND	03/20/07	WSD	0.12		
1,2-Dibromoethane	ug/m3	ND	03/20/07	WSD	0.32		
1,2-Dichlorobenzene	ug/m3	ND	03/20/07	WSD	0.24		
1,3-Dichlorobenzene	ug/m3	ND	03/20/07	WSD	0.24		
1,4-Dichlorobenzene	ug/m3	ND	03/20/07	WSD	0.24		
Dichlorodifluoromethane	ug/m3	2.2 Ъ	03/20/07	WSD	0.20		
1,1-Dichloroethane	ug/m3	ND	03/20/07	WSD	0.16		
1,2-Dichloroethane	ug/m3	ND	03/20/07	WSD	0.16		
1,1-Dichloroethylene	ug/m3	0.24 🎝	03/20/07	WSD	0.16		
cis-1,2-Dichloroethylene	ug/m3	ND	03/20/07	WSD	0.16		
t-1,2-Dichloroethylene	ug/m3	ND	03/20/07	WSD	0.16		
1,2-Dichloropropane	ug/m3	ND	03/20/07	WSD	0.20		
cis-1,3-Dichloropropene	ug/m3	ND	03/20/07	WSD	0.20		
trans-1,3-Dichloropropene	ug/m3	ND	03/20/07	WSD	0.20		
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	03/20/07	WSD	0.28		
Ethanol	ug/m3	61 🏷	03/20/07	WSD	0.16		

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JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET							/2/20 age	007 19 of 57
PORTLAND, ME 04101 Project Location: ROCHESTER, N	Y	Purchase Order I	No.: MEC75	070091/AF	078616	LIMS-BAT #: LIMT-04559		
Date Received: 3/15/2007		- IA-003)				Job Number:	36	\$16036009.01
-		ampled : 3/14/2007						
Sample ID : 07B08240		IOT SPECIFIED						
Sample Matrix: AIR			IMMA					
	Units	Results	Date Analyzed	Anaiyst	RL.	SPEC Lin Lo	nit Hi	P/ F
Ethyl Acetate	ug/m3	ND	03/20/07	WSD	0.28			
Ethylbenzene	ug/m3	2.9	03/20/07	WSD	0.16			
4-Ethyl Toluene	ug/m3	1.0	03/20/07	WSD	0.20			·
n-Heptane	ug/m3	0.38	03/20/07	WSD	0.16			
Hexachlorobutadiene	ug/m3	ND J	03/20/07	WSD	0.44			
Hexane	ug/m3	1.0	03/20/07	WSD	0.16			
2-Hexanone	ug/m3	0.46	03/20/07	WSD	0.16			
Isopropanol	ug/m3	25	03/20/07	WSD	0.08			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/20/07	WSD	0.16			
Methylene Chloride	ug/m3	2.1	03/20/07	WSD	0.12			
4-Methyl-2-Pentanone (MIBK)	ug/m3	5.2	03/20/07	WSD	0.16			
Propene	ug/m3	ND	03/20/07	WSD	0.08			
Styrene	ug/m3	0.29	03/20/07	WSD	0.16			
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/20/07	WSD	0.28			
Tetrachloroethylene	ug/m3	1.1	03/20/07	WSD	0.14			
Tetrahydrofuran	ug/m3	12	03/20/07	WSD	0.24			
Toluene	ug/m3	13	03/20/07	WSD	0.16			
1,2,4-Trichlorobenzene	ug/m3	ND	03/20/07	WSD	0.28			
1,1,1-Trichloroethane	ug/m3	0.37	03/20/07	WSD	0.11			
1,1,2-Trichloroethane	ug/m3	ND	03/20/07	WSD	0.20			
Trichloroethylene	ug/m3	ND	03/20/07	WSD	0.11			
Trichlorofluoromethane	ug/m3	1.6	03/20/07	WSD	0.24			
1,1,2-Trichloro-1,2,2-Trifluoroethan	e ug/m3	0.55	03/20/07	WSD	0.32			
1,2,4-Trimethylbenzene	ug/m3	2.7	03/20/07	WSD	0.20			
1,3,5-Trimethylbenzene	ug/m3	0.88	03/20/07	WSD	0.20			
Vinyl Acetate	ug/m3	ND	03/20/07	WSD	0.16			
Vinyl Chloride	ug/m3	ND	03/20/07	WSD	0.12			
m/p-Xylene	ug/m3	12	03/20/07	WSD	0.16			

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JEFF BRANDOW							
MACTEC, INC N	IE				4	/2/2007	
511 CONGRESS	STREET				P	age 20 of 57	
PORTLAND, ME	4101	÷.,	Purchase Order N	o.: MEC75070091/APO78	616 Project Numb	er: 3616036009.01	
Project Location:	ROCHESTER,	NY			LIMS-BAT #:	LIMT-04559	
Date Received:	3/15/2007		b .		Job Number:	3616036009.01	
Field Sample # :	IA-07-002	(LOC	1A-003)	·			

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW		
MACTEC, INC ME	4/2/20	007
511 CONGRESS STREET	Page	21 of 57
PORTLAND, ME 04101	Purchase Order No.: MEC75070091/APO78616 Project Number: 3	616036009.01
Project Location: ROCHESTER, NY	LIMS-BAT #: LI	MT-04559
Date Received: 3/15/2007	Job Number: 36	616036009.01

Field Sample # : IA-07-002DUP

(LOCATION 1A-063) Sampled : 3/14/2007

Sample ID : 07B08250

Sample Matrix:

NOT SPECIFIED
Sample Medium : SUMMA

	Units	Results	Results Date Anal		nalyst RL		SPEC Limit		
			Analyzed			Lo	Hi		
Acetone	ug/m3	16	03/22/07	WSD	0.50				
Benzene	ug/m3	1.3	03/22/07	WSD	0.75				
Benzyl Chloride	ug/m3	ND	03/22/07	WSD	1.3				
Bromodichloromethane	ug/m3	ND	03/22/07	WSD	1.8				
Bromomethane	ug/m3	ND	03/22/07	WSD	1.0				
1,3-Butadiene	ug/m3	ND	03/22/07	WSD	0.50				
2-Butanone (MEK)	ug/m3	6.3	03/22/07	WSD	0.75				
Carbon Disulfide	ug/m3	ND	03/22/07	WSD	0.75				
Carbon Tetrachloride	ug/m3	3.8	03/22/07	WSD	0.78				
Chlorobenzene	ug/m3	ND	03/22/07	WSD	1.3				
Chlorodibromomethane	ug/m3	ND	03/22/07	WSD	2.3				
Chloroethane	ug/m3	ND	03/22/07	WSD	1.3				
Chloroform	ug/m3	33 🍏	03/22/07	WSD	1.3				
Chloromethane	ug/m3	ND 🎝	03/22/07	WSD	0.50				
Cyclohexane	ug/m3	ND	03/22/07	WSD	0.75				
1,2-Dibromoethane	ug/m3	ND	03/22/07	WSD	2.0				
1,2-Dichlorobenzene	ug/m3	ND	03/22/07	WSD	1.5				
1,3-Dichlorobenzene	ug/m3	ND	03/22/07	WSD	1.5				
1,4-Dichlorobenzene	ug/m3	ND	03/22/07	WSD	1.5				
Dichlorodifluoromethane	ug/m3	ND 🏅	03/22/07	WSD	1.3				
1,1-Dichloroethane	ug/m3	ND	03/22/07	WSD	1.0				
1,2-Dichloroethane	ug/m3	ND	03/22/07	WSD	1.0				
1,1-Dichloroethylene	ug/m3	ND プ	03/22/07	WSD	1.0				
cis-1,2-Dichloroethylene	ug/m3	ND	03/22/07	WSD	1.0				
t-1,2-Dichloroethylene	ug/m3	ND	03/22/07	WSD	1.0				
1,2-Dichloropropane	ug/m3	ND	03/22/07	WSD	1.3				
cis-1,3-Dichloropropene	ug/m3	ND	03/22/07	WSD	1.3				
trans-1,3-Dichloropropene	ug/m3	ND	03/22/07	WSD	1.3				
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	03/22/07	WSD	1.8				
Ethanol	ug/m3	67	03/22/07	WSD	1.0				
			0 L IN 4377	ant an aifi	od rocomm	ondod or			

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NM = Not Measured



39 Spruce Street ° E	ast Longmead	ow, MA 01028 ° FA	X 413/525-6	5405 * TEL.	413/525	~200 <u>~</u>	
JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET		Purchase Order N	o.: MEC75	070091/AP	078616	Pa	2/2007 ige 22 of 57 r: 3616036009.01
PORTLAND, ME 04101 Project Location: ROCHESTER, NY						LIMS-BAT #:	LIMT-04559
Project Location: ROCHESTER, NY Date Received: 3/15/2007						Job Number:	3616036009.01
Field Sample # : IA-07-002DUP	(LOCATIO)	(E00-A1 N					
Sample ID : 07B08250	•	oled : 3/14/2007 SPECIFIED					
Sample Matrix: AIR	Samı	ble Medium 👘 : SUN	ΜМΑ				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Lim Lo F	
Ethyd Acototo	ug/m3	ND	03/22/07	WSD	1.8		
Ethyl Acetate	ug/m3	2.3	03/22/07	WSD	1.0		
Ethylbenzene	ug/m3	ND	03/22/07	WSD	1.3		
4-Ethyl Toluene n-Heptane	ug/m3		03/22/07	WSD	1.0		
Hexachlorobutadiene	ug/m3	ND S	03/22/07	WSD	2.8		
Hexane	ug/m3	4.7	03/22/07	WSD	1.0		
2-Hexanone	ug/m3	ND	03/22/07	WSD	1.0		
Isopropanol	ug/m3	22	03/22/07	WSD	0.50		
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/22/07	WSD	1.0		
Methylene Chloride	ug/m3	12 5	03/22/07	WSD	0.75		
4-Methyl-2-Pentanone (MIBK)	ug/m3	3.8	03/22/07	WSD	1.0		,
Propene	ug/m3	ND	03/22/07	WSD	0.50		
Styrene	ug/m3	ND	03/22/07	WSD	1.0		/
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/22/07	WSD	1.8		
Tetrachloroethylene	ug/m3	ND	03/22/07	WSD	0.85		
Tetrahydrofuran	ug/m3	9.3	03/22/07	WSD	1.5		
Toluene	ug/m3	14	03/22/07	WSD	1.0		
1,2,4-Trichlorobenzene	ug/m3	ND	03/22/07	WSD	1.8		
1,1,1-Trichloroethane	ug/m3	ND	03/22/07	WSD	0.68		
1,1,2-Trichloroethane	ug/m3	ND	03/22/07	WSD	1.3		
Trichloroethylene	ug/m3	ND	03/22/07	WSD	0.68		
Trichlorofluoromethane	ug/m3	2.2	03/22/07	WSD	1.5		
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	03/22/07	WSD	2.0		
1,2,4-Trimethylbenzene	ug/m3	2.2	03/22/07	WSD	1.3		
1,3,5-Trimethylbenzene	ug/m3	ND	03/22/07	WSD	1.3		
Vinyl Acetate	ug/m3	ND	03/22/07	WSD	1.0		
Vinyl Chloride	ug/m3	ND	03/22/07	WSD	0.75		

RL = Reporting Limit

NM = Not Measured

m/p-Xylene

o-Xylene

ND = Not Detected at or above the Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

WSD

WSD

1.0

1.0

03/22/07

03/22/07

9.4

3.0

* = See end of report for comments and notes applying to this sample

ug/m3

ug/m3



JEFF BRANDOW MACTEC, INC. - ME 511 CONGRESS STREET PORTLAND, ME 04101

Purchase Order No.: MEC75070091/APO78616 Project Number: 3616036009.01

4/2/2007 Page 23 of 57 Number: 3616036009.0 3AT #: LIMT-04559

Project Location: ROCHESTER, NY Date Received: 3/15/2007 Field Sample #: IA-07-002DUP LIMS-BAT #: LIMT-04559 Job Number: 3616036009.01

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

(LOC 1A-003)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW MACTEC, INC M 511 CONGRESS S									2007 je 24 of 57
PORTLAND, ME 0			Purchase (Order No.: MEC75	6070091/A	PO78616	Project Nu	umber:	3616036009.01
Project Location: Date Received:	ROCHESTER, NY 3/15/2007	,		·	LIMS-BAT #: Job Number:		LIMT-04559 3616036009.01		
Field Sample # :	IA-07-003	(ശാം	TION 1A-0						
Sample ID :	07B08242	5	Sampled : 3/14/2	007					
			NOT SPECIFIED						
Sample Matrix:	AIR	3	Sample Medium	: SUMMA					
		Units	Resul	ts Date Analyzed	Analyst	RL	SPEC Lo	C Limit Hi	P/ F
Acetone		ug/m3	35	03/20/07	WSD	0.08			4
Benzene		ug/m3	1.3	03/20/07	WSD	0.12			
Benzyl Chloride		ug/m3	ND	03/20/07	WSD	0.20			
Bromodichlorome	ihane	ug/m3	ND	03/20/07	WSD	0.28			
Bromomethane		ug/m3	ND	03/20/07	WSD	0.16			
1,3-Butadiene		ug/m3	ND	03/20/07	WSD	0.08			
2-Butanone (MEK)	ug/m3	94	03/20/07	WSD	0.12			
Carbon Disulfide		ug/m3	0.16	03/20/07	WSD	0.12			
Carbon Tetrachloi	ride	ug/m3	0.55	03/20/07	WSD	0.13			
Chlorobenzene		ug/m3	ND	03/20/07	WSD	0.20			
Chlorodibromome	thane	ug/m3	ND	03/20/07	WSD	0.36			
Chloroethane		ug/m3	ND	03/20/07	WSD	0.20			
Chloroform		ug/m3	2.9	03/20/07	WSD	0.20			
Chloromethane		ug/m3	1.0	03/20/07	WSD	0.08			
Cyclohexane		ug/m3	ND	03/20/07	WSD	0.12			
1,2-Dibromoethar	ne	ug/m3	ND	03/20/07	WSD	0.32			
1,2-Dichlorobenzo	ene	ug/m3	ND	03/20/07	WSD	0.24			
1,3-Dichlorobenzo	ene	ug/m3	ND	03/20/07	WSD	0.24			
1,4-Dichlorobenz	ene	ug/m3	ND	03/20/07	WSD	0.24			
Dichlorodifluorom	nethane	ug/m3	2.0	03/20/07	WSD	0.20			
1,1-Dichloroethar	าย	ug/m3	NĎ	03/20/07	WSD	0.16			
1,2-Dichloroethar		ug/m3	ND	03/20/07	WSD	0.16			
1,1-Dichloroethyl		ug/m3	ND	03/20/07	WSD	0.16			
cis-1,2-Dichloroe		ug/m3	ND	03/20/07	WSD	0.16			
t-1,2-Dichloroeth		ug/m3	ND	03/20/07	WSD	0.16			
1,2-Dichloroprop	-	ug/m3	ND	03/20/07	WSD	0.20			
cis-1,3-Dichlorop		ug/m3	ND	03/20/07	WSD	0.20			
trans-1,3-Dichlor		ug/m3	ND	03/20/07	WSD	0.20			
	fluoroethane (114)	ug/m3	ND	03/20/07	WSD	0.28			

RL = Reporting Limit

Ethanol

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

ug/m3

ND

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

0.16

03/20/07 WSD



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET							/2/2007 Page 25 of 57
PORTLAND, ME 04101 Project Location: ROCHESTER, N Date Received: 3/15/2007		Purchase Order	No.: MEC7	(5070091/A) 	PO78616	Project Numb LIMS-BAT #: Job Number:	er: 3616036009.01 LIMT-04559 3616036009.01
Field Sample # : IA-07-003	(LOCATION	*					
Sample ID : 07B08242		bled : 3/14/2007 SPECIFIED					
Sample Matrix: AIR			UMMA				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Lin	nit P/F Hi
Ethyl Acetate	ug/m3	NĎ	03/20/07	WSD	0.28		
Ethylbenzene	ug/m3	5.7	03/20/07	WSD	0.16		
4-Ethyl Toluene	ug/m3	1.6	03/20/07	WSD	0.20		
n-Heptane	ug/m3	1.00	03/20/07	WSD	0.16		
Hexachlorobutadiene	ug/m3	ND 3	03/20/07	WSD	0.44		
Hexane	ug/m3	1.4	03/20/07	WSD	0.16		
2-Hexanone	ug/m3	ND	03/20/07	WSD	0.16		
Isopropanol	ug/m3	5900	03/20/07	WSD	0.08		
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/20/07	WSD	0.16	·	
Methylene Chloride	ug/m3	2.0	03/20/07	WSD	0.12		
4-Methyl-2-Pentanone (MIBK)	ug/m3	2.4	03/20/07	WSD	0.16		
Propene	ug/m3	ND	03/20/07	WSD	0.08		
Styrene	ug/m3	0.49	03/20/07	WSD	0.16		
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/20/07	WSD	0.28		
Tetrachloroethylene	ug/m3	0.79	03/20/07	WSD	0.14	ι.	
Tetrahydrofuran	ug/m3	100	03/20/07	WSD	0.24		
Toluene	ug/m3	21	03/20/07	WSD	0.16		
1,2,4-Trichlorobenzene	ug/m3	ND 5	03/20/07	WSD	0.28		
1,1,1-Trichloroethane	ug/m3	0.35	03/20/07	WSD	0.11		
1,1,2-Trichloroethane	ug/m3	ND	03/20/07	WSD	0.20		
Trichloroethylene	ug/m3	0.30	03/20/07	WSD	0.11		
Trichlorofluoromethane	ug/m3	1.6	03/20/07	WSD	0.24		
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.58	03/20/07	WSD	0.32		
1,2,4-Trimethylbenzene	ug/m3	4.3	03/20/07	WSD	0.20		
1,3,5-Trimethylbenzene	ug/m3	1.5	03/20/07	WSD	0.20		
Vinyl Acetate	ug/m3	1.8	03/20/07	WSD	0.16		
Vinyl Chloride	ug/m3	ND	03/20/07	WSD	0.12		
m/p-Xylene	ug/m3	19	03/20/07	WSD	0.16		
o-Xylene	ug/m3	6.0	03/20/07	WSD	0.16		

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

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JEFF BRANDOW MACTEC, INC MI 511 CONGRESS S					4/2/2007 Page 26 of 57	
PORTLAND, ME 04			Purchase Order No.:	MEC75070091/APO78616		
Project Location: Date Received: Field Sample # :	3/15/2007	12-004))		LIMS-BAT #: LIMT-04559 Job Number: 3616036009.01	
Analytical Method:						

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



NOT SPECIFIED

JEFF BRANDOW					
MACTEC, INC N	1E				 /2007
511 CONGRESS S PORTLAND, ME 0			Purchase Order No.	: MEC75070091/APO78616	ge 27 of 57 : 3616036009.01
Project Location: Date Received: Field Sample # :	3/15/2007	NY (LOCATION	1A-005)		LIMT-04559 3616036009.01
Sample ID :	07B08244	Sar	npled : 3/14/2007		

: SUMMA Sample Medium Sample Matrix: AIR P/F SPEC Limit RL Analyst Results Date Units Hi Lo Analyzed WSD 0.08 03/20/07 ug/m3 33 Acetone 03/20/07 WSD 0.12 ug/m3 1.1 Benzene WSD 0.20 03/20/07 ug/m3 ND Benzyl Chloride WSD 0.28 03/20/07 ND ug/m3 Bromodichioromethane 03/20/07 WSD 0.16 ug/m3 ND Bromomethane 03/20/07 WSD 0.08 ND ug/m3 1.3-Butadiene 0.12 WSD 03/20/07 4.2 ug/m3 2-Butanone (MEK) WSD 0.12 ND 03/20/07 Carbon Disulfide ug/m3 WSD 0.13 0.53 03/20/07 Carbon Tetrachloride ug/m3 WSD 0.20 03/20/07 ND Chlorobenzene ug/m3 03/20/07 WSD 0.36 ND Chlorodibromomethane ug/m3 WSD 0.20 ND 03/20/07 ug/m3 Chloroethane 03/20/07 WSD 0.20 0.49 Chloroform ug/m3 0.08 0.97 03/20/07 WSD ug/m3 Chloromethane ND 03/20/07 WSD 0.12 ug/m3 Cyclohexane 0.32 ND 03/20/07 WSD ug/m3 1.2-Dibromoethane WSD 0.24 ND 03/20/07 ug/m3 1,2-Dichlorobenzene 03/20/07 WSD 0.24 ND ug/m3 1,3-Dichlorobenzene WSD 0.24 ND 03/20/07 ug/m3 1,4-Dichlorobenzene 0.20 03/20/07 WSD 0.30 ug/m3 Dichlorodifluoromethane 03/20/07 WSD 0.16 ND ug/m3 1.1-Dichloroethane WSD 0.16 03/20/07 ug/m3 ND 1,2-Dichloroethane 03/20/07 WSD 0.16 ND ug/m3 1,1-Dichloroethylene 0.16 WSD ND 03/20/07 ug/m3 cis-1,2-Dichloroethylene 0.16 03/20/07 WSD ND ug/m3 t-1,2-Dichloroethylene 0.20 03/20/07 WSD ND 1,2-Dichloropropane ug/m3 03/20/07 WSD 0.20 ND ug/m3 cis-1,3-Dichloropropene

ND

ND

38 ブ

Ethanol

RL = Reporting Limit

trans-1,3-Dichloropropene

1,2-Dichlorotetrafluoroethane (114)

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

ug/m3

ug/m3

ua/m3

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

WSD

WSD

WSD

0.20

0.28

0.16

03/20/07

03/20/07

03/20/07



JEFF BRANDOW						
MACTEC, INC N	IE				4/	2/2007
511 CONGRESS S	STREET				Pa	age 28 of 57
PORTLAND, ME 0	4101		Purchase Order No.:	MEC75070091/APO78616	Project Numbe	er: 3616036009.01
Project Location:	ROCHESTER,	NY			LIMS-BAT #:	LIMT-04559
Date Received:	3/15/2007			i de la constante de la constan	Job Number:	361,6036009.01
Field Sample # :	IA-07-004	(LOCATION	LA-005)			
Sample ID :	07B08244	Sar	npled : 3/14/2007			
		NO	T SPECIFIED			

