

**SUBSURFACE INVESTIGATION  
AND  
TETRACHLOROETHENE DELINEATION**

**Industrial Property  
100 Ridge Road  
Lackawanna, New York**

Spill # 1103969

Prepared For:  
**Lackawanna Community Development Corporation**

Prepared By:  
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November 17, 2011

## 1.0 INTRODUCTION

In accordance with an agreement between the Lackawanna Community Development Corporation (hereinafter "Client") and Hazard Evaluations, Inc. (HEI), signed September 27, 2011, a Subsurface Investigation and Tetrachloroethene Delineation of the above-referenced (subject) site was conducted. This investigation was conducted in general conformance with a Subsurface Investigation and Tetrachloroethene Delineation Work Plan, dated September 12, 2011, that was submitted to the NYSDEC for review and comment. Both the Investigation/Delineation and this related report were completed on behalf of, and for the use of, the Client for its reliance in the environmental assessment of the subject site. Use of this report by any other party is strictly prohibited, except by authorization in writing from the Client.

The purpose of this project was to better delineate site conditions related to halogenated hydrocarbon contamination as previously identified during HEI's earlier Focused Phase II and Follow-up Activities site assessments. Data related to a former gasoline service station that was located in the southwestern corner of the subject site are not addressed in this subsurface investigation, as that agency spill file remained closed after NYSDEC review of the Phase II ESA data. Therefore, based on the prior investigative work completed, HEI determined that the conditions of environmental concern focused on Tetrachloroethene (PCE) contamination detected in both the site soil profile in the western/northern portions of the site and one temporary groundwater well in the eastern portion of the site. This investigation addressed: 1) vertical and lateral PCE levels in the soil profile where previously detected on-site; 2) possible PCE-contaminated groundwater on-site related to the likely source area (the former dry cleaner); and 3) potential soil vapor issues within the facility.

## 2.0 BACKGROUND

### 2.1 Site Description and Features

The subject site consists of four contiguous parcels which comprise a combined total of approximately 2.6 acres of land located at 100 Ridge Road in the City of Lackawanna, Erie County, New York. These parcels are located on the northern side of Ridge Road, northeast of the intersection of Ridge Road and Gates Avenue. The subject site is identified with SBL #s 141.07-3-27, 141.07-2-53, 141.07-3-4.111 and 141.07-4-5.1 and is currently owned by Lackawanna Community Development Corp. (LCDC). This site is currently occupied by a building approximately 24,000 square feet in size which is centrally located. A small wood-framed shed is located along the back (north side) of this building which recently was used for storing metal shavings in 55-gallon drums. Paved asphalt parking areas exist on both the north and west sides of the building. The remainder of the site generally consists of lawn and landscaped areas. The subject site has been vacant since early 2011. The area surrounding the subjects site is primarily a commercial and industrial area of the City of Lackawanna with residential areas located to the east.

## **2.2 Site History**

A summary of most probable site history indicates that the subject site is located in a former residential/commercial area of the City of Lackawanna and remained undeveloped through the early 1900s. It should be noted that while no structural development appears to have occurred prior to this period, sources suggest that industrial fill materials originating from the former nearby Bethlehem Steel plant may have been deposited on and around the subject site area during the late 1800s and early 1900s (past excavation on-site has revealed the presence of dark slag-like fill material beneath the ground surface). Historical fire insurance maps covering the subject site indicated that from as early as 1927 through 1950 the "Croatia R.C. Church of Our Lady of the Sacred Heart of Jesus" was centrally located on-site. During this time, a paved roadway (Croatia St.) traversed the subject site just east of the church and intersected with Ridge Road. By 1950, two additional small commercial buildings were located on the eastern portion of the subject site; one on the east side of Croatia St. identified as a store and the other located at the eastern end of the site identified as a filling station. The building associated with the filling station was apparently converted into a take-out restaurant in the 1960s and was eventually demolished and removed. The store was removed from the subject site sometime prior to 1966. Baitman Cleaners & Dryers formerly occupied the southwestern corner of the subject site from at least 1960 through at least 1972. This structure was apparently removed from the property during the late 1970s or early 1980s. The existing building on the subject site was constructed by LCDC in 1987, and was used as a lumber warehouse for a few years prior to being leased by PCBMSI (formerly Now Tech Industries) in the early 1990s. An abandoned tank, apparently associated with the former gasoline station, was discovered on-site during the construction of the existing building. Remedial work was undertaken within that southeastern corner of the site in accordance with NYSDEC guidance.

