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**GM COMPONENTS  
HOLDINGS, LLC  
200 UPPER MOUNTAIN ROAD  
LOCKPORT, NEW YORK  
BUILDING 10  
2009 SVE/SSD OPERATION &  
MONITORING REPORT**

**PREPARED FOR:**

New York State Department of Environmental Conservation

**PREPARED BY:**

GZA GeoEnvironmental of New York  
Buffalo, New York

May 2010

File No. 21.0056546.00

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## 1.0 INTRODUCTION AND BACKGROUND

On behalf of GM Components Holdings, LLC (GMCH), GZA GeoEnvironmental of New York (GZA) has prepared this Annual Soil Vapor Extraction (SVE) and Sub-slab Depressurization (SSD) System Monitoring Report for the extraction and treatment of soil vapor from a portion of Building 10 (Figure 1). Building 10 is part of the GMCH Lockport Facility located at 200 Upper Mountain Road, Lockport, New York. GMCH purchased the facility from Delphi Automotive systems LLC (Delphi) on October 6, 2009.

The SVE/SSD System was installed by Delphi in the northern portion of Building 10 to address concerns related to soil impacts and consequent vapor intrusion concerns associated with subsurface contamination, primarily tetrachloroethene (PCE) identified in the Building 10 Focused Environmental Assessment<sup>1</sup> (Bldg 10 FEA) which Delphi submitted to the New York State Department of Environmental Conservation (NYSDEC) in August 2007.

The SVE/SSD System was designed and installed based on the SVE Pilot Test Summary and SVE System Design Report<sup>2</sup> (SVE Design Report), which was also submitted by Delphi to NYSDEC in November 2007.

Delphi submitted a SVE/SSD System Installation Document<sup>3</sup> and an Operation, Maintenance & Monitoring (OM&M) Plan<sup>4</sup> to NYSDEC in July 2009. Delphi initiated operation of the SVE/SSD system in March 2009. The OM&M Plan identifies that a SVE/SSD System operation report will be prepared annually and submitted in May of each calendar year. This report is intended to satisfy the reporting requirements.

This SVE/SSD System Operation Report, which will be referred to as the “2009 Operation & Monitoring Report,” covers the monitoring period from March 2009 through April 2010 and provides monitoring data, SVE operational information, conclusions regarding overall system effectiveness, recommendations for modifications to the SVE/SSD system, as appropriate.

### 1.1 NATURE AND EXTENT OF SUBSURFACE CONTAMINATION

The subsurface investigation work completed as part of the Bldg 10 FEA and SVE Design Report identified an approximately 14,000 square foot area with detected PCE concentrations in soil above 300 ppm (the Part 375 Industrial Soil Cleanup Objective (ISCO)) as shown on Figure 2. Based on this area, the average PCE concentration in the soil (360 ppm), and the depth of the unsaturated zone (about 6.5 feet below floor

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<sup>1</sup> “Focused Environmental Assessment, Building 10, Lockport, New York” dated August 27, 2007.

<sup>2</sup> “Soil Vapor Extraction (SVE) Pilot Test Summary and SVE System Design Report, Delphi Automotive, Northern Portion of Building 10, Lockport Complex, 200 upper Mountain Road, Lockport, New York” dated November 2007.

<sup>3</sup> “SVE/SSD System, Installation Document, Delphi Automotive, Lockport, New York” dated July 2007.

<sup>4</sup> “Operation, Maintenance & Monitoring Plan, SVE/SSD System, GM Components Holdings, LLC, Lockport, New York” dated March 2010.

grade), it has been estimated that approximately 3,600 pounds of PCE is present in the zone being treated (see Appendix A for calculations). This mass of PCE will be used when evaluating the effectiveness of the SVE/SSD System as discussed in Section 4.0.

## **2.0 SOIL VAPOR EXTRACTION SYSTEM**

This section provides a general description of the SVE system and adjustments made during the reporting period.

### **2.1 SVE/SSD SYSTEM OVERVIEW**

There are two subsurface components to the SVE/SSD system operating in Building 10: a vertical well SVE system and a horizontal perforated pipe SSD system (see Figure 2).

- The vertical well SVE system consists of 17, 4-inch diameter vertical extraction wells (see Figure 2). The 17 extraction wells were installed using rotary drilling methods and are constructed of 4-inch diameter flush coupled polyvinyl chloride (PVC) riser and screen. Depth of the wells ranges from about 5.5 to 7 feet below ground surface (bgs) with the screened portion of the wells ranging from about 3.5 to 5-foot in length and consisting of #10 machine slotted PVC pipe. The annulus space around the well screen was backfilled with a #00 sand pack and an approximate 2-foot thick layer of bentonite was placed above the sand filter. Three trenches were excavated to an approximate depth of 2 feet bgs through the concrete slab-on-grade, subbase and soil for installation of the piping that connects the extraction wells to the manifold located within the SVE shed. The trenches were backfilled with pea stone to approximately 6 to 8-inches below the concrete slab.
- The horizontal piping SSD piping was installed in the upper portion of the pea stone in the SVE manifold trenches. The subsurface SSD system piping consists of 2-inch diameter #10 machine slotted PVC well screen lengths, connected with PVC couplers, and covered with a fabric sleeve (see Figure 2). The three lengths, called sub-slab (SS) legs 1, 2 and 3 are connected to the manifold inside the SVE shed via 1.5-inch diameter HDPE piping.

The trenches were topped with approximately 6-inches of crushed stone, compacted and covered with concrete to meet the existing slab-on-grade. Cracks and seams in the existing concrete floor were filled using a self-leveling polyurethane caulk.

Additional SVE/SSD system construction details are provided in the Installation Document referenced above. The system is designed to operate continuously at a consistent vacuum and flow rate to remove soil vapor from the impacted area.

The SVE/SSD System's main above ground components consist of a moisture separator, air filter, positive displacement blower, heat exchanger and two vapor phase granular activated carbon vessels each containing approximately 1,800 pounds of

granular activated carbon. The entire system is skid mounted, with vacuum, temperature, pressure and flow instrumentation, and is operated through a control panel. Figure 3 shows the process and instrumentation diagram for the SVE/SSD System.

## 2.2 SVE SYSTEM ADJUSTMENTS

No significant SVE system adjustments were made during the reporting period. However, on April 17, 2009 and February 8, 2010 the system was balanced in an attempt to more evenly distribute the vacuum and extraction air flow between the 17 extraction wells. This was done in general accordance with Section 3.4.1 of the OM&M Plan.

The 17 SVE wells do not have similar air flow capacities (i.e., vacuum – flow relationship). These varying air flow capacities are likely due to heterogeneities in the subsurface soils and the presence of subsurface features (i.e., piping, manholes, etc.). During the two monitoring events (April 17, 2009 and February 8, 2010), the air flow of the 17 extraction wells (see Figure 2 for locations) were measured using a velocity meter and compared to each other. We have categorized the wells into the following three categories: good (highest air velocities, typically greater than 20 cfm), fair (middle air velocities, between 10 and 20 cfm) and low (lowest air velocities, less than 10 cfm). Based on the February 8, 2010 measurements, the EWs fall into the following categories.

Good:	EW-4, -5, -6, -7, and -8
Fair:	EW-1, -2, -12, -13, -15, -16 and -17.
Low:	EW-3, -9, -10, -11 and -14.

The measurements collected from the 12 extraction wells identified as Good or Fair were used to establish an average flow. The individual extraction well flow control valves were then adjusted to more closely meet the calculated average on a well specific basis. The air flow rates in the SVE system are interrelated, therefore, adjusting the flow rate at one well location has an effect on vacuum and flow rate at other locations. The five wells identified as Low were not used in calculating the average and in making adjustments since these adjustments to the valves for these wells have little effect on the overall air flow or vacuum of the SVE system.

## **3.0 OPERATION AND MONITORING**

This section discusses the operation and monitoring activities performed for the SVE/SSD system during the current reporting period. The system startup began under Delphi on March 2, 2009. The system has generally been running continuously since March 3, 2009. Table 1 is a breakdown of the monitoring activities completed.

A GZA operator monitored the SVE/SSD system generally on a weekly basis from March 2 through May 8, 2009; bi-weekly from May 8, 2009 through June 25, 2009; monthly in July 2009 and August 2009. After the transition associated with the sale from Delphi to GMCH, a GZA operator continued to perform monitoring from

February 2010 through April 2010. No monitoring was done in September 2009 through January 2010.

Monitoring included the collection of: 1) extracted vapor samples from the treatment system influent (Pre-Carbon), midpoint (Mid-Carbon) and effluent (Post-Carbon) to assess system performance and 2) system readings to measure the approximate system flow rates. See Table 1 for the SVE/SSD System Monitoring Summary.

Routine Monitoring Forms were developed and used to document operation and monitoring events for the SVE/SSD system from June 2009 through April 2010 (see Appendix B). Prior to June 2009, information was documented by other means (i.e., field books and note pad), and are not included in Appendix B.

The operator also monitored water accumulation in the moisture separator during the reporting period. Water accumulation generally occurred during the first month of system operation. The water was transferred via the system transfer pump from the moisture separator to 55 gallon drums. The drums were discharged by Delphi (prior to October 2009) and GMCH (after October 2009) to the City of Lockport sanitary sewer, with approval from the City of Lockport. Approximately 110 gallons of water were collected and disposed of during this reporting period.

Since the start of the system monitoring, four types of extracted vapor monitoring samples have been collected to assess the system performance, operating conditions and contaminant removal rate. They are as follows.

1. Tedlar bag samples for field screening (Field Screening Sample);
2. Summa canister air samples for TO-15 laboratory analysis (Summa);
3. Colorimetric Detector tubes for PCE (Detector Tube); and
4. Tedlar bag samples for Gas Chromatograph analysis (GC Sample).

Field Screening Samples have generally been collected (by GZA) during each monitoring event (see Table 1) and were analyzed for total VOCs using a photoionization detector (PID) equipped with a 10.6 eV lamp<sup>5</sup>. The PID was calibrated using 100 parts per million by volume (ppmv) of isobutylene. Based on information provided by Rae Systems (the manufacturer of the PID used to perform the field screening), isobutylene has a response factor of 1.0, while, PCE has a response factor of 0.57<sup>6</sup>. Since PCE is the primary compound of concern, the readings were adjusted to reflect the PCE response factor.

Summa samples were collected by GZA from the Pre-Carbon, Mid-Carbon and Post-Carbon sampling locations on two occasions, March 13, 2009 and April 9, 2009, and delivered to Con-Test Laboratory (East Longmeadow, Massachusetts) and Centek Laboratory (Syracuse, New York), respectively. Samples were analyzed for volatile

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<sup>5</sup> PID readings were obtained by collecting soil vapor samples in Tedlar® bags. Prior to sampling, the bags were purged with the same soil vapor as was being sampled for analysis using a dedicated Tedlar bag for the respective sampling location.

<sup>6</sup> Rae Systems Inc., Technical Note TN-106 "Correction Factors, Ionization Energies and Calibration Characteristics" Revised December 2007.

organic compounds (VOCs) using Environmental Protection Agency (EPA) Method TO-15. The Summa regulators were set to collect samples over a 5 minute period from the three sampling locations. The analytical results from the two sampling events are shown on Table 1 (Total VOCs) and Table 2 (Summary of VOCs Detected). The laboratory analytical reports are included in Appendix C. Table 2 also contains the Field Screening Sample and Detector Tube readings for the corresponding monitoring events.

GC Samples were collected by GZA for screening with a gas chromatograph at the Haley & Aldrich office in Rochester, New York, for the February, March and April 2010 monitoring events. The total VOC and PCE concentrations detected for these monitoring events are included on Table 1 with a summary table of the data included in Appendix C.

Detector Tube readings were collected by Delphi prior to October 2009 and by GMCH after October 2009 during some monitoring events since startup, as shown on Table 1. Detector Tube readings were collected directly from the air stream of the three sampling locations after opening the valve at the respective locations. The Detector Tube results were also used to make field decisions regarding carbon breakthrough on the first carbon vessel.

GZA has evaluated these results to assess the mass of PCE extracted by the SVE/SSD system as well as to assess the efficiency of the carbon treatment system. In performing this evaluation, we have identified inconsistencies between the various data that was collected and have made judgments with respect to the most appropriate data to use in these calculations. The following describes our evaluation.

The Pre-Carbon Summa air sample results from two sampling events do not appear to correlate well with the Field Screening and Detector Tube readings. The total VOC concentrations detected in the two Summa Pre-Carbon samples of 2.9 ppmv (March 13, 2009) and 3.8 ppmv (April 9, 2009) are an order of magnitude lower than the Field Screening and Detector Tubes results for those days (see Table 1). There is, however, reasonably good correlation for the Mid-Carbon Summa and Post-Carbon Summa sample results as compared to the Field Screening and Detector Tube results taken on those same days. The GC Samples collected in February 2010, March 2010 and April 2010 that were analyzed using a gas chromatograph, discussed later in this section, reported total VOCs and PCE concentrations 3 times the Summa samples which were collected about 1 year earlier (See Table 1). Since it is highly unlikely that VOC concentrations would increase after one year of continuous SVE and since, as indicated below, the other data indicates an expected exponential decay in concentrations, we suspect that the Pre-Carbon Summa data collected in 2009 underestimates the actual concentrations at that time<sup>7</sup>. Therefore, the Pre-Carbon Summa data have not been used in the assessment of contaminant removal rates.

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<sup>7</sup> Though we are uncertain about the reasons that the Pre-Carbon Summa results are low, possible causes include the sampling methodologies used (sampling tube to Summa intake valve may not have been properly positioned in the sampling port), moisture in the system (the SVE/SSD system was generating

Because the correlation between the other three data sets (i.e., the Field Screening Samples, Detector Tubes and GC Samples) collected in 2010, is within a reasonable range of consistency, these data has been used in the assessment of contaminant removal rates.

Detector Tube readings in six of the seven monitoring events show good correlation with the Field Screening Samples and/or GC Sample results. Therefore, the Detector Tube results are considered a good indicator for assessing carbon breakthrough. The Field Screening Sample results, due to the amount of data collected, have been used to assess PCE contaminant removal mass rates.

The following rationale was used to estimate the mass removal rates. The five monitoring events for which speciation data are available (i.e., when either Summa<sup>8</sup> or GC Pre-Carbon Samples were collected - 3/13/09, 4/9/09, 2/8/10, 3/16/10 and 4/23/10) were evaluated to estimate what percentage the total VOC concentrations detected was due to PCE. From these five events, PCE was determined to be 55%, 84%, 80%, 82% and 78%, respectively, of the total concentration with an average of 75%. Therefore, the Pre-Carbon Adjusted Field Screening Results were adjusted to 75% of the total as shown in 3<sup>rd</sup> last column of Table 1 to reflect the estimated concentration of PCE.

These estimated PCE concentrations (average between the monitoring event) were used along with the system average flow rates (average between the monitoring events) and the system operation time to estimate the PCE mass removal between monitoring events (2<sup>nd</sup> last column), the PCE mass removal per day (last column) and the total PCE mass removal since the startup (lower right hand corner). We estimate that approximately 1,340 pounds of PCE have been removed since March 3, 2009. This is approximately 37% of the total mass of PCE (3,600 pounds) estimated to be present in the subsurface, as discussed in Section 1.0.

Figure 4 is a graph of the Adjusted Pre-Carbon Field Screening Sample results versus run time of the SVE/SSD system operation in days. This graph depicts a typical scenario of diminishing returns for the operation of a SVE system over time.

#### **4.0 SYSTEM EVALUATION AND CONCLUSIONS**

An evaluation of, and conclusions regarding, SVE system operation during the reporting period are presented below.

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water at the time of the two sampling events) and higher system flow rate relative to the flow rate of the regulator.

<sup>8</sup> Note though we believe the Pre-Carbon Summa data may be biased low, our evaluation of the data indicates the relative concentrations of the detected compounds in these samples is representative.



#### 4.1 SYSTEM EVALUATION

The SVE Design Report recommended that the SVE system be designed to be capable of extracting approximately 250 SCFM at an applied wellhead vacuum of 10" Hg. Laboratory data collected during the pilot test (total VOC concentrations of up to approximately 420 to 3,900 ppm during the pilot test) translate to an initial VOC mass flux rate for the system of approximately 9 to 85 pounds per day, assuming 250 SCFM. This VOC mass flux rate was expected to decrease rapidly during SVE system operation.

Operation and monitoring data collected, as shown on Table 1, indicates that the system has operated as designed. Initial flow rates (March 2 and 3, 2009) were 125 to 150 SCFM, which were below the design capabilities and was likely due to the soil moisture (initial moisture content of about 18 to 20% (SVE Design Report)) and elevated water table due to the high initial operating vacuum of the system. However, once the soil began to "dry out", the system operating vacuum has dropped off, system flow rate has increased, and water has not been observed in the moisture separator since April 2009. The SVE system generally operated at steady state condition with an approximate 3" Hg vacuum which yielded a SVE/SSD system average air flow rate of approximately 295 SCFM.

Field Screening Sample results from the PID were used to along with the operating hours and SVE flow rate to assess the PCE mass removal for this monitoring period. We estimate, as shown on Table 1, that approximately 1,340 pounds of PCE has been removed from the subsurface since the start of the system. The initial PCE removal rates for March 2009 ranged from about 55 pounds per day to 7 pounds per day and have decreased steadily over time. The estimated mass removal rate is currently less than 1 pound per day.

To date, four carbon vessels, each containing approximately 1,800 pounds of GAC have been sent to Siemens Water Technology Corporation (Siemens) in Rochester, Pennsylvania for reactivation. The efficiency removal rate of GAC for PCE removal from a dry air stream can about 10 to 15% by weight. Therefore, the carbon vessels used each can absorb about 180 to 270 pounds of PCE, before reaching saturation and break through begins to occur.

#### 4.2 CONCLUSIONS

The SVE/SSD system generally operated on a continuous basis during the reporting period, and is effectively extracting soil vapor from the remedial area consistent with the design parameters established in the 2007 SVE Design Report. To date, approximately 1,340 pounds of PCE (the primary contaminant of concern), have been extracted from the subsurface. It has been estimated that approximately 3,600 pounds of PCE are present in the subsurface soil in the remedial zone. Therefore, about 37% of the PCE contamination has been removed.

The mass removal rate since the startup has decreased to less than 1 pound per day. The PCE Field Screening results versus time depicted on Figure 4 indicate that asymptotic

removal rates have been achieved under current operating conditions. Figure 4 also depicts the cumulative mass of PCE removed in pounds.

As a result, GZA is recommending changing the current operating conditions of the system by shutting down the extraction wells which do not produce significant air flow (EW-3, EW-9, EW-10 and EW-11). This will allow the system to direct the available extraction system capacity on the wells that are providing the greatest flow. If an increase in the mass removal is not observed in the first 2 months after the change is implemented, GZA recommends cycling the system on and off for a period of time (e.g., shutting the system down for one month and then turning the system on for one month). The actual cycling periods employed will be based on Field Screening Sample and GC Sample results. If, after multiple operating parameter adjustments are made to the system and an increase in PCE mass removal are not observed, GMCH will contact NYSDEC to discuss the feasibility of system operation and other potential options.

## **5.0 PROPOSED 2010 ACTIVITIES**

The operation of the SVE/SSD system will be altered as discussed in Section 4.2 to improve removal efficiency. GZA will continue to perform monthly monitoring of the system and carbon vessel change outs will be scheduled as necessary. GZA will collect additional monitoring data when the system operation is altered (i.e., shut down of extraction wells or cycling of the system) to assess the effect of the changes.

In the Summer 2010, GMCH expects to begin the Brownfield Cleanup Program Remedial Investigation of Building 10 (Site ID #C932140). At that time, as part of the BCP investigation, two indoor air samples will be collected to assess the vapor intrusion concern identified as part of the Bldg 10 FEA. Additionally, six soil probes will be completed within the footprint of the SVE/SSD system to assess subsurface soil conditions and install vacuum monitoring points to assess vacuum distribution. This data along with monthly monitoring data will be used to further assess the system performance and make decisions on operating parameters. The next SVE/SSD Annual Monitoring Report is scheduled to be submitted in May 2011.

## **6.0 CERTIFICATION**

I certify that the following statements are true related to the SVE/SSD system installed in the northern portion of Building 10:

- The operation and monitoring of the SVE/SSD system, to confirm the effectiveness of the SVE/SSD System, was performed under my direction;
- The operation of the SVE/SSD system has generally been consistent from the date it was put in place;
- No significant event, as monitored by GZA, has occurred that would impair the ability of the SVE/SSD System to protect the public health and environment;

- Access to the SVE/SSD system will continue to be provided to the Department (with valid Safety Protocol Program Card) to evaluate the SVE/SSD System remedy, including access to evaluate the continued maintenance of this system;
- The SVE/SSD system is performing as designed and is effective;
- To the best of my knowledge and belief, the work and conclusions described in this report are in accordance with generally accepted engineering practices; and
- The information presented in this report is accurate and complete.

I certify<sup>9</sup> that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Bart A. Klettke, P.E., of GZA GeoEnvironmental of New York, am certifying as a GMCH Representative.

BART A. KLETTKE  
Printed Name

Bart A. Klettke  
Signature

5-28-10  
Date

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<sup>9</sup> Certify means to state or declare a professional opinion.

## TABLES

TABLE 1  
SVE/SSD MONITORING SUMMARY  
2009 ANNUAL SVE/SSD SYSTEM MONITORING REPORT  
BUILDING 10 SVE/SSD SYTEM  
GM COMPONENTS HOLDINGS, LLC  
LOCKPORT, NEW YORK

DATE	RUN TIME	# OF DAYS BETWEEN READINGS	SYSTEM FLOW RATE	OPERATING VACUUM	PRECARBON MONITORING POINT			MID-CARBON MONITORING POINT			POST-CARBON MONITORING POINT			Estimated PCE Concentrations from Field Screening Results	Pound of PCE Removed Since Previous Measurement	PCE Removed in pounds per days
	hours	DAYS	SCFM	in Hg	Adjusted Field Screening Results ppmv	Detector Tube ppm	Total VOCs from Lab Analysis or GC Screen Total VOC / PCE Conc. ppmv	Adjusted Field Screening Results ppmv	Detector Tube ppm	Total VOCs from Lab Analysis or GC Screen Total VOC / PCE Conc. ppmv	Adjusted Field Screening Results ppmv	Detector Tube ppm	Total VOCs from Lab Analysis or GC Screen Total VOC / PCE Conc. ppmv	See Note 1 ppm	See Note 9 pounds	pounds
3/2/2009	4		125	12.5	143									107		
3/3/2009	30	1.1	150	11	855			0.4			0.4			641	34	31.4
3/6/2009	98	2.8	280	4.5	257			0.9			0.5			192	155	54.6
3/9/2009	168	2.9	300	5	54			0.3			0.3			41	60	20.6
3/13/2009	252	3.5	325	4	48	15	2.9 / 1.6 <sup>2</sup>	0.9		1.3 / 0.003 <sup>1</sup>	0.5		1.6 / 0.003 <sup>1</sup>	36	58	16.6
3/20/2009	432	7.5	325	3.5	39			1.1			0.6			29	49	6.5
3/27/2009	529	4.0	270	8.5	114			1.3			0.3			86	42	10.4
3/30/2009	576		300	1.5				0.0								
4/9/2009	766	9.9	320	2.75	29	19	3.8 / 3.2 <sup>3</sup>	0.6	ND	0.17 / 0.004 <sup>2</sup>	1.1		0.12 / 0.001 <sup>2</sup>	21	100	10.1
4/17/2009	958	8.0	315	3	47			0.7			0.5			35	44	5.5
4/27/2009	1,203	10.2	330	4.5	23			0.5			0.5			17	52	5.1
5/8/2009	1440	9.9	315	5	26			0.6			0.2			20	36	3.6
5/14/2009						25		0.0	0.6							
5/29/2009	1,945	21.0	280	3	30			7.4	5.5 <sup>3</sup>		0.4			22	80	3.8
6/12/2009	2,280	14.0	350	3	22	25 <sup>4</sup>		0.3			0.2			16	52	3.7
6/25/2009	2,594	13.1	330	3	23			0.9			0.5			18	46	3.5
7/10/2009	2,953	15.0	340	3.25	33			1.7			0.3			25	65	4.3
8/3/2009	3,528	24.0	310	3	19			10.8	15		1.1	0.5		15	93	3.9
2/8/2010	8,064	189.0	285	2.5	5	6	11.6 / 7.1	2.9	5	6 / 5.9	0.9	1.25	1.5 1.3	4	315	1.7
3/16/2010	8,928	36.0	335	4	6	7	9.8 / 8.0	2.9	7.5	6.7 / 5.6	0.3	ND	0.9 / ND	4	28	0.8
4/23/2010	9,840	38.0	310	3	5	7	9.2 / 7.2	2.4	5	6.0 / 5.4	0.3	ND	ND / ND	3	30	0.8

Notes 1 - Estimated PCE concentrations were determined assuming 75% of total VOCs was related to PCE concentrations and using a 0.57 correction factor on the PID reading  
2 - Laboratory analysis performed by Con-Test Lasboratory  
3 - Laboratory analysis performed by Centek Laboratory  
4 - Detector tube measurement collected on 5/28/2009.  
5 - Detector tube measurement collected on 6/15/2009.