Sample Matrix: AIR	Sample	Medium : SI	UMMA					
	Units	Results	Date	Analyst	RL	SPEC	Limit	P/ F
			Analyzed			Lo	Hi	
Ethyl Acetate	ug/m3	5.4	03/20/07	WSD	0.28			
Ethylbenzene	ug/m3	2.5	03/20/07	WSD	0.16			
4-Ethyl Toluene	ug/m3	12	03/20/07	WSD	0.20			
n-Heptane	ug/m3	4.6	03/20/07	WSD	0.16			
Hexachlorobutadiene	ug/m3	ND 💙	03/20/07	WSD	0.44			
Hexane	ug/m3	2.1	03/20/07	WSD	0.16			
2-Hexanone	ug/m3	0.29	03/20/07	WSD	0.16			
Isopropanol	ug/m3	480	03/20/07	WSD	0.08			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/20/07	WSD	0.16			
Methylene Chloride	ug/m3	1.2	03/20/07	WSD	0.12			
4-Methyl-2-Pentanone (MIBK)	ug/m3	1.5	03/20/07	WSD	0.16			
Propene	ug/m3	ND	03/20/07	WSD	0.08			
Styrene	ug/m3	0.43	03/20/07	WSD	0.16			
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/20/07	WSD	0.28			
Tetrachloroethylene	ug/m3	0.43	03/20/07	WSD	0.14			
Tetrahydrofuran	ug/m3	0.72	03/20/07	WSD	0.24			
Toluene	ug/m3	14	03/20/07	WSD	0.16			
1,2,4-Trichlorobenzene	ug/m3		03/20/07	WSD	0.28			
1,1,1-Trichloroethane	ug/m3	ND	03/20/07	WSD	0.11			
1,1,2-Trichloroethane	ug/m3	ND	03/20/07	WSD	0.20			
Trichloroethylene	ug/m3	ND	03/20/07	WSD	0.11			
Trichlorofluoromethane	ug/m3	1.9	03/20/07	WSD	0.24			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.55	03/20/07	WSD	0.32			
1,2,4-Trimethylbenzene	ug/m3	29	03/20/07	WSD	0.20			
1,3,5-Trimethylbenzene	ug/m3	10	03/20/07	WSD	0.20			
Vinyl Acetate	ug/m3	1.4	03/20/07	WSD	0.16			
Vinyl Chloride	ug/m3	ND	03/20/07	WSD	0.12			
m/p-Xylene	ug/m3	8.7	03/20/07	WSD	0.16			
o-Xyiene	ug/m3	2.9	03/20/07	WSD	0.16			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

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JEFF BRANDOW						4 I.F.	
MACTEC, INC M	ΙE			1. juli			2/2007
511 CONGRESS S	STREET						ge 29 of 57
PORTLAND, ME 0	4101			Purchase Order No.:	MEC75070091/APO78616	Project Number	r: 3616036009.01
Project Location:	ROCHESTER	, NY				LIMS-BAT #:	
Date Received:	3/15/2007					Job Number:	3616036009.01
Field Sample # :	IA-07-004	(LOC	1A-005)			

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW						
MACTEC, INC N	1E				4/2	2/2007
511 CONGRESS	STREET				Pa	ige 30 of 57
PORTLAND, ME C	4101		Purchase Order No.:	MEC75070091/APO78616	Project Numbe	r: 3616036009.01
Project Location:	ROCHESTER,	, NY		i -	LIMS-BAT #:	LIMT-04559
Date Received:	3/15/2007		~		Job Number:	3616036009.01
Field Sample # :	IA-07-005	(LOCATION	(100-41			· ·
Sample ID :	07B08245	Sa	ampled : 3/14/2007			

Sample Matrix: AIR

NOT SPECIFIED Sample Medium : SUMMA

	Units	Results	Date	Analyst	RL	SPEC		P/ F
			Analyzed			Lo	Hi	
Acetone	ug/m3	33	03/21/07	WSD	0.50			
Benzene	ug/m3	ND	03/21/07	WSD	0.75			
Benzyl Chloride	ug/m3	ND	03/21/07	WSD	1.3			
Bromodichloromethane	ug/m3	ND	03/21/07	WSD	1.8		·	
Bromomethane	ug/m3	ND	03/21/07	WSD	1.0			
1,3-Butadiene	ug/m3	ND	03/21/07	WSD	0.50			
2-Butanone (MEK)	ug/m3	4.3	03/21/07	WSD	0.75			
Carbon Disulfide	ug/m3	ND	03/21/07	WSD	0.75			
Carbon Tetrachloride	ug/m3	ND	03/21/07	WSD	0.78			
Chlorobenzene	ug/m3	ND	03/21/07	WSD	1.3			
Chlorodibromomethane	ug/m3	ND	03/21/07	WSD	2.3			
Chloroethane	ug/m3	ND	03/21/07	WSD	1.3		÷	
Chloroform	ug/m3	ND	03/21/07	WSD	1.3			
Chloromethane	ug/m3	ND	03/21/07	WSD	0.50			
Cyclohexane	ug/m3	ND	03/21/07	WSD	0.75			
1,2-Dibromoethane	ug/m3	ND	03/21/07	WSD	2.0			
1,2-Dichlorobenzene	ug/m3	ND	03/21/07	WSD	1.5			
1,3-Dichlorobenzene	ug/m3	ND	03/21/07	WSD	1.5			
1,4-Dichlorobenzene	ug/m3	ND	03/21/07	WSD	1.5			
Dichlorodifluoromethane	ug/m3	ND	03/21/07	WSD	1.3			
1,1-Dichloroethane	ug/m3	ND	03/21/07	WSD	1.0			
1,2-Dichloroethane	ug/m3	ND	03/21/07	WSD	1.0			
1,1-Dichloroethylene	ug/m3	ND	03/21/07	WSD	1.0			
cis-1,2-Dichloroethylene	ug/m3	ND	03/21/07	WSD	1.0			
t-1,2-Dichloroethylene	ug/m3	ND	03/21/07	WSD	1.0			
1,2-Dichloropropane	ug/m3	ND	03/21/07	WSD	1.3			
cis-1,3-Dichloropropene	ug/m3	ND	03/21/07	WSD	1.3			
trans-1,3-Dichloropropene	ug/m3	ND	03/21/07	WSD	1.3			
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	03/21/07	WSD	1.8			
Ethanol	ug/m3	410	03/21/07	WSD	1.0			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

Sample ID :

Sample Matrix:

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW					Al	2/2007
MACTEC, INC N	1E					age 31 of 57
511 CONGRESS	STREET					0
PORTLAND, ME)4101		Purchase Order No.:	MEC75070091/APO78616		r: 3616036009.01
Project Location:	ROCHESTER	R, NY			LIMS-BAT #:	LIMT-04559 3616036009.01
Date Received:	3/15/2007				JUD Namber.	001000000000
Field Sample # :	IA-07-005	(LOCATION)	(100-4)			

07B08245

Sampled : 3/14/2007 NOT SPECIFIED Sample Medium : SUMMA

Cumpio mana	Units	Results	Date Analyzed	Analyst	RL	SPEC Lo	C Limit Hi	P/ F
Ethyl Acetate	ug/m3	ND	03/21/07	WSD	1.8			
•	ug/m3	2.7	03/21/07	WSD	1.0			
•	ug/m3	ND	03/21/07	WSD	1.3			
,	ug/m3	1.3	03/21/07	WSD	1.0			
•	ug/m3	ND	03/21/07	WSD	2.8			
Hexane	ug/m3	ND	03/21/07	WSD	1.0			
2-Hexanone	ug/m3	ND	03/21/07	WSD	1.0			
Isopropanol	ug/m3	220	03/21/07	WSD	0.50			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/21/07	WSD	1.0			
Methylene Chloride	ug/m3	1.4	03/21/07	WSD	0.75			
4-Methyl-2-Pentanone (MIBK)	ug/m3	2.5	03/21/07	WSD	1.0			
Propene	ug/m3	ND	03/21/07	WSD	0.50			
Styrene	ug/m3	1.2	03/21/07	WSD	1.0			
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/21/07	WSD	1.8			
Tetrachloroethylene	ug/m3	ND	03/21/07	WSD	0.85			
Tetrahydrofuran	ug/m3	ND	03/21/07	WSD	1.5			
Toluene	ug/m3	22	03/21/07	WSD	1.0			
1,2,4-Trichlorobenzene	ug/m3	ND	03/21/07	WSD	1.8			
1,1,1-Trichloroethane	ug/m3	ND	03/21/07	WSD	0.68			
1,1,2-Trichloroethane	ug/m3	ND	03/21/07	WSD	1.3			
Trichloroethylene	ug/m3	ND	03/21/07	WSD	0.68			
Trichlorofluoromethane	ug/m3	11	03/21/07		1.5			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	03/21/07	WSD	2.0			
1,2,4-Trimethylbenzene	ug/m3	2.9	03/21/07	WSD	1.3			
1,3,5-Trimethylbenzene	ug/m3	ND	03/21/07		1.3			
Vinyl Acetate	ug/m3	ND J	03/21/07	WSD	1.0			
Vinyl Chloride	ug/m3	ND	03/21/07		0.75			
m/p-Xylene	ug/m3	8.9	03/21/07	WSD	1.0			
o-Xylene	ug/m3	2.8	03/21/07	' WSD	1.0			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

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JEFF BRANDOW						A IF	2/2007
MACTEC, INC M	IE					=	age 32 of 57
511 CONGRESS S	STREET						0
PORTLAND, ME	4101			Purchase Order No.:	MEC75070091/APO78616	Project Number	r: 3616036009.01
Project Location:	ROCHESTER,	NY				LIMS-BAT #: Job Number:	LIMT-04559 3616036009.01
Date Received:	3/15/2007	*				dub Hambon.	00.000000000
Field Sample # :	IA-07-005	(Loc	100-01)		.1	

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

Sample Matrix:

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW MACTEC, INC M 511 CONGRESS \$						/2007 ge 33 of 57
PORTLAND, ME C			Purchase Order No.:	MEC75070091/APO78616	,	: 3616036009.01
Project Location: Date Received: Field Sample # :	3/15/2007	(LOCATION	1A-006)			LIMT-04559 3616036009.01
Sample ID :	07B08247	Sa	mpled : 3/14/2007			

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D/ E

NOT SPECIFIED Sample Medium SUMMA

	Units	Results	Date Analyzed	Analyst	RL	SPEC Lo	Limit Hi	P/ F
	ug/m3	360	03/22/07	WSD	0.50			
Acetone	-	1.6	03/22/07	WSD	0.75			
Benzene	ug/m3	ND	03/22/07	WSD	1.3			
Benzyl Chloride	ug/m3		03/22/07	WSD	1.8			
Bromodichloromethane	ug/m3	ND		WSD	1.0			
Bromomethane	ug/m3	ND	03/22/07	WSD	0.50			
1,3-Butadiene	ug/m3	ND	03/22/07		0.30			
2-Butanone (MEK)	ug/m3	52	03/22/07	WSD				
Carbon Disulfide	ug/m3	ND	03/22/07	WSD	0.75			
Carbon Tetrachloride	ug/m3	ND	03/22/07	WSD	0.78			
Chlorobenzene	ug/m3	ND	03/22/07	WSD	1.3			
Chlorodibromomethane	ug/m3	ND	03/22/07	WSD	2.3			
Chloroethane	ug/m3	ND	03/22/07	WSD	1.3			
Chloroform	ug/m3	3.3	03/22/07	WSD	1.3			
Chloromethane	ug/m3	ND	03/22/07	WSD	0.50	•		
Cyclohexane	ug/m3	0.95	03/22/07	WSD	0.75			
1,2-Dibromoethane	ug/m3	ND	03/22/07	WSD	2.0			
1,2-Dichlorobenzene	ug/m3	ND	03/22/07	WSD	1.5			
1,3-Dichlorobenzene	ug/m3	ND	03/22/07	WSD	1.5			
1,4-Dichlorobenzene	ug/m3	ND	03/22/07	WSD	1.5			
Dichlorodifluoromethane	ug/m3	ND	03/22/07	WSD	1.3			
1,1-Dichloroethane	ug/m3	ND	03/22/07	WSD	1.0			
1,2-Dichloroethane	ug/m3	ND	03/22/07	WSD	1.0			
1,1-Dichloroethylene	ug/m3	ND	03/22/07	WSD	1.0			
cis-1,2-Dichloroethylene	ug/m3	ND	03/22/07	WSD	1.0			
t-1,2-Dichloroethylene	ug/m3	ND	03/22/07	WSD	1.0			
1,2-Dichloropropane	ug/m3	ND	03/22/07	WSD	1.3			
cis-1,3-Dichloropropene	ug/m3	ND	03/22/07	WSD	1.3			
trans-1,3-Dichloropropene	ug/m3	ND	03/22/07	WSD	1.3			
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	03/22/07	WSD	1.8			
Ethanol	ug/m3	340	03/22/07	WSD	1.0			
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RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

Sample Matrix:

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET		4/2/2007 Page 34 of 57			
PORTLAND, ME 04101	Purchase Order No.: MEC75070091/APO7861	³ Project Number: 3616036009.01			
Project Location: ROCHESTER, NY Date Received: 3/15/2007 Field Sample #: IA-07-006 (LecATION	14-006)	LIMS-BAT #: LIMT-04559 Job Number: 3616036009.01			
Sample ID : 07B08247 Samp	bled : 3/14/2007				

Sampled : 3/14/2007 NOT SPECIFIED Sample Medium : SUMMA

	Units	Results	Date Analyzed	Analyst	RL	SPEC	Limit Hi	P/F
Ethyl Acetate	ug/m3	NĎ	03/22/07	WSD	1.8			
Ethylbenzene	ug/m3	6.3	03/22/07	WSD	1.0			
4-Ethyl Toluene	ug/m3	290	03/22/07	WSD	1.3			
n-Heptane	ug/m3	14	03/22/07	WSD	1.0			
Hexachlorobutadiene	ug/m3	ND	03/22/07	WSD	2.8			
Hexane	ug/m3	3.1	03/22/07	WSD	1.0			
2-Hexanone	ug/m3	ND	03/22/07	WSD	1.0			
Isopropanol	ug/m3	310	03/22/07	WSD	0.50			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/22/07	WSD	1.0			
Methylene Chloride	ug/m3	13	03/22/07	WSD	0.75			
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	03/22/07	WSD	1.0			
Propene	ug/m3	ND	03/22/07	WSD	0.50			
Styrene	ug/m3	ND	03/22/07	WSD	1.0			
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/22/07	WSD	1.8			
Tetrachloroethylene	ug/m3	ND	03/22/07	WSD	0.85			
Tetrahydrofuran	ug/m3	ND	03/22/07	WSD	1.5			
Toluene	ug/m3	22	03/22/07	WSD	1.0			
1,2,4-Trichlorobenzene	ug/m3	ND	03/22/07	WSD	1.8			
1,1,1-Trichloroethane	ug/m3	ND	03/22/07	WSD	0.68			
1,1,2-Trichloroethane	ug/m3	ND	03/22/07	WSD	1.3			
Trichloroethylene	ug/m3	ND	03/22/07	WSD	0.68			
Trichlorofluoromethane	ug/m3	2.7	03/22/07	WSD	1.5			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	03/22/07	WSD	2.0			
1,2,4-Trimethylbenzene	ug/m3	670	03/22/07	WSD	1.3			
1,3,5-Trimethylbenzene	ug/m3	260	03/22/07	WSD	1.3			
Vinyl Acetate	ug/m3	ND	03/22/07	WSD	1.0			
Vinyl Chloride	ug/m3	ND	03/22/07	WSD	0.75			
m/p-Xylene	ug/m3	15	03/22/07	WSD	1.0			
o-Xylene	ug/m3	6.3	03/22/07	WSD	1.0			

RL = Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW						
MACTEC, INC M	1E				4/2/200	7
511 CONGRESS S	STREET				Page 3	5 of 57
PORTLAND, ME C	4101		Purchase Order No.:	MEC75070091/APO78616	Project Number: 361	16036009.01
Project Location:	ROCHESTER,	NY			LIMS-BAT #: LIM	F-04559
Date Received:	3/15/2007				Job Number: 3610	6036009.01
Field Sample # :	IA-07-006	(LOC	12-006)			
Analytical Method:						

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STR					4/2/2007 Page 36 of 57			
· · · · J - · · · · · ·)1)CHESTER, NY 5/2007		Purchase Orde	er No.: MEC75	LIMS-BAT #:	: 3616036009.01 LIMT-04559 3616036009.01		
Field Sample # : OA	۰07-001 (La	SCATION	00-20)					
Sample ID : 071	B08249	•	oled : 3/14/2007 SPECIFIED					
Sample Matrix: Alf	ર	Samp	le Medium	SUMMA				
	Ur	iits	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	1 A A A A A A A A A A A A A A A A A A A
Acetone	ug	/m3	14	03/22/07	WSD	0.50		
Benzene	ug	/m3	1.1	03/22/07	WSD	0.75		
Benzyl Chloride	ug	/m3	ND	03/22/07	WSD	1.3		
Bromodichloromethan	e ug	/m3	ND	03/22/07	WSD	1.8		
Bromomethane	ug	/m3	ND	03/22/07	WSD	1.0		
1,3-Butadiene	ug	/m3	ND	03/22/07	WSD	0.50		
2-Butanone (MEK)	ug	I/m3	2.4	03/22/07	WSD	0.75		
Carbon Disulfide	ug	/m3	ND	03/22/07	WSD	0.75		
Carbon Tetrachloride	ug	/m3	ND	03/22/07	WSD	0.78		
Chlorobenzene	ug	ı/m3	ND	03/22/07	WSD	1.3		
Chlorodibromomethar	ne ug	/m3	ND	03/22/07	WSD	2.3		
Chloroethane	ug	J/m3	ND	03/22/07	WSD	1.3		
Chloroform	ug	ı/m3	2.1	03/22/07	WSD	1.3		
Chloromethane	ug	J/m3	ND	03/22/07	WSD	0.50		
Cyclohexane	ug	ı/m3	ND	03/22/07	WSD	0.75		
1,2-Dibromoethane	ug	₃/m3	ND	03/22/07	WSD	2.0		
1,2-Dichlorobenzene	ug	;/m3	ND	03/22/07	WSD	1.5		
1,3-Dichlorobenzene	ug	J/m3	ND	03/22/07	WSD	1.5		
1,4-Dichlorobenzene	ug	j/m3∙	NĎ	03/22/07	WSD	1.5		
Dichlorodifluorometha	ine uç	J/m3	ND	03/22/07	WSD	1.3		
1,1-Dichloroethane	uç	g/m3	ND	03/22/07	WSD	1.0		
1,2-Dichloroethane	цç	j/m3	ND	03/22/07	WSD	1.0		
1,1-Dichloroethylene	- uç	j/m3	ND	03/22/07	WSD	1.0		
cis-1,2-Dichloroethyle	ine u	g/m3	ND	03/22/07	WSD	1.0		
t-1,2-Dichloroethylene	e uç	g/m3	ND	03/22/07	WSD	1.0		
1,2-Dichloropropane	uç	g/m3	ND	03/22/07	WSD	1.3		
cis-1,3-Dichloroprope	ne u	g/m3	ND	03/22/07	WSD	1.3		
trans-1,3-Dichloropro	pene u	g/m3	ND	03/22/07	WSD	1.3		
1,2-Dichlorotetrafluor	oethane (114) ug	g/m3	ND	03/22/07	WSD	1.8		
				00/00/07	MOD	4.0		

RL = Reporting Limit

Ethanol

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

ug/m3

33

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

1.0

03/22/07 WSD



39	Spruce Street ° E	ast Long	meadow, MA 010)28 ° FA/	C 413/525-0	405 IEL	. 410/020	-2002		
JEFF BRANDOW MACTEC, INC ME 511 CONGRESS S ⁻ PORTLAND, ME 04	TREET		Purchase	Order No	o.: MEC75()70091/AF	PO78616		2/2007 ge 37 r: 3616	of 57
	ROCHESTER, NY							LIMS-BAT #:		-04559
	3/15/2007						•	Job Number:	36160	036009.01
Field Sample # :	OA-07-001 (Loca	non 02-00							
Sample ID :	07B08249		Sampled : 3/14/2 NOT SPECIFIED)						
Sample Matrix:	AIR		Sample Medium	: SUM	IMA					
		Units	Resu	its	Date Analyzed	Analyst	RL	SPEC Limi Lo H		P/ F
Ethyl Acetate		ug/m3	ND		03/22/07	WSD	1.8			
Ethylbenzene		ug/m3	2.4		03/22/07	WSD	1.0			
4-Ethyl Toluene		ug/m3	ND		03/22/07	WSD	1.3			
n-Heptane		ug/m3	ND		03/22/07	WSD	1.0			
Hexachlorobutadie	ne	ug/m3	ND		03/22/07	WSD	2.8			
Hexane		ug/m3	ND		03/22/07	WSD	1.0			
2-Hexanone		ug/m3	ND		03/22/07	WSD	1.0			
isopropanol		ug/m3	3.8		03/22/07	WSD	0.50			
Methyl tert-Butyl E	ther (MTBE)	ug/m3	ND		03/22/07	WSD	1.0			
Methylene Chloride		ug/m3	3.2		03/22/07	WSD	0.75			
4-Methyi-2-Pentan		ug/m3	1.6		03/22/07	WSD	1.0			
Propene		ug/m3	ND		03/22/07	WSD	0.50			
Styrene		ug/m3	ND		03/22/07	WSD	1.0			
1,1,2,2-Tetrachloro	bethane	ug/m3	ND		03/22/07	WSD	1.8			
Tetrachloroethyler	ne	ug/m3	ND		03/22/07	WSD	0.85	й.		
Tetrahydrofuran		ug/m3	ND		03/22/07	WSD	1.5	ų.		
Toluene	•	ug/m3	17		03/22/07	WSD	1.0			
1,2,4-Trichloroben	zene	ug/m3	ND		03/22/07	WSD	1.8			
1,1,1-Trichloroetha	ane	ug/m3	ND		03/22/07	WSD	0.68			
1,1,2-Trichloroeth		ug/m3	ND		03/22/07	WSD	1.3			
Trichloroethylene		ug/m3	ND		03/22/07	WSD	0.68			
Trichlorofluorome	thane	ug/m3	1.5	,	03/22/07	WSD	1.5			
1,1,2-Trichloro-1,2	2,2-Trifluoroethane	ug/m3	ND		03/22/07	WSD	2.0			
1,2,4-Trimethylbe	nzene	ug/m3	ND		03/22/07	WSD	1.3			
1,3,5-Trimethylbe	nzene	ug/m3	ND		03/22/07	WSD	1.3			
Vinyl Acetate		ug/m3	ND		03/22/07	WSD	1.0			
Vinyl Chloride		ug/m3	ND		03/22/07	WSD	0.75			
m/p-Xylene		ug/m3	7.7		03/22/07	WSD	1.0			
o-Xylene		ug/m3	2.3		03/22/07	WSD	1.0			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