## **3.0 HYDROGEOLOGIC CONDITIONS**

### **3.1 Topography and Surface Water Drainage**

The USGS 7.5 minute Topographic Quadrangle Map of Buffalo, SE, New York<sup>2</sup> indicates that the subject site's ground surface is generally level. The nearest natural body of water is Lake Erie which is located approximately one mile west of the subject site. During the site walkover, no surface water bodies were observed. The surface elevation for the subject site is approximately 586 feet above mean sea level. According to the appropriate flood insurance map, the subject site is not located within a 100-year flood zone

### **3.2 Soil Conditions**

According to the USDA Natural Resources Conservation Service, there are two different soils existing beneath the subject site classified as Udorthents, smoothed and Urban land-Lima complex. Udorthents, smoothed soils formed in deep manmade cuts or fills found typically in areas near industrial sites, urban developments or construction sites. These soils consist of various kinds of excavated earthy material that has been stockpiled for use as fill or topdressing, soil and rock material that has

been trucked from other areas and leveled or soil deposits that are left in areas that have been excavated or deeply scalped. Urban land-Lima complex consists of nearly level to gently sloping areas of Urban land and moderately well drained Lima soils. The Lima soils formed in glacial till deposits.

### **3.3 Site Geology**

The soils in the area of the subject site were deposited by extensive glaciation forming a glacial till deposit underlain by shale bedrock. The bedrock in the area of the subject site, the Skaneateles Formation (Levanna Shale Member), is generally five feet or more below ground surface and consists of dark-gray calcareous shale. Bedrock outcrops were not observed on the subject site.

### **3.4 Regional Groundwater Conditions**

Based on a review of the site topographic conditions as depicted on the USGS 7.5 minute Topographic Quadrangle Map of Buffalo, SE, New York, it appears that groundwater within the vicinity of the subject site flows in a westerly direction toward Lake Erie. HEI has assumed that the groundwater table typically conforms to surface and bedrock topography. Considering that the entire area surrounding the subject site was historically used for the disposal of slag by Bethlehem Steel, as well as the current characteristics of this area of the City of Lackawanna, the application of Class GA groundwater standards to the quality of the naturally-occurring groundwater may require further consideration.

## **4.0 PRIOR SITE INVESTIGATION RECORDS**

### **4.1 2004 Phase I ESA**

HEI reviewed a copy of a Phase I Environmental Site Assessment Report performed on the subject site by GZA GeoEnvironmental of New York, dated September 2004. According to this report, the subject site was historically used as a dry cleaning facility, gasoline station, apartments, barber shop, church and restaurants. The report indicates that three Recognized Environmental Conditions (RECs) were identified at the subject site based on the Phase I study, including potential impacts associated with prior use of the site as a dry cleaners, possible residual contamination from five former on-site USTs (discovered during construction of the existing building in 1987) and potential migration of contaminants from USTs on eastern adjacent property. The report states that further investigation, including sampling of subsurface soil and groundwater, would be necessary in order to determine possible impacts from the identified RECs.

### **4.2 2011 Phase I ESA**

HEI performed a Phase I Environmental Site Assessment of the subject site, dated May 2011. This assessment identified recognized environmental conditions at the subject site potentially associated with halogenated hydrocarbons, including:

- According to historical sources, the eastern portion of the site was used as a filling station during the mid-1900s. This facility apparently incorporated a small maintenance/service garage and had a fueling system that included eight USTs.

The maintenance/service operations conducted at the former filling station were assumed to have included use, storage and handling of various regulated substances. No information could be located regarding the types of equipment that existed within the garage; however, similar facilities operating during that time period often utilized in-floor hydraulic lifts and small USTs for the storage of waste oil.

- Historical sources indicate that the westernmost portion of the site was occupied by a dry cleaning business (Baitman Cleaners) from the early 1950s until at least 1972. Operations associated with this facility are expected to have included routine use, storage and handling of chlorinated solvents and other dry cleaning chemicals. In that regard, concern exists with respect to possible past release(s) of these substances related to their use, storage and/or disposal. Of the three spills were reported at the Concrete Delivery Co. Inc. facility located northeast adjacent to the subject site, one tank-related spill occurred during the removal of gasoline and diesel fuel USTs from the property in 1996. Sampling/analysis performed following the UST closure apparently showed some minor exceedances of NYSDEC clean-up standards (STARS) in the groundwater; however, the NYSDEC concluded that no further testing or remedial work was required. Due to its direction and close proximity to the subject site, there appears to be a limited potential for the migration of contaminants onto the subject site from this adjacent site.