1337  
pounds of PCE removed

TABLE 2  
SUMMARY OF AIR SAMPLE RESULTS  
BUILDING 10 SVE/SSD SYSTEM  
GM COMPONENTS HOLDINGS, LLC  
LOCKPORT, NEW YORK

March 13, 2009 TO-15 Data from Con-Test Laboratory & Detector Tube Readings

Compounds	PRE CARBON	MID CARBON	POST CARBON
Volatile Organic Compounds via USEPA Method T0-15 (ppbv)			
Acetone	140	740	910
Benzene	1.8	1.4	1.5
2-Butanone (MEK)	1.7	1.4	1.2
Chloroform	1.7		
Cyclohexane	6.7	2.6	2.6
1,1-Dichloroethylene	13	1.3	
cis-1,2-Dichloroethylene	290	2.9	
Ethanol	340	200	220
Ethylbenzene		7	8
4-Ethyl Toluene		2.8	3.2
n-Heptane	11	3.9	4.3
Hexane	110	190	230
Isopropanol	8.4	6.9	7.5
Methylene Chloride	3.5	1.7	
Tetrachloroethylene	1,600	2.7	2.9
Tetrahydrofuran	1.3		
Toluene	38	120	140
1,1,2-Trichloroethane	1.1		
Trichloroethylene	330	7.6	
1,2,4-Trimethylbenzene		4.4	4.8
1,3,5-Trimethylbenzene		2	2.3
m/p-Xylene		22	26
o-Xylene		6.3	7.1
Total VOC (ppbv)	2,917	1,327	1,571
OVM field screening results (ppb)	85,000	1,500	800
Detector Tubes (ppm)	15	0	NM

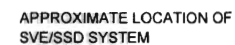
April 9, 2009 TO-15 Data from Centek Laboratory & Detector Tube Readings

Compounds	PRE CARBON	MID CARBON	POST CARBON
Volatile Organic Compounds via USEPA Method T0-15 (ppbv)			
Acetone	210	68	59
Benzene	0.86	0.25	0.2
2-Butanone (MEK)		13	
Chloroform	1.3	0.11	
Cyclohexane	7.3	1.5	
1,1-Dichloroethylene	3.8	21	
cis-1,2-Dichloroethylene	100	1.1	0.12
trans-1,2-dichloroethylene	8.4	0.38	
Ethylbenzene	0.27	0.15	0.13
4-Ethyl Toluene	0.11		
n-Heptane	5.8	2	1.3
Hexane	92	17	20
Methylene Chloride	5	6.1	15
Tetrachloroethylene	3,200	3.7	0.88
Toluene	68	33	23
1,1,2-Trichloroethane	0.54		
Trichloroethylene	97	0.25	0.15
1,2,4-Trimethylbenzene	0.25	0.14	
1,3,5-Trimethylbenzene	0.1		
m/p-Xylene	1.6	0.41	0.29
o-Xylene	0.41	0.12	
Vinyl Chloride	0.21	0.21	0.21
Styrene	0.14		
Methyl isobutyl ketone		0.25	
Isopropyl alcohol	21	14	11
Freon 11	0.26	0.56	0.13
Freon 12	0.46	0.44	0.5
Ethyl Acetate	2.5	1.7	0.97
Chloromethane	0.4	0.33	0.43
Carbon Disulfide	0.34	0.64	0.15
1,4-Dichlorobenzene	0.39	0.3	0.28
Total VOC (ppbv)	3,803	168	120
OVM field screening results (ppb)	50,000	1,000	2,000
Detector Tubes (ppm)	19	0	NM

- Notes: 1) Detector Tube readings are for tetrachloroethylene concentrations.  
2) NM - not measured.  
3) Blank indicates compound was detected below method detection limits.  
4) ppbv - parts per billion by volume.  
5) ppb - parts per billion.  
6) ppm - parts per million.

## FIGURES





**NOTES:**

1. BASE MAP ADAPTED FROM A 2005 AERIAL PHOTOGRAPH DOWNLOADED FROM [http://www.nysgis.state.ny.us/gateway/mg/interactive\\_main.html](http://www.nysgis.state.ny.us/gateway/mg/interactive_main.html) AND SITE OBSERVATIONS.
2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

**DRAWN BY: DEW**  
**DATE: MAY 2010**



**GZA GeoEnvironmental of  
New York**

APPROXIMATE SCALE IN FEET

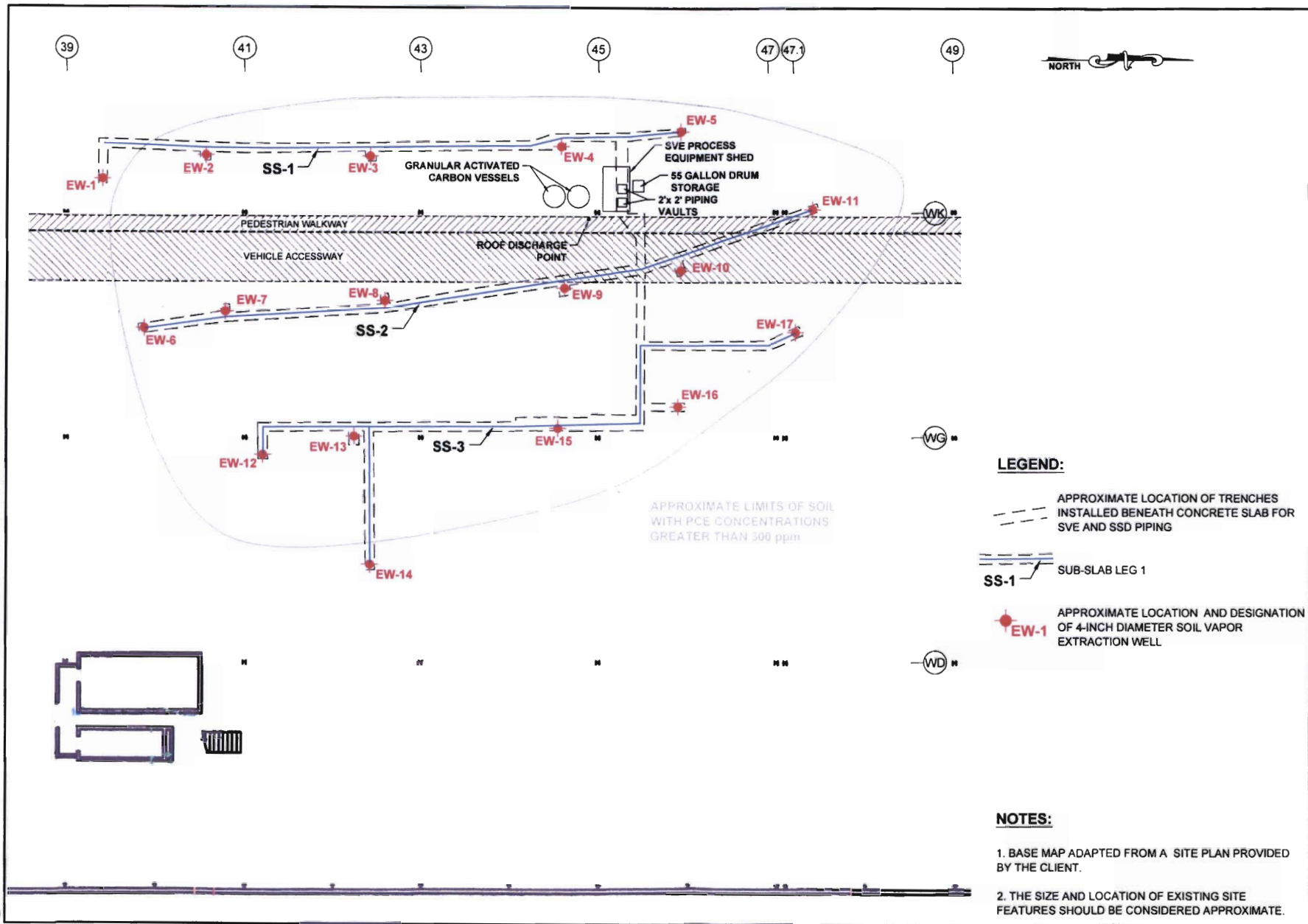
**GM COMPONENTS HOLDINGS, LLC**  
**LOCKPORT FACILITY**  
**0 UPPER MOUNTAIN ROAD, LOCKPORT, NEW YORK**  
**BUILDING 10**

**SVE / SSD SYSTEM 2009 MONITORING REPORT**  
**SITE PLAN**

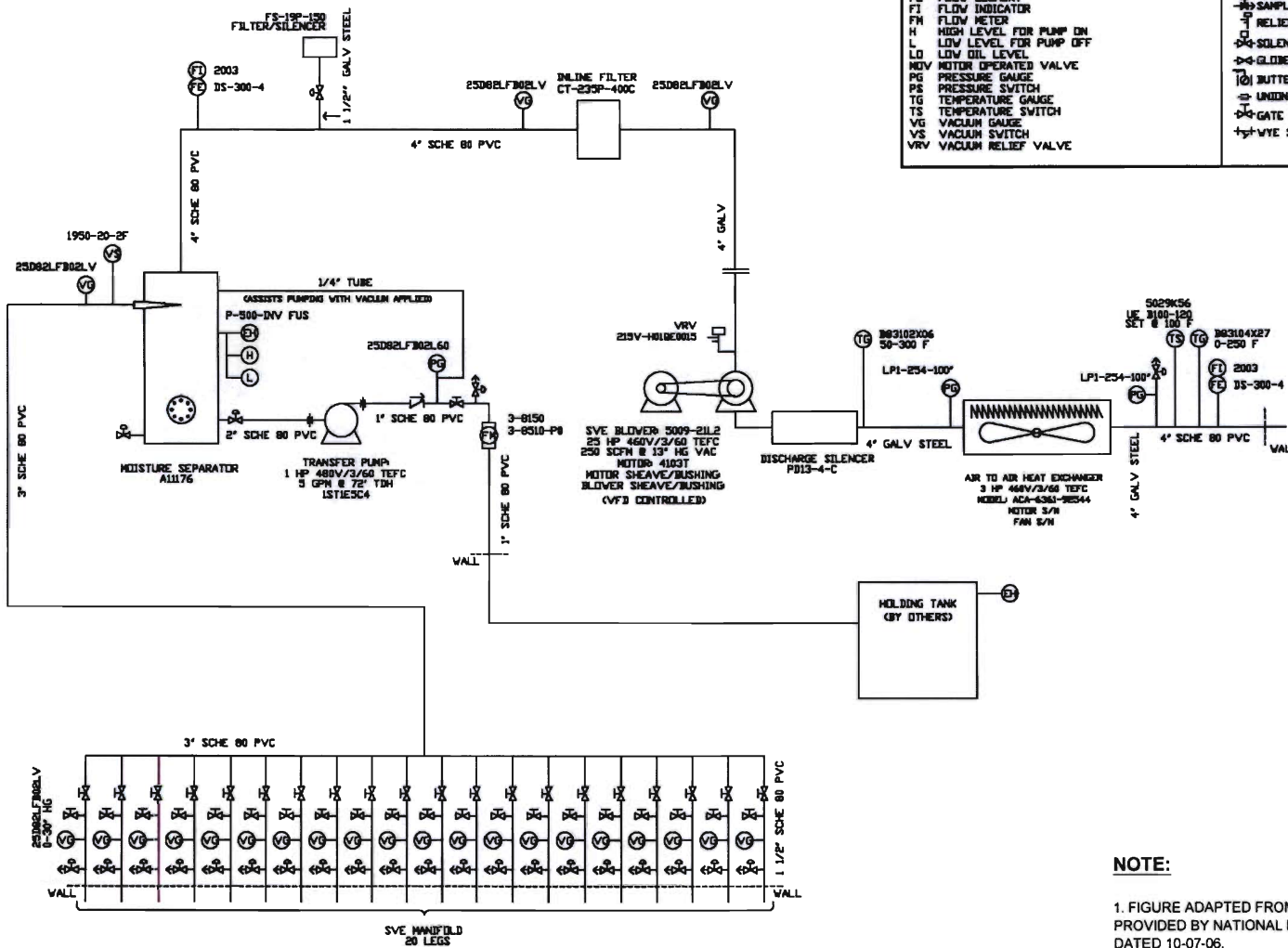
PROJECT No.	21.0056546.00
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FIGURE No. 1





<b>GM COMPONENTS HOLDINGS, LLC</b> <b>LOCKPORT FACILITY</b> 200 UPPER MOUNTAIN ROAD, LOCKPORT, NEW YORK BUILDING 10	DRAWN BY: DEW DATE: MAY 2010
	APPROXIMATE SCALE IN FEET 0 10 20 40
SVE / SSD SYSTEM 2009 MONITORING REPORT SVE / SSD SYSTEM LAYOUT	PROJECT No. <b>21.0056546.00</b> FIGURE No. <b>2</b>



**LEGEND:**

DPT	DIFFERENTIAL PRESSURE TRANSMITTER	✓	CHECK VALVE
EH	EMERGENCY HIGH SWITCH	⊗	BALL VALVE
FE	FLOW ELEMENT	⊗	SAMPLE PORT
FI	FLOW INDICATOR	⊗	RELIEF VALVE
FM	FLOW METER	⊗	SOLENOID VALVE
H	HIGH LEVEL FOR PUMP ON	⊗	GLIDE VALVE
L	LOW LEVEL FOR PUMP OFF	⊗	GLIDE VALVE
LO	LOW OIL LEVEL	⊗	BUTTERFLY VALVE
MOV	MOTOR OPERATED VALVE	⊗	UNION
PG	PRESSURE GAUGE	⊗	GATE VALVE
PS	PRESSURE SWITCH	⊗	Y-STRAINER
TG	TEMPERATURE GAUGE		
TS	TEMPERATURE SWITCH		
VG	VACUUM GAUGE		
VS	VACUUM SWITCH		
VRV	VACUUM RELIEF VALVE		

**NOTE:**

1. FIGURE ADAPTED FROM A DRAWING DEVELOPED AND PROVIDED BY NATIONAL ENVIRONMENTAL SYSTEMS, DATED 10-07-06.

DRAWN BY: DEW

DATE: MAY 2010

**NOT TO SCALE**

**GM COMPONENTS HOLDINGS, LLC**

**LOCKPORT FACILITY**  
200 UPPER MOUNTAIN ROAD, LOCKPORT, NEW YORK  
**BUILDING 10**

**SVE / SSD SYSTEM 2009 MONITORING REPORT  
SVE / SSD SYSTEM PROCESS AND  
INSTRUMENTATION DIAGRAM**

PROJECT No.

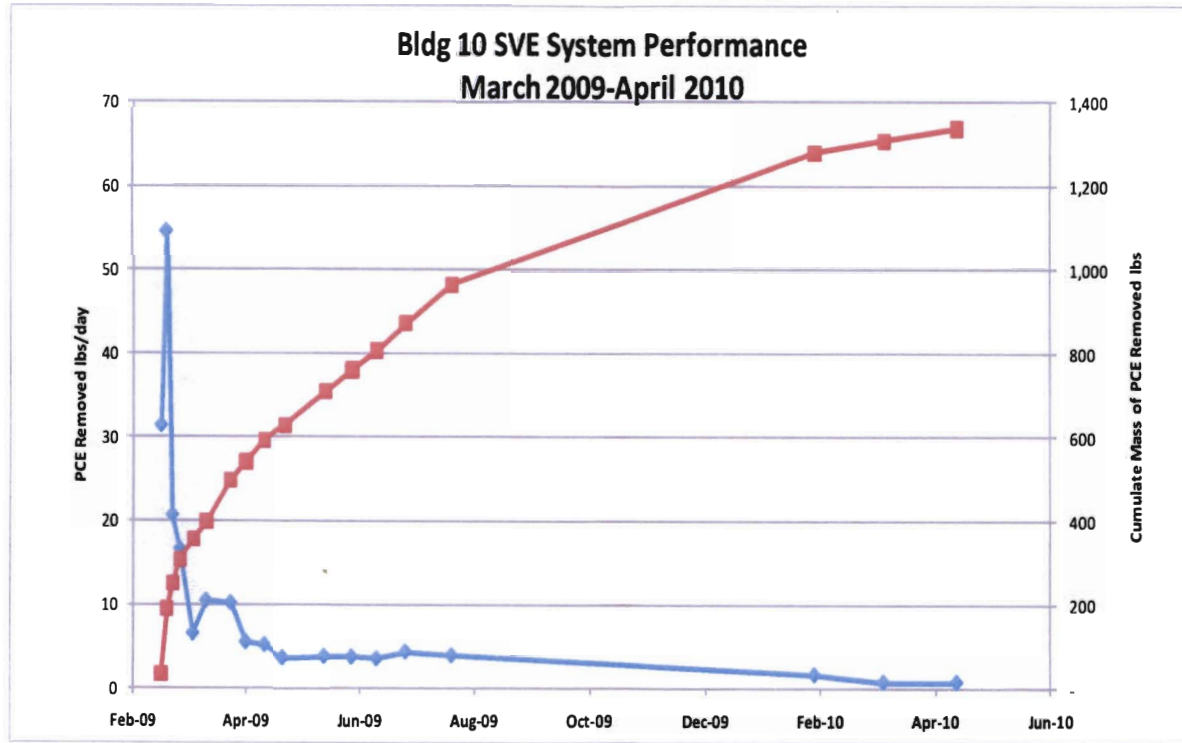
**21.0056546.00**



FIGURE No.

3

**GZA GeoEnvironmental of  
New York**





<div>GM COMPONENTS HOLDINGS, LLC</div> <div>LOCKPORT FACILITY</div> <div>200 UPPER MOUNTAIN ROAD, LOCKPORT, NEW YORK</div> <div>BUILDING 10</div>		<div>NOT TO SCALE</div> <div></div>	<div>DRAWN BY: DEW</div> <div>DATE: MAY 2010</div>
<div>SVE / SSD SYSTEM 2009 MONITORING REPORT</div> <div>BLDG 10 SVE SYSTEM PERFORMANCE</div>			
<div>PROJECT No.</div> <div>21.0056546.00</div>			<div></div> <div>GZA GeoEnvironmental of New York</div>
<div>FIGURE No.</div> <div>4</div>			

**APPENDIX A**  
**PCE MASS CALCULATIONS**



Project GMHC Bldg 10 SVE/SSD System

File No. Z1.0056546 0

Location Lockport NY

Date 5/5/10

By Cb.

Subject Ave PCE Conc. in SVE Footprint

Checked 5/6/10

By DJT

Based on Lab Data.

Revised

By

17 Soil Samples were collected from within the SVE area footprint as follows/ PCE conc.

SP-1: 0-2 ft : 72 ppm      SP-2: 2-4 ft : 5 ppm  
         2-4 ft : 119  
         4-6 ft : 177  
         6-8 ft : 506

SP-3 2-4 ft : 770 ppm

SP-4: 6-7.1 ft : 447 ppm      SP-7: 4-6 ft : 297 ppm

SP-13 4-6 ft : 250 ppm      SP-14 : 2-4 ft : 25 ppm  
         6-8 ft : 105 ppm      4-6 ft : 1,120 ppm

SP-15 : 6-8 ft : 5 ppm      SP-20 0-2 ft : 28 ppm  
         8-9 ft : 4 ppm      2-4 ft : 1075 ppm  
         4-6 ft : 1090 ppm

Ave PCE Conc : 359 ppm

Say 360 ppm



Project GMMHC TSDy 10 SVE/SSD

File No. 21-0056546.0

Location Lockport NY

Date 5/5/10

By clb

Subject Mass of PCE in Unsaturated Soil

Checked 5/6/10

By DST

Based on

Revised

By

Mass of PCE in unsaturated soil to be addressed w/ SVE System in TSDy 10

- Area to be addressed is ~14,000 sq. ft.
- Assume Unsaturated soil thickness is 6.0 ft.  
(6.5 ft to water table - 0.5 ft for concrete + fill)
- Assume 360 ppm PCE average soil concentration.
- Assume 10% of volume contains utilities

$$14,000 \text{ sq. ft.} \times 6 \text{ ft} = 84,000 \text{ ft}^3 (3,111 \text{ yds}^3)$$

$$3,111 \text{ yds}^3 \times 0.90 = 2,800 \text{ yds}^3 (\text{vol. w/out utilities})$$

$$2,800 \text{ yds}^3 \times 1.6 \text{ tons/yd}^3 = 4,480 \text{ tons of soil}$$

$$4,480 \text{ tons} \times 1,016 \text{ kg/ton} = 4,551,680 \text{ kg}$$

$$360 \text{ mg/kg} \times 4,551,680 \text{ kg} = 1,638,604,800 \text{ mg}$$

$$1,638,604,800 \text{ mg} \times 2.2046 \times 10^{-6} = 3,613 \text{ pounds}$$

(convert mg to pounds)

Say 3,600 lbs  
OF PCE



Project GWH Bldg 10 SVE/SSD System

File No. Z1-0056546.0

Location Lockport, NY

Date 5/5/10

By cb

Subject PCE Removal Rate Calc.

Checked 5/6/10

By PJT

Based on

Revised

By

Pounds of PCE Removed by SVE Sys for Time Period  
3/6/09 → 3/9/09.

Days between Readings: 2.9 days.