NM = Not Measured

* = See end of report for comments and notes applying to this sample



		1010007
		4/2/2007
		Page 38 of 57
Purchase Order No.:	MEC75070091/APO78616	Project Number: 3616036009.01
		LIMS-BAT #: LIMT-04559
A-081)		Job Number: 3616036009.01
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Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



3	9 Spruce Street *	East Long	meadow, MA 01026	FAX 413/323-0		410/020	2002		
JEFF BRANDOW MACTEC, INC M 511 CONGRESS S								/2/200 'age 3)7 9 of 57
PORTLAND, ME 0			Purchase Or	ter No.: MEC75	070091/A	PO78616	Project Numb	er: 36	16036009.01
Project Location:	ROCHESTER, N	Y					LIMS-BAT #:		T-04559
Date Received:	3/15/2007	,					Job Number:	361	6036009.01
Field Sample # :			on 56-189)	_					
Sample ID :	07B08239		Sampled : 3/14/200 NOT SPECIFIED	/					
Sample Matrix:	AIR			: SUMMA					
			Desertes	Dete	Analust	RL	SPEC Lir	nit	P/F
		Units	Results	Date Analyzed	Analyst	NL.		Hi	
Acetone		ug/m3	ND	03/24/07	WSD	40			
Benzene		ug/m3	1500	03/24/07	WSD	60			
Benzyl Chloride		ug/m3	ND	03/24/07	WSD	100			
Bromodichloromel	hane	ug/m3	ND	03/24/07	WSD	140			
Bromomethane		ug/m3	ND	03/24/07	WSD	80			
1,3-Butadiene		ug/m3	ND	03/24/07	WSD	40			
2-Butanone (MEK)	ug/m3	ND	03/24/07	WSD	60			
Carbon Disulfide	,	ug/m3	330	03/24/07	WSD	60	,		
Carbon Tetrachlor	ride	ug/m3	ND	03/24/07	WSD	62			
Chlorobenzene		ug/m3	270	03/24/07	WSD	100			
Chlorodibromome	thane	ug/m3	ND	03/24/07	WSD	180			
Chloroethane		ug/m3	550	03/24/07	WSD	100			
Chloroform		ug/m3	470000	03/24/07	WSD	100			
Chloromethane		ug/m3	78	03/24/07	WSD	40			
Cyclohexane		ug/m3	150000	03/24/07	WSD	60			
1,2-Dibromoethar	າຍ	ug/m3	ND	03/24/07	WSD	160			
1,2-Dichlorobenze	ene	ug/m3	ND	03/24/07	WSD	120			
1,3-Dichlorobenzo	ene	ug/m3	ND	03/24/07	WSD	120			
1,4-Dichlorobenze	ene	ug/m3	ND	03/24/07	WSD	120			
Dichlorodifluorom	ethane	ug/m3	ND	03/24/07	WSD	100			
1,1-Dichloroethar	ne	ug/m3	ND	03/24/07	WSD	80			
1,2-Dichloroethar	ne	ug/m3	ND	03/24/07	WSD	80			
1,1-Dichloroethyle	ene	ug/m3	ND	03/24/07	WSD	80			
cis-1,2-Dichloroe	thylene	ug/m3	ND	03/24/07	WSD	80	•		
t-1,2-Dichloroethy	ylene	ug/m3	ND	03/24/07	WSD	80			
1,2-Dichloropropa	ane	ug/m3	ND	03/24/07	WSD	100			
cis-1,3-Dichlorop	ropene	ug/m3	ND	03/24/07	WSD	100			
trans-1,3-Dichlor	opropene	ug/m3	ND	03/24/07	WSD	100			,
1,2-Dichlorotetra	fluoroethane (114)) ug/m3	ND	03/24/07	WSD	140			`
Ethanol		ug/m3	1500	03/24/07	WSD	80			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

Sample Matrix:

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW						:/2007
MACTEC, INC M	16					ae 40 of 57
511 CONGRESS S PORTLAND, ME C			Purchase Order No.:	MEC75070091/APO78616		; 3616036009.01
Project Location: Date Received: Field Sample # :	3/15/2007	VY (LOCATION	56-189)		LIMS-BAT #: Job Number:	LIMT-04559 3616036009.01
Sample ID :	07B08239	Samp	bled : 3/14/2007			

NOT SPECIFIED Sample Medium : SUMMA

	Units	Results	Date Analyzed	Analyst	RL	SPEC Lo	: Limit Hi	P/F
Ethyl Acetate	ug/m3	ND	03/24/07	WSD	140			
•	ug/m3	110	03/24/07	WSD	80			
•	ug/m3	ND	03/24/07	WSD	100			
-	ug/m3	1400	03/24/07	WSD	80			
	ug/m3	ND	03/24/07	WSD	220			
Hexane	ug/m3	48000	03/24/07	WSD	80			
2-Hexanone	ug/m3	ND	03/24/07	WSD	80			
isopropanol	ug/m3	2700	03/24/07	WSD	40			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/24/07	WSD	80			
Methylene Chloride	ug/m3	7600	03/24/07	WSD	60			
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	03/24/07	WSD	80			
Propene	ug/m3	ND	03/24/07	WSD	40			
Styrene	ug/m3	ND	03/24/07	WSD	80			
1,1,2,2-Tetrachloroethane	ug/m3	180	03/24/07	WSD	140			
Tetrachloroethylene	ug/m3	9000	03/24/07	WSD	68			
Tetrahydrofuran	ug/m3	ND	03/24/07	WSD	120			
Toluene	ug/m3	8100	03/24/07	WSD	80			
1,2,4-Trichlorobenzene	ug/m3	ND	03/24/07	WSD	140			
1,1,1-Trichloroethane	ug/m3	ND	03/24/07	WSD	54			
1,1,2-Trichloroethane	ug/m3	ND	03/24/07	WSD	100			
Trichloroethylene	ug/m3	4000	03/24/07	WSD	54			
Trichlorofluoromethane	ug/m3	ND	03/24/07	WSD	120			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	03/24/07	WSD	160			
1,2,4-Trimethylbenzene	ug/m3	ND	03/24/07	WSD	100			
1,3,5-Trimethylbenzene	ug/m3	ND	03/24/07	WSD	100			
Vinyl Acetate	ug/m3	ND 5	03/24/07	WSD	80			
Vinyl Chloride	ug/m3	2200	03/24/07		60			
m/p-Xylene	ug/m3	190	03/24/07	' WSD	80			
o-Xylene	ug/m3	ND	03/24/07	' WSD	80			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.



JEFF BRANDOW								
MACTEC, INC N	1E			i i	4/:	2/2007		
511 CONGRESS	STREET				Pa	age 41 of 57		
PORTLAND, ME 04101			Purchase Order No.:	MEC75070091/APO78616	Project Number: 3616036009.01			
Project Location:	ROCHESTER,	NY				LIMT-04559		
Date Received:	3/15/2007		- •		Job Number:	3616036009.01		
Field Sample # :	SG-07-188	(LOC	56 - 189)					
Appletical Mathead								

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS STREET			·				2/2007 ge 42 of 57
PORTLAND, ME 04101		Purchase Order I	No.: MEC75	070091/AP(D78616	Project Numbe LIMS-BAT #:	r: 3616036009.01 LIMT-04559
Project Location: ROCHESTER, N Date Received: 3/15/2007						Job Number:	3616036009.01
Field Sample # : SG-07-189	(LOCATION	56-190)					
Sample ID : *07B08241	,	∋d : 3/14/2007					
		PECIFIED	** ** * ^ .				
Sample Matrix: AIR	Sample	e Medium 🛛 : SL	IMMA				
	Units	Results	Date Analyzed	Analyst	RL	SPEC Lim	
Acetone	ug/m3	76	03/23/07	WSD	4.0		
Benzene	ug/m3	130	03/23/07	WSD	6.0		
Benzyl Chloride	ug/m3	ND	03/23/07	WSD	10		
Bromodichloromethane	ug/m3	ND	03/23/07	WSD	14		
Bromomethane	ug/m3	ND	03/23/07	WSD	8.0		
1,3-Butadiene	ug/m3	ND	03/23/07	WSD	4.0		
2-Butanone (MEK)	ug/m3	92	03/23/07	WSD	6.0		
Carbon Disulfide	ug/m3	42	03/23/07	WSD	6.0		
Carbon Tetrachloride	ug/m3	230	03/23/07	WSD	6.2		
Chlorobenzene	ug/m3	1000	03/23/07	WSD	10		
Chlorodibromomethane	ug/m3	ND	03/23/07	WSD	18		
Chloroethane	ug/m3	ND	03/23/07	WSD	10		
Chloroform	ug/m3	4900	03/23/07	WSD	10		
Chloromethane	ug/m3	ND	03/23/07	WSD	4.0		
Cyclohexane	ug/m3	ND	03/23/07	WSD	6.0	,	
1,2-Dibromoethane	ug/m3	ND	03/23/07	WSD	16		
1,2-Dichlorobenzene	ug/m3	ND	03/23/07	WSD	12		
1,3-Dichlorobenzene	ug/m3	ND	03/23/07	WSD	12		
1,4-Dichlorobenzene	ug/m3	ND	03/23/07	WSD	12		
Dichlorodifluoromethane	ug/m3	ND	03/23/07	WSD	10		
1,1-Dichloroethane	ug/m3	ND	03/23/07	WSD	8.0		
1,2-Dichloroethane	ug/m3	ND	03/23/07	WSD	8.0		
1,1-Dichloroethylene	ug/m3	110	03/23/07	WSD	8.0		
cis-1,2-Dichloroethylene	ug/m3	14	03/23/07	WSD	8.0		
t-1,2-Dichloroethylene	ug/m3	ND	03/23/07	WSD	8.0		
1,2-Dichloropropane	ug/m3	ND	03/23/07	WSD	10		
cis-1,3-Dichloropropene	ug/m3	ND	03/23/07	WSD	10		
trans-1,3-Dichloropropene	ug/m3	NĎ	03/23/07	WSD	10		
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	03/23/07	WSD	14		
Ethanol	ug/m3	NĎ	03/23/07	WSD	8.0		

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



AIR

Sample Matrix:

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JEFF BRANDOW						
MACTEC, INC N	ΛE					2/2007
511 CONGRESS	STREET				Pa	age 43 of 57
PORTLAND, ME)4101		Purchase Order No.:	MEC75070091/APO78616	Project Numbe	er: 3616036009.01
Project Location:	ROCHESTER,	NY			LIMS-BAT #:	LIMT-04559
Date Received:	3/15/2007				Job Number:	3616036009.01
Field Sample # :	SG-07-189	(LOCATION	se-ing			
Sample ID :	*07B08241	Samp	led : 3/14/2007		н. -	

Sampled : 3/14/2007 NOT SPECIFIED Sample Medium : SUMMA

	Units	Results	Date	Analyst	RL	SPEC	C Limit	P/F
			Analyzed			Lo	Hi	
Ethyl Acetate	ug/m3	ND	03/23/07	WSD	14			
Ethylbenzene	ug/m3	10	03/23/07	WSD	8.0			
4-Ethyl Toluene	ug/m3	ND	03/23/07	WSD	10			
n-Heptane	ug/m3	24	03/23/07	WSD	8.0			
Hexachlorobutadiene	ug/m3	ND	03/23/07	WSD	22			
Hexane	ug/m3	49	03/23/07	WSD	8.0			
2-Hexanone	ug/m3	ND	03/23/07	WSD	8.0			
Isopropanol	ug/m3	6600	03/23/07	WSD	4.0			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/23/07	WSD	8.0			
Methylene Chloride	ug/m3	92	03/23/07	WSD	6.0			
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	03/23/07	WSD	8.0			
Propene	ug/m3	ND	03/23/07	WSD	4.0			
Styrene	ug/m3	ND	03/23/07	WSD	8.0			
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/23/07	WSD	14			
Tetrachloroethylene	ug/m3	3200	03/23/07	WSD	6.8			
Tetrahydrofuran	ug/m3	ND	03/23/07	WSD	12			
Toluene	ug/m3	220	03/23/07	WSD	8.0			
1,2,4-Trichlorobenzene	ug/m3	ND	03/23/07	WSD	14			
1,1,1-Trichloroethane	ug/m3	ND	03/23/07	WSD	5.4			
1,1,2-Trichloroethane	ug/m3	ND	03/23/07	WSD	10			
Trichloroethylene	ug/m3	98	03/23/07	WSD	5.4			
Trichlorofluoromethane	ug/m3	ND	03/23/07	WSD	12			
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	03/23/07	WSD	16			
1,2,4-Trimethylbenzene	ug/m3	ND	03/23/07	WSD	10			
1,3,5-Trimethylbenzene	ug/m3	ND	03/23/07	WSD	10			
Vinyl Acetate	ug/m3	13 ブ	03/23/07	WSD	8.0			
Vinyl Chloride	ug/m3	56	03/23/07	WSD	6.0			
m/p-Xylene	ug/m3	26	03/23/07	WSD	8.0			
o-Xylene	ug/m3	ND	03/23/07	WSD	8.0			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW							
MACTEC, INC M	E						2/2007
511 CONGRESS S	STREET						ge 44 of 57
PORTLAND, ME 0	4101			Purchase Order No.:	MEC75070091/APO78616	· · -,	:: 3616036009.01
Project Location:	ROCHESTER,	NY					LIMT-04559
Date Received:	3/15/2007	_				Job Number:	3616036009.01
Field Sample # :	SG-07-189	(60	5 G - 19	0)			

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

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ND = Not Detected at or above the Reporting Limit

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JEFF BRANDOW MACTEC, INC 1 511 CONGRESS	ME							2/2007 ige 45 of 57
PORTLAND, ME		NY	Purchase Order	No.: MEC75	5070091/AP	078616	LIMS-BAT #:	r: 3616036009.01 LIMT-04559
Date Received: Field Sample # :	3/15/2007 SG-07-190	(LOCATION	56-191)				Job Number:	3616036009.01
Sample ID :	*07B08243		npled : 3/14/2007					
-			T SPECIFIED	** ** * *				
Sample Matrix:	AIR	Sar	nple Medium : Sl	JMMA				
		Units	Results	Date Analyzed	Analyst	RL	SPEC Lim Lo H	
Acetone		ug/m3	46	03/27/07	WSD	4.0		
Benzene		ug/m3	ND	03/27/07	WSD	6.0		
Benzyl Chloride		ug/m3	ND	03/27/07	WSD	10		
Bromodichlorome	ethane	ug/m3	120	03/27/07	WSD	14		
Bromomethane		ug/m3	ND	03/27/07	WSD	8.0		
1,3-Butadiene		ug/m3	ND	03/27/07	WSD	4.0		
2-Butanone (MEK	<)	ug/m3	ND	03/27/07	WSD	6.0		
Carbon Disulfide		ug/m3	ND	03/27/07	WSD	6.0		
Carbon Tetrachlo	ride	ug/m3	200	03/27/07	WSD	6.2		
Chlorobenzene		ug/m3	ND	03/27/07	WSD	10		
Chiorodibromome	ethane	ug/m3	ND	03/27/07	WSD	18		
Chloroethane		ug/m3	ND	03/27/07	WSD	10		
Chloroform		ug/m3	51000	03/27/07	WSD	10		
Chioromethane		ug/m3	ND	03/27/07	WSD	4.0		
Cyclohexane		ug/m3	ND	03/27/07	WSD	6.0		
1,2-Dibromoetha	ne	ug/m3	ND	03/27/07	WSD	16		
1,2-Dichlorobenz	ene	ug/m3	ND	03/27/07	WSD	12		
1,3-Dichlorobenz	ene	ug/m3	ND	03/27/07	WSD	12		
1,4-Dichlorobenz	ene	ug/m3	ND	03/27/07	WSD	12		
Dichlorodifluorom	nethane	ug/m3	ND	03/27/07	WSD	10		
1,1-Dichloroetha	ne	ug/m3	ND	03/27/07	WSD	8.0		
1,2-Dichloroetha	ne	ug/m3	19	03/27/07	WSD	8.0		
1,1-Dichloroethyl	ene	ug/m3	ND	03/27/07	WSD	8.0		
cis-1,2-Dichloroe	thylene	ug/m3	ND	03/27/07	WSD	8.0		
t-1,2-Dichloroeth	ylene	ug/m3	ND	03/27/07	WSD	8.0		
1,2-Dichloroprop	ane	ug/m3	ND	03/27/07	WSD	10		
cis-1,3-Dichlorop	oropene	ug/m3	ND	03/27/07	WSD	10		
trans-1,3-Dichlor	opropene	ug/m3	ND	03/27/07	WSD	10		
1,2-Dichlorotetra	fluoroethane (114) ug/m3	ND	03/27/07	WSD	14		
Ethanol		ug/m3	ND	03/27/07	WSD	8.0		

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SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

NM = Not Measured

* = See end of report for comments and notes applying to this sample



3	9 Spruce Street ° E	East Longme	adow, MA 01028 F	AX 413/525-0	405 111	. 410/020	2002		
JEFF BRANDOW MACTEC, INC M 511 CONGRESS S	STREET		Purchase Order	No: MEC75	070091/AF	PO78616		/2007 ge 46 c * 3616	
PORTLAND, ME 0			Fulchase Older	NO.: MEOTO				LIMT-	
Project Location:	ROCHESTER, N) 3/15/2007	ſ					Job Number:	36160	36009.01
Date Received: Field Sample # :	SG-07-190 ((DCATION	, 56-191)						
Sample ID :	*07B08243	S	ampied : 3/14/2007 OT SPECIFIED						
Sample Matrix:	AIR	S	ample Medium 🛛 : St	AMMA					
		Units	Results	Date Analyzed	Analyst	RL	SPEC Limi Lo H		P/ F
Ethyl Acetate		ug/m3	ND	03/27/07	WSD	14			
Ethylbenzene		ug/m3	ND	03/27/07	WSD	8.0			
4-Ethyl Toluene		ug/m3	ND	03/27/07	WSD	10			
n-Heptane		ug/m3	14	03/27/07	WSD	8.0			
Hexachlorobutadi	ene	ug/m3	ND	03/27/07	WSD	22			
Hexane		ug/m3	ND	03/27/07	WSD	8.0	·		
2-Hexanone		ug/m3	ND 🌫	03/27/07	WSD	8.0			
Isopropanol		ug/m3	4100	03/27/07	WSD	4.0			
Methyl tert-Butyl	Ether (MTBE)	ug/m3	ND	03/27/07	WSD	8.0			
Methylene Chloric		ug/m3	ND	03/27/07	WSD	6.0			
4-Methyl-2-Penta	none (MIBK)	ug/m3	ND	03/27/07	WSD	8.0			
Propene		ug/m3	ND	03/27/07	WSD	4.0			
Styrene		ug/m3	ND	03/27/07	WSD	8.0			
1,1,2,2-Tetrachio	roethane	ug/m3	ND	03/27/07	WSD	14			
Tetrachloroethyle	ne	ug/m3	140	03/27/07	WSD	6.8			
Tetrahydrofuran		ug/m3	ND	03/27/07	WSD	12			
Toluene		ug/m3	ND	03/27/07	WSD	8.0			
1,2,4-Trichlorobe	nzene	ug/m3	ND	03/27/07	WSD	14			
1,1,1-Trichloroeth	nane	ug/m3	ND	03/27/07	WSD	5.4			
1,1,2-Trichloroett	nane	ug/m3	ND	03/27/07	WSD	10			
Trichloroethylene	•	ug/m3	180	03/27/07	WSD	5.4			
Trichlorofluorome	ethane	ug/m3	ND	03/27/07	WSD	12			
1,1,2-Trichloro-1	,2,2-Trifluoroethan	e ug/m3	ND	03/27/07	WSD	16			·
1,2,4-Trimethylb	enzene	ug/m3	ND	03/27/07	WSD	10			
1,3,5-Trimethylb		ug/m3	ND	03/27/07	WSD	10			
Vinyl Acetate		ug/m3	ND	03/27/07	WSD	8.0			
Vinyl Chloride		ug/m3	ND	03/27/07	WSD	6.0			
m/p-Xylene		ug/m3	14	03/27/07		8.0	·		
o-Xylene		ug/m3	ND	03/27/07	WSD	8.0			

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JEFF BRANDOW							
MACTEC, INC M	1E					4/2	2/2007
511 CONGRESS	STREET					Pa	ige 47 of 57
PORTLAND, ME C	4101			Purchase Order No.:	MEC75070091/APO78616	Project Numbe	r: 3616036009.01
Project Location:	ROCHESTER	, NY				LIMS-BAT #:	LIMT-04559
Date Received:	3/15/2007					Job Number:	3616036009.01
Field Sample # :	SG-07-190	(coc	56-191)			