HEI recommended that a Phase II Environmental Site Assessment be completed on the subject site to determine if any impact exists from these current and/or historical conditions identified.

#### **4.3 2011 Phase II FESA**

HEI completed a Focused Phase II ESA of the subject site, dated June 22, 2011. Ten push borings were installed on the subject site throughout various locations within areas of concern. Additionally, two manual samples were taken using a hand auger. Based on the results of that focused investigation, past gasoline sales and service station operations were determined to have impacted the on-site soil profile within the southeastern corner of the subject site, with borings yielding analytical results substantially exceeding the UUSCOs for Ethylbenzene and Xylenes, both constituents of gasoline. In addition, past dry cleaning operations were determined to have impacted the on-site soil profile, with one boring along the western property line yielding analytical results substantially exceeding the UUSCO and CUSCO for Tetrachloroethene, commonly known as PCE or dry cleaning fluid. In addition, this contaminant was also detected in other subsurface samples from the northern portion of the facility some distance away from the former dry cleaning establishment at levels below the UUSCO.

#### **4.4 2011 Phase II FESAFU**

HEI completed a Focused Phase II ESA Follow Up of the subject site, dated August 9, 2011. Fourteen push borings were installed on the subject site throughout various locations within areas of concern. Additionally, one 1" diameter temporary

PVC piezometer was installed to allow for the collection of a shallow groundwater sample. Based on the results of that focused investigation, additional evidence was obtained which indicated that past gasoline sales and dry cleaning operations impacted the on-site soil profile to a limited extent. In addition, evidence was obtained which indicated that groundwater quality in the vicinity of the former gasoline station has also been impacted. Of significance, during that investigation, eight subsurface soil samples were analyzed for TCL VOCs, with none exhibiting levels of any contaminants that exceeded NYSDEC Residential Use Soil Clean-up Objectives. Also, with respect to on-site groundwater, an adequate well was installed in the southeastern portion of the site from which a sample yielded BETX and PCE at levels above Class GA groundwater standards, with Toluene, Benzene and Tetrachloroethene being just slightly above the applicable standards.

## **5.0 Subsurface Soil Sampling/Analysis**

### **5.1 Soil Boring Installation and Soil Sampling/Analysis**

For this subsurface investigation, the soil boring installation and soil/fill sampling was performed by HEI over a five-day period beginning September 30, 2011 and ending on October 6, 2011. A direct-push boring rig was mobilized to the subject site to install soil borings in an effort to determine the extent of the PCE soil contamination identified during the recent site assessments. At boring locations inside the building, a diamond-bit coring machine was initially utilized to remove a 3" diameter core from the concrete floor prior to using the direct push boring rig to install the boring. A total of 30 push borings were installed on the subject site within the various areas of concern. The boring locations were selected by HEI based on information obtained during the previous site assessments. The approximate boring/sampling locations are depicted on Figure 2 (Attachment 1). Boring logs are presented in Attachment 2.

At each boring location, hollow stem sampling probes were used to obtain discrete soil samples at approximately four foot depth intervals to the bottom of each boring, unless refusal conditions were encountered. Upon collection, as soil/fill samples were withdrawn from the acetate sampling sleeves, a small portion of each sample was placed into a re-sealable plastic bag for headspace screening for the presence of volatile organic compounds (VOCs) using a pre-calibrated portable PID selected for halogenated hydrocarbon scanning (See Attachment 3 for Field Notes). The remaining portion of each sample was then immediately placed into an appropriate sample container and placed in a cooler. In general, the discrete soil sample from a specific sampling location (i.e., probe hole) which registered the highest positive OVM reading or most apparent evidence of contamination (i.e., odor, residues, discoloration, etc.) was selected for laboratory analysis. However, at certain boring locations, it was deemed necessary to submit all or most of the samples collected from the entire profile of the boring to provide a vertical representation of contaminant concentrations. These locations were field determined based on observations made during the investigation. A total of 30 soil/fill samples were preserved by cooling in the

field, and handled under chain-of-custody procedures until receipt by a NYSDEC-approved analytical laboratory where they were subsequently analyzed for halogenated hydrocarbons using USEPA Method 8260.