Ave System Flow between Readings:  $(300 \text{ scfm} + 280 \text{ scfm}) \div 2$   
290 scfm

Estimate Average PCE Conc. between Readings:  $\frac{41 \text{ ppmv} + 192 \text{ ppmv}}{2}$   
 $= 117 \text{ ppmv}$

2.9 days:  $\times 290 \text{ scfm} \times 24 \frac{\text{hrs}}{\text{day}} \times 60 \frac{\text{min}}{\text{hr}}$   
 $= 1,211,040 \text{ ft}^3$

$1,211,040 \text{ ft}^3 \times 0.02832 \text{ (convert ft}^3 \text{ to m}^3\text{)} = 34,297 \text{ m}^3$

$117 \text{ ppmv} \times 6.78 \text{ (convert ppmv to mg/m}^3\text{)} = 793 \text{ mg/m}^3$

$34,297 \text{ m}^3 \times 793 \text{ mg/m}^3 = 27,197,521 \text{ mg}$   
(27,198 g)

$27,198 \text{ g} \times 0.002205 \text{ (convert g to pounds)} = \boxed{60 \text{ pounds PCE REMOVED}}$

**APPENDIX B**  
**MONITORING FORMS**  
**(JUNE 2009 – APRIL 2010)**



ROUTINE MONITORING FORM  
OPERATION AND MAINTENANCE GUIDANCE DOCUMENT  
SVE/SSD SYSTEM  
DELPHI  
LOCKPORT, NEW YORK

Name <u>James J. Kunkle</u>		Time On-Site <u>945</u>		Time Off-Site <u>1245</u>		
Date <u>6/25/07</u>		SVE Blower Run Time: <u>2-92:13</u> hours		VDF <u>60.0</u> hertz		
<b>SYSTEM STATUS</b>						
SVE System Operating:		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:		
Alarm lights off.		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:		
Autodialer Alarm On:		<input type="radio"/> YES	<input checked="" type="radio"/> NO	If Yes:		
<b>Position of Swing Panel HOA Switches:</b>						
Control Power Switch		<input checked="" type="radio"/> ON	<input type="radio"/> OFF	SVE Blower Switch		
				HAND	OFF <input checked="" type="radio"/> AUTO	
M/S Effluent Pump Switch		HAND	<input checked="" type="radio"/> OFF	AUTO	Heat Exchanger Switch	
					HAND OFF <input checked="" type="radio"/> AUTO	
Heat Exchanger Operating		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:		
SVE System appear to be operating properly?		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:		
Moisture Separator Tank Level:		<input checked="" type="radio"/> Empty	<input type="radio"/> 1/4 Full	<input type="radio"/> 1/2 Full	<input type="radio"/> 3/4 Full	
				Full	Volume Tranfered: gals	
<b>SYSTEM MONITORING READINGS</b>						
Vacuum Gauge Pre-Inline Filter		<u>3</u>	in Hg	<b>System Monitoring Notes:</b> Pre Carbon Sample D.T. appears to be level. SVE system has been running.		
Vacuum Gauge Post-Inline Filter		<u>3</u>	in Hg			
Temperature on Discharge Silencer		<u>115</u>	° F			
Temperature after Heat Exchanger		<u>82</u>	° F			
Pressure Before Heat Exchanger		<u>36</u>	in H <sub>2</sub> O			
Pressure Magnehelic Gauge.		<u>2.5</u>	in H <sub>2</sub> O			
Vacuum Magnehelic Gauge:		<u>&gt;2</u>	in H <sub>2</sub> O			
Vacuum Gauge After Manifold		<u>1</u>	in Hg			
<b>EXTRACTION WELL VACUUM GAUGE READINGS</b>						
EW-1.	<u>1.5</u>	in Hg	EW-11	<u>1.0</u>	in Hg	<b>Vacuum Gauge Reading Notes:</b>
EW-2.	<u>1.0</u>	in Hg	EW-12	<u>1.0</u>	in Hg	
EW-3.	<u>0.5</u>	in Hg	EW-13	<u>2.5</u>	in Hg	
EW-4.	<u>2.5</u>	in Hg	EW-14	<u>1.0</u>	in Hg	
EW-5.	<u>1.0</u>	in Hg	EW-15	<u>1.0</u>	in Hg	
EW-6.	<u>0.5</u>	in Hg	EW-16	<u>1.0</u>	in Hg	
EW-7.	<u>1.0</u>	in Hg	EW-17	<u>0.5</u>	in Hg	
EW-8.	<u>1.0</u>	in Hg	SS-1	<u>2.5</u>	in H <sub>2</sub> O	
EW-9.	<u>0.5</u>	in Hg	SS-2	<u>2.0</u>	in H <sub>2</sub> O	
EW-10.	<u>1.0</u>	in Hg	SS-3	<u>2.0</u>	in H <sub>2</sub> O	
<b>AIR FLOW FIELD SCREENING</b>						
Background Outside SVE Shed:		<u>NM</u>	ppm	<b>Detector Tube Readings</b> Pre Carbon YES <input checked="" type="radio"/> NO ppm Mid Carbon YES <input checked="" type="radio"/> NO ppm Post Carbon YES <input checked="" type="radio"/> NO ppm		
Background Inside SVE Shed:		<u>NM</u>	ppm			
Pre Carbon Discharge		<u>41</u>	ppm			
Mid Carbon Discharge.		<u>1.6</u>	ppm			
Post Carbon Discharge:		<u>2.9</u>	ppm			
<b>Additional Notes:</b> The sample is MID. All other samples are below 1.0 ppm.						

**ROUTINE MONITORING FORM**  
 OPERATION AND MAINTENANCE GUIDANCE DOCUMENT  
 SVE/SSD SYSTEM  
 DELPHI  
 LOCKPORT, NEW YORK

Name: <u>Chris Boron</u>		Time On-Site: <u>915</u>		Time Off-Site: <u>1020</u>		
Date: <u>7/10/07</u>		SVE Blower Run Time: <u>2953</u> 4 hours		VDF: <u>60.0</u> hertz		
<b>SYSTEM STATUS</b>						
SVE System Operating:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
Alarm lights off:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
Autodialer Alarm On:	YES	<input checked="" type="radio"/> NO	If Yes:			
<b>Position of Swing Panel HOA Switches:</b>						
Control Power Switch	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	SVE Blower Switch	HAND	<input checked="" type="radio"/> OFF <input checked="" type="radio"/> AUTO	
M/S Effluent Pump Switch	HAND	<input checked="" type="radio"/> OFF <input type="radio"/> AUTO	Heat Exchanger Switch	HAND	<input type="radio"/> OFF <input checked="" type="radio"/> AUTO	
Heat Exchanger Operating	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
SVE System appear to be operating properly?	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
Moisture Separator Tank Level:	<input checked="" type="radio"/> Empty	<input type="radio"/> 1/4 Full	<input type="radio"/> 1/2 Full	<input type="radio"/> 3/4 Full	Full Volume Tranfered: <u>0</u> gals	
<b>SYSTEM MONITORING READINGS</b>						
Vacuum Gauge Pre-Inline Filter:	<u>3.25</u>	in Hg	System Monitoring Notes:			
Vacuum Gauge Post-Inline Filter:	<u>3.25</u>	in Hg				
Temperature on Discharge Silencer:	<u>112</u>	° F				
Temperature after Heat Exchanger:	<u>80</u>	° F				
Pressure After Heat Exchanger	<u>26</u>	in H <sub>2</sub> O				
Pressure Before Heat Exchanger	<u>35</u>	in H <sub>2</sub> O				
Pressure Magnehelic Gauge:	<u>2.5</u>	in H <sub>2</sub> O				
Vacuum Magnehelic Gauge:	<u>&gt;2</u>	in H <sub>2</sub> O				
Vacuum Gauge After Manifold:	<u>1</u>	in Hg				
<b>EXTRACTION WELL VACUUM GAUGE READINGS</b>						
EW-1:	<u>0.5</u>	in Hg	EW-11:	<u>1.0</u>	in Hg	Vaccum Gauge Reading Notes:
EW-2:	<u>1.0</u>	in Hg	EW-12:	<u>1.0</u>	in Hg	
EW-3:	<u>0.75</u>	in Hg	EW-13:	<u>0.5</u>	in Hg	
EW-4:	<u>0.75</u>	in Hg	EW-14:	<u>1.25</u>	in Hg	
EW-5:	<u>1.0</u>	in Hg	EW-15:	<u>1.0</u>	in Hg	
EW-6:	<u>0.5</u>	in Hg	EW-16:	<u>1.0</u>	in Hg	
EW-7:	<u>1.0</u>	in Hg	EW-17:	<u>0.5</u>	in Hg	
EW-8:	<u>1.0</u>	in Hg	SS-1:	<u>2.5</u>	in H <sub>2</sub> O	
EW-9:	<u>0.75</u>	in Hg	SS-2:	<u>2.0</u>	in H <sub>2</sub> O	
EW-10:	<u>1.0</u>	in Hg	SS-3:	<u>2.0</u>	in H <sub>2</sub> O	
<b>AIR FLOW FIELD SCREENING</b>						
Background Outside SVE Shed:	<u>NM</u>	ppm	Detector Tube Readings			
Background Inside SVE Shed:	<u>NM</u>	ppm				
Pre Carbon Discharge:	<u>58</u>	ppm				
Mid Carbon Discharge:	<u>3</u>	ppm				
Post Carbon Discharge:	<u>0.5</u>	ppm	Pre Carbon	YES	<input checked="" type="radio"/> NO	ppm
			Mid Carbon	YES	<input checked="" type="radio"/> NO	ppm
			Post Carbon	YES	<input checked="" type="radio"/> NO	ppm
Additional Notes:						

**ROUTINE MONITORING FORM**  
**OPERATION AND MAINTENANCE GUIDANCE DOCUMENT**  
**SVE/SSD SYSTEM**  
**DELPHI**  
**LOCKPORT, NEW YORK**

Name: <u>Chris Barn</u>		Time On-Site: <u>8:10</u>		Time Off-Site: <u>10:30</u>	
Date: <u>8/3/09</u>		SVE Blower Run Time: <u>3.528</u> hours		VDF: <u>60</u> hertz	

<b>SYSTEM STATUS</b>					
SVE System Operating:		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:	
Alarm lights off:		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:	
Autodialer Alarm On:		<input type="radio"/> YES	<input checked="" type="radio"/> NO	If Yes:	
<b>Position of Swing Panel HOA Switches:</b>					
Control Power Switch	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	SVE Blower Switch	<input type="radio"/> HAND	<input type="radio"/> OFF
M/S Effluent Pump Switch	<input type="radio"/> HAND	<input checked="" type="radio"/> OFF	Heat Exchanger Switch	<input type="radio"/> HAND	<input type="radio"/> OFF
Heat Exchanger Operating	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:		
SVE System appear to be operating properly?		<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:	
Moisture Separator Tank Level:		<input checked="" type="radio"/> Empty	<input type="radio"/> 1/4 Full	<input type="radio"/> 1/2 Full	<input type="radio"/> 3/4 Full
				Full	Volume Tranfered: gals

<b>SYSTEM MONITORING READINGS</b>					
Vacuum Gauge Pre-Inline Filter:	<u>5</u>	in Hg	<b>System Monitoring Notes:</b> Filter needs to be changed. Pre-Carbon Sample Port Ball Valve needs to be changed. Small leak.		
Vacuum Gauge Post-Inline Filter:	<u>3</u>	in Hg			
Temperature on Discharge Silencer:	<u>125</u>	° F			
Temperature after Heat Exchanger:	<u>80</u>	° F			
Pressure After Heat Exchanger	<u>21</u>	in H <sub>2</sub> O			
Pressure Before Heat Exchanger	<u>29</u>	in H <sub>2</sub> O			
Pressure Magnehelic Gauge:	<u>2.1</u>	in H <sub>2</sub> O			
Vacuum Magnehelic Gauge:	<u>&gt;2</u>	in H <sub>2</sub> O			
Vacuum Gauge After Manifold:	<u>1</u>	in Hg			

<b>EXTRACTION WELL VACUUM GAUGE READINGS</b>					
EW -1:	<u>0.5</u>	in Hg	EW-11:	<u>1</u>	in Hg
EW-2:	<u>1</u>	in Hg	EW-12:	<u>1</u>	in Hg
EW-3:	<u>0.75</u>	in Hg	EW-13:	<u>&lt;0.5</u>	in Hg
EW-4:	<u>0.5</u>	in Hg	EW-14:	<u>1.25</u>	in Hg
EW-5:	<u>1</u>	in Hg	EW-15:	<u>1</u>	in Hg
EW-6:	<u>0.5</u>	in Hg	EW-16:	<u>1</u>	in Hg
EW-7:	<u>1</u>	in Hg	EW-17:	<u>0.5</u>	in Hg
EW-8:	<u>1</u>	in Hg	SS-1:	<u>2</u>	in H <sub>2</sub> O
EW-9:	<u>0.5</u>	in Hg	SS-2:	<u>2.5</u>	in H <sub>2</sub> O
EW-10:	<u>1</u>	in Hg	SS-3:	<u>2</u>	in H <sub>2</sub> O

<b>AIR FLOW FIELD SCREENING</b>					
Background Outside SVE Shed:	<u>0</u>	ppm	<b>Detector Tube Readings</b> Pre Carbon YES <input checked="" type="radio"/> NO <u>NM</u> ppm Mid Carbon <input checked="" type="radio"/> YES NO <u>15</u> ppm Post Carbon <input checked="" type="radio"/> YES NO <u>0.5</u> ppm		
Background Inside SVE Shed:	<u>0.2</u>	ppm			
Pre Carbon Discharge:	<u>34</u>	ppm			
Mid Carbon Discharge:	<u>19</u>	ppm			
Post Carbon Discharge:	<u>2.0</u>	ppm			

**Additional Notes:** Carbon Vessel #1, Lead Vessel needs to be changed. Small leak noted at top of Ferrule Fitting on clear tubing from Lead Vessel to Polishing Vessel. Ferrule and tubing should be refit and tightened.

**ROUTINE MONITORING FORM**  
 OPERATION AND MAINTENANCE GUIDANCE DOCUMENT  
 SVE/SSD SYSTEM  
 DELPHI  
 LOCKPORT, NEW YORK

Name: <u>Chris Brown</u>		Time On-Site: <u>1250</u>		Time Off-Site: <u>1755</u>				
Date: <u>2-8-10</u>		SVE Blower Run Time: <u>6,628.2</u> hours		VDF <u>60.0</u> hertz				
<b>SYSTEM STATUS</b>								
SVE System Operating:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:					
Alarm lights off:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:					
Autodialer Alarm On:	<input type="radio"/> YES	<input checked="" type="radio"/> NO	If Yes:					
<b>Position of Swing Panel HOA Switches:</b>								
Control Power Switch	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	SVE Blower Switch	<input type="radio"/> HAND	<input type="radio"/> OFF			
M/S Effluent Pump Switch	<input type="radio"/> HAND	<input checked="" type="radio"/> OFF	Heat Exchanger Switch	<input type="radio"/> HAND	<input type="radio"/> OFF			
Heat Exchanger Operating	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:					
SVE System appear to be operating properly?	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:					
Moisture Separator Tank Level:	<input checked="" type="radio"/> Empty	<input type="radio"/> 1/4 Full	<input type="radio"/> 1/2 Full	<input type="radio"/> 3/4 Full	Full			
					Volume Tranfered: gals			
<b>SYSTEM MONITORING READINGS</b>								
Vacuum Gauge Pre-Inline Filter	<u>7.5</u>	<u>3</u>	in Hg	<b>System Monitoring Notes:</b> In-line filter was changed due to >14 Hg Readings between Pre and Post Filter gauges.  Pre and post filter change readings were recorded.  Batteries in the Autodialer were replaced.				
Vacuum Gauge Post-Inline Filter:	<u>2.5</u>	<u>3</u>	in Hg					
Temperature on Discharge Silencer	<u>60</u>	<u>50</u>	° F					
Temperature after Heat Exchanger:	<u>79</u>	<u>75</u>	° F					
Pressure After Heat Exchanger	<u>36</u>	<u>42</u>	in H <sub>2</sub> O					
Pressure Before Heat Exchanger	<u>35</u>	<u>54</u>	in H <sub>2</sub> O					
Pressure Magnehelic Gauge:	<u>1.7</u>	<u>2.6</u>	in H <sub>2</sub> O					
Vacuum Magnehelic Gauge:	<u>1.75</u>	<u>&gt;2</u>	in H <sub>2</sub> O					
Vacuum Gauge After Manifold.	<u>&lt;1</u>	<u>1</u>	in Hg					
<b>EXTRACTION WELL VACUUM GAUGE READINGS</b>								
EW-1	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	EW-11	<u>&lt;0.5</u>	<u>1</u>	in Hg	<b>Vacuum Gauge Reading Notes:</b>  Pre and post filter change readings were recorded.
EW-2	<u>&lt;0.5</u>	<u>1</u>	in Hg	EW-12	<u>&lt;0.5</u>	<u>1</u>	in Hg	
EW-3	<u>&lt;0.5</u>	<u>0.5</u>	in Hg	EW-13	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	
EW-4	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	EW-14	<u>&lt;0.5</u>	<u>1</u>	in Hg	
EW-5	<u>&lt;0.5</u>	<u>0.75</u>	in Hg	EW-15	<u>&lt;0.5</u>	<u>1</u>	in Hg	
EW-6	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	EW-16	<u>&lt;0.5</u>	<u>1</u>	in Hg	
EW-7	<u>&lt;0.5</u>	<u>0.75</u>	in Hg	EW-17	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	
EW-8	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	SS-1	<u>1</u>	<u>2.25</u>	in H <sub>2</sub> O	
EW-9	<u>&lt;0.5</u>	<u>&lt;0.5</u>	in Hg	SS-2	<u>1</u>	<u>1.5</u>	in H <sub>2</sub> O	
EW-10	<u>&lt;0.5</u>	<u>1</u>	in Hg	SS-3	<u>1</u>	<u>1.5</u>	in H <sub>2</sub> O	
<b>AIR FLOW FIELD SCREENING</b>								
Background Outside SVE Shed:	<u>0.3</u>	ppm	<b>Detector Tube Readings</b> Pre Carbon <input checked="" type="radio"/> YES <input type="radio"/> NO <u>6</u> ppm Mid Carbon <input checked="" type="radio"/> YES <input type="radio"/> NO <u>5</u> ppm Post Carbon <input checked="" type="radio"/> YES <input type="radio"/> NO <u>1.25</u> ppm					
Background Inside SVE Shed:	<u>0.4</u>	ppm						
Pre Carbon Discharge:	<u>9.0</u>	ppm						
Mid Carbon Discharge:	<u>5.1</u>	ppm						
Post Carbon Discharge:	<u>1.6</u>	ppm						
<b>Additional Notes:</b> Lead Carbon Vessel needs to be changed c.t. Leak at Ferrule fitting between Carbon Vessel (above mid pt. sampling location) Extra bag air samples sent to H&A for latex gloves needed for shed. Air sampling (See attached results)								

GM LOCKPORT  
BLDG 10 SVE/SSD  
SUMMARY OF GC SCREENING RESULTS  
36795-000

Target Compound	2/8/2010			
	Pre-Carbon (mg/m <sup>3</sup> )	Pre-Carbon DUP (mg/m <sup>3</sup> )	Mid-Carbon (mg/m <sup>3</sup> )	Post-Carbon (mg/m <sup>3</sup> )
Methane	0.013 U	0.013 U	0.013 U	0.013 U
Vinyl chloride	<b>0.504</b>	0.018 U	0.018 U	<b>0.500</b>
1,1-Dichloroethene	0.032 U	0.036 U	0.033 U	0.036 U
Methylene chloride	0.075 U	0.075 U	0.075 U	0.075 U
trans 1,2-Dichloroethene	0.037 U	0.037 U	0.037 U	0.037 U
1,1-Dichloroethane	0.033 U	0.033 U	0.033 U	0.033 U
MTBE	0.014 U	0.014 U	0.014 U	0.014 U
2-Butanone (MEK)	0.016 U	0.016 U	0.016 U	0.016 U
cis 1,2-Dichloroethene	0.047 U	0.047 U	0.047 U	0.047 U
Chloroform	<b>4.69</b>	<b>4.51</b>	0.130 U	0.130 U
1,1,1-Trichloroethane	0.043 U	0.043 U	0.043 U	0.043 U
Benzene	0.009 U	0.009 U	0.009 U	0.009 U
1,2-Dichloropropane	0.027 U	0.027 U	0.027 U	0.027 U
Trichloroethene	<b>0.557</b>	<b>0.564</b>	<b>0.772</b>	0.042 U
Toluene	0.009 U	0.009 U	0.009 U	0.009 U
Tetrachloroethene	<b>48.1</b>	<b>48.3</b>	<b>40.4</b>	<b>8.80</b>
Chlorobenzene	0.012 U	0.012 U	0.012 U	0.012 U
Ethylbenzene	0.008 U	0.008 U	0.008 U	0.008 U
m/p-Xylene	0.009 U	0.009 U	0.009 U	0.009 U
o-Xylene	0.007 U	0.007 U	0.007 U	0.007 U
Unknown TPH	<b>6.00</b>	<b>6.00</b>	0.020 U	0.020 U
Flow Rate (SCFM)	280	280	280	280
Mass Rate (lb/hr)	0.063	0.062	0.043	0.010
Mass Rate (lb/day)	1.51	1.49	1.04	0.23
Removal Efficiency (Pre to Mid)	31.3%			
Removal Efficiency (Pre to Post)	84.5%			

GC Screening Results in ppm/v 7.4

6 15

Field Screening Results 9 ppm

5.1 ppm 1.6 ppm

Detector-Tube Results  
for PCE .

6 ppm

5 ppm 1.25 ppm

2/8/10 Flow Readings Collected from individual legs of the SVE/SSD System.