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

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NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW MACTEC, INC N 511 CONGRESS \$								Pa	/2007 ge 48 of 57
PORTLAND, ME (Ρι	urchase Ord	er No.: MEC75	070091/A	PO78616	Project Number LIMS-BAT #:	: 3616036009.01 LIMT-04559
Project Location: Date Received:	ROCHESTER, NY 3/15/2007							Job Number:	3616036009.01
Field Sample # :	SG-07-191RE	(LOC	ATION	56-192	.)				
Sample ID :	*07B08251		Sampled	l : 3/14/2007	7				
			NOT SP						
Sample Matrix:	AIR		Sample	Medium :	SUMMA				
		Units		Results	Date Analyzed	Analyst	RL	SPEC Limi Lo H	
Acetone		ug/m3		94	03/24/07	WSD	0.40		
Benzene		ug/m3		0.64	03/24/07	WSD	0.60		
Benzyl Chloride		ug/m3		ND	03/24/07	WSD	1.0		
Bromodichlorome	thane	ug/m3		ND	03/24/07	WSD	1.4		
Bromomethane		ug/m3		ND	03/24/07	WSD	0.80		
1,3-Butadiene		ug/m3		ND	03/24/07	WSD	0.40		
2-Butanone (MEK)	ug/m3		2.8	03/24/07	WSD	0.60	•	
Carbon Disulfide		ug/m3		ND	03/24/07	WSD	0.60		
Carbon Tetrachlo	ride	ug/m3		ND	03/24/07	WSD	0.62		
Chlorobenzene		ug/m3		ND	03/24/07	WSD	1.0		
Chlorodibromome	ethane	ug/m3		ND	03/24/07	WSD	1.8		
Chloroethane		ug/m3		ND	03/24/07	WSD	1.0		
Chloroform		ug/m3		1.3	03/24/07	WSD	1.0		
Chloromethane		ug/m3		ND	03/24/07	WSD	0.40	,	
Cyclohexane		ug/m3		ND	03/24/07	WSD	0.60		
1,2-Dibromoetha	ne	ug/m3		ND	03/24/07	WSD	1.6		
1,2-Dichlorobenz	ene	ug/m3		ND	03/24/07	WSD	1.2		
1,3-Dichlorobenz	ene	ug/m3		ND	03/24/07	WSD	1.2		
1,4-Dichlorobenz	ene	ug/m3		ND	03/24/07	WSD	1.2		
Dichlorodifluorom	nethane	ug/m3		ND	03/24/07	WSD	1.0		
1,1-Dichloroetha	ne	ug/m3		ND	03/24/07	WSD	0.80		
1,2-Dichloroetha	ne	ug/m3		ND	03/24/07	WSD	0.80		
1,1-Dichloroethyl	ene	ug/m3		ND	03/24/07	WSD	0.80		
cis-1,2-Dichloroe	thylene	ug/m3		ND	03/24/07	WSD	0.80		
t-1,2-Dichloroeth	ylene	ug/m3		ND	03/24/07	WSD	0.80		
1,2-Dichloroprop	ane	ug/m3		ND	03/24/07	WSD	1.0		
cis-1,3-Dichlorop	ropene	ug/m3		ND	03/24/07	WSD	1.0		
trans-1,3-Dichlor	opropene	ug/m3		ND	03/24/07	WSD	1.0		
1,2-Dichlorotetra	fluoroethane (114)	ug/m3		ND	03/24/07	WSD	1.4		
Ethanol		ug/m3		ND	03/24/07	WSD	0.80		

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JEFF BRANDOW MACTEC, INC ME							2/200 ⁻ age 49	7 9 of 57
511 CONGRESS STREET PORTLAND, ME 04101		Purchase Order	No.: MEC75	070091/AF	PO78616	Project Numbe LIMS-BAT #:		6036009.0 F-04559
Project Location: ROCHESTER, N Date Received: 3/15/2007			X			Job Number:		5036009.01
Field Sample # : SG-07-191RE	(LOCAT	102 55-192						
Sample ID : *07B08251		pled : 3/14/2007 SPECIFIED						
Sample Matrix: AIR			JMMA					
	Units	Results	Date Analyzed	Analyst	RL	SPEC Lim Lo H	nit Hi	P/F
Ethyl Acetate	ug/m3	ND	03/24/07	WSD	1.4	<u> </u>		
Ethylbenzene	ug/m3	5.1	03/24/07	WSD	0.80			
4-Ethyl Toluene	ug/m3	7.2	03/24/07	WSD	1.0			
n-Heptane	ug/m3	5.1	03/24/07	WSD	0.80			·
Hexachlorobutadiene	ug/m3	ND	03/24/07	WSD	2.2			
Hexane	ug/m3	1.9	03/24/07	WSD	0.80			
2-Hexanone	ug/m3	ND	03/24/07	WSD	0.80			
Isopropanol	ug/m3	15000	03/24/07	WSD	0.40			
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	03/24/07	WSD	0.80			
Methylene Chloride	ug/m3	1.1	03/24/07	WSD	0.60			
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	03/24/07	WSD	0.80			
Propene	ug/m3	ND	03/24/07	WSD	0.40			
Styrene	ug/m3	ND	03/24/07	WSD	0.80			
1,1,2,2-Tetrachloroethane	ug/m3	ND	03/24/07	WSD	1.4			
Tetrachloroethylene	ug/m3	1.8	03/24/07	WSD	0.68			
Tetrahydrofuran	ug/m3	ND	03/24/07	WSD	1.2			
Toluene	ug/m3	8.2	03/24/07	WSD	0.80			
1,2,4-Trichlorobenzene	ug/m3	ND	03/24/07	WSD	1.4			
1,1,1-Trichloroethane	ug/m3	ND	03/24/07	WSD	0.54			
1,1,2-Trichloroethane	ug/m3	ND	03/24/07	WSD	1.0			
Trichloroethylene	ug/m3	ND	03/24/07	WSD	0.54			
Trichlorofluoromethane	ug/m3	2.0	03/24/07	WSD	1.2			
1,1,2-Trichloro-1,2,2-Trifluoroetha	ne ug/m3	ND	03/24/07	WSD	1.6			
1,2,4-Trimethylbenzene	ug/m3	18	03/24/07	WSD	1.0			
1,3,5-Trimethylbenzene	ug/m3	6.2	03/24/07	WSD	1.0			
Vinyl Acetate	ug/m3	ΝΟ	03/24/07		0.80			
Vinyl Chloride	ug/m3	ND	03/24/07	WSD	0.60			
			00/04/07	14/05	0.90			

RL = Reporting Limit

m/p-Xylene

o-Xylene

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

ug/m3

ug/m3

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

WSD

WSD

03/24/07

03/24/07

18

5.8

0.80

0.80



JEFF BRANDOW							
MACTEC, INC N	ΛE				4/	2/2007	
511 CONGRESS	STREET				Pí	age 50 of 57	
PORTLAND, ME	04101		Purchase Order No.:	MEC75070091/APO78616	Project Numbe	er: 3616036009.01	
Project Location:	ROCHESTER, NY				LIMS-BAT #:	LIMT-04559	
Date Received:	3/15/2007				Job Number:	3616036009.01	
Field Sample # :	SG-07-191RE	(LOC 54	192)			·	
Analytical Method:							

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

* = See end of report for comments and notes applying to this sample



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JEFF BRANDOW MACTEC, INC N 511 CONGRESS	ME							4/2/20 Page 5	07 51 of 57
PORTLAND, ME	04101		Purchase Order	No.: MEC75	6070091/AF	PO78616	Project Num	iber: 36	616036009.01
Project Location:	ROCHESTER, N	Y					LIMS-BAT #		AT-04559
Date Received:	3/15/2007		(0 10B)				Job Numbei	:: 361	16036009.01
Field Sample # :		LOCATION							
Sample ID :	*07B08246		npled : 3/14/2007						
Sample Matrix:	AIR			JMMA					
,				D-4-	D			inst	P/F
		Units	Results	Date Analyzed	Analyst	RL	SPEC L Lo	.arna Hi	F/F
Acetone		ug/m3	ND	03/22/07	WSD	4.0	·		
Benzene		ug/m3	ND	03/22/07	WSD	6.0			
Benzyl Chloride		ug/m3	ND	03/22/07	WSD	10			
Bromodichlorome	thane	ug/m3	ND	03/22/07	WSD	14			
Bromomethane		ug/m3	ND	03/22/07	WSD	8.0			
1,3-Butadiene		ug/m3	ND	03/22/07	WSD	4.0			
2-Butanone (MEK	3	ug/m3	ND	03/22/07	WSD	6.0			
Carbon Disulfide	7	ug/m3	ND	03/22/07	WSD	6.0			
Carbon Tetrachio	ride	ug/m3	ND	03/22/07	WSD -	6.2			
Chlorobenzene		ug/m3	ND	03/22/07	WSD	10			
Chlorodibromome	athane	ug/m3	ND	03/22/07	WSD	18			
Chloroethane		ug/m3	ND	03/22/07	WSD	10			
Chloroform		ug/m3	ND	03/22/07	WSD	10			
Chloromethane		ug/m3	ND	03/22/07	WSD	4.0			
Cyclohexane		ug/m3	ND	03/22/07	WSD	6.0			
1,2-Dibromoethar	ne	ug/m3	ND	03/22/07	WSD	16			
1,2-Dichlorobenzo	ene	ug/m3	ND	03/22/07	WSD	12			
1,3-Dichlorobenzo	ene	ug/m3	ND	03/22/07	WSD	12			
1,4-Dichlorobenzo	ene	ug/m3	ND	03/22/07	WSD	12			
Dichlorodifluorom	lethane	ug/m3	ND	03/22/07	WSD	10			
1,1-Dichloroethar	e	ug/m3	ND	03/22/07	WSD	8.0			
1,2-Dichloroethar	e	ug/m3	ND	03/22/07	WSD	8.0			
1,1-Dichloroethyle	ene	ug/m3	ND	03/22/07	WSD	8.0			
cis-1,2-Dichloroel	thylene	ug/m3	ND	03/22/07	WSD	8.0			
t-1,2-Dichloroethy	/lene	ug/m3	ND	03/22/07	WSD	8.0			
1,2-Dichloropropa	ane	ug/m3	ND	03/22/07	WSD	10			
cis-1,3-Dichlorop	ropene	ug/m3	ND	03/22/07	WSD	10			
trans-1,3-Dichloro	opropene	ug/m3	ND	03/22/07	WSD	10			
1,2-Dichlorotetraf	luoroethane (114)	ug/m3	ND	03/22/07	WSD	14			
Ethanol		ug/m3	ND	03/22/07	WSD	8.0			

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW MACTEC, INC N 511 CONGRESS S PORTLAND, ME C	STREET		Purchase Orde	r No.: MEC75	070091/AI	>078616	Project Num	ber: 30	52 of 57 616036009.01
Project Location: Date Received: Field Sample # :	ROCHESTER, 3/15/2007 SG-07-192	(сьсять	N 56-188)			·	LIMS-BAT # Job Number:		ИТ-04559 16036009.01
Sample ID :	*07B08246	N	ampled : 3/14/2007 OT SPECIFIED						
Sample Matrix:	AIR	S	ample Medium : S	SUMMA					
		Units	Results	Date Analyzed	Analyst	RL	SPEC L Lo	imit Hi	P/F
Ethyl Acetate		ug/m3	ND	03/22/07	WSD	14			
Ethylbenzene		ug/m3	ND	03/22/07	WSD	8.0			
4-Ethyl Toluene	1.	ug/m3	ND	03/22/07	WSD	10			
n-Heptane		ug/m3	ND	03/22/07	WSD	8.0			
Hexachlorobutadi	ene	ug/m3	ND	03/22/07	WSD	22			
Hexane		ug/m3	ND	03/22/07	WSD	8.0			
2-Hexanone	,	ug/m3	ND	03/22/07	WSD	8.0			
Isopropanol		ug/m3	180000	03/22/07	WSD	4.0			
Methyl tert-Butyl I	Ether (MTBE)	ug/m3	ND	03/22/07	WSD	8.0			
Methylene Chlori		ug/m3	10	03/22/07	WSD	6.0			

ND

ND

ND

ND

ND

03/22/07 WSD ND ug/m3 Tetrachloroethylene 03/22/07 WSD ND ug/m3 Tetrahydrofuran 03/22/07 WSD ND ug/m3 Toluene WSD 03/22/07 ND 1,2,4-Trichlorobenzene ug/m3 ND 03/22/07 WSD ug/m3 1,1,1-Trichloroethane WSD 03/22/07 ND ug/m3 1,1,2-Trichloroethane WSD 03/22/07 ND ug/m3 Trichioroethylene WSD ND 03/22/07 ug/m3 Trichlorofluoromethane WSD 03/22/07 ND 1,1,2-Trichloro-1,2,2-Trifluoroethane ug/m3 03/22/07 WSD ND ug/m3 1,2,4-Trimethylbenzene WSD 03/22/07 ND ug/m3 1,3,5-Trimethylbenzene WSD 03/22/07 ug/m3 ND Vinyl Acetate WSD 03/22/07 ND ug/m3 Vinyl Chloride WSD 03/22/07 ND ug/m3

ug/m3

ug/m3

ug/m3

ug/m3

RL = Reporting Limit

m/p-Xylene

o-Xylene

4-Methyl-2-Pentanone (MIBK)

1,1,2,2-Tetrachioroethane

Propene

Styrene

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

ug/m3

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

WSD

03/22/07

WSD

WSD

WSD

WSD

03/22/07

03/22/07

03/22/07

03/22/07

8.0

4.0

8.0

14

6.8

12

8.0

14

5.4

10

5.4

12

16

10

10

8.0

6.0

8.0

8.0



39 Spruce Street ° East Lo	nomeadow. MA	01028 ° FAX	413/525-6405 °	TEL. 413/525-2332

JEFF BRANDOW						
MACTEC, INC N	1E				4/2	2/2007
511 CONGRESS	STREET	• .			Pa	ge 53 of 57
PORTLAND, ME C	4101		Purchase Order No.:	MEC75070091/APO78616	Project Number	r: 3616036009.01
Project Location:	ROCHESTER,	NY			LIMS-BAT #:	LIMT-04559
Date Received:	3/15/2007		and the		Job Number:	3616036009.01
Field Sample # :	SG-07-192	(Loc.	56-188)			

Analytical Method:

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



JEFF BRANDOW			meadow, white orde	0 1700 100020 0				
MACTEC, INC N	ΛE							2/2007
511 CONGRESS	STREET						Pa	ige 54 of 57
PORTLAND, ME	04101		Purchase O	rder No.: MEC75	070091/AF	PO78616	-	r: 3616036009.01
Project Location:	ROCHESTER,	NY					LIMS-BAT #: Job Number:	LIMT-04559 3616036009.01
Date Received: Field Sample # :	3/15/2007 SG-07-193	Lor ATT	1N SG-193)				SOD Multiper.	00100000000
Sample ID :	*07B08248		Sampled : 3/14/20	07				
Sample is .	01000240		NOT SPECIFIED					
Sample Matrix:	AIR		Sample Medium	: SUMMA				
		Units	Results	Date Analyzed	Analyst	RL	SPEC Lim Lo H	
Acetone	·····	ug/m3	170	03/24/07	WSD	0.50		
Benzene		ug/m3	ND	03/24/07	WSD	0.75		
Benzyl Chloride		ug/m3	ND	03/24/07	WSD	1.3		
Bromodichlorome	thane	ug/m3	ND	03/24/07	WSD	1.8		
Bromomethane		ug/m3	ND	03/24/07	WSD	1.0		
1,3-Butadiene		ug/m3	ND	03/24/07	WSD	0.50		
2-Butanone (MEK)	ug/m3	5.8	03/24/07	WSD	0.75		
Carbon Disulfide		ug/m3	ND	03/24/07	WSD	0.75		
Carbon Tetrachlo	ride	ug/m3	ND	03/24/07	WSD	0.78		
Chlorobenzene		ug/m3	ND	03/24/07	WSD	1.3		
Chlorodibromome	thane	ug/m3	ND	03/24/07	WSD	2.3		
Chloroethane		ug/m3	ND	03/24/07	WSD	1.3		
Chloroform		ug/m3	ND	03/24/07	WSD	1.3		
Chloromethane		ug/m3	ND	03/24/07	WSD	0.50		
Cyclohexane		ug/m3	3.9	03/24/07	WSD	0.75		
1,2-Dibromoethar	ıe	ug/m3	ND	03/24/07	WSD	2.0		
1,2-Dichlorobenz	ene	ug/m3	ND	03/24/07	WSD	1.5		
1,3-Dichlorobenz	ene	ug/m3	ND	03/24/07	WSD	1.5		
1,4-Dichlorobenz	ene	ug/m3	ND	03/24/07	WSD	1.5		
Dichlorodifluorom	ethane	ug/m3	ND	03/24/07	WSD	1.3		
1,1-Dichloroethar	ne	ug/m3	ND	03/24/07	WSD	1.0		
1,2-Dichloroethar	ne	ug/m3	ND	03/24/07	WSD	1.0		
1,1-Dichloroethyle	ene	ug/m3	ND	03/24/07	WSD	1.0		
cis-1,2-Dichloroel	thylene	ug/m3	ND	03/24/07	WSD	1.0		
t-1,2-Dichloroethy	/lene	ug/m3	ND	03/24/07	WSD	1.0		
1,2-Dichloropropa	ane	ug/m3	ND	03/24/07	WSD	1.3		
cis-1,3-Dichlorop	ropene	ug/m3	ND	03/24/07	WSD	1.3		
trans-1,3-Dichlor	opropene	ug/m3	ND	03/24/07	WSD	1.3		
1,2-Dichlorotetrat	luoroethane (114) ug/m3	ND	03/24/07	WSD	1.8		

ND

RL = Reporting Limit

Ethanol

ND = Not Detected at or above the Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

03/24/07 WSD

1.0

NM = Not Measured

* = See end of report for comments and notes applying to this sample

ug/m3



JEFF BRANDOW MACTEC, INC ME 511 CONGRESS ST	FREET		Purchase Order	No.: MEC75	070091/AF	2078616	4/2/20 Page Project Number: 3	55 of 57
	ROCHESTER, N		N SG-193)				LIMS-BAT #: LI	MT-04559 516036009.01
•								
Sample ID : '	07B08248		ampled : 3/14/2007 OT SPECIFIED					
Sample Matrix:	٩IR	Sa	ample Medium 🛛 : Sl	JMMA				
		Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/F
Ethyl Acetate		ug/m3	ND	03/24/07	WSD	1.8		
- Ethylbenzene	ан. 	ug/m3	6.5	03/24/07	WSD	1.0		
4-Ethyi Toluene		ug/m3	26	03/24/07	WSD	1.3		
n-Heptane		ug/m3	9.7	03/24/07	WSD	1.0		
Hexachlorobutadier	ne	ug/m3	ND	03/24/07	WSD	2.8		
Hexane		ug/m3	ND	03/24/07	WSD	1.0		
2-Hexanone		ug/m3	ND	03/24/07	WSD	1.0		
Isopropanol		ug/m3	61000	03/24/07	WSD	0.50		
Methyl tert-Butyl Et	her (MTBE)	ug/m3	ND .	03/24/07	WSD	1.0		
Methylene Chloride		ug/m3	ND	03/24/07	WSD	0.75		
4-Methyl-2-Pentan	one (MIBK)	ug/m3	ND	03/24/07	WSD	1.0		
Propene		ug/m3	ND	03/24/07	WSD	0.50		
Styrene		ug/m3	ND	03/24/07	WSD	1.0		
1,1,2,2-Tetrachloro	ethane	ug/m3	ND	03/24/07	WSD	1.8		
Tetrachioroethylen		ug/m3	ND	03/24/07	WSD	0.85		
Tetrahydrofuran		ug/m3	ND	03/24/07	WSD	1.5		
Toluene		ug/m3	6.2	03/24/07	WSD	1.0		
1,2,4-Trichloroben	zene	ug/m3	ND	03/24/07	WSD	1.8		
1,1,1-Trichloroetha	ine	ug/m3	ND	03/24/07	WSD	0.68		
1,1,2-Trichloroetha		ug/m3	ND	03/24/07	WSD	1.3		
Trichloroethylene		ug/m3	ND	03/24/07	WSD	0.68		
Trichlorofluoromet	hane	ug/m3	1.7	03/24/07	WSD	1.5		
1,1,2-Trichloro-1,2	2,2-Trifluoroethan	e ug/m3	ND	03/24/07	WSD	2.0		
1,2,4-Trimethylber		ug/m3	40	03/24/07	WSD	1.3		
1,3,5-Trimethylbei		ug/m3	19	03/24/07	WSD	1.3		
Vinyi Acetate		ug/m3	ND J	03/24/07	WSD	1.0		
Vinyl Chloride	a.	ug/m3	ND	03/24/07	WSD	0.75		
m/p-Xylene		ug/m3	27	03/24/07	WSD	1.0		
o-Xylene		ug/m3	8.3	03/24/07	WSD	1.0		

RL = Reporting Limit

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample



39 Spruce Street ° East Longmeadow, MA	01028 ° FAX 413/525-6405 ° TEL	413/525-2332
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JEFF BRANDOW							
MACTEC, INC N	ΛE				4/3	2/2007	
511 CONGRESS	STREET					age 56 of 57	
PORTLAND, ME ()4101		Purchase Order No.:	MEC75070091/APO78616		r: 3616036009.01	,
Project Location: Date Received: Field Sample # :	ROCHESTER, 1 3/15/2007 SG-07-193		56-193)	an a	LIMS-BAT #:	LIMT-04559 3616036009.01	
Analytical Method:		6 mm and					

EPA TO-15

SAMPLES ARE TAKEN IN SUMMA CANISTERS AND ANALYZED BY GAS CHROMATOGRAPHY WITH MASS SPECTROMETRY DETECTION. (GC/MS)