Location	Initial Flow Rate	Adj. Flow Rate
8	24.5 cfm	18.1
9	1.4*	2.5
10	1.7*	3.1
5	27.6	18.6
4	28.9	19.1
13	13.5	18.7
14	9.8*	12.3
15	14.7	19.0
6	20.7	19.3
7	20.5	17.6
3	6.6*	8.4
2	16.8	20.1
1	18.7	18.7
11	1.6*	4.3
12	19.4	17.7
16	17.5	18.0
17	13.7	19.8
SVE total:	257.9 cfm	253.4 cfm
SS-1	<del>8.0</del>	3.0
SS-2	12.6	2.1
SS-3	<u>8.0</u>	<u>2.0</u>
SSD Total	25.3 cfm	7.1 cfm

System

Total: 282.9 cfm      260.5 cfm

284 scfm: Flow Rate based on System Pressure Gauge Pilot Tube before Filter Gauge D +

Pre Carbon Field Screen  
Result after adj. 15.5 ppm

Flow Rate after Filter  
Change Out + Balance Flow  
based on Pressure Gauge  
Pilot Tube. 349 scfm  
or 315 acfm

\* Flow Valve Wide Open

## Well Locations

>20 cfm High Flow : 4, 5, 6, 7, 8

10-20 cfm Med Flow : 1, 2, 12, 15, 16, 17, 13, ~~14~~

<10 cfm Low Flow : 3, 9, 10, 11, 14

Total System Ave : 14.1 cfm

Sys Average w/out SSD Legs : 15.2 cfm

Sys Ave w/<sup>out</sup> Low Flow ( $246.0/13$ ): 19 cfm

## Gauge Readings Prior Leaving:

Manifold 1.5" Hg

Vacuum Gauge : >2" H<sub>2</sub>O

Pressure Gauge : 2.5" H<sub>2</sub>O

Pre Filter : **3.9**" Hg

Post Filter : 4.0" Hg

Port Heat Ex Temp 73° F

Port Heat Ex Pressure 44" H<sub>2</sub>O

**ROUTINE MONITORING FORM**  
**OPERATION AND MAINTENANCE GUIDANCE DOCUMENT**  
**SVE/SSD SYSTEM**  
**GM COMPONENTS HOLDINGS, LLC**  
**LOCKPORT, NEW YORK**

Name: Chris Brown Time On-Site: 805 Time Off-Site: 1040  
 Date: 3/16/10 SVE Blower Run Time: 6,623.2 hours VDF: 60.0 hertz

**SYSTEM STATUS**

SVE System Operating:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:
Alarm lights off:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:
Autodialer Alarm On:	YES	<input checked="" type="radio"/> NO	If Yes:
<b>Position of Swing Panel HOA Switches:</b>			
Control Power Switch	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	SVE Blower Switch HAND OFF <input checked="" type="radio"/> AUTO
M/S Effluent Pump Switch	HAND	<input checked="" type="radio"/> OFF	AUTO Heat Exchanger Switch HAND OFF <input checked="" type="radio"/> AUTO
Heat Exchanger Operating	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:
SVE System appear to be operating properly?	YES	<input type="radio"/> NO	If no:
Moisture Separator Tank Level:	<input checked="" type="radio"/> Empty	<input type="radio"/> 1/4 Full	<input type="radio"/> 1/2 Full
	<input type="radio"/> 3/4 Full	<input type="radio"/> Full	Volume Tranfered: <u>0</u> gals

**SYSTEM MONITORING READINGS**

Vacuum Gauge Pre-Inline Filter: <u>4</u> in Hg Vacuum Gauge Post-Inline Filter: <u>4.5</u> in Hg Temperature on Discharge Silencer: <u>113</u> °F Temperature after Heat Exchanger: <u>72</u> °F Pressure After Heat Exchanger: <u>2.9</u> in H <sub>2</sub> O Pressure Before Heat Exchanger: <u>3.6</u> in H <sub>2</sub> O Pressure Magnehelic Gauge: <u>2.4</u> in H <sub>2</sub> O Vacuum Magnehelic Gauge: <u>7.2</u> in H <sub>2</sub> O Vacuum Gauge After Manifold: <u>1.5</u> in Hg	<b>System Monitoring Notes:</b>  Flow Rate Based on Pressure Gauge: <u>337</u> cfm Flow Rate Based on Vacuum Gauge: <u>290</u> cfm
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**EXTRACTION WELL VACUUM GAUGE READINGS**

EW -1: <u>&gt; 1</u> in Hg EW-2: <u>1.25</u> in Hg EW-3: <u>1</u> in Hg EW-4: <u>&gt; 1</u> in Hg EW-5: <u>&gt; 1</u> in Hg EW-6: <u>&gt; 1</u> in Hg EW-7: <u>&gt; 1</u> in Hg EW-8: <u>&gt; 1</u> in Hg EW-9: <u>1.25</u> in Hg EW-10: <u>1.5</u> in Hg	EW-11: <u>1</u> in Hg EW-12: <u>1</u> in Hg EW-13: <u>1</u> in Hg EW-14: <u>1.5</u> in Hg EW-15: <u>1</u> in Hg EW-16: <u>1</u> in Hg EW-17: <u>1</u> in Hg SS-1: <u>1</u> in H <sub>2</sub> O SS-2: <u>1</u> in H <sub>2</sub> O SS-3: <u>1</u> in H <sub>2</sub> O	<b>Vacuum Gauge Reading Notes:</b>  
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**AIR FLOW FIELD SCREENING**

Background Outside SVE Shed: <u>0.3</u> ppm Background Inside SVE Shed: <u>0.5</u> ppm Pre Carbon Discharge: <u>10.5</u> ppm Mid Carbon Discharge: <u>5</u> ppm Post Carbon Discharge: <u>0.5</u> ppm	<b>Detector Tube Readings</b> Pre Carbon <input checked="" type="radio"/> YES <input type="radio"/> NO <u>7</u> ppm Mid Carbon <input checked="" type="radio"/> YES <input type="radio"/> NO <u>7.5</u> ppm Post Carbon <input checked="" type="radio"/> YES <input type="radio"/> NO <u>0.2</u> ppm
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**Additional Notes:**

*Yellow bag samples collected from Pre Carbon, Mid Carbon + Post Carbon & sent to H&A for analysis.*



**GAS CHROMATOGRAPHY REPORT SHEET  
SCREENING RESULTS  
DIRECT INJECT**

Client: GM Lockport  
File No: 36795-000  
Sample Type: BLDG-10 SVE/SSD

0.500

Date of Analysis: 17-Mar-10

Operator: TJV

QA/QC: DMC

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Pre-Carbon Date: 3/16/2010 Time: Temp = °F Flow = 200 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356	14.050	2.7	1.733	3.47 mg/m³	0.71 ppmV	0.00	0.09	5.40	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.045	1.2	0.261	0.52 mg/m³	0.10 ppmV	0.00	0.01	0.81	
	500	108-88-3	toluene	22.496			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.162	121.5	27.086	54.19 mg/m³	7.99 ppmV	0.06	1.36	84.44	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
total volatiles							155	64.2 mg/m³	9.8 ppmV	0.07	1.62	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Mid-Carbon Date: 3/16/2010 Time: Temp = °F Flow = 200 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.089	3.3	0.707	1.41 mg/m³	0.26 ppmV	0.00	0.04	3.19	
	500	108-88-3	toluene	22.496			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.200	85.0	18.958	37.92 mg/m³	5.59 ppmV	0.04	0.95	85.53	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
total volatiles							113	44.3 mg/m³	6.7 ppmV	0.05	1.12	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Mid-Carbon (DUP) Date: 3/16/2010 Time:  Temp = °F Flow = SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	18.996	3.2	0.678	1.36 mg/m <sup>3</sup>	0.25 ppmV	0.00	0.03	3.38	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.107	73.3	16.346	32.69 mg/m <sup>3</sup>	4.82 ppmV	0.03	0.82	81.63	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			30.0	3.000	6.00 mg/m <sup>3</sup>	1.05 ppmV	0.01	0.15	14.98	
total volatiles						106		40.0 mg/m <sup>3</sup>	6.1 ppmV	0.04	1.01	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Post-Carbon Date: 3/16/2010 Time:  Temp = °F Flow = SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			25.0	2.500	5.00 mg/m <sup>3</sup>	0.87 ppmV	0.01	0.13	100.00	
total volatiles						25		6.0 mg/m <sup>3</sup>	0.9 ppmV	0.01	0.13	100.00	

**ROUTINE MONITORING FORM**  
 OPERATION, MAINTENANCE AND MONITORING PLAN  
 SVE/SSD SYSTEM  
 GM COMPONENTS HOLDINGS, LLC  
 LOCKPORT, NEW YORK

Name: <u>Chris Brown</u>		Time On-Site: <u>7:00</u>		Time Off-Site: <u>1:00</u>		
Date: <u>4/23/10</u>		SVE Blower Run Time: <u>2:00.2</u> hours		VDF: <u>600</u> hertz		
<b>SYSTEM STATUS</b>						
SVE System Operating:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
Alarm lights off:	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
Autodialer Alarm On:	<input type="radio"/> YES	<input checked="" type="radio"/> NO	If Yes:			
<b>Position of Swing Panel HOA Switches:</b>						
Control Power Switch	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	SVE Blower Switch	<input type="radio"/> HAND	<input type="radio"/> OFF <input checked="" type="radio"/> AUTO	
M/S Effluent Pump Switch	<input type="radio"/> HAND	<input checked="" type="radio"/> OFF <input type="radio"/> AUTO	Heat Exchanger Switch	<input type="radio"/> HAND	<input type="radio"/> OFF <input checked="" type="radio"/> AUTO	
Heat Exchanger Operating	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
SVE System appear to be operating properly?	<input checked="" type="radio"/> YES	<input type="radio"/> NO	If no:			
Moisture Separator Tank Level:	<input checked="" type="radio"/> Empty	<input type="radio"/> 1/4 Full	<input type="radio"/> 1/2 Full	<input type="radio"/> 3/4 Full	<input type="radio"/> Full	
		Volume Tranfered: <u>        </u> gals				
<b>SYSTEM MONITORING READINGS</b>						
Vacuum Gauge Pre-Inline Filter:	<u>2.1</u>	in Hg	<b>System Monitoring Notes:</b>    Flow Rate Based on Pressure Gauge: <u>312</u> cfm Flow Rate Based on Vacuum Gauge: <u>294</u> cfm			
Vacuum Gauge Post-Inline Filter:	<u>0.1</u>	in Hg				
Temperature on Discharge Silencer:	<u>125</u>	° F				
Temperature after Heat Exchanger:	<u>75</u>	° F				
Pressure After Heat Exchanger	<u>24</u>	in H <sub>2</sub> O				
Pressure Before Heat Exchanger	<u>30</u>	in H <sub>2</sub> O				
Pressure Magnehelic Gauge:	<u>2.1</u>	in H <sub>2</sub> O				
Vacuum Magnehelic Gauge:	<u>2.2</u>	in H <sub>2</sub> O				
Vacuum Gauge After Manifold:	<u>1</u>	in Hg				
<b>EXTRACTION WELL VACUUM GAUGE READINGS</b>						
EW -1:	<u>&lt;1</u>	in Hg	EW-11:	<u>1</u>	in Hg	<b>Vacuum Gauge Reading Notes:</b>          
EW-2:	<u>1</u>	in Hg	EW-12:	<u>&lt;1</u>	in Hg	
EW-3:	<u>1</u>	in Hg	EW-13:	<u>&lt;1</u>	in Hg	
EW-4:	<u>&lt;1</u>	in Hg	EW-14:	<u>1</u>	in Hg	
EW-5:	<u>&lt;1</u>	in Hg	EW-15:	<u>1</u>	in Hg	
EW-6:	<u>&lt;1</u>	in Hg	EW-16:	<u>1</u>	in Hg	
EW-7:	<u>&lt;1</u>	in Hg	EW-17:	<u>&lt;1</u>	in Hg	
EW-8:	<u>&lt;1</u>	in Hg	SS-1:	<u>1</u>	in H <sub>2</sub> O	
EW-9:	<u>1</u>	in Hg	SS-2:	<u>1</u>	in H <sub>2</sub> O	
EW-10:	<u>1</u>	in Hg	SS-3:	<u>1</u>	in H <sub>2</sub> O	
<b>AIR FLOW FIELD SCREENING</b>						
Background Outside SVE Shed:	<u>0.9</u>	ppm	<b>Detector Tube Readings</b> Pre Carbon    YES    NO <u>7</u> ppm Mid Carbon    YES    NO <u>5</u> ppm Post Carbon    YES    NO <u>&lt;0.2</u> ppm			
Background Inside SVE Shed:	<u>0.9</u>	ppm				
Pre Carbon Discharge:	<u>8.0</u>	ppm				
Mid Carbon Discharge:	<u>4.2</u>	ppm				
Post Carbon Discharge:	<u>0.5</u>	ppm				
<b>Additional Notes:</b> <div style="display: flex; justify-content: space-between;"> <div>           SVE Blower Run Time: <u>        </u> minutes - not working            Duplicate Read - from 8/10/09         </div> <div>           Background 0.9 ppm            Inside + 0.9 ppm            - f SVE Shed         </div> </div>						

**GAS CHROMATOGRAPHY REPORT SHEET**  
**SCREENING RESULTS**  
**DIRECT INJECT**

Date of Analysis: 28-Apr-10

Client: GM Lockport  
File No: 36795-000  
Sample Type: BLDG-10 SVE/SSD

Operator: TJV  
QA/QC: DMC

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Pre-Carbon Date: 4/26/2010 Time: Temp = °F Flow = 200 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356	14.335	5.7	3.694	7.39 mg/m <sup>3</sup>	1.51 ppmV	0.01	0.19	12.57	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.250	1.3	0.278	0.56 mg/m <sup>3</sup>	0.10 ppmV	0.00	0.01	0.95	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.292	109.5	24.407	48.81 mg/m <sup>3</sup>	7.20 ppmV	0.05	1.23	83.08	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
total volatiles						10.0	1.000	2.00 mg/m <sup>3</sup>	0.35 ppmV	0.00	0.05	3.40	
							126	58.8 mg/m <sup>3</sup>	9.2 ppmV	0.06	1.48	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Mid-Carbon Date: 4/26/2010 Time: Temp = °F Flow = 200 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.266	1.2	0.263	0.53 mg/m <sup>3</sup>	0.10 ppmV	0.00	0.01	1.32	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.337	81.5	18.172	36.34 mg/m <sup>3</sup>	5.36 ppmV	0.04	0.91	91.15	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
total volatiles						15.0	1.500	3.00 mg/m <sup>3</sup>	0.52 ppmV	0.00	0.08	7.52	
							98	39.9 mg/m <sup>3</sup>	6.0 ppmV	0.04	1.00	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Duplicate Date: 4/26/2010 Time: Temp = °F Flow = 2.0 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356	14.368	5.8	3.786	7.57 mg/m³	1.55 ppmV	0.01	0.15	12.46	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.274	1.4	0.298	0.60 mg/m³	0.11 ppmV	0.00	0.01	0.98	
	500	108-88-3	toluene	22.496			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.315	104.5	23.295	46.59 mg/m³	6.87 ppmV	0.05	1.17	76.68	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m³	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			30.0	3.000	6.00 mg/m³	1.05 ppmV	0.01	0.15	9.87	
total volatiles						142		60.8 mg/m³	9.6 ppmV	0.06	1.53	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Post-Carbon Date: 4/26/2010 Time: Temp = °F Flow = 2.0 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	71-43-2	benzene	17.343			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	79-01-6	trichloroethene	19.316			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	108-88-3	toluene	22.496			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	127-18-4	tetrachloroethene	24.419			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
	500		Unknown TPH				0.000	ND mg/m³	ND ppmV	0.00	0.00	#DIV/0!	
total volatiles						0		0.0 mg/m³	0.0 ppmV	0.00	0.00	#DIV/0!	

**APPENDIX C**  
**ANALYTICAL DATA**



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

REPORT DATE 3/23/2009

GZA ENVIRONMENTAL - BUFFALO  
535 WASHINGTON STREET, 11TH FLOOR  
BUFFALO, NY 14203  
ATTN: CHRIS BORON

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER: 21.0056445.0

#### ANALYTICAL SUMMARY

LIMS BAT #: LIMIT-23960  
JOB NUMBER: 21.0056445.0

#### PROJECT LOCATION:

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	Subcontract Lab (if any) Cert. Nos.
MID CARBON	09B07792	AIR	Not Specified	to-15 ppbv	
MID CARBON	09B07792	AIR	Not Specified	to-15 ug/m3	
POST CARBON	09B07793	AIR	Not Specified	to-15 ppbv	
POST CARBON	09B07793	AIR	Not Specified	to-15 ug/m3	
PRE CARBON	09B07791	AIR	Not Specified	to-15 ppbv	
PRE CARBON	09B07791	AIR	Not Specified	to-15 ug/m3	



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

REPORT DATE 3/23/2009

GZA ENVIRONMENTAL - BUFFALO  
535 WASHINGTON STREET, 11TH FLOOR  
BUFFALO, NY 14203  
ATTN: CHRIS BORON

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER: 21.0056445.0

#### ANALYTICAL SUMMARY

LIMS BAT #: LIMIT-23960  
JOB NUMBER: 21.0056445.0

#### Comments :

LIMS BATCH NO. : LIMIT-23960

In method TO-15, any reported result for 1,2-dichloropropane in samples is estimated and likely to be biased on the low side based on continuing calibration bias.

In method TO-15, any reported result for benzene in sample 09B07792 - 09B07793 is estimated and likely to be biased on the low side based on continuing calibration bias.

In method TO-15, any reported result for 1,2-dichloropropane in samples is likely to be biased on the low side based on laboratory fortified blank recovery bias.

Method blank-130874 is associated with sample 09B07791.

LFBLANK-93081 is associated with sample 09B07791.

Method blank-130875 is associated with sample 09B07792 - 09B07793.

LFBLANK-93082 is associated with sample 09B07792 - 09B07793.

The results of analyses performed are based on samples as submitted to the laboratory and relate only to the items collected and tested.

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations. AIHA accreditations only apply to NIOSH methods and Environmental Lead Analyses.

AIHA 100033	AIHA ELLAP (LEAD) 100033	NORTH CAROLINA CERT. #652
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	FLORIDA DOH E871027 (AIR)
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	

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.

*Edward Denson* 3/23/09

SIGNATURE

DATE

Tod Kopycinski  
Air Laboratory Manager

Michael Erickson  
Assistant Laboratory Director

Edward Denson  
Technical Director

Daren Damboragian  
Organics Department Supervisor

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





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Purchase Order No.:

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Project Number: 21.0056445.0  
LIMS-BAT #: LIMIT-23960  
Job Number: 21.0056445.0

Project Location:

Date Received: 3/14/2009

Field Sample #: MID CARBON

Sample ID: 09B07792

‡Sampled: 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium: SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Acetone	PPBv	740	1.0		03/20/09	WSD
Benzene	PPBv	1.4	1.0		03/20/09	WSD
Benzyl Chloride	PPBv	ND	1.0		03/20/09	WSD
Bromodichloromethane	PPBv	ND	1.0		03/20/09	WSD
Bromoform	PPBv	ND	1.0		03/20/09	WSD
Bromomethane	PPBv	ND	1.0		03/20/09	WSD
1,3-Butadiene	PPBv	ND	1.0		03/20/09	WSD
2-Butanone (MEK)	PPBv	1.4	1.0		03/20/09	WSD
Carbon Disulfide	PPBv	ND	1.0		03/20/09	WSD
Carbon Tetrachloride	PPBv	ND	1.0		03/20/09	WSD
Chlorobenzene	PPBv	ND	1.0		03/20/09	WSD
Chlorodibromomethane	PPBv	ND	1.0		03/20/09	WSD
Chloroethane	PPBv	ND	1.0		03/20/09	WSD
Chloroform	PPBv	ND	1.0		03/20/09	WSD
Chloromethane	PPBv	ND	1.0		03/20/09	WSD
Cyclohexane	PPBv	2.6	1.0		03/20/09	WSD
1,2-Dibromoethane	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
1,3-Dichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
1,4-Dichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
Dichlorodifluoromethane	PPBv	ND	1.0		03/20/09	WSD
1,1-Dichloroethane	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichloroethane	PPBv	ND	1.0		03/20/09	WSD
1,1-Dichloroethylene	PPBv	1.3	1.0		03/20/09	WSD
cis-1,2-Dichloroethylene	PPBv	2.9	1.0		03/20/09	WSD
t-1,2-Dichloroethylene	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichloropropane	PPBv	ND	1.0		03/20/09	WSD
cis-1,3-Dichloropropene	PPBv	ND	1.0		03/20/09	WSD
trans-1,3-Dichloropropene	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	1.0		03/20/09	WSD
Ethanol	PPBv	200	1.0		03/20/09	WSD
Ethyl Acetate	PPBv	ND	1.0		03/20/09	WSD
Ethylbenzene	PPBv	7.0	1.0		03/20/09	WSD
4-Ethyl Toluene	PPBv	2.8	1.0		03/20/09	WSD
n-Heptane	PPBv	3.9	1.0		03/20/09	WSD

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

‡ See attached chain-of-custody record for time sampled



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Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

Project Location:

Date Received: 3/14/2009

Field Sample #: MID CARBON

Sample ID: 09B07792

‡Sampled: 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium: SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Hexachlorobutadiene	PPBv	ND	1.0		03/20/09	WSD
Hexane	PPBv	190	1.0		03/20/09	WSD
2-Hexanone	PPBv	ND	1.0		03/20/09	WSD
Isopropanol	PPBv	6.9	1.0		03/20/09	WSD
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	1.0		03/20/09	WSD
Methylene Chloride	PPBv	1.7	1.0		03/20/09	WSD
4-Methyl-2-Pentanone (MIBK)	PPBv	ND	1.0		03/20/09	WSD
Propene	PPBv	ND	1.0		03/20/09	WSD
Styrene	PPBv	ND	1.0		03/20/09	WSD
1,1,2,2-Tetrachloroethane	PPBv	ND	1.0		03/20/09	WSD
Tetrachloroethylene	PPBv	2.7	1.0		03/20/09	WSD
Tetrahydrofuran	PPBv	ND	1.0		03/20/09	WSD
Toluene	PPBv	120	1.0		03/20/09	WSD
1,2,4-Trichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
1,1,1-Trichloroethane	PPBv	ND	1.0		03/20/09	WSD
1,1,2-Trichloroethane	PPBv	ND	1.0		03/20/09	WSD
Trichloroethylene	PPBv	7.6	1.0		03/20/09	WSD
Trichlorofluoromethane (Freon 11)	PPBv	ND	1.0		03/20/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	1.0		03/20/09	WSD
1,2,4-Trimethylbenzene	PPBv	4.4	1.0		03/20/09	WSD
1,3,5-Trimethylbenzene	PPBv	2.0	1.0		03/20/09	WSD
Vinyl Acetate	PPBv	ND	1.0		03/20/09	WSD
Vinyl Chloride	PPBv	ND	1.0		03/20/09	WSD
m/p-Xylene	PPBv	22	2.0		03/20/09	WSD
o-Xylene	PPBv	6.3	1.0		03/20/09	WSD
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	1700	2.4		03/20/09	WSD
Benzene	ug/m3	4.4	3.2		03/20/09	WSD
Benzyl Chloride	ug/m3	ND	5.2		03/20/09	WSD
Bromodichloromethane	ug/m3	ND	6.7		03/20/09	WSD
Bromoform	ug/m3	ND	11		03/20/09	WSD
Bromomethane	ug/m3	ND	3.9		03/20/09	WSD
1,3-Butadiene	ug/m3	ND	2.3		03/20/09	WSD
2-Butanone (MEK)	ug/m3	4.0	3.0		03/20/09	WSD
Carbon Disulfide	ug/m3	ND	3.1		03/20/09	WSD

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Project Location:  
Date Received: 3/14/2009

Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

**Field Sample # : MID CARBON**

Sample ID : 09B07792

‡Sampled : 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
Carbon Tetrachloride	ug/m3	ND	6.3		03/20/09	WSD
Chlorobenzene	ug/m3	ND	4.6		03/20/09	WSD
Chlorodibromomethane	ug/m3	ND	8.6		03/20/09	WSD
Chloroethane	ug/m3	ND	2.7		03/20/09	WSD
Chloroform	ug/m3	ND	4.9		03/20/09	WSD
Chloromethane	ug/m3	ND	2.1		03/20/09	WSD
Cyclohexane	ug/m3	9.0	3.5		03/20/09	WSD
1,2-Dibromoethane	ug/m3	ND	7.6		03/20/09	WSD
1,2-Dichlorobenzene	ug/m3	ND	6.0		03/20/09	WSD
1,3-Dichlorobenzene	ug/m3	ND	6.0		03/20/09	WSD
1,4-Dichlorobenzene	ug/m3	ND	6.0		03/20/09	WSD
Dichlorodifluoromethane	ug/m3	ND	4.9		03/20/09	WSD
1,1-Dichloroethane	ug/m3	ND	4.1		03/20/09	WSD
1,2-Dichloroethane	ug/m3	ND	4.0		03/20/09	WSD
1,1-Dichloroethylene	ug/m3	5.3	4.0		03/20/09	WSD
cis-1,2-Dichloroethylene	ug/m3	11	4.0		03/20/09	WSD
t-1,2-Dichloroethylene	ug/m3	ND	4.0		03/20/09	WSD
1,2-Dichloropropane	ug/m3	ND	4.6		03/20/09	WSD
cis-1,3-Dichloropropene	ug/m3	ND	4.5		03/20/09	WSD
trans-1,3-Dichloropropene	ug/m3	ND	4.5		03/20/09	WSD
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	7.0		03/20/09	WSD
Ethanol	ug/m3	370	1.9		03/20/09	WSD
Ethyl Acetate	ug/m3	ND	3.6		03/20/09	WSD
Ethylbenzene	ug/m3	30	4.4		03/20/09	WSD
4-Ethyl Toluene	ug/m3	14	5.0		03/20/09	WSD
n-Heptane	ug/m3	16	4.1		03/20/09	WSD
Hexachlorobutadiene	ug/m3	ND	11		03/20/09	WSD
Hexane	ug/m3	660	3.6		03/20/09	WSD
2-Hexanone	ug/m3	ND	4.1		03/20/09	WSD
Isopropanol	ug/m3	17	2.5		03/20/09	WSD
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	3.6		03/20/09	WSD
Methylene Chloride	ug/m3	5.9	3.5		03/20/09	WSD
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	4.1		03/20/09	WSD
Propene	ug/m3	ND	1.8		03/20/09	WSD
Styrene	ug/m3	ND	4.3		03/20/09	WSD

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Purchase Order No.:

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Project Number: 21.0056445.0

Project Location:

LIMS-BAT #: LIMT-23960

Date Received: 3/14/2009

Job Number: 21.0056445.0

Field Sample #: MID CARBON

Sample ID : 09B07792

‡Sampled : 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,1,2,2-Tetrachloroethane	ug/m3	ND	6.8		03/20/09	WSD
Tetrachloroethylene	ug/m3	18	6.7		03/20/09	WSD
Tetrahydrofuran	ug/m3	ND	3.0		03/20/09	WSD
Toluene	ug/m3	430	3.8		03/20/09	WSD
1,2,4-Trichlorobenzene	ug/m3	ND	7.4		03/20/09	WSD
1,1,1-Trichloroethane	ug/m3	ND	5.4		03/20/09	WSD
1,1,2-Trichloroethane	ug/m3	ND	5.4		03/20/09	WSD
Trichloroethylene	ug/m3	41	5.4		03/20/09	WSD
Trichlorofluoromethane	ug/m3	ND	5.6		03/20/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	7.6		03/20/09	WSD
1,2,4-Trimethylbenzene	ug/m3	22	5.0		03/20/09	WSD
1,3,5-Trimethylbenzene	ug/m3	10.0	5.0		03/20/09	WSD
Vinyl Acetate	ug/m3	ND	3.6		03/20/09	WSD
Vinyl Chloride	ug/m3	ND	2.6		03/20/09	WSD
m/p-Xylene	ug/m3	98	8.7		03/20/09	WSD
o-Xylene	ug/m3	27	4.4		03/20/09	WSD

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Project Location:

Date Received: 3/14/2009

Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

**Field Sample # : POST CARBON**
**Sample ID : 09B07793**

‡Sampled : 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Acetone	PPBv	910	1.0		03/20/09	WSD
Benzene	PPBv	1.5	1.0		03/20/09	WSD
Benzyl Chloride	PPBv	ND	1.0		03/20/09	WSD
Bromodichloromethane	PPBv	ND	1.0		03/20/09	WSD
Bromoform	PPBv	ND	1.0		03/20/09	WSD
Bromomethane	PPBv	ND	1.0		03/20/09	WSD
1,3-Butadiene	PPBv	ND	1.0		03/20/09	WSD
2-Butanone (MEK)	PPBv	1.2	1.0		03/20/09	WSD
Carbon Disulfide	PPBv	ND	1.0		03/20/09	WSD
Carbon Tetrachloride	PPBv	ND	1.0		03/20/09	WSD
Chlorobenzene	PPBv	ND	1.0		03/20/09	WSD
Chlorodibromomethane	PPBv	ND	1.0		03/20/09	WSD
Chloroethane	PPBv	ND	1.0		03/20/09	WSD
Chloroform	PPBv	ND	1.0		03/20/09	WSD
Chloromethane	PPBv	ND	1.0		03/20/09	WSD
Cyclohexane	PPBv	2.6	1.0		03/20/09	WSD
1,2-Dibromoethane	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
1,3-Dichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
1,4-Dichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
Dichlorodifluoromethane	PPBv	ND	1.0		03/20/09	WSD
1,1-Dichloroethane	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichloroethane	PPBv	ND	1.0		03/20/09	WSD
1,1-Dichloroethylene	PPBv	ND	1.0		03/20/09	WSD
cis-1,2-Dichloroethylene	PPBv	ND	1.0		03/20/09	WSD
t-1,2-Dichloroethylene	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichloropropane	PPBv	ND	1.0		03/20/09	WSD
cis-1,3-Dichloropropene	PPBv	ND	1.0		03/20/09	WSD
trans-1,3-Dichloropropene	PPBv	ND	1.0		03/20/09	WSD
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	1.0		03/20/09	WSD
Ethanol	PPBv	220	1.0		03/20/09	WSD
Ethyl Acetate	PPBv	ND	1.0		03/20/09	WSD
Ethylbenzene	PPBv	8.0	1.0		03/20/09	WSD
4-Ethyl Toluene	PPBv	3.2	1.0		03/20/09	WSD
n-Heptane	PPBv	4.3	1.0		03/20/09	WSD

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Project Location:  
Date Received: 3/14/2009

Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

**Field Sample # : POST CARBON**

Sample ID : 09B07793      ‡Sampled : 3/13/2009  
Not Specified  
Sample Matrix: AIR      Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Hexachlorobutadiene	PPBv	ND	1.0		03/20/09	WSD
Hexane	PPBv	230	1.0		03/20/09	WSD
2-Hexanone	PPBv	ND	1.0		03/20/09	WSD
Isopropanol	PPBv	7.5	1.0		03/20/09	WSD
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	1.0		03/20/09	WSD
Methylene Chloride	PPBv	ND	1.0		03/20/09	WSD
4-Methyl-2-Pentanone (MIBK)	PPBv	ND	1.0		03/20/09	WSD
Propene	PPBv	ND	1.0		03/20/09	WSD
Styrene	PPBv	ND	1.0		03/20/09	WSD
1,1,2,2-Tetrachloroethane	PPBv	ND	1.0		03/20/09	WSD
Tetrachloroethylene	PPBv	2.9	1.0		03/20/09	WSD
Tetrahydrofuran	PPBv	ND	1.0		03/20/09	WSD
Toluene	PPBv	140	1.0		03/20/09	WSD
1,2,4-Trichlorobenzene	PPBv	ND	1.0		03/20/09	WSD
1,1,1-Trichloroethane	PPBv	ND	1.0		03/20/09	WSD
1,1,2-Trichloroethane	PPBv	ND	1.0		03/20/09	WSD
Trichloroethylene	PPBv	ND	1.0		03/20/09	WSD
Trichlorofluoromethane (Freon 11)	PPBv	ND	1.0		03/20/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	1.0		03/20/09	WSD
1,2,4-Trimethylbenzene	PPBv	4.8	1.0		03/20/09	WSD
1,3,5-Trimethylbenzene	PPBv	2.3	1.0		03/20/09	WSD
Vinyl Acetate	PPBv	ND	1.0		03/20/09	WSD
Vinyl Chloride	PPBv	ND	1.0		03/20/09	WSD
m/p-Xylene	PPBv	26	2.0		03/20/09	WSD
o-Xylene	PPBv	7.1	1.0		03/20/09	WSD
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	2200	2.4		03/20/09	WSD
Benzene	ug/m3	4.8	3.2		03/20/09	WSD
Benzyl Chloride	ug/m3	ND	5.2		03/20/09	WSD
Bromodichloromethane	ug/m3	ND	6.7		03/20/09	WSD
Bromoform	ug/m3	ND	11		03/20/09	WSD
Bromomethane	ug/m3	ND	3.9		03/20/09	WSD
1,3-Butadiene	ug/m3	ND	2.3		03/20/09	WSD
2-Butanone (MEK)	ug/m3	3.5	3.0		03/20/09	WSD
Carbon Disulfide	ug/m3	ND	3.1		03/20/09	WSD

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Purchase Order No..

Project Location:

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3/23/2009

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Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

**Field Sample # : POST CARBON**

**Sample ID : 09B07793**

‡Sampled : 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
Carbon Tetrachloride	ug/m3	ND	6.3		03/20/09	WSD
Chlorobenzene	ug/m3	ND	4.6		03/20/09	WSD
Chlorodibromomethane	ug/m3	ND	8.6		03/20/09	WSD
Chloroethane	ug/m3	ND	2.7		03/20/09	WSD
Chloroform	ug/m3	ND	4.9		03/20/09	WSD
Chloromethane	ug/m3	ND	2.1		03/20/09	WSD
Cyclohexane	ug/m3	8.9	3.5		03/20/09	WSD
1,2-Dibromoethane	ug/m3	ND	7.6		03/20/09	WSD
1,2-Dichlorobenzene	ug/m3	ND	6.0		03/20/09	WSD
1,3-Dichlorobenzene	ug/m3	ND	6.0		03/20/09	WSD
1,4-Dichlorobenzene	ug/m3	ND	6.0		03/20/09	WSD
Dichlorodifluoromethane	ug/m3	ND	4.9		03/20/09	WSD
1,1-Dichloroethane	ug/m3	ND	4.1		03/20/09	WSD
1,2-Dichloroethane	ug/m3	ND	4.0		03/20/09	WSD
1,1-Dichloroethylene	ug/m3	ND	4.0		03/20/09	WSD
cis-1,2-Dichloroethylene	ug/m3	ND	4.0		03/20/09	WSD
t-1,2-Dichloroethylene	ug/m3	ND	4.0		03/20/09	WSD
1,2-Dichloropropane	ug/m3	ND	4.6		03/20/09	WSD
cis-1,3-Dichloropropene	ug/m3	ND	4.5		03/20/09	WSD
trans-1,3-Dichloropropene	ug/m3	ND	4.5		03/20/09	WSD
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	7.0		03/20/09	WSD
Ethanol	ug/m3	420	1.9		03/20/09	WSD
Ethyl Acetate	ug/m3	ND	3.6		03/20/09	WSD
Ethylbenzene	ug/m3	35	4.4		03/20/09	WSD
4-Ethyl Toluene	ug/m3	16	5.0		03/20/09	WSD
n-Heptane	ug/m3	18	4.1		03/20/09	WSD
Hexachlorobutadiene	ug/m3	ND	11		03/20/09	WSD
Hexane	ug/m3	810	3.6		03/20/09	WSD
2-Hexanone	ug/m3	ND	4.1		03/20/09	WSD
Isopropanol	ug/m3	18	2.5		03/20/09	WSD
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	3.6		03/20/09	WSD
Methylene Chloride	ug/m3	ND	3.5		03/20/09	WSD
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	4.1		03/20/09	WSD
Propene	ug/m3	ND	1.8		03/20/09	WSD
Styrene	ug/m3	ND	4.3		03/20/09	WSD

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

‡ See attached chain-of-custody record for time sampled



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

CHRIS BORON

GZA ENVIRONMENTAL - BUFFALO

535 WASHINGTON STREET, 11TH FLOOR

BUFFALO, NY 14203

Purchase Order No.:

3/23/2009

Page 8 of 13

Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

Project Location:

Date Received: 3/14/2009

**Field Sample #: POST CARBON**

**Sample ID : 09B07793**

‡Sampled : 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,1,2,2-Tetrachloroethane	ug/m3	ND	6.8		03/20/09	WSD
Tetrachloroethylene	ug/m3	20	6.7		03/20/09	WSD
Tetrahydrofuran	ug/m3	ND	3.0		03/20/09	WSD
Toluene	ug/m3	520	3.8		03/20/09	WSD
1,2,4-Trichlorobenzene	ug/m3	ND	7.4		03/20/09	WSD
1,1,1-Trichloroethane	ug/m3	ND	5.4		03/20/09	WSD
1,1,2-Trichloroethane	ug/m3	ND	5.4		03/20/09	WSD
Trichloroethylene	ug/m3	ND	5.4		03/20/09	WSD
Trichlorofluoromethane	ug/m3	ND	5.6		03/20/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	7.6		03/20/09	WSD
1,2,4-Trimethylbenzene	ug/m3	24	5.0		03/20/09	WSD
1,3,5-Trimethylbenzene	ug/m3	11	5.0		03/20/09	WSD
Vinyl Acetate	ug/m3	ND	3.6		03/20/09	WSD
Vinyl Chloride	ug/m3	ND	2.6		03/20/09	WSD
m/p-Xylene	ug/m3	110	8.7		03/20/09	WSD
o-Xylene	ug/m3	31	4.4		03/20/09	WSD

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CHRIS BORON

GZA ENVIRONMENTAL - BUFFALO

535 WASHINGTON STREET, 11TH FLOOR

BUFFALO, NY 14203

Project Location:

Date Received: 3/14/2009

Purchase Order No..

3/23/2009

Page 9 of 13

Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

Field Sample #: PRE CARBON

Sample ID: 09B07791

‡Sampled: 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium: SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Acetone	PPBv	140	1.0		03/18/09	WSD
Benzene	PPBv	1.8	1.0		03/18/09	WSD
Benzyl Chloride	PPBv	ND	1.0		03/18/09	WSD
Bromodichloromethane	PPBv	ND	1.0		03/18/09	WSD
Bromoform	PPBv	ND	1.0		03/18/09	WSD
Bromomethane	PPBv	ND	1.0		03/18/09	WSD
1,3-Butadiene	PPBv	ND	1.0		03/18/09	WSD
2-Butanone (MEK)	PPBv	1.7	1.0		03/18/09	WSD
Carbon Disulfide	PPBv	ND	1.0		03/18/09	WSD
Carbon Tetrachloride	PPBv	ND	1.0		03/18/09	WSD
Chlorobenzene	PPBv	ND	1.0		03/18/09	WSD
Chlorodibromomethane	PPBv	ND	1.0		03/18/09	WSD
Chloroethane	PPBv	ND	1.0		03/18/09	WSD
Chloroform	PPBv	1.7	1.0		03/18/09	WSD
Chloromethane	PPBv	ND	1.0		03/18/09	WSD
Cyclohexane	PPBv	6.7	1.0		03/18/09	WSD
1,2-Dibromoethane	PPBv	ND	1.0		03/18/09	WSD
1,2-Dichlorobenzene	PPBv	ND	1.0		03/18/09	WSD
1,3-Dichlorobenzene	PPBv	ND	1.0		03/18/09	WSD
1,4-Dichlorobenzene	PPBv	ND	1.0		03/18/09	WSD
Dichlorodifluoromethane	PPBv	ND	1.0		03/18/09	WSD
1,1-Dichloroethane	PPBv	ND	1.0		03/18/09	WSD
1,2-Dichloroethane	PPBv	ND	1.0		03/18/09	WSD
1,1-Dichloroethylene	PPBv	13	1.0		03/18/09	WSD
cis-1,2-Dichloroethylene	PPBv	290	1.0		03/18/09	WSD
t-1,2-Dichloroethylene	PPBv	19	1.0		03/18/09	WSD
1,2-Dichloropropane	PPBv	ND	1.0		03/18/09	WSD
cis-1,3-Dichloropropene	PPBv	ND	1.0		03/18/09	WSD
trans-1,3-Dichloropropene	PPBv	ND	1.0		03/18/09	WSD
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	1.0		03/18/09	WSD
Ethanol	PPBv	340	1.0		03/18/09	WSD
Ethyl Acetate	PPBv	ND	1.0		03/18/09	WSD
Ethylbenzene	PPBv	ND	1.0		03/18/09	WSD
4-Ethyl Toluene	PPBv	ND	1.0		03/18/09	WSD
n-Heptane	PPBv	11	1.0		03/18/09	WSD

RL = Reporting Limit

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‡ See attached chain-of-custody record for time sampled



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

CHRIS BORON  
GZA ENVIRONMENTAL - BUFFALO  
535 WASHINGTON STREET, 11TH FLOOR  
BUFFALO, NY 14203

Purchase Order No.:

3/23/2009

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Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

Project Location:  
Date Received: 3/14/2009

Field Sample #: PRE CARBON

Sample ID : 09B07791      ‡Sampled : 3/13/2009  
Not Specified  
Sample Matrix: AIR      Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Hexachlorobutadiene	PPBv	ND	1.0		03/18/09	WSD
Hexane	PPBv	110	1.0		03/18/09	WSD
2-Hexanone	PPBv	ND	1.0		03/18/09	WSD
Isopropanol	PPBv	8.4	1.0		03/18/09	WSD
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	1.0		03/18/09	WSD
Methylene Chloride	PPBv	3.5	1.0		03/18/09	WSD
4-Methyl-2-Pentanone (MIBK)	PPBv	ND	1.0		03/18/09	WSD
Propene	PPBv	ND	1.0		03/18/09	WSD
Styrene	PPBv	ND	1.0		03/18/09	WSD
1,1,2,2-Tetrachloroethane	PPBv	ND	1.0		03/18/09	WSD
Tetrachloroethylene	PPBv	1600	1.0		03/18/09	WSD
Tetrahydrofuran	PPBv	1.3	1.0		03/18/09	WSD
Toluene	PPBv	38	1.0		03/18/09	WSD
1,2,4-Trichlorobenzene	PPBv	ND	1.0		03/18/09	WSD
1,1,1-Trichloroethane	PPBv	ND	1.0		03/18/09	WSD
1,1,2-Trichloroethane	PPBv	1.1	1.0		03/18/09	WSD
Trichloroethylene	PPBv	330	1.0		03/18/09	WSD
Trichlorofluoromethane (Freon 11)	PPBv	ND	1.0		03/18/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	1.0		03/18/09	WSD
1,2,4-Trimethylbenzene	PPBv	ND	1.0		03/18/09	WSD
1,3,5-Trimethylbenzene	PPBv	ND	1.0		03/18/09	WSD
Vinyl Acetate	PPBv	ND	1.0		03/18/09	WSD
Vinyl Chloride	PPBv	ND	1.0		03/18/09	WSD
m/p-Xylene	PPBv	ND	2.0		03/18/09	WSD
o-Xylene	PPBv	ND	1.0		03/18/09	WSD
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	340	2.4		03/18/09	WSD
Benzene	ug/m3	5.7	3.2		03/18/09	WSD
Benzyl Chloride	ug/m3	ND	5.2		03/18/09	WSD
Bromodichloromethane	ug/m3	ND	6.7		03/18/09	WSD
Bromoform	ug/m3	ND	11		03/18/09	WSD
Bromomethane	ug/m3	ND	3.9		03/18/09	WSD
1,3-Butadiene	ug/m3	ND	2.3		03/18/09	WSD
2-Butanone (MEK)	ug/m3	4.9	3.0		03/18/09	WSD
Carbon Disulfide	ug/m3	ND	3.1		03/18/09	WSD

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‡ See attached chain-of-custody record for time sampled



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

CHRIS BORON

GZA ENVIRONMENTAL - BUFFALO

535 WASHINGTON STREET, 11TH FLOOR

BUFFALO, NY 14203

Purchase Order No.:

Project Location:

Date Received: 3/14/2009

3/23/2009

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Project Number: 21.0056445.0

LIMS-BAT #: LIMIT-23960

Job Number: 21.0056445.0

Field Sample #: PRE CARBON

Sample ID: 09B07791

±Sampled: 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium: SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
Carbon Tetrachloride	ug/m3	ND	6.3		03/18/09	WSD
Chlorobenzene	ug/m3	ND	4.6		03/18/09	WSD
Chlorodibromomethane	ug/m3	ND	8.6		03/18/09	WSD
Chloroethane	ug/m3	ND	2.7		03/18/09	WSD
Chloroform	ug/m3	8.1	4.9		03/18/09	WSD
Chloromethane	ug/m3	ND	2.1		03/18/09	WSD
Cyclohexane	ug/m3	23	3.5		03/18/09	WSD
1,2-Dibromoethane	ug/m3	ND	7.6		03/18/09	WSD
1,2-Dichlorobenzene	ug/m3	ND	6.0		03/18/09	WSD
1,3-Dichlorobenzene	ug/m3	ND	6.0		03/18/09	WSD
1,4-Dichlorobenzene	ug/m3	ND	6.0		03/18/09	WSD
Dichlorodifluoromethane	ug/m3	ND	4.9		03/18/09	WSD
1,1-Dichloroethane	ug/m3	ND	4.1		03/18/09	WSD
1,2-Dichloroethane	ug/m3	ND	4.0		03/18/09	WSD
1,1-Dichloroethylene	ug/m3	51	4.0		03/18/09	WSD
cis-1,2-Dichloroethylene	ug/m3	1200	4.0		03/18/09	WSD
t-1,2-Dichloroethylene	ug/m3	76	4.0		03/18/09	WSD
1,2-Dichloropropane	ug/m3	ND	4.6		03/18/09	WSD
cis-1,3-Dichloropropene	ug/m3	ND	4.5		03/18/09	WSD
trans-1,3-Dichloropropene	ug/m3	ND	4.5		03/18/09	WSD
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	7.0		03/18/09	WSD
Ethanol	ug/m3	650	1.9		03/18/09	WSD
Ethyl Acetate	ug/m3	ND	3.6		03/18/09	WSD
Ethylbenzene	ug/m3	ND	4.4		03/18/09	WSD
4-Ethyl Toluene	ug/m3	ND	5.0		03/18/09	WSD
n-Heptane	ug/m3	43	4.1		03/18/09	WSD
Hexachlorobutadiene	ug/m3	ND	11		03/18/09	WSD
Hexane	ug/m3	400	3.6		03/18/09	WSD
2-Hexanone	ug/m3	ND	4.1		03/18/09	WSD
Isopropanol	ug/m3	21	2.5		03/18/09	WSD
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	3.6		03/18/09	WSD
Methylene Chloride	ug/m3	12	3.5		03/18/09	WSD
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	4.1		03/18/09	WSD
Propene	ug/m3	ND	1.8		03/18/09	WSD
Styrene	ug/m3	ND	4.3		03/18/09	WSD

RL = Reporting Limit

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‡ See attached chain-of-custody record for time sampled

CHRIS BORON  
GZA ENVIRONMENTAL - BUFFALO  
535 WASHINGTON STREET, 11TH FLOOR  
BUFFALO, NY 14203

Purchase Order No.:

3/23/2009  
Page 12 of 13

Project Number: 21.0056445.0  
LIMS-BAT #: LIMT-23960  
Job Number: 21.0056445.0

Project Location:

Date Received: 3/14/2009

Field Sample #: PRE CARBON

Sample ID : 09B07791

‡Sampled : 3/13/2009

Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,1,2,2-Tetrachloroethane	ug/m3	ND	6.8		03/18/09	WSD
Tetrachloroethylene	ug/m3	11000	6.7		03/18/09	WSD
Tetrahydrofuran	ug/m3	3.7	3.0		03/18/09	WSD
Toluene	ug/m3	140	3.8		03/18/09	WSD
1,2,4-Trichlorobenzene	ug/m3	ND	7.4		03/18/09	WSD
1,1,1-Trichloroethane	ug/m3	ND	5.4		03/18/09	WSD
1,1,2-Trichloroethane	ug/m3	6.0	5.4		03/18/09	WSD
Trichloroethylene	ug/m3	1800	5.4		03/18/09	WSD
Trichlorofluoromethane	ug/m3	ND	5.6		03/18/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	7.6		03/18/09	WSD
1,2,4-Trimethylbenzene	ug/m3	ND	5.0		03/18/09	WSD
1,3,5-Trimethylbenzene	ug/m3	ND	5.0		03/18/09	WSD
Vinyl Acetate	ug/m3	ND	3.6		03/18/09	WSD
Vinyl Chloride	ug/m3	ND	2.6		03/18/09	WSD
m/p-Xylene	ug/m3	ND	8.7		03/18/09	WSD
o-Xylene	ug/m3	ND	4.4		03/18/09	WSD

RL = Reporting Limit

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NM = Not Measured

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

‡ See attached chain-of-custody record for time sampled

CHRIS BORON  
GZA ENVIRONMENTAL - BUFFALO  
535 WASHINGTON STREET, 11TH FLOOR  
BUFFALO, NY 14203

Project Location:  
Date Received: 3/14/2009

Purchase Order No.:

3/23/2009  
Page 13 of 13

Project Number: 21.0056445.0  
LIMS-BAT #: LIMIT-23960  
Job Number: 21.0056445.0

\*\* 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

‡ See attached chain-of-custody record for time sampled

**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: 3/23/2009 Lims Bat #: LIMIT-23960 Page 1 of 14

QC Batch Number: BATCH-16276

Sample Id	Analysis	QC Analysis	Values	Units	Limits
09B07791	4-Bromofluorobenzene	Surrogate Recovery	83.37	%	70-130
09B07792	4-Bromofluorobenzene	Surrogate Recovery	94.87	%	70-130
09B07793	4-Bromofluorobenzene	Surrogate Recovery	87.12	%	70-130
BLANK-130874	Acetone	Blank	<0.60	ug/m3	
	Benzene	Blank	<0.80	ug/m3	
	Carbon Tetrachloride	Blank	<1.6	ug/m3	
	Chloroform	Blank	<1.3	ug/m3	
	1,2-Dichloroethane	Blank	<1.0	ug/m3	
	1,4-Dichlorobenzene	Blank	<1.5	ug/m3	
	Ethyl Acetate	Blank	<0.90	ug/m3	
	Ethylbenzene	Blank	<1.1	ug/m3	
	Hexane	Blank	<0.88	ug/m3	
	Isopropanol	Blank	<0.62	ug/m3	
	2-Butanone (MEK)	Blank	<0.74	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<1.1	ug/m3	
	Styrene	Blank	<1.1	ug/m3	
	Tetrachloroethylene	Blank	<1.7	ug/m3	
	Toluene	Blank	<0.94	ug/m3	
	1,1,1-Trichloroethane	Blank	<1.4	ug/m3	
	Trichloroethylene	Blank	<1.4	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<1.9	ug/m3	
	Trichlorofluoromethane	Blank	<1.4	ug/m3	
	o-Xylene	Blank	<1.1	ug/m3	
	m/p-Xylene	Blank	<2.2	ug/m3	
	1,2-Dichlorobenzene	Blank	<1.5	ug/m3	
	1,3-Dichlorobenzene	Blank	<1.5	ug/m3	
	1,1-Dichloroethane	Blank	<1.1	ug/m3	
	1,1-Dichloroethylene	Blank	<0.98	ug/m3	
	Ethanol	Blank	<0.47	ug/m3	
	4-Ethyl Toluene	Blank	<1.3	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.90	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.98	ug/m3	
	Vinyl Chloride	Blank	<0.64	ug/m3	
	Methylene Chloride	Blank	<0.86	ug/m3	
	Chlorobenzene	Blank	<1.2	ug/m3	
	Chloromethane	Blank	<0.51	ug/m3	
	Bromomethane	Blank	<0.96	ug/m3	
	Chloroethane	Blank	<0.66	ug/m3	
	cis-1,3-Dichloropropene	Blank	<1.2	ug/m3	
	trans-1,3-Dichloropropene	Blank	<1.2	ug/m3	

**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: 3/23/2009

Lims Bat #: LIMT-23960

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QC Batch Number: BATCH-16276

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-130874					
	Chlorodibromomethane	Blank	<2.2	ug/m3	
	1,1,2-Trichloroethane	Blank	<1.4	ug/m3	
	Bromoform	Blank	<2.6	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<1.7	ug/m3	
	Hexachlorobutadiene	Blank	<2.7	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<1.9	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<1.3	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<1.3	ug/m3	
	Cyclohexane	Blank	<0.86	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.98	ug/m3	
	1,2-Dichloropropane	Blank	<1.2	ug/m3	
	Dichlorodifluoromethane	Blank	<1.3	ug/m3	
	Benzyl Chloride	Blank	<1.3	ug/m3	
	Carbon Disulfide	Blank	<0.78	ug/m3	
	Vinyl Acetate	Blank	<0.88	ug/m3	
	2-Hexanone	Blank	<1.1	ug/m3	
	Bromodichloromethane	Blank	<1.7	ug/m3	
	1,2-Dibromoethane	Blank	<1.9	ug/m3	
	n-Heptane	Blank	<1.1	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<1.8	ug/m3	
	Tetrahydrofuran	Blank	<0.74	ug/m3	
	Propene	Blank	<0.43	ug/m3	
	1,3-Butadiene	Blank	<0.56	ug/m3	
BLANK-130875					
	Acetone	Blank	<0.60	ug/m3	
	Benzene	Blank	<0.80	ug/m3	
	Carbon Tetrachloride	Blank	<1.6	ug/m3	
	Chloroform	Blank	<1.3	ug/m3	
	1,2-Dichloroethane	Blank	<1.0	ug/m3	
	1,4-Dichlorobenzene	Blank	<1.5	ug/m3	
	Ethyl Acetate	Blank	<0.90	ug/m3	
	Ethylbenzene	Blank	<1.1	ug/m3	
	Hexane	Blank	<0.88	ug/m3	
	Isopropanol	Blank	<0.62	ug/m3	
	2-Butanone (MEK)	Blank	<0.74	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<1.1	ug/m3	
	Styrene	Blank	<1.1	ug/m3	
	Tetrachloroethylene	Blank	<1.7	ug/m3	
	Toluene	Blank	<0.94	ug/m3	
	1,1,1-Trichloroethane	Blank	<1.4	ug/m3	
	Trichloroethylene	Blank	<1.4	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<1.9	ug/m3	
	Trichlorofluoromethane	Blank	<1.4	ug/m3	

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Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-130875	o-Xylene	Blank	<1.1	ug/m3	
	m/p-Xylene	Blank	<2.2	ug/m3	
	1,2-Dichlorobenzene	Blank	<1.5	ug/m3	
	1,3-Dichlorobenzene	Blank	<1.5	ug/m3	
	1,1-Dichloroethane	Blank	<1.1	ug/m3	
	1,1-Dichloroethylene	Blank	<0.98	ug/m3	
	Ethanol	Blank	<0.47	ug/m3	
	4-Ethyl Toluene	Blank	<1.3	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.90	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.98	ug/m3	
	Vinyl Chloride	Blank	<0.64	ug/m3	
	Methylene Chloride	Blank	<0.86	ug/m3	
	Chlorobenzene	Blank	<1.2	ug/m3	
	Chloromethane	Blank	<0.51	ug/m3	
	Bromomethane	Blank	<0.96	ug/m3	
	Chloroethane	Blank	<0.66	ug/m3	
	cis-1,3-Dichloropropene	Blank	<1.2	ug/m3	
	trans-1,3-Dichloropropene	Blank	<1.2	ug/m3	
	Chlorodibromomethane	Blank	<2.2	ug/m3	
	1,1,2-Trichloroethane	Blank	<1.4	ug/m3	
	Bromoform	Blank	<2.6	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<1.7	ug/m3	
	Hexachlorobutadiene	Blank	<2.7	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<1.9	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<1.3	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<1.3	ug/m3	
	Cyclohexane	Blank	<0.86	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.98	ug/m3	
	1,2-Dichloropropane	Blank	<1.2	ug/m3	
	Dichlorodifluoromethane	Blank	<1.3	ug/m3	
	Benzyl Chloride	Blank	<1.3	ug/m3	
	Carbon Disulfide	Blank	<0.78	ug/m3	
	Vinyl Acetate	Blank	<0.88	ug/m3	
	2-Hexanone	Blank	<1.1	ug/m3	
	Bromodichloromethane	Blank	<1.7	ug/m3	
	1,2-Dibromoethane	Blank	<1.9	ug/m3	
	n-Heptane	Blank	<1.1	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<1.8	ug/m3	
	Tetrahydrofuran	Blank	<0.74	ug/m3	
	Propene	Blank	<0.43	ug/m3	
	1,3-Butadiene	Blank	<0.56	ug/m3	
LFBLANK-93081	Acetone	Lab Fort Blank Amt.	11.87	ug/m3	



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Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93081	Acetone	Lab Fort Blk. Found	12.34	ug/m3	
		Lab Fort Blk. % Rec.	103.94	%	50-150
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3	
		Lab Fort Blk. Found	11.19	ug/m3	
		Lab Fort Blk. % Rec.	70.19	%	70-130
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3	
		Lab Fort Blk. Found	35.37	ug/m3	
		Lab Fort Blk. % Rec.	112.48	%	70-130
	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3	
		Lab Fort Blk. Found	23.14	ug/m3	
		Lab Fort Blk. % Rec.	95.11	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	20.63	ug/m3	
		Lab Fort Blk. % Rec.	101.94	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	34.78	ug/m3	
		Lab Fort Blk. % Rec.	115.72	%	70-130
	Ethyl Acetate	Lab Fort Blank Amt.	18.01	ug/m3	
		Lab Fort Blk. Found	17.92	ug/m3	
		Lab Fort Blk. % Rec.	99.48	%	50-150
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
		Lab Fort Blk. Found	18.19	ug/m3	
		Lab Fort Blk. % Rec.	83.92	%	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Blk. Found	19.02	ug/m3	
		Lab Fort Blk. % Rec.	107.98	%	70-130
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
		Lab Fort Blk. Found	15.44	ug/m3	
		Lab Fort Blk. % Rec.	125.66	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	14.43	ug/m3	
		Lab Fort Blk. % Rec.	97.90	%	70-130
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	20.06	ug/m3	
		Lab Fort Blk. % Rec.	97.93	%	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
		Lab Fort Blk. Found	19.13	ug/m3	
		Lab Fort Blk. % Rec.	89.95	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
		Lab Fort Blk. Found	34.23	ug/m3	
		Lab Fort Blk. % Rec.	100.98	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	14.57	ug/m3	

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LFBLANK-93081					
	Toluene	Lab Fort Blk. % Rec.	77.48	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	26.43	ug/m3	
		Lab Fort Blk. % Rec.	96.92	%	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
		Lab Fort Blk. Found	23.05	ug/m3	
		Lab Fort Blk. % Rec.	85.78	%	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
		Lab Fort Blk. Found	42.21	ug/m3	
		Lab Fort Blk. % Rec.	110.16	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
		Lab Fort Blk. Found	34.31	ug/m3	
		Lab Fort Blk. % Rec.	122.14	%	70-130
	o-Xylene	Lab Fort Blank Amt.	21.71	ug/m3	
		Lab Fort Blk. Found	19.55	ug/m3	
		Lab Fort Blk. % Rec.	90.02	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
		Lab Fort Blk. Found	36.51	ug/m3	
		Lab Fort Blk. % Rec.	84.06	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.61	ug/m3	
		Lab Fort Blk. % Rec.	118.46	%	70-130
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.69	ug/m3	
		Lab Fort Blk. % Rec.	118.74	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	15.87	ug/m3	
		Lab Fort Blk. % Rec.	78.42	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
		Lab Fort Blk. Found	20.31	ug/m3	
		Lab Fort Blk. % Rec.	102.40	%	70-130
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3	
		Lab Fort Blk. Found	11.13	ug/m3	
		Lab Fort Blk. % Rec.	118.19	%	50-150
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	24.98	ug/m3	
		Lab Fort Blk. % Rec.	101.66	%	50-150
	Methyl tert-Butyl Ether (MTBE)	Lab Fort Blank Amt.	18.02	ug/m3	
		Lab Fort Blk. Found	16.46	ug/m3	
		Lab Fort Blk. % Rec.	91.31	%	70-130
	t-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	16.66	ug/m3	
		Lab Fort Blk. % Rec.	84.05	%	70-130

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Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93081	Vinyl Chloride	Lab Fort Blank Amt.	12.78	ug/m3	
		Lab Fort Blk. Found	11.26	ug/m3	
		Lab Fort Blk. % Rec.	88.12	%	70-130
	Methylene Chloride	Lab Fort Blank Amt.	17.36	ug/m3	
		Lab Fort Blk. Found	19.42	ug/m3	
		Lab Fort Blk. % Rec.	111.86	%	70-130
	Chlorobenzene	Lab Fort Blank Amt.	23.02	ug/m3	
		Lab Fort Blk. Found	20.82	ug/m3	
		Lab Fort Blk. % Rec.	90.41	%	70-130
	Chloromethane	Lab Fort Blank Amt.	10.32	ug/m3	
		Lab Fort Blk. Found	9.49	ug/m3	
		Lab Fort Blk. % Rec.	91.92	%	70-130
	Bromomethane	Lab Fort Blank Amt.	19.40	ug/m3	
		Lab Fort Blk. Found	19.77	ug/m3	
		Lab Fort Blk. % Rec.	101.90	%	70-130
	Chloroethane	Lab Fort Blank Amt.	13.19	ug/m3	
		Lab Fort Blk. Found	12.00	ug/m3	
		Lab Fort Blk. % Rec.	91.03	%	70-130
	cis-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	18.46	ug/m3	
		Lab Fort Blk. % Rec.	81.34	%	70-130
	trans-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	20.52	ug/m3	
		Lab Fort Blk. % Rec.	90.40	%	70-130
	Chlorodibromomethane	Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	49.72	ug/m3	
		Lab Fort Blk. % Rec.	116.74	%	70-130
	1,1,2-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	21.66	ug/m3	
		Lab Fort Blk. % Rec.	79.41	%	70-130
	Bromoform	Lab Fort Blank Amt.	51.69	ug/m3	
		Lab Fort Blk. Found	71.52	ug/m3	
		Lab Fort Blk. % Rec.	138.36	%	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	
		Lab Fort Blk. Found	65.95	ug/m3	
		Lab Fort Blk. % Rec.	123.66	%	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	37.10	ug/m3	
		Lab Fort Blk. Found	43.74	ug/m3	
		Lab Fort Blk. % Rec.	117.90	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	

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Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93081	1,2,4-Trimethylbenzene	Lab Fort Blk. Found	24.04	ug/m3	
		Lab Fort Blk. % Rec.	97.81	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	23.87	ug/m3	
		Lab Fort Blk. % Rec.	97.12	%	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	
		Lab Fort Blk. Found	16.30	ug/m3	
		Lab Fort Blk. % Rec.	94.73	%	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	16.95	ug/m3	
		Lab Fort Blk. % Rec.	85.51	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
		Lab Fort Blk. Found	15.07	ug/m3	
		Lab Fort Blk. % Rec.	65.25	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	
		Lab Fort Blk. Found	27.32	ug/m3	
		Lab Fort Blk. % Rec.	110.50	%	70-130
	Benzyl Chloride	Lab Fort Blank Amt.	25.88	ug/m3	
		Lab Fort Blk. Found	28.51	ug/m3	
		Lab Fort Blk. % Rec.	110.16	%	70-130
	Carbon Disulfide	Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk. Found	14.26	ug/m3	
		Lab Fort Blk. % Rec.	91.64	%	70-130
	Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
		Lab Fort Blk. Found	18.36	ug/m3	
		Lab Fort Blk. % Rec.	104.30	%	70-130
	2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	19.87	ug/m3	
		Lab Fort Blk. % Rec.	97.01	%	50-150
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
		Lab Fort Blk. Found	32.24	ug/m3	
		Lab Fort Blk. % Rec.	96.24	%	70-130
	1,2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk. Found	34.64	ug/m3	
		Lab Fort Blk. % Rec.	90.16	%	70-130
	n-Heptane	Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	15.49	ug/m3	
		Lab Fort Blk. % Rec.	75.62	%	50-150
	1,2-Dichlorotetrafluoroethane (114)	Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	36.12	ug/m3	
		Lab Fort Blk. % Rec.	103.34	%	70-130
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	14.77	ug/m3	

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Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93081	Tetrahydrofuran	Lab Fort Blk. % Rec.	100.18	%	50-150
		Lab Fort Blank Amt.	8.60	ug/m3	
	Propene	Lab Fort Blk. Found	7.96	ug/m3	
		Lab Fort Blk. % Rec.	92.54	%	50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	12.72	ug/m3	
		Lab Fort Blk. % Rec.	115.02	%	70-130
LFBLANK-93082	Acetone	Lab Fort Blank Amt.	11.87	ug/m3	
		Lab Fort Blk. Found	12.34	ug/m3	
		Lab Fort Blk. % Rec.	103.94	%	50-150
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3	
		Lab Fort Blk. Found	11.19	ug/m3	
		Lab Fort Blk. % Rec.	70.19	%	70-130
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3	
		Lab Fort Blk. Found	35.37	ug/m3	
		Lab Fort Blk. % Rec.	112.48	%	70-130
	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3	
		Lab Fort Blk. Found	23.14	ug/m3	
		Lab Fort Blk. % Rec.	95.11	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	20.63	ug/m3	
		Lab Fort Blk. % Rec.	101.94	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	34.78	ug/m3	
		Lab Fort Blk. % Rec.	115.72	%	70-130
	Ethyl Acetate	Lab Fort Blank Amt.	18.01	ug/m3	
		Lab Fort Blk. Found	17.92	ug/m3	
		Lab Fort Blk. % Rec.	99.48	%	50-150
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
		Lab Fort Blk. Found	18.19	ug/m3	
		Lab Fort Blk. % Rec.	83.92	%	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Blk. Found	19.02	ug/m3	
		Lab Fort Blk. % Rec.	107.98	%	70-130
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
		Lab Fort Blk. Found	15.44	ug/m3	
		Lab Fort Blk. % Rec.	125.66	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	14.43	ug/m3	
		Lab Fort Blk. % Rec.	97.90	%	70-130
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	20.06	ug/m3	

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Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93082					
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blk. % Rec.	97.93	%	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
		Lab Fort Blk. Found	19.13	ug/m3	
		Lab Fort Blk. % Rec.	89.95	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
		Lab Fort Blk. Found	34.23	ug/m3	
		Lab Fort Blk. % Rec.	100.98	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	14.57	ug/m3	
		Lab Fort Blk. % Rec.	77.48	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	26.43	ug/m3	
		Lab Fort Blk. % Rec.	96.92	%	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
		Lab Fort Blk. Found	23.05	ug/m3	
		Lab Fort Blk. % Rec.	85.78	%	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
		Lab Fort Blk. Found	42.21	ug/m3	
		Lab Fort Blk. % Rec.	110.16	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
		Lab Fort Blk. Found	34.31	ug/m3	
		Lab Fort Blk. % Rec.	122.14	%	70-130
	o-Xylene	Lab Fort Blank Amt.	21.71	ug/m3	
		Lab Fort Blk. Found	19.55	ug/m3	
		Lab Fort Blk. % Rec.	90.02	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
		Lab Fort Blk. Found	36.51	ug/m3	
		Lab Fort Blk. % Rec.	84.06	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.61	ug/m3	
		Lab Fort Blk. % Rec.	118.46	%	70-130
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.69	ug/m3	
		Lab Fort Blk. % Rec.	118.74	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	15.87	ug/m3	
		Lab Fort Blk. % Rec.	78.42	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
		Lab Fort Blk. Found	20.31	ug/m3	
		Lab Fort Blk. % Rec.	102.40	%	70-130
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3	
		Lab Fort Blk. Found	11.13	ug/m3	
		Lab Fort Blk. % Rec.	118.19	%	50-150



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# 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: 3/23/2009

Lims Bat # : LIMIT-23960

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QC Batch Number: BATCH-16276

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93082					
4-Ethyl Toluene		Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	24.98	ug/m3	
		Lab Fort Blk. % Rec.	101.66	%	50-150
Methyl tert-Butyl Ether (MTBE)		Lab Fort Blank Amt.	18.02	ug/m3	
		Lab Fort Blk. Found	16.46	ug/m3	
		Lab Fort Blk. % Rec.	91.31	%	70-130
t-1,2-Dichloroethylene		Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	16.66	ug/m3	
		Lab Fort Blk. % Rec.	84.05	%	70-130
Vinyl Chloride		Lab Fort Blank Amt.	12.78	ug/m3	
		Lab Fort Blk. Found	11.26	ug/m3	
		Lab Fort Blk. % Rec.	88.12	%	70-130
Methylene Chloride		Lab Fort Blank Amt.	17.36	ug/m3	
		Lab Fort Blk. Found	19.42	ug/m3	
		Lab Fort Blk. % Rec.	111.86	%	70-130
Chlorobenzene		Lab Fort Blank Amt.	23.02	ug/m3	
		Lab Fort Blk. Found	20.82	ug/m3	
		Lab Fort Blk. % Rec.	90.41	%	70-130
Chloromethane		Lab Fort Blank Amt.	10.32	ug/m3	
		Lab Fort Blk. Found	9.49	ug/m3	
		Lab Fort Blk. % Rec.	91.92	%	70-130
Bromomethane		Lab Fort Blank Amt.	19.40	ug/m3	
		Lab Fort Blk. Found	19.77	ug/m3	
		Lab Fort Blk. % Rec.	101.90	%	70-130
Chloroethane		Lab Fort Blank Amt.	13.19	ug/m3	
		Lab Fort Blk. Found	12.00	ug/m3	
		Lab Fort Blk. % Rec.	91.03	%	70-130
cis-1,3-Dichloropropene		Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	18.46	ug/m3	
		Lab Fort Blk. % Rec.	81.34	%	70-130
trans-1,3-Dichloropropene		Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	20.52	ug/m3	
		Lab Fort Blk. % Rec.	90.40	%	70-130
Chlorodibromomethane		Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	49.72	ug/m3	
		Lab Fort Blk. % Rec.	116.74	%	70-130
1,1,2-Trichloroethane		Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	21.66	ug/m3	
		Lab Fort Blk. % Rec.	79.41	%	70-130
Bromoform		Lab Fort Blank Amt.	51.69	ug/m3	
		Lab Fort Blk. Found	71.52	ug/m3	
		Lab Fort Blk. % Rec.	138.36	%	70-130
1,1,2,2-Tetrachloroethane		Lab Fort Blank Amt.	34.33	ug/m3	

### QC SUMMARY REPORT

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Standard Reference Materials and Duplicates

Method Blanks

Report Date: 3/23/2009

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QC Batch Number: BATCH-16276

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93082					
1,1,2,2-Tetrachloroethane		Lab Fort Blk. Found	29.59	ug/m3	70-130
		Lab Fort Blk. % Rec.	86.19	%	
Hexachlorobutadiene		Lab Fort Blank Amt.	53.33	ug/m3	70-130
		Lab Fort Blk. Found	65.95	ug/m3	
1,2,4-Trichlorobenzene		Lab Fort Blk. % Rec.	123.66	%	70-130
		Lab Fort Blank Amt.	37.10	ug/m3	
1,2,4-Trimethylbenzene		Lab Fort Blk. Found	43.74	ug/m3	70-130
		Lab Fort Blk. % Rec.	117.90	%	
1,3,5-Trimethylbenzene		Lab Fort Blank Amt.	24.58	ug/m3	70-130
		Lab Fort Blk. Found	24.04	ug/m3	
Cyclohexane		Lab Fort Blk. % Rec.	97.81	%	70-130
		Lab Fort Blank Amt.	24.58	ug/m3	
cis-1,2-Dichloroethylene		Lab Fort Blk. Found	23.87	ug/m3	70-130
		Lab Fort Blk. % Rec.	97.12	%	
1,2-Dichloropropane		Lab Fort Blank Amt.	17.21	ug/m3	50-150
		Lab Fort Blk. Found	16.30	ug/m3	
Dichlorodifluoromethane		Lab Fort Blk. % Rec.	94.73	%	70-130
		Lab Fort Blank Amt.	19.82	ug/m3	
Benzyl Chloride		Lab Fort Blk. Found	16.95	ug/m3	70-130
		Lab Fort Blk. % Rec.	85.51	%	
Carbon Disulfide		Lab Fort Blank Amt.	23.10	ug/m3	70-130
		Lab Fort Blk. Found	15.07	ug/m3	
Vinyl Acetate		Lab Fort Blk. % Rec.	65.25	%	70-130
		Lab Fort Blank Amt.	24.72	ug/m3	
2-Hexanone		Lab Fort Blk. Found	27.32	ug/m3	70-130
		Lab Fort Blk. % Rec.	110.50	%	
Bromodichloromethane		Lab Fort Blank Amt.	25.88	ug/m3	70-130
		Lab Fort Blk. Found	28.51	ug/m3	
1,2-Dibromoethane		Lab Fort Blk. % Rec.	110.16	%	70-130
		Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk. Found	14.26	ug/m3	70-130
		Lab Fort Blk. % Rec.	91.64	%	
		Lab Fort Blank Amt.	17.60	ug/m3	70-130
		Lab Fort Blk. Found	18.36	ug/m3	
		Lab Fort Blk. % Rec.	104.30	%	70-130
		Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	19.87	ug/m3	50-150
		Lab Fort Blk. % Rec.	97.01	%	
		Lab Fort Blank Amt.	33.50	ug/m3	70-130
		Lab Fort Blk. Found	32.24	ug/m3	
		Lab Fort Blk. % Rec.	96.24	%	70-130
		Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk. Found	34.64	ug/m3	



**QC SUMMARY REPORT**

SAMPLE QC: Sample Results with Duplicates

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Standard Reference Materials and Duplicates

Method Blanks

Report Date: 3/23/2009

Lims Bat #: LIMIT-23960

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QC Batch Number: BATCH-16276

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93082	1,2-Dibromoethane	Lab Fort Blk. % Rec.	90.16	%	70-130
		Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	15.49	ug/m3	
	n-Heptane	Lab Fort Blk. % Rec.	75.62	%	50-150
		Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	36.12	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Lab Fort Blk. % Rec.	103.34	%	70-130
		Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	14.77	ug/m3	
	Tetrahydrofuran	Lab Fort Blk. % Rec.	100.18	%	50-150
		Lab Fort Blank Amt.	8.60	ug/m3	
		Lab Fort Blk. Found	7.96	ug/m3	
	Propene	Lab Fort Blk. % Rec.	92.54	%	50-150
		Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	12.72	ug/m3	
	1,3-Butadiene	Lab Fort Blk. % Rec.	115.02	%	70-130
		Lab Fort Blank Amt.			



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#### QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

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Report Date: 3/23/2009

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#### NOTES:

QC Batch No. : BATCH-16276

Sample ID : LFBLANK-93081

Analysis : 1,2-Dichloropropane

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.

QC Batch No. : BATCH-16276

Sample ID : LFBLANK-93081

Analysis : Bromoform

LABORATORY FORTIFIED BLANK RECOVERY OUTSIDE OF CONTROL LIMITS. DATA VALIDATION IS NOT AFFECTED SINCE ALL RESULTS ARE "NOT DETECTED" FOR ALL SAMPLES IN THIS BATCH FOR THIS COMPOUND AND BIAS IS ON THE HIGH SIDE.

QC Batch No. : BATCH-16276

Sample ID : LFBLANK-93082

Analysis : 1,2-Dichloropropane

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.

QC Batch No. : BATCH-16276

Sample ID : LFBLANK-93082

Analysis : Bromoform

LABORATORY FORTIFIED BLANK RECOVERY OUTSIDE OF CONTROL LIMITS. DATA VALIDATION IS NOT AFFECTED SINCE ALL RESULTS ARE "NOT DETECTED" FOR ALL SAMPLES IN THIS BATCH FOR THIS COMPOUND AND BIAS IS ON THE HIGH SIDE.

# 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: 3/23/2009

Lims Bat #: LIMIT-23960

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## QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER	This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.
LIMITS	Upper and Lower Control Limits for the QC ANALYSIS Reported. All 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.
Sample Amount	Amount of analyte found in a sample.
Blank	Method Blank that has been taken through all the steps of the analysis.
LFBLANK	Laboratory Fortified Blank (a control sample)
STDADD	Standard Added (a laboratory control sample)
Matrix Spk Amt Added	Amount of analyte spiked into a sample
MS Amt Measured	Amount of analyte found including amount that was spiked
Matrix Spike % Rec.	% Recovery of spiked amount in sample.
Duplicate Value	The result from the Duplicate analysis of the sample.
Duplicate RPD	The Relative Percent Difference between two Duplicate Analyses.
Surrogate Recovery	The % Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.
Sur. Recovery (ELCD)	Surrogate Recovery on the Electrolytic Conductivity Detector.
Sur. Recovery (PID)	Surrogate Recovery on the Photoionization Detector.
Standard Measured	Amount measured for a laboratory control sample
Standard Amt Added	Known value for a laboratory control sample
Standard % Recovery	% recovered for a laboratory control sample with a known value.
Lab Fort Blank Amt	Laboratory Fortified Blank Amount Added
Lab Fort Blk. Found	Laboratory Fortified Blank Amount Found
Lab Fort Blk % Rec	Laboratory Fortified Blank % Recovered
Dup Lab Fort Bl Amt	Duplicate Laboratory Fortified Blank Amount Added
Dup Lab Fort Bl Fnd	Duplicate Laboratory Fortified Blank Amount Found
Dup Lab Fort Bl % Rec	Duplicate Laboratory Fortified Blank % Recovery
Lab Fort Blank Range	Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate).
Lab Fort Bl. Av. Rec.	Laboratory Fortified Blank Average Recovery
Duplicate Sample Amt	Sample Value for Duplicate used with Matrix Spike Duplicate
MSD Amount Added	Matrix Spike Duplicate Amount Added (Spiked)
MSD Amt Measured	Matrix Spike Duplicate Amount Measured
MSD % Recovery	Matrix Spike Duplicate % Recovery
MSD Range	Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries





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**Type:** Package  
**Status:** **Delivered**   
**Delivered On:** 03/14/2009 9:57 A.M.  
**Delivered To:** E LONGMEADOW, MA, US  
**Signed By:** COLLINS  
**Service:** NEXT DAY AIR

Tracking results provided by UPS: 03/16/2009 9:56 A.M. ET

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East Longmeadow, MA  
Phone: 1-413-525-2332  
Fax: 1-413-525-6405

### AIR ONLY RECEIPT CHECKLIST

CLIENT NAME: GZA  
RECEIVED BY: KM DATE: 02/14/09

Was chain of custody relinquished and signed? YES NO  
Does Chain agree with samples? YES NO

If not, explain:

All Samples in good condition? YES NO

If not, explain:

Are there any on hold samples? NO STORED WHERE:

ARE THERE ANY RUSH OR SHORT HOLDING TIME SAMPLES? WHO WAS NOTIFIED? \_\_\_\_\_ DATE \_\_\_\_\_ TIME \_\_\_\_\_

Location where samples are stored:

ALC

Permission to sub-contract samples? Yes No (circle)  
(Walk in clients only) if not already approved  
Client Signature \_\_\_\_\_

CONTAINERS SENT TO CON-TEST	# of containers
Summa cans	<u>3</u>
Tedlar Bags	
Regulators	
Restrictors	<u>3</u>
Tubes	
Other	

Was all media (used & unused) checked into the WASP asset management program?

Were all returned summa cans, restrictors, & regulators documented as returned in the AIR Lab Outbound excel sheet?

Were the Lab ID's documented in the Air Lab Outbound excel sheet?

Was the job documented in the Air Lab Log-In Access Database?

Laboratory comments:





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## CENTEK LABORATORIES, LLC

148 Midler Park Drive • Syracuse, NY 13206  
Phone (315) 431-9730 • Emergency 24/7 (315) 416-2762

### Analytical Report

NYSDOH ELAP  
Certificate No. 11890

Mr. Chris Boron  
GZA GeoEnvironmental of NY  
535 Washington Street  
11th Floor  
Buffalo, NY 14203

Thursday, April 16, 2009  
Order No.: C0904016

TEL: 716-685-2300

FAX: 716-685-3629

RE: Delphi Bldg/D

Dear Mr. Chris Boron:

Centek Laboratories, LLC received 3 sample(s) on 4/13/2009 for the analyses presented in the following report.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness. Release of the data contained in this hardcopy data package and/or in the computer readable data submitted has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Analytical results relate to samples as received at laboratory. We do our best to make our reporting format clear and understandable and hope you are thoroughly satisfied with our services.

Centek Laboratories is distinctively qualified to meet your needs for precise and timely volatile organic compound analysis. We perform all analyses according to EPA, NIOSH or OSHA-approved analytical methods. Centek Laboratories is dedicated to providing quality analyses and exceptional customer service.

Please contact your client service representative at (315) 431-9730, if you would like any additional information regarding this report.

Thank you for using Centek Laboratories. This report can not be reproduced except in its entirety, without prior written authorization.

Sincerely,

Russell J. Pellegrino  
Technical Director





**Centek Laboratories**

**Date:** 05-May-10

---

**CLIENT:** GZA GeoEnvironmental of NY

**Project:** -Delphi Bldg/D

**Lab Order:** C0904016

---

**CASE NARRATIVE**

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All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination. Samples were analyzed using the methods outlined in the following references:

Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999.



**Centek Laboratories, LLC**

Date: 05-May-10

---

**CLIENT:** GZA GeoEnvironmental of NY  
**Project:** Delphi Bldg/D  
**Lab Order:** C0904016

---

**Work Order Sample Summary**

---

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
C0904016-001A	Pre Carbon	418,173	4/9/2009	4/13/2009
C0904016-002A	Mid Carbon	431,277	4/9/2009	4/13/2009
C0904016-003A	Post Carbon	159,451	4/9/2009	4/13/2009

---

Lab Order: C0904016  
Client: GZA GeoEnvironmental of NY  
Project: Delphi Bldg/D

## DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C0904016-001A	Pre Carbon	4/9/2009	Air	1ug/M3 by Method TO15			4/15/2009
				1ug/M3 by Method TO15			4/15/2009
				1ug/M3 by Method TO15			4/15/2009
				1ug/M3 by Method TO15			4/15/2009
C0904016-002A	Mid Carbon			1ug/M3 by Method TO15			4/16/2009
				1ug/M3 by Method TO15			4/15/2009
				1ug/M3 by Method TO15			4/15/2009
C0904016-003A	Post Carbon			1ug/M3 by Method TO15			4/16/2009
				1ug/M3 by Method TO15			4/15/2009
				1ug/M3 by Method TO15			4/15/2009



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY

Client Sample ID: Pre Carbon

Lab Order: C0904016

Tag Number: 418,173

Project: Delphi Bldg/D

Collection Date: 4/9/2009

Lab ID: C0904016-001A

Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Lab's Vacuum Reading	-3			"Hg		Analyst: 4/13/2009
<b>1UG/M3 BY METHOD TO15</b>						
				TO-15		Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,1,2-Trichloroethane	0.54	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,1-Dichloroethene	3.8	1.5		ppbV	10	4/15/2009 12:18:00 AM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,2,4-Trimethylbenzene	0.25	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,3,5-Trimethylbenzene	0.10	0.15	J	ppbV	1	4/15/2009 8:38:00 AM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,4-Dichlorobenzene	0.39	0.15		ppbV	1	4/15/2009 8:38:00 AM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/15/2009 8:38:00 AM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
4-ethyltoluene	0.11	0.15	J	ppbV	1	4/15/2009 8:38:00 AM
Acetone	210	73		ppbV	243	4/15/2009 8:35:00 PM
Allyl chloride	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Benzene	0.86	0.15		ppbV	1	4/15/2009 8:38:00 AM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Bromoform	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Bromomethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Carbon disulfide	0.34	0.15		ppbV	1	4/15/2009 8:38:00 AM
Carbon tetrachloride	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Chloroethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Chloroform	1.3	0.15		ppbV	1	4/15/2009 8:38:00 AM
Chloromethane	0.40	0.15		ppbV	1	4/15/2009 8:38:00 AM
cis-1,2-Dichloroethene	100	36		ppbV	243	4/15/2009 8:35:00 PM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Cyclohexane	7.3	1.5		ppbV	10	4/15/2009 12:18:00 AM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Ethyl acetate	2.5	2.5		ppbV	10	4/15/2009 12:18:00 AM

Qualifiers: \*\* Reporting Limit  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 JN Non-routine analyte. Quantitation estimated.  
 S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
 E Value above quantitation range  
 J Analyte detected at or below quantitation limits  
 ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-001A

Client Sample ID: Pre Carbon  
Tag Number: 418,173  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15			TO-15			Analyst: RJP
Ethylbenzene	0.27	0.15		ppbV	1	4/15/2009 8:38:00 AM
Freon 11	0.26	0.15		ppbV	1	4/15/2009 8:38:00 AM
Freon 113	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Freon 114	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Freon 12	0.46	0.15		ppbV	1	4/15/2009 8:38:00 AM
Heptane	5.8	1.5		ppbV	10	4/15/2009 12:18:00 AM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Hexane	92	36		ppbV	243	4/15/2009 8:35:00 PM
Isopropyl alcohol	21	1.5		ppbV	10	4/15/2009 12:18:00 AM
m&p-Xylene	1.6	0.30		ppbV	1	4/15/2009 8:38:00 AM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 8:38:00 AM
Methyl Ethyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 8:38:00 AM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 8:38:00 AM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Methylene chloride	5.0	1.5		ppbV	10	4/15/2009 12:18:00 AM
o-Xylene	0.41	0.15		ppbV	1	4/15/2009 8:38:00 AM
Propylene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Styrene	0.14	0.15	J	ppbV	1	4/15/2009 8:38:00 AM
Tetrachloroethylene	3200	360		ppbV	2430	4/15/2009 8:01:00 PM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Toluene	68	36		ppbV	243	4/15/2009 8:35:00 PM
trans-1,2-Dichloroethene	8.4	1.5		ppbV	10	4/15/2009 12:18:00 AM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Trichloroethene	97	36		ppbV	243	4/15/2009 8:35:00 PM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/15/2009 8:38:00 AM
Vinyl chloride	0.21	0.15		ppbV	1	4/15/2009 8:38:00 AM
Surr. Bromofluorobenzene	124	70-130		%REC	1	4/15/2009 8:38:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-002A

Client Sample ID: Mid Carbon  
Tag Number: 431,277  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Lab's Vacuum Reading	-3			"Hg		Analyst: 4/13/2009
<b>1UG/M3 BY METHOD TO15</b>			<b>TO-15</b>			Analyst: RJP
1,1,1-Trichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,1,2,2-Tetrachloroethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,1,2-Trichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,1-Dichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,1-Dichloroethene	21	1.5		ppbV	10	4/15/2009 12:51:00 AM
1,2,4-Trichlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,2,4-Trimethylbenzene	0.14	0.15	J	ppbV	1	4/15/2009 7:30:00 AM
1,2-Dibromoethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,2-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,2-Dichloroethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,2-Dichloropropane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,3,5-Trimethylbenzene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,3-butadiene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,3-Dichlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,4-Dichlorobenzene	0.30	0.15		ppbV	1	4/15/2009 7:30:00 AM
1,4-Dioxane	< 0.30	0.30		ppbV	1	4/15/2009 7:30:00 AM
2,2,4-trimethylpentane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
4-ethyltoluene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Acetone	68	27		ppbV	90	4/16/2009 9:17:00 AM
Allyl chloride	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Benzene	0.25	0.15		ppbV	1	4/15/2009 7:30:00 AM
Benzyl chloride	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Bromodichloromethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Bromoform	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Bromomethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Carbon disulfide	0.64	0.15		ppbV	1	4/15/2009 7:30:00 AM
Carbon tetrachloride	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Chlorobenzene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Chloroethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Chloroform	0.11	0.15	J	ppbV	1	4/15/2009 7:30:00 AM
Chloromethane	0.33	0.15		ppbV	1	4/15/2009 7:30:00 AM
cis-1,2-Dichloroethene	1.1	0.15		ppbV	1	4/15/2009 7:30:00 AM
cis-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Cyclohexane	1.5	0.15		ppbV	1	4/15/2009 7:30:00 AM
Dibromochloromethane	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Ethyl acetate	1.7	0.25		ppbV	1	4/15/2009 7:30:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-002A

Client Sample ID: Mid Carbon  
Tag Number: 431,277  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15		TO-15		Analyst: RJP		
Ethylbenzene	0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Freon 11	0.56	0.15		ppbV	1	4/15/2009 7:30:00 AM
Freon 113	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Freon 114	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Freon 12	0.44	0.15		ppbV	1	4/15/2009 7:30:00 AM
Heptane	2.0	0.15		ppbV	1	4/15/2009 7:30:00 AM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Hexane	17	14		ppbV	90	4/16/2009 9:17:00 AM
Isopropyl alcohol	14	1.5		ppbV	10	4/15/2009 12:51:00 AM
m&p-Xylene	0.41	0.30		ppbV	1	4/15/2009 7:30:00 AM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 7:30:00 AM
Methyl Ethyl Ketone	13	3.0		ppbV	10	4/15/2009 12:51:00 AM
Methyl Isobutyl Ketone	0.25	0.30	J	ppbV	1	4/15/2009 7:30:00 AM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Methylene chloride	6.1	1.5		ppbV	10	4/15/2009 12:51:00 AM
o-Xylene	0.12	0.15	J	ppbV	1	4/15/2009 7:30:00 AM
Propylene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Styrene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Tetrachloroethylene	3.7	1.5		ppbV	10	4/15/2009 12:51:00 AM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Toluene	33	14		ppbV	90	4/16/2009 9:17:00 AM
trans-1,2-Dichloroethene	0.38	0.15		ppbV	1	4/15/2009 7:30:00 AM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Trichloroethene	0.25	0.15		ppbV	1	4/15/2009 7:30:00 AM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/15/2009 7:30:00 AM
Vinyl chloride	0.21	0.15		ppbV	1	4/15/2009 7:30:00 AM
Surr. Bromofluorobenzene	89.0	70-130		%REC	1	4/15/2009 7:30:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit





# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-003A

Client Sample ID: Post Carbon  
Tag Number: 159,451  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
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### FIELD PARAMETERS

Lab's Vacuum Reading

-3

### FLD

"Hg

Analyst:

4/13/2009

### 1UG/M3 BY METHOD TO15

### TO-15

Analyst: RJP

1,1,1-Trichloroethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,1,2,2-Tetrachloroethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,1,2-Trichloroethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,1-Dichloroethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,1-Dichloroethene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,2,4-Trichlorobenzene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,2,4-Trimethylbenzene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,2-Dibromoethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,2-Dichlorobenzene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,2-Dichloroethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,2-Dichloropropane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,3,5-Trimethylbenzene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,3-butadiene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,3-Dichlorobenzene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,4-Dichlorobenzene	0.28	0.15	ppbV	1	4/15/2009 8:04:00 AM
1,4-Dioxane	< 0.30	0.30	ppbV	1	4/15/2009 8:04:00 AM
2,2,4-trimethylpentane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
4-ethyltoluene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Acetone	59	27	ppbV	90	4/16/2009 9:50:00 AM
Allyl chloride	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Benzene	0.20	0.15	ppbV	1	4/15/2009 8:04:00 AM
Benzyl chloride	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Bromodichloromethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Bromoform	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Bromomethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Carbon disulfide	0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Carbon tetrachloride	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Chlorobenzene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Chloroethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Chloroform	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Chloromethane	0.43	0.15	ppbV	1	4/15/2009 8:04:00 AM
cis-1,2-Dichloroethene	0.12	0.15	J ppbV	1	4/15/2009 8:04:00 AM
cis-1,3-Dichloropropene	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Cyclohexane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Dibromochloromethane	< 0.15	0.15	ppbV	1	4/15/2009 8:04:00 AM
Ethyl acetate	0.97	0.25	ppbV	1	4/15/2009 8:04:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-003A

Client Sample ID: Post Carbon  
Tag Number: 159,451  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15				TO-15		Analyst: RJP
Ethylbenzene	0.13	0.15	J	ppbV	1	4/15/2009 8:04:00 AM
Freon 11	0.13	0.15	J	ppbV	1	4/15/2009 8:04:00 AM
Freon 113	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Freon 114	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Freon 12	0.50	0.15		ppbV	1	4/15/2009 8:04:00 AM
Heptane	1.3	0.15		ppbV	1	4/15/2009 8:04:00 AM
Hexachloro-1,3-butadiene	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Hexane	20	14		ppbV	90	4/16/2009 9:50:00 AM
Isopropyl alcohol	11	1.5		ppbV	10	4/15/2009 1:24:00 AM
m&p-Xylene	0.29	0.30	J	ppbV	1	4/15/2009 8:04:00 AM
Methyl Butyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 8:04:00 AM
Methyl Ethyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 8:04:00 AM
Methyl Isobutyl Ketone	< 0.30	0.30		ppbV	1	4/15/2009 8:04:00 AM
Methyl tert-butyl ether	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Methylene chloride	15	1.5		ppbV	10	4/15/2009 1:24:00 AM
o-Xylene	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Propylene	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Styrene	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Tetrachloroethylene	0.88	0.15		ppbV	1	4/15/2009 8:04:00 AM
Tetrahydrofuran	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Toluene	23	14		ppbV	90	4/16/2009 9:50:00 AM
trans-1,2-Dichloroethene	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
trans-1,3-Dichloropropene	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Trichloroethene	0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Vinyl acetate	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Vinyl Bromide	< 0.15	0.15		ppbV	1	4/15/2009 8:04:00 AM
Vinyl chloride	0.21	0.15		ppbV	1	4/15/2009 8:04:00 AM
Surr: Bromofluorobenzene	94.0	70-130		%REC	1	4/15/2009 8:04:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-001A