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

* = See end of report for comments and notes applying to this sample



JEFF BRANDOV MACTEC, INC 511 CONGRESS	ME				2/2007 age 57 of 57
PORTLAND, ME		Purchase Order No.:	MEC75070091/APO78616	Project Numbe	er: 3616036009.01
	ROCHESTER, NY			LIMS-BAT #:	LIMT-04559
Date Received:	3/15/2007			Job Number:	3616036009.01
The following not	tes were attached to the reported	d analysis :			
	4 0700014				
Sample ID:	* 07B08241				
Analysis:	Isopropanol				
REPORTED RES RANGE.	BULT IS ESTIMATED. VALUE F	REPORTED OVER VERIFI	ED CALIBRATION		
Sample ID:	* 07B08243				
Analysis:	Cyclohexane				
-	•		SION IS ANTICIPATED		·
FOR REPORTED	D IS OUTSIDE OF CONTROL L D RESULT, SEE QC SUMMAR'	Y REPORT.			
Sample ID:	* 07B08246				
Analysis:	Isopropanol				
REPORTED RES RANGE.	SULT IS ESTIMATED. VALUE	REPORTED OVER VERIF	IED CALIBRATION		
Sample ID:	* 07B08248				
Analysis:	Isopropanol				
REPORTED RE RANGE.	SULT IS ESTIMATED. VALUE	REPORTED OVER VERIF	IED CALIBRATION		
Sample ID:	* 07B08251				
Analysis:	Isopropanol				
REPORTED RE RANGE.	SULT IS ESTIMATED. VALUE	REPORTED OVER VERIF	ED CALIBRATION		

** END OF REPORT **

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample -



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates

Method Blanks

Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 1	
QC Batch Numbe	r: BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
)7B08238					
	4-Bromofluorobenzene	Surrogate Recovery	100.25	%	70-130
07B08239					/
	4-Bromofluorobenzene	Surrogate Recovery	100.75	%	70-130
07B08240					70 400
	4-Bromofluorobenzene	Surrogate Recovery	97.37	%	70-130
07B08241			00.07	0/	70-130
	4-Bromofluorobenzene	Surrogate Recovery	96.87	%	70-100
07B08242		Comencia Bocover	97.12	%	70-130
	4-Bromofluorobenzene	Surrogate Recovery	57.12	70	70 .00
07B08243	A setens	Sample Amount	46.08	ug/m3	
	Acetone	Duplicate Value	50.35	ug/m3	
		Duplicate RPD	8.86	% 4	
	Demono	Sample Amount	<6.0	ug/m3	
	Benzene	Duplicate Value		ug/m3	
	O the Table Sharida	Sample Amount	198.77	ug/m3	
	Carbon Tetrachloride	Duplicate Value	208.84	ug/m3	
		Duplicate RPD	4.93	%	
		Sample Amount	51415.78	ug/m3	
	Chloroform	Duplicate Value	54461.60	ug/m3	
		Duplicate RPD	5.75	%	
	4.0 Disklass offense	Sample Amount	19.43	ug/m3	
	1,2-Dichloroethane	Duplicate Value	21.05	ug/m3	
		Duplicate RPD	8.00	% *	
	1,4-Dichlorobenzene	Sample Amount	<12.	ug/m3	
	1,4-Dicilioioberizerie	Duplicate Value		ug/m3	
	Ethyd Apototo	Sample Amount	<14.	ug/m3	
	Ethyl Acetate	Duplicate Value		ug/m3	
	Ethylhenzene	Sample Amount	<8.0	ug/m3	
	Ethylbenzene	Duplicate Value	_ / _	ug/m3	
	Hexane	Sample Amount	<8.0	ug/m3	
	LICACIG	Duplicate Value		ug/m3	
	Isopropapol	Sample Amount	4148.54	ug/m3	
	Isopropanol	Duplicate Value	5101.62	ug/m3	
		Duplicate RPD	20.60	% *	
	2-Butanone (MEK)	Sample Amount	<6.0	ug/m3	
		Duplicate Value		ug/m3	
	4-Methyl-2-Pentanone (MIBK)		<8.0	ug/m3	
		Duplicate Value		ug/m3	
	Styrene	Sample Amount	<8.0	ug/m3	
	July of the	Duplicate Value		ug/m3	
	Tetrachioroethylene	Sample Amount	135.62	ug/m3	
	, on domonood grante	Duplicate Value	138.33	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates

Standard Reference Materials and Duplicates Method Blanks

		Meth	Method Blanks				
Report Date:	4/2/2007 Lims E	4/2/2007 Lims Bat # : LIMT-04559			Page 2 of 28		
C Batch Number:	BATCH-12148		· · · · · · · · · · · · · · · · · · ·				
		QC Analysis	Values	Units	Limits		
Sample Id	Analysis						
)7B08243			1.98	% ~			
	Tetrachloroethylene	Duplicate RPD	<5.4	ug/m3			
	1,1,1-Trichloroethane	Sample Amount	r.v-	ug/m3			
		Duplicate Value	181.64	ug/m3			
	Trichloroethylene	Sample Amount	185.94	ug/m3			
	·	Duplicate Value	2.33	% *			
		Duplicate RPD	<16.	ug/m3			
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Sample Amount	× i0.	ug/m3			
		Duplicate Value	-10				
	Trichlorofluoromethane	Sample Amount	<12.	ug/m3			
		Duplicate Value		ug/m3			
	o-Xylene	Sample Amount	<8.0	ug/m3			
		Duplicate Value		ug/m3			
	m/p-Xylene	Sample Amount	13.89	ug/m3			
		Duplicate Value	13.89	ug/m3			
		Duplicate RPD	0.00	% *			
	1,2-Dichlorobenzene	Sample Amount	<12.	ug/m3			
		Duplicate Value		ug/m3			
	1,3-Dichlorobenzene	Sample Amount	<12.	ug/m3			
		Duplicate Value		ug/m3			
	1,1-Dichloroethane	Sample Amount	<8.0	ug/m3			
		Duplicate Value		ug/m3			
	1,1-Dichloroethylene	Sample Amount	<8.0	ug/m3			
		Duplicate Value		ug/m3			
	Ethanol	Sample Amount	<8.0	ug/m3			
		Duplicate Value		ug/m3			
	4-Ethyl Toluene	Sample Amount	<10.	ug/m3			
	,.	Duplicate Value		ug/m3			
	Methyl tert-Butyl Ether (MTBE)	Sample Amount	<8.0	ug/m3			
		Duplicate Value		ug/m3			
	t-1,2-Dichloroethylene	Sample Amount	<8.0	ug/m3			
		Duplicate Value		ug/m3			
	Vinyl Chloride	Sample Amount	<6.0	ug/m3			
	Villy Officiate	Duplicate Value		ug/m3			
	Chlorobenzene	Sample Amount	<10.	ug/m3			
	Childrobenzerie	Duplicate Value		ug/m3			
	Chloromethane	Sample Amount	<4.0	ug/m3			
	Gradiomethene	Duplicate Value		ug/m3			
	Bromomethane	Sample Amount	<8.0	ug/m3			
	Бтоннонневале	Duplicate Value		ug/m3			
	Chloroothana	Sample Amount	<10.	ug/m3			
	Chloroethane	Duplicate Value		ug/m3			
	te d 0 Diskingergroup	Sample Amount	<10.	ug/m3	а. С		
	cis-1,3-Dichloropropene	Jassipic Miliouni	101	ug/m3			



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 L	ims Bat # : LIMT-04559		Page 3	ot 28
C Batch Number	: BATCH-12148	·			
Sample Id	Analysis	QC Analysis	Values	Units	Limits
)7B08243					
100240	trans-1,3-Dichloropropene	Sample Amount	<10.	ug/m3	
		Duplicate Value		ug/m3	
,	Chlorodibromomethane	Sample Amount	<18.	ug/m3	
		Duplicate Value		ug/m3	
	1,1,2-Trichloroethane	Sample Amount	<10.	ug/m3	,
	.,,,_	Duplicate Value		ug/m3	
	1,1,2,2-Tetrachioroethane	Sample Amount	<14.	ug/m3	
	,,,,_,_ , , , , , , , , , , , , , , , ,	Duplicate Value		ug/m3	
	Hexachlorobutadiene	Sample Amount	<22.	ug/m3	
		Duplicate Value		ug/m3	
	1,2,4-Trichlorobenzene	Sample Amount	<14.	ug/m3	
	· · ·	Duplicate Value		ug/m3	
	1,2,4-Trimethylbenzene	Sample Amount	· <10.	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Duplicate Value		ug/m3	
	1,3,5-Trimethylbenzene	Sample Amount	<10.	ug/m3	
	······································	Duplicate Value		ug/m3	
	Cyclohexane	Sample Amount	<6.0	ug/m3	
		Duplicate Value	33.04	ug/m3	
		Duplicate RPD	>130	%	
	cis-1,2-Dichloroethylene	Sample Amount	<8.0	ug/m3	
	····	Duplicate Value		ug/m3	
	1,2-Dichloropropane	Sample Amount	<10.	ug/m3	
	, , , ,	Duplicate Value		ug/m3	
	Dichlorodifluoromethane	Sample Amount	<10.	ug/m3	
		Duplicate Value		ug/m3	
	Benzyl Chloride	Sample Amount	<10.	ug/m3	
		Duplicate Value		ug/m3	
	Carbon Disulfide	Sample Amount	<6.0	ug/m3	
		Duplicate Value		ug/m3	
	2-Hexanone	Sample Amount	<8.0	ug/m3	
		Duplicate Value		ug/m3	
	Bromodichloromethane	Sample Amount	123.29	ug/m3	
		Duplicate Value	127.31	ug/m3	
		Duplicate RPD	3.20	%	
	4-Bromofluorobenzene	Surrogate Recovery	99.75	%	70-130
	1,2-Dibromoethane	Sample Amount	<16.	ug/m3	
		Duplicate Value		ug/m3	
	n-Heptane	Sample Amount	13.93	ug/m3	
		Duplicate Value	13.11	ug/m3	
		Duplicate RPD	6.06	%	
	1,2-Dichlorotetrafluoroethane (1	14) Sample Amount	<14.	ug/m3	
		Duplicate Value		ug/m3	
	Tetrahydrofuran	Sample Amount	<12.	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates

Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lin	ns Bat # : LIMT-04559		Page 4	
QC Batch Number:	BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
07B08243	<u></u>				
07500243	Tetrahydrofuran	Duplicate Value		ug/m3	
	Propene	Sample Amount	<4.0	ug/m3	
	Тореко	Duplicate Value		ug/m3	
	1,3-Butadiene	Sample Amount	<4.0	ug/m3	
		Duplicate Value		ug/m3	
07808244					70 400
	4-Bromofluorobenzene	Surrogate Recovery	96.50	%	70-130
07B08245		_	400.07	%	70-130
	4-Bromofluorobenzene	Surrogate Recovery	100.87	70	10 100
07B08246		Currogato Docovery	101.37	%	70-130
	4-Bromofluorobenzene	Surrogate Recovery	101.07	· -	
07B08247		Surrogate Recovery	101.12	%	70-130
	4-Bromofluorobenzene	Canogato (Courter)			
07B08248	4-Bromofluorobenzene	Surrogate Recovery	101.00	%	70-130
07000240	₩~DIUN:0800000002030				
07B08249	4-Bromofluorobenzene	Surrogate Recovery	100.00	%	70-130
07B08250	- Elementer elemente				
0/00200	4-Bromofluorobenzene	Surrogate Recovery	102.87	%	70-130
07808251					70 400
_ ,	4-Bromofluorobenzene	Surrogate Recovery	98.87	%	70-130
BLANK-99570				ua/m2	
Brook	Acetone	Blank	<u>(0.42)</u> <0.30	ug/m3 ug/m3	
640	Benzene	Blank	< 0.30	ug/m3 ug/m3	
	Carbon Tetrachloride	Blank			
	Chloroform	Blank	<0.50	ug/m3	
	1,2-Dichloroethane	Blank	<0.40	ug/m3	
	1,4-Dichlorobenzene	Blank	<0.60	ug/m3	
	Ethyl Acetate	Blank	<0.70	ug/m3	
	Ethylbenzene	Blank	<0.40	ug/m3	۰
	Hexane	Blank	<0.40	ug/m3	
	Isopropanol	Blank	<0.20	ug/m3	
	2-Butanone (MEK)	Blank	<0.30	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<0.40	ug/m3	
	Styrene	Blank	<0.40	ug/m3	
	Tetrachloroethylene	Blank	<0.34	ug/m3	
	Toluene	Blank	<0.40	ug/m3	
	1,1,1-Trichloroethane	Blank	<0.27	ug/m3	
	Trichloroethylene	Blank	<0.27	ug/m3	
'	1,1,2-Trichloro-1,2,2-Trifluoroeth		<0.80	ug/m3	
	1, 1,2~11001010-1,2,2-1180010ea	and the second s	<0.60	unlm3	
	Trisblaraftuaramathana	Blank	~0.00	ug/m3	
	Trichlorofluoromethane o-Xylene	Blank Blank	<0.40	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lims E	at # : LIMT-04559		Page 5	01 28
C Batch Number	: BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
3LANK-99570					
	1,2-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,1-Dichloroethane	Blank	<0.40	ug/m3	
	1,1-Dichloroethylene	Blank	<0.40	ug/m3	
	Ethanol	Blank	<0.40	ug/m3	
	4-Ethyl Toluene	Blank	<0.50	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.40	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	Vinyl Chloride	Blank	<0.30	ug/m3	
	Methylene Chloride	Blank	<0.30	ug/m3	
	Chlorobenzene	Blank	<0.50	ug/m3	
	Chloromethane	Blank	<0.20	ug/m3	
	Bromomethane	Blank	<0.40	ug/m3	
	Chloroethane	Blank	<0.50	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	trans-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	Chlorodibromomethane	Blank	<0.90	ug/m3	
	1,1,2-Trichloroethane	Blank	<0.50	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.70	ug/m3	
	Hexachlorobutadiene	Blank	<1.1	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.70	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.50	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.50	ug/m3	
	Cyclohexane	Blank	<0.30	ug/m3	
1	cis-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	1,2-Dichloropropane	Blank	<0.50	ug/m3	
	Dichlorodifluoromethane	Blank	<0.50	ug/m3	
	Benzyl Chloride	Blank	<0.50	ug/m3	
	Carbon Disulfide	Blank	<0.30	ug/m3	
	Vinyl Acetate	Blank	<0.40	ug/m3	
	2-Hexanone	Blank	<0.40	ug/m3	
	Bromodichloromethane	Blank	<0.70	ug/m3	
	1,2-Dibromoethane	Blank	<0.80	ug/m3	
	n-Heptane	Blank	<0.40	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<0.70	ug/m3	
	Tetrahydrofuran	Blank	<0.60	ug/m3	
	•	Blank	<0.20	ug/m3	
	Propene 1.3 Rutadiene	Blank	<0.20		
	1,3-Butadiene	PART IN	0. <u>_</u> 0 v		
BLANK-99571	Acotone	Blank	<0.20	ug/m3	
	Acetone	Blank	<0.30	ug/m3	
	Benzene Corbon Totrochloride	Blank	<0.31	ug/m3	
	Carbon Tetrachloride	Blank	<0.50	ug/m3	
	Chloroform	DIGHN	~0.00		



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lims Ba	at # : LIMT-04559	Page 6 of		UI 20
QC Batch Numbe	r: BATCH-12148				<i>.</i>
Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-99571					
	1,2-Dichloroethane	Blank	<0.40	ug/m3	
	1,4-Dichiorobenzene	Blank	<0.60	ug/m3	
	Ethyl Acetate	Blank	<0.70	ug/m3	
	Ethylbenzene	Blank	<0.40	ug/m3	
	Hexane	Blank	<0.40	ug/m3	
	Isopropanol	Blank	<0.20	ug/m3	
	2-Butanone (MEK)	Blank	<0.30	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<0.40	ug/m3	
	Styrene	Blank	<0.40	ug/m3	
	Tetrachloroethylene	Blank	<0.34	ug/m3	
	Toluene	Blank	<0.40	ug/m3	
	1,1,1-Trichloroethane	Blank	<0.27	ug/m3	
	Trichloroethylene	Blank	<0.27	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<0.80	ug/m3	
	Trichlorofluoromethane	Blank	<0.60	ug/m3	
	o-Xylene	Blank	<0.40	ug/m3	
	m/p-Xylene	Blank	<0.40	ug/m3	
	1,2-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,1-Dichloroethane	Blank	<0.40	ug/m3	
	1,1-Dichloroethylene	Blank	<0.40	ug/m3	
	Ethanol	Blank	<0.40	ug/m3	
	4-Ethyl Toluene	Blank	<0.50	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.40	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	Vinyi Chloride	Blank	<0.30	ug/m3	
	Methylene Chloride	Blank	<0.30	ug/m3	
	Chlorobenzene	Blank	<0.50	ug/m3	
	Chloromethane	Blank	<0.20	ug/m3	
	Bromomethane	Blank	<0.40	ug/m3	
	Chloroethane	Blank	<0.50	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	trans-1,3-Dichloropropene	Blank	< 0.50	ug/m3	
	Chlorodibromomethane	Blank	<0.90	ug/m3 ug/m3	
	1,1,2-Trichloroethane	Blank	<0.50	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.70	ug/m3	
	Hexachlorobutadiene	Blank	<1.1	ug/m3 ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.70	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.50	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.50	ug/m3	
	Cyclohexane	Blank	<0.30	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	1,2-Dichloropropane	Blank	<0.50	🗸 ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates

Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lims Ba	t#: LIMT-04559		Page 7	of 28
QC Batch Number:	BATCH-12148	,			
Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-99571	Dichlorodifluoromethane	Biank	<0.50	ug/m3	
	Benzyl Chloride	Blank	<0.50	ug/m3	
	Carbon Disulfide	Blank	<0.30	ug/m3	
ч. -	Vinyl Acetate	Blank	<0.40	ug/m3	
	2-Hexanone	Blank	<0.40	ug/m3	
	Bromodichloromethane	Blank	<0.70	ug/m3	
	1,2-Dibromoethane	Blank	<0.80	ug/m3	
	n-Heptane	Blank	<0.40	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<0.70	ug/m3	
		Blank	<0.60	ug/m3	
	Tetrahydrofuran	Blank	<0.20	ug/m3	
	Propene 1,3-Butadiene	Blank	<0.20	ug/m3	
DL 4 NIZ 00004	1,0-Daladiene				
BLANK-99904	Acetone	Blank	<0.20	ug/m3	
	Benzene	Blank	<0.30	ug/m3	
	Carbon Tetrachloride	Blank	<0.31	ug/m3	
	Chloroform	Blank	<0.50	ug/m3	
	1,2-Dichloroethane	Blank	<0.40	ug/m3	
	1,4-Dichlorobenzene	Blank	<0.60	ug/m3	
		Blank	<0.70	ug/m3	
	Ethyl Acetate	Blank	<0.40	ug/m3	
	Ethylbenzene Hexane	Blank	<0.40	ug/m3	
		Blank	<0.20	ug/m3	
	Isopropanol 2-Butanone (MEK)	Blank	<0.30	ug/m3	•
	4-Methyl-2-Pentanone (MIBK)	Blank	<0.40	ug/m3	
		Blank	<0.40	ug/m3	
	Styrene	Blank	<0.34	ug/m3	
	Tetrachloroethylene	Blank	<0.40	ug/m3	
	Toluene 1,1,1-Trichloroethane	Blank	<0.27	ug/m3	
	Trichloroethylene	Blank	<0.27	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<0.80	ug/m3	
	Trichlorofluoromethane	Blank	<0.60	ug/m3	
		Blank	<0.40	ug/m3	
	o-Xylene m/p-Xylene	Blank	<0.40	ug/m3	
	1,2-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,1-Dichloroethane	Blank	<0.40	ug/m3	
	1,1-Dichloroethylene	Blank	<0.40	ug/m3	
	Ethanol	Blank	<0.40	ug/m3	
	4-Ethyl Toluene	Blank	<0.50	ug/m3	
	4-Ethyl roldene Methyl tert-Butyl Ether (MTBE)	Blank	<0.40	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	t-1,2-Dichloride	Blank	<0.30	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007	Lims Bat # : LIMT-04559	Page 8 of 28		
QC Batch Number	: BATCH-12148	, , , , , , , , , , , , , , , , , , ,		<u>v</u>	<u> </u>
Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-99904		· · · · · · · · · · · · · · · · · · ·			
	Methylene Chloride	Blank	<0.30	ug/m3	
	Chlorobenzene	Blank	<0.50	ug/m3	
	Chloromethane	Blank	<0.20	ug/m3	
	Bromomethane	Blank	<0.40	ug/m3	
	Chloroethane	Blank	<0.50	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	trans-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	Chlorodibromomethane	Blank	<0.90	ug/m3	
	1,1,2-Trichloroethane	Blank	<0.50	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.70	ug/m3	
	Hexachlorobutadiene	Blank	<1.1	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.70	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.50	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.50	ug/m3	
	Cyclohexane	Blank	<0.30	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	1,2-Dichloropropane	Blank	<0.50	ug/m3	
	Dichlorodifluoromethane	Blank	<0.50	ug/m3	
	Benzyl Chloride	Blank	<0.50	ug/m3	
	Carbon Disulfide	Blank	<0.30	ug/m3	
	Vinyl Acetate	Blank	<0.40	ug/m3	
	2-Hexanone	Blank	<0.40	ug/m3	
	Bromodichloromethane	Blank	<0.70	ug/m3	
	1,2-Dibromoethane	Blank	<0.80	ug/m3	
	n-Heptane	Blank	<0.40	ug/m3	
	1,2-Dichlorotetrafluoroethane (11	4) Blank	<0.70	ug/m3	
	Tetrahydrofuran	Blank	<0.60	ug/m3	
	Propene	Blank	<0.20	ug/m3	
	1,3-Butadiene	Blank	<0.20	ug/m3	
BLANK-99905					
	Acetone	Blank	<0.20	ug/m3	
	Benzene	Blank	<0.30	ug/m3	
	Carbon Tetrachloride	Blank	<0.31	ug/m3	
	Chloroform	Blank	<0.50	ug/m3	
	1,2-Dichloroethane	Blank	<0.40	ug/m3	
	1,4-Dichlorobenzene	Blank	<0.60	ug/m3	
	Ethyl Acetate	Blank	<0.70	ug/m3	
	Ethylbenzene	Blank	<0.40	ug/m3	
	Hexane	Blank	<0.40	ug/m3	
	Isopropanol	Blank	<0.20	ug/m3	
	2-Butanone (MEK)	Blank	<0.30	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<0.40	ug/m3	
	Styrene	Blank	<0.40	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lims Bi	at # : LIMT-04559		Page 9) of 28
QC Batch Number:	BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-99905	·······				
	Tetrachloroethylene	Blank	<0.34	ug/m3	
	Toluene	Blank	<0.40	ug/m3	
	1,1,1-Trichloroethane	Blank	<0.27	ug/m3	
	Trichloroethylene	Blank	<0.27	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<0.80	ug/m3	
	Trichlorofluoromethane	Blank	<0.60	ug/m3	
	o-Xylene	Blank	<0.40	ug/m3	
	m/p-Xylene	Blank	<0.40	ug/m3	
	1,2-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.60	ug/m3	
	1,1-Dichloroethane	Blank	<0.40	ug/m3	
	1,1-Dichloroethylene	Blank	<0.40	ug/m3	
	Ethanol	Blank	<0.40	ug/m3	
	4-Ethyl Toluene	Blank	<0.50	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.40	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	Vinyl Chloride	Blank	<0.30	ug/m3	
ć	Methylene Chloride	Blank	(1.66)	ug/m3	•
¢:	Chlorobenzene	Blank	\ 0.50	ug/m3	
	Chloromethane	Blank	<0.20	ug/m3	
	Bromomethane	Blank	<0.40	ug/m3	
	Chloroethane	Blank	<0.50	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	trans-1,3-Dichloropropene	Blank	<0.50	ug/m3	
	Chlorodibromomethane	Blank	<0.90	ug/m3	
	1,1,2-Trichloroethane	Blank	<0.50	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.70	ug/m3	
	Hexachlorobutadiene	Blank	<1.1	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.70	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.50	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.50	ug/m3	
	Cyclohexane	Blank	<0.30	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.40	ug/m3	
	1,2-Dichloropropane	Blank	<0.50	ug/m3	
	Dichlorodifluoromethane	Blank	<0.50	ug/m3	
	Benzyl Chloride	Blank	<0.50	ug/m3	
	Carbon Disulfide	Blank	<0.30	ug/m3	
	Vinyl Acetate	Blank	<0.40	ug/m3	
	2-Hexanone	Blank	<0.40	ug/m3	
	Bromodichloromethane	Blank	<0.70	ug/m3	
	1,2-Dibromoethane	Blank	<0.80	ug/m3	
	n-Heptane	Blank	<0.40	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<0.70	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates

Standard Reference Materials and Duplicates Method Blanks

1 m	Method Blanks						
Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 10 of 28			
QC Batch Number:				·			
Sample Id	Analysis	QC Analysis	Values	Units	Limits		
	······				· .		
3LANK-99905	Tetrahydrofuran	Blank	<0.60	ug/m3			
	Propene	Blank	<0.20	ug/m3			
	1,3-Butadiene	Blank	<0.20	ug/m3			
LFBLANK-60747							
	Acetone	Lab Fort Blank Amt.	11.87	ug/m3			
		Lab Fort Blk. Found	12.99	ug/m3			
		Lab Fort Blk. % Rec.	109.40	%	50-150		
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3			
		Lab Fort Blk. Found	15.21	ug/m3			
		Lab Fort Blk. % Rec.	95.39	% and	70-130		
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3			
		Lab Fort Blk. Found	33.84	ug/m3			
		Lab Fort Blk. % Rec.	107.60	%	70-130		
	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3			
		Lab Fort Blk. Found	24.72	ug/m3			
		Lab Fort Blk. % Rec.	101.60	%	70-130		
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3			
		Lab Fort Blk. Found	21.33	ug/m3			
		Lab Fort Blk. % Rec.	105.40	% /	70-130		
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3			
		Lab Fort Blk. Found	35.35	ug/m3			
		Lab Fort Blk. % Rec.	117.60	%	70-130		
	Ethyl Acetate	Lab Fort Blank Amt.	18.01	ug/m3			
	-	Lab Fort Blk. Found	19.27	ug/m3			
		Lab Fort Blk. % Rec.	107.00	%	50-150		
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3			
	2	Lab Fort Blk. Found	22.54	ug/m3			
		Lab Fort Blk. % Rec.	104.00	% eres	70-130		
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3			
		Lab Fort Blk. Found	17.44	ug/m3			
		Lab Fort Blk. % Rec.	99.00	%	70-130		
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3			
	• •	Lab Fort Blk. Found	12.77	ug/m3			
		Lab Fort Blk. % Rec.	104.00	%	50-150		
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3			
i .	· · ·	Lab Fort Blk. Found	14.62	ug/m3			
		Lab Fort Blk. % Rec.	99.20	%	70-130		
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3			
	· · · ·	Lab Fort Blk. Found	19.95	ug/m3			
		Lab Fort Blk. % Rec.	97.39	%	70-130		
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3			
		Lab Fort Blk. Found	23.05	ug/m3			
		Lab Fort Blk. % Rec.	108.40	%	70-130		



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lims Ba	Lims Bat # : LIMT-04559		Page 11 of 28	
QC Batch Number:	BATCH-12148	· · ·			
ample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-60747					
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
		Lab Fort Blk. Found	35.32	ug/m3	
		Lab Fort Blk. % Rec.	104.20	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	18.88	ug/m3	
		Lab Fort Blk. % Rec.	100.40	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	28.64	ug/m3	
		Lab Fort Blk. % Rec.	105.00	% start	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
		Lab Fort Blk. Found	26.65	ug/m3	
		Lab Fort Blk. % Rec.	99.19	%	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	38.70	ug/m3	
		Lab Fort Blk. % Rec.	101.00	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
		Lab Fort Blk. Found	30.67	ug/m3	
		Lab Fort Blk. % Rec.	109.20	%	70-130
	o-Xylene	Lab Fort Blank Amt.	21.71	ug/m3	
	o Ayland	Lab Fort Blk. Found	24.54	ug/m3	
		Lab Fort Blk. % Rec.	113.00	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
	asp-xyleae	Lab Fort Bik. Found	47.12	ug/m3	
		Lab Fort Blk, % Rec.	108.50	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	36.13	ug/m3	
		Lab Fort Blk, % Rec.	120.20	%	70-130
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
	1,3-0,01101000120110	Lab Fort Blk. Found	35.05	ug/m3	
		Lab Fort Blk. % Rec.	116.60	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
	11. DIG 60 COUNTS	Lab Fort Blk. Found	20.12	ug/m3	
		Lab Fort Blk. % Rec.	99.40	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
1		Lab Fort Blk. Found	19.75	ug/m3	
($\langle \rangle$	Lab Fort Blk. % Rec.	99.59	% and	70-130
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3	
		Lab Fort Blk. Found	15.07	ug/m3	
		Lab Fort Blk, % Rec.	160.00	%	50-150
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3	
	The Given and Grand and G	Lab Fort Blk. Found	27.87	ug/m3	
		Lab Fort Blk. % Rec.	113.40	%	50-150
			18.02	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date: 4/2/2007 Lims Bat # : LIMT-04559 Page 12 of 28 QC Batch Number: BATCH-12148 Sample Id Analysis QC Analysis Values Units Limits LFBLANK-60747 Methyl tert-Butyl Ether (MTBE) Lab Fort Bik. Found 18.20 ug/m3 Lab Fort Blk. % Rec. 101.00 % *** 70-130 t-1,2-Dichloroethylene Lab Fort Blank Amt. 19.82 ug/m3 Lab Fort Blk. Found 19.98 ug/m3 Lab Fort Blk. % Rec. %**** 100.80 70-130 Vinyl Chloride Lab Fort Blank Amt. 12,78 ug/m3 Lab Fort Blk. Found 12.39 ug/m3 Lab Fort Blk. % Rec. 96.99 % 70-130 Methylene Chloride Lab Fort Blank Amt. 17.36 ug/m3 Lab Fort Blk. Found 18.36 ug/m3 Lab Fort Blk, % Rec. % 105.80 70-130 Chlorobenzene Lab Fort Blank Amt. 23.02 ug/m3 Lab Fort Blk. Found 23.62 ug/m3 Lab Fort Blk, % Rec. 102.60 % 🖉 70-130 Chloromethane Lab Fort Blank Amt. 10.32 ug/m3 Lab Fort Blk. Found 9.78 ug/m3 Lab Fort Blk. % Rec. 94.80 % / 70-130 Bromomethane Lab Fort Blank Amt. 19.40 ug/m3 Lab Fort Blk. Found 19.05 ug/m3 Lab Fort Blk. % Rec. 98.19 % 70-130 Chloroethane Lab Fort Blank Amt, 13.19 ug/m3 Lab Fort Blk. Found 12.74 ug/m3 Lab Fort Blk. % Rec. 96.59 % 1 70-130 cis-1,3-Dichloropropene Lab Fort Blank Amt. 22.69 ug/m3 Lab Fort Blk. Found 22.65 ug/m3 Lab Fort Blk. % Rec. 99.79 % 70-130 trans-1,3-Dichloropropene Lab Fort Blank Amt. 22.69 ug/m3 Lab Fort Blk. Found 23.65 ug/m₂3 Lab Fort Blk. % Rec. 104.20 % 70-130 Chlorodibromomethane Lab Fort Blank Amt. 42.59 ug/m3 Lab Fort Blk. Found ug/m3 46.76 Lab Fort Blk. % Rec. 109.80 % 70-130 1,1,2-Trichloroethane Lab Fort Blank Amt. 27.28 ug/m3 Lab Fort Blk. Found 27.33 ug/m3 Lab Fort Blk. % Rec. % 100.20 70-130 1,1,2,2-Tetrachloroethane Lab Fort Blank Amt. 34.33 ug/m3 Lab Fort Blk. Found 38.45 ug/m3 Lab Fort Blk. % Rec. 112.00 % 70-130 Hexachlorobutadiene Lab Fort Blank Amt. 53,33 ug/m3 Lab Fort Blk. Found 75.52 ug/m3 Lab Fort Blk, % Rec. 141.60 % 70-130 1,2,4-Trichlorobenzene Lab Fort Blank Amt. 37.10 ug/m3 Lab Fort Blk. Found 52.54 ug/m3



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates

Method Blanks

Report Date:	· · · · · · · · · · · · · · · · · · ·	ms Bat # : LIMT-04559		Page 1	3 of 28
2C Batch Numb	er: BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-6074	\sim		<u>>~</u>	\times	
·	4,2,4-Trichlorobenzene	Lab Fort Blk. % Rec.	141.60	- %	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	28.51	ug/m3	
		Lab Fort Blk. % Rec.	116.00	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	28.71	ug/m3	
		Lab Fort Blk. % Rec.	116.80	%	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	
		Lab Fort Blk. Found	16.96	ug/m3	
		Lab Fort Blk, % Rec.	98.59	%	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
	-	Lab Fort Blk. Found	19.98	ug/m3	
		Lab Fort Blk. % Rec.	100.80	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
		Lab Fort Blk. Found	21.90	ug/m3	
		Lab Fort Blk. % Rec.	94.79	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	
		Lab Fort Blk. Found	26.75	ug/m3	
		Lab Fort Blk. % Rec.	108.20	%	70-130
4 4	Benzyl Chloride	Lab Fort Blank Amt.	25.88	ug/m3	
		Lab Fort Blk. Found	31.21	ug/m3	
		Lab Fort Blk. % Rec.	120.60	%	70-130
	Carbon Disulfide	Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk, Found	14.85	ug/m3	
		Lab Fort Blk. % Rec.	95.40	% J	70-130
	Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
		Lab Fort Blk. Found	13.87	ug/m3,	
		Lab Fort Blk. % Rec.	78.80	%	70-130
	2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	20.23	ug/m3	
		Lab Fort Blk. % Rec.	98.79	%	50-150
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
		Lab Fort Blk. Found	34.70	ug/m3	
		Lab Fort Blk. % Rec.	103.60	%	70-130
	1,2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk, Found	39.88	ug/m3	
		Lab Fort Blk. % Rec.	103:80	%	70-130
	n-Heptane	Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	18.64	ug/m3 /	
		Lab Fort Blk, % Rec.	91.00	%	50-150
	1,2-Dichlorotetrafluoroethane (114		34.95	ug/m3	
		Lab Fort Blk, Found	35.51	ug/m3 /	
		Lab Fort Blk. % Rec.	101.60	%	70-130



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 14	ot 28
QC Batch Number:	BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-60747					
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	14.33	ug/m3	
		Lab Fort Blk. % Rec.	97.20	%	50-150
	Propene	Lab Fort Blank Amt.	8.60	ug/m3	
	. ,	Lab Fort Blk. Found	7.74	ug/m3	
		Lab Fort Blk. % Rec.	90.00	%	50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
	1,0 2000000	Lab Fort Blk. Found	10.48	ug/m3	
		Lab Fort Blk. % Rec.	94.80	% /	70-130
FBLANK-60748			44 07	walao 2	
	Acetone	Lab Fort Blank Amt.	11.87	ug/m3 ug/m3	
		Lab Fort Blk. Found	10.21	ug/m3 %	50-150
		Lab Fort Blk. % Rec.	86.00		00-100
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3	
		Lab Fort Blk. Found	13.59	ug/m3 %	70-130
		Lab Fort Blk. % Rec.	85.20		70-100
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3	
		Lab Fort Blk. Found	28.18	ug/m3	70-130
		Lab Fort Blk. % Rec.	89.59	%	70-150
	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3	
		Lab Fort Blk. Found	22.04	ug/m3	70 490
		Lab Fort Blk. % Rec.	90.60	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	18.38	ug/m3	70 400
		Lab Fort Blk. % Rec.	90.80	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	4
		Lab Fort Blk. Found	28.01	ug/m3	
		Lab Fort Blk. % Rec.	93.20	%	70-130
	Ethyl Acetate	Lab Fort Blank Amt.	18.01	ug/m3	
		Lab Fort Blk. Found	17.00	ug/m3	F0 4 F0
		Lab Fort Blk. % Rec.	94.40	%	50-150
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
		Lab Fort Blk. Found	18.72	ug/m3 %	70.400
		Lab Fort Blk. % Rec.	86.40	70	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Blk. Found	15.47	ug/m3	
		Lab Fort Blk. % Rec.	87.79	%	70-130
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
		Lab Fort Blk. Found	11.79	ug/m3	
		Lab Fort Blk. % Rec.	95.99	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	12.68	ug/m3	
		Lab Fort Blk. % Rec.	86.00	%	70-130



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007 Lims Ba	t # : LIMT-04559		Page 15	of 28
QC Batch Number:	BATCH-12148		:		
Sample Id	Analysis	QC Analysis	Values	Units	Limits
_FBLANK-60748					
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk, Found	16.71	ug/m3	
		Lab Fort Blk, % Rec.	81.60	% Extension	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
		Lab Fort Blk. Found	18.75	ug/m3	
		Lab Fort Blk. % Rec.	88.20	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
	, 	Lab Fort Blk. Found	30.51	ug/m3	
		Lab Fort Blk. % Rec.	89.99	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	16.17	ug/m3	
		Lab Fort Blk. % Rec.	86.00	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
	1,1,1,1,1,1,0,1,0,0,0,0,0,0,0	Lab Fort Blk. Found	24.49	ug/m3	
		Lab Fort Blk. % Rec.	89.79	%	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
	(nonosocia) inte	Lab Fort Blk, Found	23.05	ug/m3	
		Lab Fort Blk, % Rec.	85.80	%	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
	1,1,2=3,61,010 1,2,2 31,721000	Lab Fort Blk. Found	35.40	ug/m3	
		Lab Fort Blk. % Rec.	92.40	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
	Thenoronabiometriano	Lab Fort Blk. Found	26.40	ug/m3	
		Lab Fort Blk. % Rec.	93.99	%	70-130
	o-Xylene	Lab Fort Blank Amt.	21.71	ug/m3	
	б-Хуюне	Lab Fort Blk. Found	19.45	ug/m3	
		Lab Fort Blk. % Rec.	89.60	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
	Пир-Хулене	Lab Fort Blk. Found	38.61	ug/m3	
		Lab Fort Blk. % Rec.	88.90	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
	1,2-2,6,10,000,120,10	Lab Fort Blk. Found	28.61	ug/m3	
		Lab Fort Blk. % Rec.	95.20	%	70-130
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
	Co-Distillo obcites to	Lab Fort Blk. Found	27.83	ug/m3	
		Lab Fort Blk. % Rec.	92.60	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	17.97	ug/m3 🦯	
		Lab Fort Blk. % Rec.	88.79	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
	1, i-Dichioroethylerie	Lab Fort Blk. Found	17.53	ug/m3	
		Lab Fort Blk. % Rec.	88.40	%	70-130
	["those of	Lab Fort Blank Amt.	9.42	ug/m3	
	Ethanol			-	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 1	6 of 28
C Batch Number:	BATCH-12148	· · · · · · · · · · · · · · · · · · ·			
Sample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-60748					
	Ethanol	Lab Fort Blk. Found	14.05	ug/m3	
		Lab Fort Blk. % Rec.	149.19	% stream	50-150
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3	
	· _ · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	22.81	ug/m3	
		Lab Fort Blk, % Rec.	92.80	%	50-150
	Methyl tert-Butyl Ether (MTBE)	Lab Fort Blank Amt.	18.02	ug/m3	
		Lab Fort Blk, Found	16.40	ug/m3	
		Lab Fort Blk. % Rec.	91.00	%	70-130
	t-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	18.00	ug/m3	
		Lab Fort Blk. % Rec.	90.80	%	70-130
	Vinyl Chloride	Lab Fort Blank Amt.	12.78	ug/m3	
	tuyi ononaa	Lab Fort Blk, Found	11.34	ug/m3	
		Lab Fort Blk. % Rec.	88.79	%	70-130
	Methylene Chloride	Lab Fort Blank Amt.	17.36	ug/m3	
		Lab Fort Blk. Found	16.38	ug/m3	4
·		Lab Fort Blk. % Rec.	94.40	%	70-130
	Chlorobenzene	Lab Fort Blank Amt.	23.02	ug/m3	
	O. Nor Open Lenie	Lab Fort Blk. Found	19.94	ug/m3	
		Lab Fort Blk. % Rec.	86.59	%	70-130
	Chloromethane	Lab Fort Blank Amt.	10.32	ug/m3	
	Gnidiometriarie	Lab Fort Blk, Found	8.21	ug/m3	
		Lab Fort Blk. % Rec.	79.60	%	70-130
	Bromomethane	Lab Fort Blank Amt.	19.40	ug/m3	
	Distriction	Lab Fort Blk, Found	17.23	ug/m3	
		Lab Fort Blk. % Rec.	88.79	%	70-130
	Chloroethane	Lab Fort Blank Amt.	13.19	ug/m3	
	Chiorocanane	Lab Fort Blk. Found	12.02	ug/m3	
		Lab Fort Blk. % Rec.	91.19	%	70-130
	cis-1.3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
	013-110-DISHISTOP (POINS	Lab Fort Blk. Found	19.56	ug/m3	
		Lab Fort Blk. % Rec.	86.20	%	70-130
	trans-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
	aans-1,5-Dickioroproperio	Lab Fort Blk. Found	20.24	ug/m3 🦯	
		Lab Fort Blk. % Rec.	89.20	%	70-130
	Chlorodibromomethane	Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	39.27	ug/m3 🦯	
			92.20	%	70-130
	1 1 2-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
	1, 1, 2- monocoethane		23.46	- /	
			85.99	%	70-130
	1 1 2 2 Tetrachioroethane		34.33	ug/m3	
	1, 1, 2, 2- FERROMO GERIARE		30.48	ug/m3	
	1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane	Lab Fort Blk. % Rec.	92.20 27.28 23.46 85.99 34.33	%	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates

Method Blanks

Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 17 (JI ZO
QC Batch Number:	BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-60748				1	
	1,1,2,2-Tetrachloroethane	Lab Fort Blk. % Rec.	88.79	% *	70-130
	Hexachlorobutadiene	Lab Fort Blank Amt.	53.33	ug/m3	
		Lab Fort Blk. Found	62.29	ug/m3	
		Lab Fort Blk. % Rec.	116.80	% *	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	37.10	ug/m3	
		Lab Fort Blk. Found	42.30	ug/m3⁄	
		Lab Fort Blk. % Rec.	114.00	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
	· · · ·	Lab Fort Blk. Found	22.81	ug/m3	
		Lab Fort Blk. % Rec.	92.80	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	4
	, ,- ,	Lab Fort Blk. Found	23.25	ug/m3	
		Lab Fort Blk. % Rec.	94.59	% ***	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	
		Lab Fort Blk. Found	13.94	ug/m3 🧹	
		Lab Fort Blk. % Rec.	80.99	%	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
	0.0 .,, ,	Lab Fort Blk. Found	18.04	ug/m3	
		Lab Fort Blk. % Rec.	90.99	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
	· ;	Lab Fort Blk, Found	19.22	ug/m3	
		Lab Fort Blk, % Rec.	83.19	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	•
		Lab Fort Blk. Found	22.20	ug/m3	
		Lab Fort Blk. % Rec.	89.79	%	70-130
	Benzyl Chloride	Lab Fort Blank Amt.	25.88	ug/m3	
		Lab Fort Blk. Found	24.22	ug/m3	
		Lab Fort Blk. % Rec.	93.60	%	70-130
	Carbon Disulfide	Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk. Found	13.32	ug/m3 🏑	
		Lab Fort Blk. % Rec.	85.59	%	70-130
	Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
(Viiigiri (cotare	Lab Fort Blk. Found	12.28		
have been and the second	We and the second s	Lab Fort Blk. % Rec.	69.80	<u>%</u>	70-130
	2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	16.46	ug/m3	
		Lab Fort Blk. % Rec.	80.39	% #	50-150
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
	ward ward to a second	Lab Fort Blk. Found	29.41	ug/m3	
		Lab Fort Blk. % Rec.	87.79	%	70-130
	1.2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
	TREEDING ON DOLLIGING	Lab Fort Blk. Found	33.50	ug/m3	
		Lab Fort Blk, % Rec.	87.20	%	70-130