Client Sample ID: Pre Carbon  
Tag Number: 418,173  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15				TO-15		Analyst: RJP
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	4/15/2009 8:38:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/15/2009 8:38:00 AM
1,1,2-Trichloroethane	3.0	0.83		ug/m3	1	4/15/2009 8:38:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	4/15/2009 8:38:00 AM
1,1-Dichloroethene	15	6.0		ug/m3	10	4/15/2009 12:18:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/15/2009 8:38:00 AM
1,2,4-Trimethylbenzene	1.2	0.75		ug/m3	1	4/15/2009 8:38:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/15/2009 8:38:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	4/15/2009 8:38:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	4/15/2009 8:38:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	4/15/2009 8:38:00 AM
1,3,5-Trimethylbenzene	0.50	0.75	J	ug/m3	1	4/15/2009 8:38:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	4/15/2009 8:38:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	4/15/2009 8:38:00 AM
1,4-Dichlorobenzene	2.4	0.92		ug/m3	1	4/15/2009 8:38:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/15/2009 8:38:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	4/15/2009 8:38:00 AM
4-ethyltoluene	0.55	0.75	J	ug/m3	1	4/15/2009 8:38:00 AM
Acetone	500	180		ug/m3	243	4/15/2009 8:35:00 PM
Allyl chloride	< 0.48	0.48		ug/m3	1	4/15/2009 8:38:00 AM
Benzene	2.8	0.49		ug/m3	1	4/15/2009 8:38:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	4/15/2009 8:38:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/15/2009 8:38:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	4/15/2009 8:38:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	4/15/2009 8:38:00 AM
Carbon disulfide	1.1	0.47		ug/m3	1	4/15/2009 8:38:00 AM
Carbon tetrachloride	< 0.96	0.96		ug/m3	1	4/15/2009 8:38:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	4/15/2009 8:38:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	4/15/2009 8:38:00 AM
Chloroform	6.3	0.74		ug/m3	1	4/15/2009 8:38:00 AM
Chloromethane	0.84	0.31		ug/m3	1	4/15/2009 8:38:00 AM
cis-1,2-Dichloroethene	410	150		ug/m3	243	4/15/2009 8:35:00 PM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	4/15/2009 8:38:00 AM
Cyclohexane	26	5.2		ug/m3	10	4/15/2009 12:18:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/15/2009 8:38:00 AM
Ethyl acetate	9.2	9.2		ug/m3	10	4/15/2009 12:18:00 AM
Ethylbenzene	1.2	0.66		ug/m3	1	4/15/2009 8:38:00 AM
Freon 11	1.5	0.86		ug/m3	1	4/15/2009 8:38:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-001A

Client Sample ID: Pre Carbon  
Tag Number: 418,173  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15			TO-15		Analyst: RJP	
Freon 113	< 1.2	1.2		ug/m3	1	4/15/2009 8:38:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	4/15/2009 8:38:00 AM
Freon 12	2.3	0.75		ug/m3	1	4/15/2009 8:38:00 AM
Heptane	24	6.2		ug/m3	10	4/15/2009 12:18:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/15/2009 8:38:00 AM
Hexane	330	130		ug/m3	243	4/15/2009 8:35:00 PM
Isopropyl alcohol	52	3.7		ug/m3	10	4/15/2009 12:18:00 AM
m&p-Xylene	6.9	1.3		ug/m3	1	4/15/2009 8:38:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/15/2009 8:38:00 AM
Methyl Ethyl Ketone	< 0.90	0.90		ug/m3	1	4/15/2009 8:38:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/15/2009 8:38:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	4/15/2009 8:38:00 AM
Methylene chloride	18	5.3		ug/m3	10	4/15/2009 12:18:00 AM
o-Xylene	1.8	0.66		ug/m3	1	4/15/2009 8:38:00 AM
Propylene	< 0.26	0.26		ug/m3	1	4/15/2009 8:38:00 AM
Styrene	0.61	0.65	J	ug/m3	1	4/15/2009 8:38:00 AM
Tetrachloroethylene	22000	2500		ug/m3	2430	4/15/2009 8:01:00 PM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	4/15/2009 8:38:00 AM
Toluene	260	140		ug/m3	243	4/15/2009 8:35:00 PM
trans-1,2-Dichloroethene	34	6.0		ug/m3	10	4/15/2009 12:18:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	4/15/2009 8:38:00 AM
Trichloroethene	530	200		ug/m3	243	4/15/2009 8:35:00 PM
Vinyl acetate	< 0.54	0.54		ug/m3	1	4/15/2009 8:38:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	4/15/2009 8:38:00 AM
Vinyl chloride	0.55	0.39		ug/m3	1	4/15/2009 8:38:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
IN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-002A

Client Sample ID: Mid Carbon  
Tag Number: 431,277  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15			TO-15			Analyst: RJP
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	4/15/2009 7:30:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/15/2009 7:30:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	4/15/2009 7:30:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	4/15/2009 7:30:00 AM
1,1-Dichloroethene	85	6.0		ug/m3	10	4/15/2009 12:51:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/15/2009 7:30:00 AM
1,2,4-Trimethylbenzene	0.70	0.75	J	ug/m3	1	4/15/2009 7:30:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/15/2009 7:30:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	4/15/2009 7:30:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	4/15/2009 7:30:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	4/15/2009 7:30:00 AM
1,3,5-Trimethylbenzene	< 0.75	0.75		ug/m3	1	4/15/2009 7:30:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	4/15/2009 7:30:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	4/15/2009 7:30:00 AM
1,4-Dichlorobenzene	1.8	0.92		ug/m3	1	4/15/2009 7:30:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/15/2009 7:30:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	4/15/2009 7:30:00 AM
4-ethyltoluene	< 0.75	0.75		ug/m3	1	4/15/2009 7:30:00 AM
Acetone	160	65		ug/m3	90	4/16/2009 9:17:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	4/15/2009 7:30:00 AM
Benzene	0.81	0.49		ug/m3	1	4/15/2009 7:30:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	4/15/2009 7:30:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/15/2009 7:30:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	4/15/2009 7:30:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	4/15/2009 7:30:00 AM
Carbon disulfide	2.0	0.47		ug/m3	1	4/15/2009 7:30:00 AM
Carbon tetrachloride	< 0.96	0.96		ug/m3	1	4/15/2009 7:30:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	4/15/2009 7:30:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	4/15/2009 7:30:00 AM
Chloroform	0.55	0.74	J	ug/m3	1	4/15/2009 7:30:00 AM
Chloromethane	0.69	0.31		ug/m3	1	4/15/2009 7:30:00 AM
cis-1,2-Dichloroethene	4.6	0.60		ug/m3	1	4/15/2009 7:30:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	4/15/2009 7:30:00 AM
Cyclohexane	5.3	0.52		ug/m3	1	4/15/2009 7:30:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/15/2009 7:30:00 AM
Ethyl acetate	6.2	0.92		ug/m3	1	4/15/2009 7:30:00 AM
Ethylbenzene	0.66	0.66		ug/m3	1	4/15/2009 7:30:00 AM
Freon 11	3.2	0.86		ug/m3	1	4/15/2009 7:30:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte, Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-002A

Client Sample ID: Mid Carbon  
Tag Number: 431,277  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15				TO-15		Analyst: RJP
Freon 113	< 1.2	1.2		ug/m3	1	4/15/2009 7:30:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	4/15/2009 7:30:00 AM
Freon 12	2.2	0.75		ug/m3	1	4/15/2009 7:30:00 AM
Heptane	8.1	0.62		ug/m3	1	4/15/2009 7:30:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/15/2009 7:30:00 AM
Hexane	61	50		ug/m3	90	4/16/2009 9:17:00 AM
Isopropyl alcohol	35	3.7		ug/m3	10	4/15/2009 12:51:00 AM
m&p-Xylene	1.8	1.3		ug/m3	1	4/15/2009 7:30:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/15/2009 7:30:00 AM
Methyl Ethyl Ketone	40	9.0		ug/m3	10	4/15/2009 12:51:00 AM
Methyl Isobutyl Ketone	1.0	1.2	J	ug/m3	1	4/15/2009 7:30:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	4/15/2009 7:30:00 AM
Methylene chloride	22	5.3		ug/m3	10	4/15/2009 12:51:00 AM
o-Xylene	0.53	0.66	J	ug/m3	1	4/15/2009 7:30:00 AM
Propylene	< 0.26	0.26		ug/m3	1	4/15/2009 7:30:00 AM
Styrene	< 0.65	0.65		ug/m3	1	4/15/2009 7:30:00 AM
Tetrachloroethylene	26	10		ug/m3	10	4/15/2009 12:51:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	4/15/2009 7:30:00 AM
Toluene	130	54		ug/m3	90	4/16/2009 9:17:00 AM
trans-1,2-Dichloroethene	1.5	0.60		ug/m3	1	4/15/2009 7:30:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	4/15/2009 7:30:00 AM
Trichloroethene	1.4	0.82		ug/m3	1	4/15/2009 7:30:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	4/15/2009 7:30:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	4/15/2009 7:30:00 AM
Vinyl chloride	0.55	0.39		ug/m3	1	4/15/2009 7:30:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
IN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY

Client Sample ID: Post Carbon

Lab Order: C0904016

Tag Number: 159,451

Project: Delphi Bldg/D

Collection Date: 4/9/2009

Lab ID: C0904016-003A

Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15			TO-15		Analyst: RJP	
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	4/15/2009 8:04:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	4/15/2009 8:04:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	4/15/2009 8:04:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	4/15/2009 8:04:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	4/15/2009 8:04:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	4/15/2009 8:04:00 AM
1,2,4-Trimethylbenzene	< 0.75	0.75		ug/m3	1	4/15/2009 8:04:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	4/15/2009 8:04:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	4/15/2009 8:04:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	4/15/2009 8:04:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	4/15/2009 8:04:00 AM
1,3,5-Trimethylbenzene	< 0.75	0.75		ug/m3	1	4/15/2009 8:04:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	4/15/2009 8:04:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	4/15/2009 8:04:00 AM
1,4-Dichlorobenzene	1.7	0.92		ug/m3	1	4/15/2009 8:04:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	4/15/2009 8:04:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	4/15/2009 8:04:00 AM
4-ethyltoluene	< 0.75	0.75		ug/m3	1	4/15/2009 8:04:00 AM
Acetone	140	65		ug/m3	90	4/16/2009 9:50:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	4/15/2009 8:04:00 AM
Benzene	0.65	0.49		ug/m3	1	4/15/2009 8:04:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	4/15/2009 8:04:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	4/15/2009 8:04:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	4/15/2009 8:04:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	4/15/2009 8:04:00 AM
Carbon disulfide	0.47	0.47		ug/m3	1	4/15/2009 8:04:00 AM
Carbon tetrachloride	< 0.96	0.96		ug/m3	1	4/15/2009 8:04:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	4/15/2009 8:04:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	4/15/2009 8:04:00 AM
Chloroform	< 0.74	0.74		ug/m3	1	4/15/2009 8:04:00 AM
Chloromethane	0.90	0.31		ug/m3	1	4/15/2009 8:04:00 AM
cis-1,2-Dichloroethene	0.48	0.60	J	ug/m3	1	4/15/2009 8:04:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	4/15/2009 8:04:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	4/15/2009 8:04:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	4/15/2009 8:04:00 AM
Ethyl acetate	3.6	0.92		ug/m3	1	4/15/2009 8:04:00 AM
Ethylbenzene	0.57	0.66	J	ug/m3	1	4/15/2009 8:04:00 AM
Freon 11	0.74	0.86	J	ug/m3	1	4/15/2009 8:04:00 AM

Qualifiers: \*\* Reporting Limit  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 JN Non-routine analyte. Quantitation estimated.  
 S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
 E Value above quantitation range  
 J Analyte detected at or below quantitation limits  
 ND Not Detected at the Reporting Limit



# Centek Laboratories

## Analytical Report

Date: 05-May-10

CLIENT: GZA GeoEnvironmental of NY  
Lab Order: C0904016  
Project: Delphi Bldg/D  
Lab ID: C0904016-003A

Client Sample ID: Post Carbon  
Tag Number: 159,451  
Collection Date: 4/9/2009  
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 BY METHOD TO15			TO-15			Analyst: RJP
Freon 113	< 1.2	1.2		ug/m3	1	4/15/2009 8:04:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	4/15/2009 8:04:00 AM
Freon 12	2.5	0.75		ug/m3	1	4/15/2009 8:04:00 AM
Heptane	5.3	0.62		ug/m3	1	4/15/2009 8:04:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	4/15/2009 8:04:00 AM
Hexane	71	50		ug/m3	90	4/16/2009 9:50:00 AM
Isopropyl alcohol	28	3.7		ug/m3	10	4/15/2009 1:24:00 AM
m&p-Xylene	1.3	1.3	J	ug/m3	1	4/15/2009 8:04:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	4/15/2009 8:04:00 AM
Methyl Ethyl Ketone	< 0.90	0.90		ug/m3	1	4/15/2009 8:04:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	4/15/2009 8:04:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	4/15/2009 8:04:00 AM
Methylene chloride	54	5.3		ug/m3	10	4/15/2009 1:24:00 AM
o-Xylene	< 0.66	0.66		ug/m3	1	4/15/2009 8:04:00 AM
Propylene	< 0.26	0.26		ug/m3	1	4/15/2009 8:04:00 AM
Styrene	< 0.65	0.65		ug/m3	1	4/15/2009 8:04:00 AM
Tetrachloroethylene	6.1	1.0		ug/m3	1	4/15/2009 8:04:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	4/15/2009 8:04:00 AM
Toluene	90	54		ug/m3	90	4/16/2009 9:50:00 AM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	4/15/2009 8:04:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	4/15/2009 8:04:00 AM
Trichloroethene	0.82	0.82		ug/m3	1	4/15/2009 8:04:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	4/15/2009 8:04:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	4/15/2009 8:04:00 AM
Vinyl chloride	0.55	0.39		ug/m3	1	4/15/2009 8:04:00 AM

Qualifiers: \*\* Reporting Limit  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
JN Non-routine analyte. Quantitation estimated.  
S Spike Recovery outside accepted recovery limits

. Results reported are not blank corrected  
E Value above quantitation range  
J Analyte detected at or below quantitation limits  
ND Not Detected at the Reporting Limit





GM LOCKPORT  
 BLDG 10 SVE/SSD  
 SUMMARY OF GC SCREENING RESULTS  
 36795-000

	2/8/2010			
Target Compound	Pre-Carbon (mg/m <sup>3</sup> )	Pre-Carbon DUP (mg/m <sup>3</sup> )	Mid-Carbon (mg/m <sup>3</sup> )	Post-Carbon (mg/m <sup>3</sup> )
Methane	0.013 U	0.013 U	0.013 U	0.013 U
Vinyl chloride	<b>0.504</b>	0.018 U	0.018 U	<b>0.500</b>
1,1-Dichloroethene	0.036 U	0.036 U	0.036 U	0.036 U
Methylene chloride	0.075 U	0.075 U	0.075 U	0.075 U
trans 1,2-Dichloroethene	0.037 U	0.037 U	0.037 U	0.037 U
1,1-Dichloroethane	0.033 U	0.033 U	0.033 U	0.033 U
MTBE	0.014 U	0.014 U	0.014 U	0.014 U
2-Butanone (MEK)	0.016 U	0.016 U	0.016 U	0.016 U
cis 1,2-Dichloroethene	0.047 U	0.047 U	0.047 U	0.047 U
Chloroform	<b>4.69</b>	<b>4.51</b>	0.130 U	0.130 U
1,1,1-Trichloroethane	0.043 U	0.043 U	0.043 U	0.043 U
Benzene	0.009 U	0.009 U	0.009 U	0.009 U
1,2-Dichloropropane	0.027 U	0.027 U	0.027 U	0.027 U
Trichloroethene	<b>0.557</b>	<b>0.564</b>	<b>0.772</b>	0.042 U
Toluene	0.009 U	0.009 U	0.009 U	0.009 U
Tetrachloroethene	<b>48.1</b>	<b>48.3</b>	<b>40.4</b>	<b>8.80</b>
Chlorobenzene	0.012 U	0.012 U	0.012 U	0.012 U
Ethylbenzene	0.008 U	0.008 U	0.008 U	0.008 U
m/p-Xylene	0.009 U	0.009 U	0.009 U	0.009 U
o-Xylene	0.007 U	0.007 U	0.007 U	0.007 U
Unknown TPH	<b>6.00</b>	<b>6.00</b>	0.020 U	0.020 U
Flow Rate (SCFM)	280	280	280	280
Mass Rate (lb/hr)	0.063	0.062	0.043	0.010
Mass Rate (lb/day)	1.51	1.49	1.04	0.23
Removal Efficiency (Pre to Mid)	31.3%			
Removal Efficiency (Pre to Post)	84.5%			

**GAS CHROMATOGRAPHY REPORT SHEET**  
**SCREENING RESULTS**  
**DIRECT INJECT**

Date of Analysis: 17-Mar-10

Client: GM Lockport  
File No: 36795-000

Operator: TJV

Sample Type: BLDG-10 SVE/SSD

0.500

QA/QC: DMC

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
<b>ID: Pre-Carbon</b> <b>Date: 3/16/2010</b> <b>Temp = °F</b> <b>Flow = 280 SCFM</b>	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356	14.050	2.7	1.733	3.47 mg/m <sup>3</sup>	0.71 ppmV	0.00	0.09	5.40	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.045	1.2	0.261	0.52 mg/m <sup>3</sup>	0.10 ppmV	0.00	0.01	0.81	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.162	121.5	27.096	54.19 mg/m <sup>3</sup>	7.99 ppmV	0.06	1.36	84.44	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
						30.0	3.000	6.00 mg/m <sup>3</sup>	1.05 ppmV	0.01	0.15	9.35	
								<b>total volatiles</b>		<b>0.07</b>	<b>1.62</b>	<b>100.00</b>	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
<b>ID: Mid-Carbon</b> <b>Date: 3/16/2010</b> <b>Temp = °F</b> <b>Flow = 280 SCFM</b>	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.089	3.3	0.707	1.41 mg/m <sup>3</sup>	0.26 ppmV	0.00	0.04	3.19	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.200	85.0	18.958	37.92 mg/m <sup>3</sup>	5.59 ppmV	0.04	0.95	85.53	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
						25.0	2.500	5.00 mg/m <sup>3</sup>	0.87 ppmV	0.01	0.13	11.28	
								<b>total volatiles</b>		<b>0.05</b>	<b>1.12</b>	<b>100.00</b>	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Mid-Carbon (DUP) Date: 3/16/2010 Time: Temp = °F Flow = 280 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	18.996	3.2	0.678	1.36 mg/m^3	0.25 ppmV	0.00	0.03	3.38	
	500	108-88-3	toluene	22.496			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.107	73.3	16.346	32.69 mg/m^3	4.82 ppmV	0.03	0.82	81.63	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			30.0	3.000	6.00 mg/m^3	1.05 ppmV	0.01	0.15	14.98	
total volatiles						106		40.0 mg/m^3	6.1 ppmV	0.04	1.01	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Post-Carbon Date: 3/16/2010 Time: Temp = °F Flow = 280 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	108-88-3	toluene	22.496			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m^3	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			25.0	2.500	5.00 mg/m^3	0.87 ppmV	0.01	0.13	100.00	
total volatiles						25		5.0 mg/m^3	0.9 ppmV	0.01	0.13	100.00	

**GAS CHROMATOGRAPHY REPORT SHEET**  
**SCREENING RESULTS**  
**DIRECT INJECT**

Date of Analysis: 28-Apr-10

Client: GM Lockport  
File No: 36795-000  
Sample Type: BLDG-10 SVE/SSD

Operator: TJV

QA/QC: DMC

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Pre-Carbon Date: 4/26/2010 Time: Temp = °F Flow = 280 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356	14.335	5.7	3.694	7.39 mg/m <sup>3</sup>	1.51 ppmV	0.01	0.19	12.57	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.250	1.3	0.278	0.56 mg/m <sup>3</sup>	0.10 ppmV	0.00	0.01	0.95	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.292	109.5	24.407	48.81 mg/m <sup>3</sup>	7.20 ppmV	0.05	1.23	83.08	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			10.0	1.000	2.00 mg/m <sup>3</sup>	0.35 ppmV	0.00	0.05	3.40	
total volatiles						126		58.8 mg/m <sup>3</sup>	9.2 ppmV	0.06	1.48	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Mid-Carbon Date: 4/26/2010 Time: Temp = °F Flow = 280 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.296	1.2	0.263	0.53 mg/m <sup>3</sup>	0.10 ppmV	0.00	0.01	1.32	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.337	81.5	18.172	36.34 mg/m <sup>3</sup>	5.36 ppmV	0.04	0.91	91.15	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			15.0	1.500	3.00 mg/m <sup>3</sup>	0.52 ppmV	0.00	0.08	7.52	
total volatiles						98		39.9 mg/m <sup>3</sup>	6.0 ppmV	0.04	1.00	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Duplicate Date: 4/26/2010 Time: Temp = °F Flow = 280 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	67-66-3	chloroform	14.356	14.368	5.8	3.786	7.57 mg/m <sup>3</sup>	1.55 ppmV	0.01	0.19	12.46	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	79-01-6	trichloroethene	19.316	19.274	1.4	0.298	0.60 mg/m <sup>3</sup>	0.11 ppmV	0.00	0.01	0.98	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	127-18-4	tetrachloroethene	24.419	24.315	104.5	23.296	46.59 mg/m <sup>3</sup>	6.87 ppmV	0.05	1.17	76.68	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	0.00	
	500		Unknown TPH			30.0	3.000	6.00 mg/m <sup>3</sup>	1.05 ppmV	0.01	0.15	9.87	
total volatiles						142		60.8 mg/m <sup>3</sup>	9.6 ppmV	0.06	1.53	100.00	

Sample Identification	Sample Volume (uL)	CASRN	Target Compound	Cal. Ret. Time (min.)	Ret. Time (min.)	Det. Resp. (Area Cts.)	On-Col Mass (ng)	Conc.	Conc.	Mass Rmvd (lb/hr)	Mass Rmvd (lb/day)	%Total Mass Rmvd	REMARKS
ID: Post-Carbon Date: 4/26/2010 Time: Temp = °F Flow = 280 SCFM	500	74-82-8	methane	2.350			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-01-4	vinyl chloride	3.680			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-35-4	1,1-dichloroethene	8.076			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-09-2	methylene chloride	8.364			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	156-60-5	trans 1,2-dichloroethene	10.970			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	75-34-3	1,1-dichloroethane	11.526			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	1634-04-4	MTBE	11.707			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	78-93-3	2-butanone (MEK)	12.537			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	156-59-2	cis 1,2-dichloroethene	13.669			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	67-66-3	chloroform	14.356			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	71-55-6	1,1,1-trichloroethane	16.454			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	71-43-2	benzene	17.343			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	78-87-5	1,2-dichloropropane	18.875			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	79-01-6	trichloroethene	19.316			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	108-88-3	toluene	22.496			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	127-18-4	tetrachloroethene	24.419			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	108-90-7	chlorobenzene	25.574			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	100-41-4	ethylbenzene	26.243			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	108-38-3/106-42-3	m/p-xylene	26.535			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500	95-47-6	o-xylene	27.385			0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
	500		Unknown TPH				0.000	ND mg/m <sup>3</sup>	ND ppmV	0.00	0.00	#DIV/0!	
total volatiles						0		0.0 mg/m <sup>3</sup>	0.0 ppmV	0.00	0.00	#DIV/0!	