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date:	4/2/2007 Lims B	at # : LIMT-04559		Page 18	of 28
QC Batch Number:	BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-60748					
	n-Heptane	Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	16.18	ug/m3	
		Lab Fort Blk. % Rec.	78.99	% estatement	50-150
	1,2-Dichlorotetrafluoroethane (114)	Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	30.41	ug/m3	
		Lab Fort Blk. % Rec.	86.99	% ****	70-130
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	13.00	ug/m3	
		Lab Fort Blk. % Rec.	88.20	%	50-150
	Propene	Lab Fort Blank Amt.	8.60	ug/m3	
		Lab Fort Blk. Found	6.64	ug/m3	
		Lab Fort Blk. % Rec.	77.20	% ****	50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	9.04	ug/m3	
		Lab Fort Blk. % Rec.	81.80	%	70-130
FBLANK-61071					
	Acetone	Lab Fort Blank Amt.	11.87	ug/m3	
		Lab Fort Blk. Found	9.97	ug/m3	
		Lab Fort Blk. % Rec.	84.00	% ^{warder}	50-150
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3	
		Lab Fort Blk. Found	13.46	ug/m3	
		Lab Fort Blk. % Rec.	84.40	%	70-130
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3	
		Lab Fort Blk. Found	27.86	ug/m3	
		Lab Fort Blk. % Rec.	88.60	%	70-130
4	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3	
		Lab Fort Blk. Found	21.36	ug/m3	
		Lab Fort Blk. % Rec.	87.80	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	17.61	ug/m3	
		Lab Fort Blk. % Rec.	87.00	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	27.35	ug/m3	
		Lab Fort Blk. % Rec.	91.00	% market	70-130
	Ethyl Acetate	Lab Fort Blank Amt	18.01	ug/m3	
		Lab Fort Blk. Found	15.67	ug/m3	
		Lab Fort Blk. % Rec.	87.00	% all	50-150
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
	-	Lab Fort Blk. Found	18.25	ug/m3	
		Lab Fort Blk. % Rec.	84.20	%	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Bik. Found	14.44	ug/m3	
		Lab Fort Blk. % Rec.	81.99	%	70-130



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007 Lims	Bat # : LIMT-04559		Page 1	9 of 28
QC Batch Number:	BATCH-12148			· .	
Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-61071	·····				· · · · · · · · · · · · · · · · · · ·
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	10.91	ug/m3	
		Lab Fort Blk. % Rec.	88.80	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	11.70	ug/m3	
		Lab Fort Blk. % Rec.	79.40	% 🛩	70-130
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	16.05	ug/m3	
		Lab Fort Blk. % Rec.	78.40	%	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
		Lab Fort Blk. Found	17.86	ug/m3	
		Lab Fort Blk. % Rec.	83.99	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
		Lab Fort Blk. Found	28.75	ug/m3,	
		Lab Fort Blk. % Rec.	84.79	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	15.61	ug/m3	
		Lab Fort Blk. % Rec.	83.00	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
	-,-,-	Lab Fort Blk. Found	24.00	ug/m3	
		Lab Fort Blk. % Rec.	88.00	%	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
	·····	Lab Fort Blk. Found	22.57	ug/m3	
		Lab Fort Blk. % Rec.	84.00	% same	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
		Lab Fort Blk. Found	33.41	ug/m3	
		Lab Fort Blk. % Rec.	87.20	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
		Lab Fort Blk. Found	25.45	ug/m3	
		Lab Fort Blk. % Rec.	90.59	%	70-130
	o-Xylene	Lab Fort Biank Amt.	21.71	ug/m3	
	-	Lab Fort Blk, Found	19.41	ug/m3	
		Lab Fort Blk. % Rec.	89.40	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
		Lab Fort Blk. Found	37.96	ug/m3	
		Lab Fort Blk. % Rec.	87.40	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	28.13	ug/m3,	
		Lab Fort Blk. % Rec.	93.60	%	70-130
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	27.23	ug/m3 🦯	
		Lab Fort Blk. % Rec.	90.60	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007 L	ims Bat # : LIMT-04559		Page 20	ot 28
C Batch Number:	BATCH-12148	· · ·			
Sample Id	Analysis	QC Analysis	Values	Units	Límits
FBLANK-61071		· · · · · · · · · · · · · · · · · · ·			
	1,1-Dichloroethane	Lab Fort Blk. Found	17.20	ug/m3	
		Lab Fort Blk. % Rec.	85.00	% tomation	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	16.50	ug/m3	
		Lab Fort Blk. % Rec.	83.20	% warner	70-130
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3	
	Ettanor	Lab Fort Blk. Found	11.73	ug/m3 -	
		Lab Fort Blk. % Rec.	124.60	% e	50-150
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3	
	4-Eury Toldene	Lab Fort Blk. Found	21.97	ug/m3	
		Lab Fort Blk. % Rec.	89.40	% stand	50-150
	Methyl tert-Butyl Ether (MTBE)	Lab Fort Blank Amt.	18.02	ug/m3	
	weavy terrouty care (wroc)	Lab Fort Blk. Found	15.25	ug/m3	
		Lab Fort Blk. % Rec.	84.59	%	70-130
	t 4.9 Dichlerecthylopo	Lab Fort Blank Amt.	19.82	ug/m3	
	t-1,2-Dichloroethylene	Lab Fort Blk. Found	16.73	ug/m3	
		Lab Fort Bik, % Rec.	84,40	%	70-130
		Lab Fort Blank Amt.	12.78	ug/m3	
	Vinyl Chloride	Lab Fort Blk. Found	10.96	ug/m3	
		Lab Fort Blk. % Rec.	85.80	%	70-130
		Lab Fort Blank Amt.	17.36	ug/m3	
	Methylene Chloride	Lab Fort Blk. Found	16.56	ug/m3	
		Lab Fort Blk. % Rec.	95.40	% set	70-130
			23.02	ug/m3	
	Chlorobenzene	Lab Fort Blank Amt.	19.34	ug/m3	
		Lab Fort Blk. Found	84.00	%	70-130
		Lab Fort Blk. % Rec.	10.32	ug/m3	,0,000
	Chloromethane	Lab Fort Blank Amt.	8.11	ug/m3	
		Lab Fort Blk. Found	78.60	-	70-130
		Lab Fort Blk. % Rec.		%	10-100
	Bromomethane	Lab Fort Blank Amt.	19.40	ug/m3	
		Lab Fort Blk. Found	16.22	ug/m3 %	70-130
		Lab Fort Blk. % Rec.	83.59	*	70-100
	Chloroethane	Lab Fort Blank Amt.	13.19	ug/m3	
		Lab Fort Blk. Found	10.84	ug/m3 %	70-130
		Lab Fort Blk. % Rec.	82.20		70-130
	cis-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	19.24	ug/m3	70 400
		Lab Fort Blk. % Rec.	84.79	%	70-130
	trans-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	19.88	ug/m3	-0.105
		Lab Fort Blk. % Rec.	87.59	%	70-130
	Chlorodibromomethane	Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	38.25	ug/m3	

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

ANALYTICAL LANCHATORY

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Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 21	01 28
C Batch Number	: BATCH-12148				, .
Sample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-61071					
	Chlorodibromomethane	Lab Fort Blk. % Rec.	89.79	%	70-130
	1,1,2-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	22.69	ug/m3	70 100
		Lab Fort Blk. % Rec.	83.19	%	70-130
	1,1,2,2-Tetrachloroethane	Lab Fort Blank Amt.	34.33	ug/m3	
		Lab Fort Blk. Found	30.28	ug/m3	70 490
		Lab Fort Blk. % Rec.	88.20	%	70-130
	Hexachlorobutadiene	Lab Fort Blank Amt.	53.33	ug/m3	
		Lab Fort Blk. Found	58.24	ug/m3	70 490
		Lab Fort Blk, % Rec.	109.20	%	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	37.10	ug/m3	
		Lab Fort Blk. Found	39.92	ug/m3	70 400
		Lab Fort Blk. % Rec.	107.60	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	22.07	ug/m3	70 400
	·	Lab Fort Blk. % Rec.	89.80	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	22.36	ug/m3	70 400
		Lab Fort Blk. % Rec.	91.00	%	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	
		Lab Fort Blk. Found	13.87	ug/m3	50 450
		Lab Fort Bik. % Rec.	80.59	% and the second	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	16.81	ug/m3	70 420
		Lab Fort Blk. % Rec.	84.79	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
		Lab Fort Blk. Found	18.80	ug/m3	70 400
		Lab Fort Blk. % Rec.	81.40	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	
		Lab Fort Blk. Found	21.01	ug/m3	70-130
		Lab Fort Blk. % Rec.	84.99	%	70-130
	Benzyl Chloride	Lab Fort Blank Amt.	25.88	ug/m3	
		Lab Fort Blk. Found	23.19	ug/m3	70 490
		Lab Fort Blk. % Rec.	89.60	%	70-130
	Carbon Disulfide	Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk. Found	12.83	ug/m3	70 420
	A house and hous	Lab Fort Blk. % Rec.	82.40	%	70-130
	(Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
	New York Contraction and the second s	Lab Fort Blk. Found	11.76	ug/m3	> 70 490
		Lab Fort Blk. % Rec.	66.80	%) 70-130
	2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	15.73	ug/m3	50-150
		Lab Fort Blk. % Rec.	76.80	% port	. 50-150



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007 Lims E	at # : LIMT-04559		Page 22	of 28
QC Batch Number	: BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
_FBLANK-61071					
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
		Lab Fort Blk. Found	29.21	ug/m3	70 400
	· · ·	Lab Fort Blk. % Rec.	87.20	% contacture	70-130
	1,2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk. Found	32.50	ug/m3	70-130
		Lab Fort Blk. % Rec.	84.60	%	70-130
	n-Heptane	Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	16.02	ug/m3 %	50-150
·		Lab Fort Blk. % Rec.	78.19		50-100
	1;2-Dichlorotetrafluoroethane (114)	Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	- 29.71	ug/m3 %	70-130
×		Lab Fort Blk, % Rec.	84.99		70-130
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	12.00	ug/m3 %	50-150
		Lab Fort Blk. % Rec.	81.40		00-100
	Propene	Lab Fort Blank Amt.	8.60	ug/m3	
		Lab Fort Blk. Found	6.26	ug/m3 % ****	50-150
		Lab Fort Blk. % Rec.	72.80		50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	8.47	ug/m3 % 🛩	70-130
	· · · ·	Lab Fort Blk. % Rec.	76.60	70 s ^{au}	70-100
LFBLANK-61094		Lab Fort Blank Amt.	11.87	ug/m3	
	Acetone	Lab Fort Blk. Found	12.58	ug/m3	
		Lab Fort Blk. % Rec.	106.00	% enter	50-150
		Lab Fort Blank Amt.	15.95	ug/m3	
	Benzene	Lab Fort Blk. Found	12.95	ug/m3	
		Lab Fort Blk. % Rec.	81.19	%	70-130
9. 		Lab Fort Blank Amt.	31.45	ug/m3	
	Carbon Tetrachloride	Lab Fort Blk. Found	28.18	ug/m3	
		Lab Fort Blk. % Rec.	89.59	%	70-130
		Lab Fort Blank Amt.	24.33	ug/m3	
	Chloroform	Lab Fort Blk. Found	21.99	ug/m3	
		Lab Fort Blk. % Rec.	90.40	%	70-130
		Lab Fort Blank Amt.	20.24	ug/m3	
	1,2-Dichloroethane	Lab Fort Blk. Found	17.97	ug/m3	
		Lab Fort Blk. % Rec.	88.79	% attend	70-130
		Lab Fort Blank Amt.	30.06	ug/m3	
	1,4-Dichlorobenzene	Lab Fort Blk. Found	26.93	ug/m3	
		Lab Fort Blk. % Rec.	89.60	%	70-130
		Lab Fort Blank Amt.	18.01	ug/m3	
	Ethyl Acetate	Lab Fort Blk. Found	16.17	ug/m3	
		Lab Fort Blk. % Rec.	89.80	%	50-150



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007 Lit	ms Bat # : LIMT-04559	·	Page 23	3 of 28
C Batch Number	: BATCH-12148				
ample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-61094					
DEVINGOLOGA	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
	21.19120.1.12	Lab Fort Blk. Found	17.86	ug/m3	
		Lab Fort Blk. % Rec.	82.39	% and	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Blk. Found	15.26	ug/m3	
		Lab Fort Blk. % Rec.	86.60	% second	70-130
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
	,00proparter	Lab Fort Blk. Found	11.64	ug/m3	
		Lab Fort Bik. % Rec.	94.79	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
	2-Datanono (meny	Lab Fort Blk. Found	12.62	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. % Rec.	85.59	% approximate	70-130
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
	4-Metry-24 Charons (mars)	Lab Fort Blk. Found	15.89	ug/m3	
		Lab Fort Blk. % Rec.	77.60	%	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
	Styrene	Lab Fort Blk. Found	16.92	ug/m3	
		Lab Fort Blk. % Rec.	79.59	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
	Tellacilloroeanyiche	Lab Fort Blk. Found	28.48	ug/m3	
		Lab Fort Blk. % Rec.	83.99	% essent	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
	Toluene	Lab Fort Blk. Found	15.08	ug/m3	
		Lab Fort Blk. % Rec.	80.20	%	70-130
	4 4 4 Trichloroothana	Lab Fort Blank Amt.	27.28	ug/m3	
	1,1,1-Trichloroethane	Lab Fort Blk. Found	23.95	ug/m3	
		Lab Fort Blk. % Rec.	87.80	% commen	70-130
	Model at the second second	Lab Fort Blank Amt.	26.87	ug/m3	
	Trichloroethylene	Lab Fort Blk. Found	23.00	ug/m3	
		Lab Fort Blk. % Rec.	85.59	% server	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroeth		38.31	ug/m3	
	1, 1, 2° monio, 0-1, 2, 2° milio, 0-0	Lab Fort Blk. Found	35.86	ug/m3	
		Lab Fort Blk. % Rec.	93.60	% Breather	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
	[richlorolluorollitethane	Lab Fort Blk. Found	27.36	ug/m3	
		Lab Fort Blk. % Rec.	97,39	%	70-130
	- Vulena	Lab Fort Blank Amt.	21.71	ug/m3	
	o-Xylene	Lab Fort Blk. Found	19.02	ug/m3	
		Lab Fort Blk. % Rec.	87.60	% Same	70-130
		Lab Fort Blank Amt.	43.43	ug/m3	
	m/p-Xylene	Lab Fort Blk. Found	37.13	ug/m3 🖉	
		Lab Fort Blk. % Rec.	85.49	%	70-130
		Lab Fort Blank Amt.	30.06	ug/m3	
	1,2-Dichlorobenzene	Lab Fort Diank 7 wht		-	



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates BATCH QC: Lab fortified Blanks and Duplicates Standard Reference Materials and Duplicates Method Blanks

Report Date:	4/2/2007	Lims Bat # : LIMT-04559	Page 2		24 of 28	
QC Batch Numb	ber: BATCH-12148					
Sample Id	Analysis	QC Analysis	Values	Units	Limits	
LFBLANK-6109	4					
	1,2-Dichlorobenzene	Lab Fort Blk. Found	27.83	ug/m3		
		Lab Fort Blk. % Rec.	92.60	%	70-130	
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3		
		Lab Fort Blk. Found	26.69	ug/m3	•	
		Lab Fort Blk. % Rec.	88.80	% street	70-130	
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3		
		Lab Fort Blk. Found	17.45	ug/m3		
		Lab Fort Blk. % Rec.	86.20	%	70-130	
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3		
		Lab Fort Blk. Found	18,17	ug/m3		
		Lab Fort Blk. % Rec.	91.60	%	70-130	
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3		
		Lab Fort Blk. Found	13.09	ug/m3		
		Lab Fort Blk. % Rec.	138.99	%	50-150	
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3		
		Lab Fort Blk. Found	21.53	ug/m3		
		Lab Fort Blk. % Rec.	87.60	% execution	50-150	
	Methyl tert-Butyl Ether (MTBE)	Lab Fort Blank Amt.	18.02	ug/m3		
		Lab Fort Blk. Found	15.68	ug/m3		
		Lab Fort Blk. % Rec.	86.99	% *****	70-130	
	t-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3		
		Lab Fort Blk. Found	17.36	ug/m3		
		Lab Fort Blk. % Rec.	87.60	%	70-130	
	Vinyl Chloride	Lab Fort Blank Amt.	12.78	ug/m3		
		Lab Fort Blk. Found	10.94	ug/m3		
		Lab Fort Blk. % Rec.	85.60	%	70-130	
	Methylene Chloride	Lab Fort Blank Amt.	17.36	ug/m3		
		Lab Fort Blk. Found	18.61	ug/m3		
		Lab Fort Blk. % Rec.	107.20	%	70-130	
	Chlorobenzene	Lab Fort Blank Amt.	23.02	ug/m3		
		Lab Fort Blk. Found	18.65	ug/m3		
		Lab Fort Blk. % Rec.	80.99	%	70-130	
	Chloromethane	Lab Fort Blank Amt.	10.32	ug/m3		
		Lab Fort Blk. Found	8.54	ug/m3		
		Lab Fort Blk. % Rec.	82.80	%	70-130	
	Bromomethane	Lab Fort Blank Amt.	19.40	ug/m3		
		Lab Fort Blk. Found	16.92	ug/m3		
		Lab Fort Blk. % Rec.	87.20	%	70-130	
	Chloroethane	Lab Fort Blank Amt.	13.19	ug/m3		
		Lab Fort Blk. Found	11.42	ug/m3⁄		
		Lab Fort Blk. % Rec.	86.60	%	70-130	
	cis-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3		
		Lab Fort Blk. Found	18.7 4	ug/m3		



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007	Lims Bat # : LIMT-04559		Page 25	01 28
C Batch Number	:: BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
FBLANK-61094					
	cis-1,3-Dichloropropene	Lab Fort Blk. % Rec.	82.59	% *	70-130
	trans-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	19.38	ug/m3	
		Lab Fort Blk. % Rec.	85.39	%	70-130
,	Chlorodibromomethane	Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	37.31	ug/m3	
		Lab Fort Blk. % Rec.	87.59	% *	70-130
	1,1,2-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
	.,.,_	Lab Fort Blk. Found	21.93	ug/m3	
		Lab Fort Blk. % Rec.	80.39	% extent	70-130
	1,1,2,2-Tetrachloroethane	Lab Fort Blank Amt.	34.33	ug/m3	
	· · · · · · · · · · · · · · · · · · ·	Lab Fort Blk. Found	29.59	ug/m3	
,		Lab Fort Blk. % Rec.	86.19	%	70-130
	Hexachlorobutadiene	Lab Fort Blank Amt.	53.33	ug/m3	
	TRADGING OBALLIONS	Lab Fort Blk. Found	55.14	ug/m3	
		Lab Fort Blk. % Rec.	103.40	%	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	37.10	ug/m3	
	1,2,4-1 Horitor Obon 20,10	Lab Fort Blk. Found	37.40	ug/m3	• •
		Lab Fort Blk. % Rec.	100.80	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
	1,2,4- (Timetry,0012013	Lab Fort Blk. Found	21.68	ug/m3	
		Lab Fort Blk. % Rec.	88.20	% same	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
	1,0,0-111110a191061126110	Lab Fort Blk. Found	21.92	ug/m3	
		Lab Fort Blk. % Rec.	89.20	% contract	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	
	Cyclohexane	Lab Fort Blk. Found	14.21	ug/m3	
		Lab Fort Blk. % Rec.	82.59	%	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
	Ga*1,2-DictiorOeanyiche	Lab Fort Blk, Found	17.12	ug/m3	
		Lab Fort Blk. % Rec.	86.40	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
		Lab Fort Blk. Found	18.20	ug/m3	
		Lab Fort Blk, % Rec.	78.79	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	
	Dictionorandoromeetaile	Lab Fort Blk, Found	22.35	ug/m3	
		Lab Fort Blk, % Rec.	90.39	% .	70-130
	Poprid Chieride	Lab Fort Blank Amt.	25.88	ug/m3	
	Benzyl Chloride	Lab Fort Blk. Found	22.93	ug/m3 🦯	
		Lab Fort Blk. % Rec.	88.60	%	70-130
	Carbon Disulfida	Lab Fort Blank Amt.	15.57	ug/m3	
	Carbon Disulfide	Lab Fort Blk. Found	14.20	ug/m3	
		Lab Fort Blk. % Rec.	91.19	%	70-130



QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates Sample Matrix Spikes and Matrix Spike Duplicates

Report Date:	4/2/2007 Li	ms Bat # : LIMT-04559		Page 26	3 of 28
QC Batch Numb	per: BATCH-12148				
Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-6109	4				
	Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
		Lab Fort Blk. Found	12.00	ug/m3	
		Lab Fort Blk. % Rec.	68.20	- %	70-130
(2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	15.28	ug/m3	
		Lab Fort Blk. % Rec.	74.59	%	50-150
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
		Lab Fort Blk. Found	28.41	ug/m3	
		Lab Fort Blk. % Rec.	84.80	%	70-130
	1,2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk. Found	31.81	ug/m3	
		Lab Fort Blk. % Rec.	82.80	%	70-130
	n-Heptane	Lab Fort Biank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	15.73	ug/m3	
		Lab Fort Blk. % Rec.	76.79	%	50-150
	1,2-Dichlorotetrafluoroethane (11	4) Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	31.31	ug/m3	
		Lab Fort Blk. % Rec.	89.60	% warmen	70-130
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	12.35	ug/m3	
		Lab Fort Blk. % Rec.	83.80	%	50-150
	Propene	Lab Fort Blank Amt.	8.60	ug/m3	
		Lab Fort Blk. Found	6.45	ug/m3	
		Lab Fort Blk. % Rec.	75.00	% atternet	50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	9.18	ug/m3	
		Lab Fort Blk. % Rec.	83.00	%	70-130

	39 Spruce Street ° East Longm	eadow, MA 010	28 ° FAX 413/525-6405 ° TEL. 41	13/525-2332
		QC S	UMMARY REPORT	
	ple Results with Duplicates ple Matrix Spikes and	pike Duplicates	BATCH QC: Lab fortified Blar Standard Refere Method Blanks	nks and Duplicates nce Materials and Duplicates
Report Date:	4/2/2007	Lims Bat # :	LIMT-04559	Page 27 of 28
NOTES:	· · · · · · · · · · · · · · · · · · ·			
QC Batch No. : Sample ID : Analysis ;	BATCH-12148 07B08243 Cyclohexane			
DUPLICATE RPD FOR REPORTED	IS OUTSIDE OF CONTROL L RESULT. SEE QC SUMMAR	IMITS. REDUCI Y REPORT	ED PRECISION IS ANTICIPATEI	5
QC Batch No. : Sample ID : Analysis :	BATCH-12148 LFBLANK-60747 1,2,4-Trichlorobenzene DRTIFIED BLANK RECOVERY			
VALIDATION IS N	IOT AFFECTED SINCE ALL RI S BATCH FOR THIS COMPOL	ESULTS ARE "N	IOT DETECTED" FOR ALL	
QC Batch No. : Sample ID : Analysis :	BATCH-12148 LFBLANK-60747 Ethanol			
LABORATORY FOR	ORTIFIED BLANK RECOVERY JE FOR THIS COMPOUND IS	IS OUTSIDE O	F CONTROL LIMITS. ANY BIASED ON THE HIGH SIDE.	
QC Batch No. : Sample ID : Analysis :	BATCH-12148 LFBLANK-60747 Hexachlorobutadiene			
VALIDATION IS N	ORTIFIED BLANK RECOVERY OT AFFECTED SINCE ALL RI 3 BATCH FOR THIS COMPOL	ESULTS ARE "N	IOT DETECTED" FOR ALL	
QC Batch No. : Sample ID : Analysis :	BATCH-12148 LFBLANK-60748 Viny! Acetate			,
LABORATORY FO	ORTIFIED BLANK RECOVERY S COMPOUND IN THIS BATC	OUTSIDE OF O	CONTROL LIMITS. ANY REPOR BE BIASED ON THE LOW SIDE	TED E.
QC Batch No. : Sample ID : Analysis :	BATCH-12148 LFBLANK-61071 Vinyl Acetate			
ABORATORY FC	PRTIFIED BLANK RECOVERY		ONTROL LIMITS. ANY REPOR BE BIASED ON THE LOW SIDE	
QC Batch No. : Sample ID : Analysis :	BATCH-12148 LFBLANK-61094 Vinyl Acetate		ONTROL LIMITS. ANY REPOR	TED.

LABORATORY FORTIFIED BLANK RECOVERY OUTSIDE OF CONTROL LIMITS. ANY REPORTED RESULT FOR THIS COMPOUND IN THIS BATCH IS LIKELY TO BE BIASED ON THE LOW SIDE.



39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL 413/525-2332 QC SUMMARY REPORT BATCH QC: Lab fortified Blanks and Duplicates SAMPLE QC: Sample Results with Duplicates Standard Reference Materials and Duplicates Sample Matrix Spikes and Matrix Spike Duplicates Method Blanks Page 28 of 28 4/2/2007 Lims Bat # : LIMT-04559 Report Date: QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS This is the number assigned to all samples analyzed together that QC BATCH NUMBER would be subject to comparison with a particular set of Quality Control Data. Upper and Lower Control Limits for the QC ANALYSIS Reported. All LIMITS values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined. Amount of analyte found in a sample. Sample Amount Method Blank that has been taken though all the steps of the Blank analysis. Laboratory Fortified Blank (a control sample) LFBLANK Standard Added (a laboratory control sample) STDADD Amount of analyte spiked into a sample Matrix Spk Amt Added Amount of analyte found including amount that was spiked MS Amt Measured % Recovery of spiked amount in sample. Matrix Spike % Rec. The result from the Duplicate analysis of the sample. Duplicate Value The Relative Percent Difference between two Duplicate Analyses. Duplicate RPD Recovery for non-environmental compounds (surrogates) Surrogate Recovery The % spiked into samples to determine the performance of the analytical methods. Surrogate Recovery on the Electrolytic Conductivity Detector. Sur. Recovery (ELCD) Sur. Recovery (PID) Surrogate Recovery on the Photoionization Detector. Amount measured for a laboratory control sample Standard Measured Known value for a laboratory control sample Standard Amt Added % recovered for a laboratory control sample with a known value. Standard % Recovery Laboratory Fortified Blank Amount Added Lab Fort Blank Amt Laboratory Fortified Blank Amount Found Lab Fort Blk. Found Laboratory Fortified Blank % Recovered Duplicate Laboratory Fortified Blank Amount Added Duplicate Laboratory Fortified Blank Amount Found Lab Fort Blk % Rec Dup Lab Fort Bl Amt Dup Lab Fort Bl Fnd Dup Lab Fort Bl % Rec Duplicate Laboratory Fortified Blank % Recovery Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Lab Fort Blank Range Blank Duplicate). Laboratory Fortified Blank Average Recovery Lab Fort Bl. Av. Rec. Sample Value for Duplicate used with Matrix Spike Duplicate Duplicate Sample Amt Matrix Spike Duplicate Amount Added (Spiked) MSD Amount Added Matrix Spike Duplicate Amount Measured MSD Amt Measured MSD % Recovery

MSD % Recovery Matrix Spike Duplicate % Recovery MSD Range Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries

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						H - Hig	h; M - M	H - High; M - Medium; L - Low;	; C - Clean; U - Unknown	umo	
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Mal aller liter		3/14/17 1720		7-Day	Regulations?				GW= groundwater	I = [ced	X = Na hydroxide
Received by Signature)		Date/Time:	1	10-Day		C					T = Na thiosulfate
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						H - High; M - Medium; L - Low;	- Medium		C - Clean; U - Unknown	un	
Relingujsh	Relinquished by: (signature)/)	lime:	Turnaround	nnd **	Detection Limit Requirements	Limit Rec	luireme		*Matrix Code:	**Preservation Codes:	Codes:
100 -	Collecter	2/14/0× 1720			Regulations?				GW= groundwater	l ≖ lced	X = Na hydroxide
Regenved t	Becelived by: (stgmature)	Date/Time: R/ド/かつ 0.979		10-Day		0		1	WW= wastewater	H = HCL	T = Na thiosulfate
Relinquish	Relinquished by: (signature)	Lime:	\supset						DW = Omking Water A = air	M = Methanol N = Nitric Acid	
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Received b	Received by: (signature)	Date/Time:	□ *72-Hr □ *4-Day	'4-Day					SL = sludge		ultate
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CLIENT NAME: Mac +	«٢		2_	15-0-	
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1. Was chain of custody relinquished	and signed	1? (YES)	NO		
2. Does Chain agree with samples?		(YES)	NO		}
If not, explain:		····			
3. All Samples in good condition?		(YES)	NÖ	111-111-11-11-11-11-11-11-11-11-11-11-1	
If not, explain:					
4. Were samples received in complia Temperature 0-6 degrees C?	ance with	YES	NO	Degre N/	2es: 9
5. Are all soil vph & voc samples cov	ered with p	preservation? YES N ,	/A NO		
6. Are there any on hold samples?		YES	NO		
7. Laboratory analysts notified?	Time _	VES Date	NO		
Who S. Location where samples are stored	$\overline{\Lambda_{i}}$				
CONTAINERS SENT IN TO CON-TEST	# of containers	CONTAINERS SENT Air Casse		र्न दे दर्भ	# of containers
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250 ml plastic 40 ml vial		Tubes		14 17 17	
Colisure bottle		Summa ca	ans	GL.	15
Dissolved oxygen bottle		Other		Reg	15
Flashpoint bottle		م - العدين من المراجع عن المراجع المراجع المراجع عن المراجع من المراجع عن المراجع المراجع المراجع المراجع من م مراجع المراجع ال			
boratory comments:					
all the samples have the correct pH leve	els? Y	ES NO If no, ple:	ase explain	below:	

۰.

APPENDIX D

RISK CALCULATIONS

TABLE D-1 INHALATION EXPOSURE TO INDOOR AIR OFFICE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

EXPOSURE PARAMETERS

EQUATIONS

PARAMETER	SYMBOL	VALUE	UNITS	SOURCE		
AIR CONCENTRATION	[CA]air	Calculated	ug/m ³	Measured		ug/m ³) * CANCER UNIT RISK (ug/m ^{3)⁻¹}
CONVERSION FACTOR 1	CF1	24	hours/day		HAZARD QUOTIENT = AVG	CONC.(ug/m ³)/REF. CONC. (ug/m ³)
EXPOSURE TIME DAILY	ET	8	hours/day	EPA, 2002		
EXPOSURE FREQUENCY	EF	250	days/year	EPA, 2002		[CA]air * EF * ET * ED
EXPOSURE DURATION	ED	25	years	EPA, 2002	AVG. EXPOSURE CONC. =	AT * CF1 * CF2
CONVERSION FACTOR 2	CF2	365	days/year			
AVERAGING TIME CANCER	AT	70	years	EPA, 2002		
AVERAGING TIME NONCANCER	AT	25	years	EPA, 2002		
EPA, 2002: Supplemental Guidance for Developing Soil Sc	reening Levels for Sup	erfund Sites. OSWER 9355.4-24	. Values for ind	oor commercial/industrial worker.		
Prepared by: KJC Checked by: JHP					*For noncarcinogenic effects: AT = ED	

TABLE D-1 INHALATION EXPOSURE TO INDOOR AIR OFFICE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

CARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION LIFETIME (ug/m³)	INHALATION CANCER UNIT RISK (ug/m ³) ⁻¹	CANCER RISK
2-Chloropyridine	2.40E+01	2.0E+00	6.20E-06	1.2E-05
		SUMMARY CANCER R	ISK	1E-05

NC - not potentially carcinogenic or no unit risk factor available.

TABLE D-1 INHALATION EXPOSURE TO INDOOR AIR OFFICE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

NONCARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION FOR TIME PERIOD (ug/m ³)	CHRONIC INHALATION RfC [1] (ug/m ³)	HAZARD QUOTIENT
2-Chloropyridine	2.40E+01	5.5E+00	1.00E+01	5.5E-01
		SUMMARY HAZARD IN	DEX	5E-01

NA - not available

TABLE D-2 INHALATION EXPOSURE TO INDOOR AIR WAREHOUSE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

EXPOSURE PARAMETERS

EQUATIONS

PARAMETER	SYMBOL	VALUE	UNITS	SOURCE		
AIR CONCENTRATION	[CA]air	Calculated	ug/m ³	Measured		ug/m³) * CANCER UNIT RISK (ug/m³) ⁻¹
CONVERSION FACTOR 1	CF1	24	hours/day		HAZARD QUOTIENT = AVG.	CONC.(ug/m³)/REF. CONC. (ug/m³)
EXPOSURE TIME DAILY	ET	8	hours/day	EPA, 2002		
EXPOSURE FREQUENCY	EF	250	days/year	EPA, 2002		[CA]air * EF * ET * ED
EXPOSURE DURATION	ED	25	years	EPA, 2002	AVG. EXPOSURE CONC. =	AT * CF1 * CF2
CONVERSION FACTOR 2	CF2	365	days/year			
AVERAGING TIME CANCER	AT	70	years	EPA, 2002		
AVERAGING TIME NONCANCER	AT	25	years	EPA, 2002		
EPA, 2002: Supplemental Guidance for Developing Soil Sc	reening Levels for Sup	erfund Sites. OSWER 9355.4-24	I. Values for inc	oor commercial/industrial worker.		
Prepared by: KJC Checked by: JHP					*For noncarcinogenic effects: AT = ED	

TABLE D-2 INHALATION EXPOSURE TO INDOOR AIR WAREHOUSE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

CARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION LIFETIME (ug/m³)	INHALATION CANCER UNIT RISK (ug/m ³) ⁻¹	CANCER RISK
2,6-Dichloropyridine	2.53E+02	2.1E+01	6.20E-06	1.3E-04
2-Chloropyridine	3.99E+02	3.3E+01	6.20E-06	2.0E-04
Chloroform	2.33E+00	1.9E-01	2.30E-05	2.0E-04 4.4E-06
		SUMMARY CANCER R	ISK	3E-04

NC - not potentially carcinogenic or no unit risk factor available.

TABLE D-2 INHALATION EXPOSURE TO INDOOR AIR WAREHOUSE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

NONCARCINOGENIC EFFECTS

	INDOOR AIR	AVERAGE AIR CONCENTRATION	CHRONIC INHALATION	HAZARD QUOTIENT
COMPOUND	CONCENTRATION	FOR TIME PERIOD	RfC [1]	
	(ug/m³)	(ug/m³)	(ug/m³)	
2,6-Dichloropyridine	2.53E+02	5.8E+01	1.00E+01	5.8E+00
2-Chloropyridine	3.99E+02	9.1E+01	1.00E+01	9.1E+00
1,2,4-Trimethylbenzene	1.96E+02	4.5E+01	6.00E+00	7.4E+00
1,3,5-Trimethylbenzene	7.52E+01	1.7E+01	6.00E+00	2.9E+00
4-Ethyltoluene	9.45E+01	2.2E+01	NA	
Chloroform	2.33E+00	5.3E-01	1.00E+02	5.3E-03
Cyclohexane	5.51E-01	1.3E-01	4.90E+02	2.6E-04
Heptane	6.35E+00	1.4E+00	NA	
		SUMMARY HAZARD IN	IDEX	2.5E+01

NA - not available

TABLE D-3 INHALATION EXPOSURE TO INDOOR AIR WAREHOUSE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE, GREATER THAN SCREENING VALUES & NOT USED AT FACILITY

ARCH CHEMICALS ROCHESTER, NY

EXPOSURE PARAMETERS

EQUATIONS

PARAMETER	SYMBOL	VALUE	UNITS	SOURCE		
AIR CONCENTRATION	[CA]air	Calculated	ug/m³	Measured	CANCER RISK = AVG. CONC. (ug/m ³) * CANCER UNIT RISK (ug/m ³)	
CONVERSION FACTOR 1	CF1	24	hours/day		HAZARD QUOTIENT = AV	G.CONC.(ug/m³)/REF. CONC. (ug/m³)
EXPOSURE TIME DAILY	ET	8	hours/day	EPA, 2002		
EXPOSURE FREQUENCY	EF	250	days/year	EPA, 2002		[CA]air * EF * ET * ED
EXPOSURE DURATION	ED	25	years	EPA, 2002	AVG. EXPOSURE CONC. =	AT * CF1 * CF2
CONVERSION FACTOR 2	CF2	365	days/year			
AVERAGING TIME CANCER	AT	70	vears	EPA, 2002		
AVERAGING TIME NONCANCER	AT	25	years	EPA, 2002		
EPA, 2002: Supplemental Guidance for Developing Soil	Screening Levels for Sup	erfund Sites. OSWER 9355.4-24	. Values for ind	oor commercial/industrial worker.		
Prepared by: KJC Checked by: JHP					*For noncarcinogenic effects: AT = ED	

TABLE D-3 INHALATION EXPOSURE TO INDOOR AIR WAREHOUSE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE, GREATER THAN SCREENING VALUES & NOT USED AT FACILITY

ARCH CHEMICALS ROCHESTER, NY

CARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION LIFETIME (ug/m³)	INHALATION CANCER UNIT RISK (ug/m ³) ⁻¹	CANCER RISK
no potentially carcinogenic constituents				
		SUMMARY CANCER R	ISK	0E+00

NC - not potentially carcinogenic or no unit risk factor available.

TABLE D-3 INHALATION EXPOSURE TO INDOOR AIR WAREHOUSE - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE, GREATER THAN SCREENING VALUES & NOT USED AT FACILITY

ARCH CHEMICALS ROCHESTER, NY

NONCARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION FOR TIME PERIOD (ug/m³)	CHRONIC INHALATION RfC [1] (ug/m ³)	HAZARD QUOTIENT
1,2,4-Trimethylbenzene	1.96E+02	4.5E+01	6.00E+00	7.4E+00
1,3,5-Trimethylbenzene	7.52E+01	1.7E+01	6.00E+00	2.9E+00
4-Ethyltoluene	9.45E+01	2.2E+01	NA	
Cyclohexane Heptane	5.51E-01 6.35E+00	1.3E-01 1.4E+00	4.90E+02 NA	2.6E-04
		SUMMARY HAZARD IN	IDEX	1.0E+01

NA - not available

TABLE D-4 INHALATION EXPOSURE TO INDOOR AIR PRODUCTION - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

EXPOSURE PARAMETERS

EQUATIONS

PARAMETER	SYMBOL	VALUE	UNITS	SOURCE		
AIR CONCENTRATION	[CA]air	Calculated	ug/m°	Measured	CANCER RISK = AVG. CONC	. (ug/m ³) * CANCER UNIT RISK (ug/m ³) ⁻¹
CONVERSION FACTOR 1	CF1	24	hours/day		HAZARD QUOTIENT = AV	G.CONC.(ug/m ²)/REF. CONC. (ug/m ²)
EXPOSURE TIME DAILY	ET	8	hours/day	EPA, 2002		
EXPOSURE FREQUENCY	EF	250	days/year	EPA, 2002		[CA]air * EF * ET * ED
EXPOSURE DURATION	ED	25	years	EPA, 2002	AVG. EXPOSURE CONC. =	AT * CF1 * CF2
CONVERSION FACTOR 2	CF2	365	days/year			
VERAGING TIME CANCER	AT	70	years	EPA, 2002		
AVERAGING TIME NONCANCER	AT	25	years	EPA, 2002		
EPA, 2002: Supplemental Guidance for Developin Prepared by: KJC	g Soil Screening Levels for Super	fund Sites. OSWER 9355.4-24.	Values for indoor	commercial/industrial	worker. *For noncarcinogenic effects: AT =	FD
Checked by: JHP					· ····································	

TABLE D-4 INHALATION EXPOSURE TO INDOOR AIR PRODUCTION - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

CARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION LIFETIME (ug/m ³)	INHALATION CANCER UNIT RISK (ug/m ³) ⁻¹	CANCER RISK
2,6-Dichloropyridine	4.22E+01	3.4E+00	6.20E-06	2.1E-05
2-Chloropyridine	7.70E+02	6.3E+01	6.20E-06	3.9E-04
Carbon Tetrachloride Chloroform	2.23E+00 1.17E+01	1.8E-01 9.5E-01	1.50E-05 2.30E-05	2.7E-06 2.2E-05
		SUMMARY CANCER RI	SK	4E-04

NC - not potentially carcinogenic or no unit risk factor available.

TABLE D-4 INHALATION EXPOSURE TO INDOOR AIR PRODUCTION - VAPOR INTRUSION PATHWAY POTENTIALLY COMPLETE & GREATER THAN SCREENING VALUES

ARCH CHEMICALS ROCHESTER, NY

NONCARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION FOR TIME PERIOD (ug/m ³)	CHRONIC INHALATION RfC [1] (ug/m³)	HAZARD QUOTIENT
2,6-Dichloropyridine	4.22E+01	9.6E+00	1.00E+01	9.6E-01
2-Chloropyridine	7.70E+02	1.8E+02	1.00E+01	1.8E+01
Carbon Tetrachloride	2.23E+00	5.1E-01	1.80E+02	2.8E-03
Chloroform	1.17E+01	2.7E+00	1.00E+02	2.7E-02
Ethanol	4.50E+01	1.0E+01	NA	
		SUMMARY HAZARD IN		1.9E+01

NA - not available

TABLE D-5 INHALATION EXPOSURE TO INDOOR AIR PRODUCTION AREA - CONSTITUENTS WITH COMPLETE PATHWAYS ONLY

ARCH CHEMICALS ROCHESTER, NY

EXPOSURE PARAMETERS

EQUATIONS

PARAMETER	SYMBOL	VALUE	UNITS	SOURCE		
AIR CONCENTRATION	[CA]air	Calculated	ug/m ³	Measured	CANCER RISK = AVG. CONC. (ug/m ³) * CANCER UNIT RISK (ug/m ³) ⁻¹	
CONVERSION FACTOR 1	CF1	24	hours/day		HAZARD QUOTIENT = AVG.	CONC.(ug/m³)/REF. CONC. (ug/m³)
EXPOSURE TIME DAILY	ET	8	hours/day	EPA, 2002		
EXPOSURE FREQUENCY	EF	250	days/year	EPA, 2002		[CA]air * EF * ET * ED
EXPOSURE DURATION	ED	25	years	EPA, 2002	AVG. EXPOSURE CONC. =	AT * CF1 * CF2
CONVERSION FACTOR 2	CF2	365	days/year			
AVERAGING TIME CANCER	AT	70	years	EPA, 2002		
AVERAGING TIME NONCANCER	AT	25	years	EPA, 2002		
EPA, 2002: Supplemental Guidance for Developing Soil Sc	reening Levels for Sup	erfund Sites. OSWER 9355.4-24	I. Values for ind	oor commercial/industrial worker.		
Prepared by: KJC Checked by: JHP					*For noncarcinogenic effects: AT = ED	

TABLE D-5 INHALATION EXPOSURE TO INDOOR AIR PRODUCTION AREA - CONSTITUENTS WITH COMPLETE PATHWAYS ONLY

ARCH CHEMICALS ROCHESTER, NY

CARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION LIFETIME (ug/m³)	INHALATION CANCER UNIT RISK (ug/m ³) ⁻¹	CANCER RISK
Carbon Tetrachloride	2.23E+00	1.8E-01	1.50E-05	2.7E-06
		SUMMARY CANCER R	ISK	3E-06

NC - not potentially carcinogenic or no unit risk factor available.

TABLE D-5 INHALATION EXPOSURE TO INDOOR AIR PRODUCTION AREA - CONSTITUENTS WITH COMPLETE PATHWAYS ONLY

ARCH CHEMICALS ROCHESTER, NY

NONCARCINOGENIC EFFECTS

COMPOUND	INDOOR AIR CONCENTRATION (ug/m³)	AVERAGE AIR CONCENTRATION FOR TIME PERIOD (ug/m³)	CHRONIC INHALATION RfC [1] (ug/m³)	HAZARD QUOTIENT
Carbon Tetrachloride Ethanol	2.23E+00 4.50E+01	5.1E-01 1.0E+01	1.80E+02 NA	2.8E-03
		SUMMARY HAZARD IN	IDEX	3E-03

NA - not available