The soil/fill encountered at each sampling location was visually described from the discrete samples obtained. In general, the soils across the site consisted of medium brown to light brown sandy soils to a depth of approximately 4'-6' underlain by light brown sandy claylike soil and sandy clay on the majority of the property. Soils within areas of the northern portion of the property consist primarily of medium brown sandy soil to a depth of approximately 1'-2' overlying light tan and dark green granular fill to a depth of approximately 8' underlain by light to medium brown clay (BH26 – BH30). Weak to significant petroleum odors were identified within BH4, BH24 and BH25. Samples BH4, BH5, BH6, BH9, BH13, BH15, BH16, BH17, BH19, BH20, BH21, BH24 and BH25 all exhibited PID readings higher than 1.0 ppm, with the highest being 751ppm within BH4 (4-8') and 597ppm within BH16 (0-4'). No additional soil/fill samples collected from any of the borings registered PID readings higher than 1.0 ppm (considered background). Moist to wet soils were observed within nearly all of the borings, with groundwater being encountered at an approximate depth of 5' bg.

Sampling equipment was initially decontaminated using an Alconox/water wash and water rinse. Subsequently, decontamination included removing any bulk material (soil/debris) from the sampling tubes, washing with an Alconox/tap water solution to remove mud and contaminants and performing a double rinse with deionized water. HEI collected one equipment blank by running deionized water over the surface of the decontaminated Geoprobe sampling tube and then analyzing the water for halogenated hydrocarbon parameters. HEI also prepared a trip blank at its office, transported it to the job site during all field activities, and then had it analyzed for halogenated hydrocarbon parameters. All samples collected and containerized were placed in a cooler to provide the greatest sample integrity prior to sample selection for analysis. The QA/QC for the soil/fill and groundwater sampling included the laboratory report with the Method QA/QC regularly internally performed.

Bulk material (soil/debris) removed from the sampling tubes was placed in a 55-gallon drum for off-site disposal at the end of the project. Wash water and rinse water were also contained in a separate 55-gallon drum for off-site disposal at the end of the project. After all discrete samples for each boring had been collected, the borings were backfilled with Bentonite, Subsequently, where applicable, all asphalt surfaces were patched, and all concrete cores were re-installed in the floor and then the remaining cracks were patched.

## **5.2 Well Installation & Groundwater Sampling/Analysis**

In four (4) of the boring locations outside the building, permanent groundwater monitoring wells were installed. The wells consisted of two-inch diameter PVC screen (0.030 Slotted) and solid PVC riser. Appropriately sized sand filter pack was placed around the well screen to a depth approximately one foot above the top of the screen and Bentonite was used to fill the remainder of the boring annulus to six inches below the ground surface. The well heads were capped below the ground surface and

covered with roadboxes to protect the integrity of the wells. Well construction details are presented in Attachment 2. An optical level was utilized to measure relative elevations of each wellhead for the purpose of calculating the approximate groundwater surface elevations (Attachment 3).

After a period exceeding 72 hours, the static groundwater elevation was measured in each well using a pre-cleaned water level indicator. Each well was subsequently developed by purging with a new polyethylene bailer until reduced turbidity was observed; however, a minimum of three well volumes was purged from each well. All purged groundwater was placed in 55-gallon drums and managed for disposal off-site at the end of the project. Well development notes are presented in Attachment 3.

Representative groundwater samples (unfiltered) were collected from each of the four monitoring wells using new polyethylene bailers. The four groundwater samples (MW1, MW2, MW3 and MW4) were placed in sample bottles provided by the analytical laboratory which were labeled, preserved by cooling in the field, and handled under chain-of-custody procedures until receipt by a NYSDEC-approved analytical laboratory where they were subsequently analyzed for halogenated hydrocarbons using USEPA Method 8260.

### **5.3 Sub-Slab Vapor & Indoor Air Sampling/Analysis**

On September 9, 2011, four sub-slab vapor samples and four indoor air samples were collected from inside the building at the above-referenced site. For each of the sub-slab vapor samples, a core drill was initially used to remove a 3" diameter core from the concrete slab-on-grade floor of the building. A decontaminated stainless steel auger was then used to install a two-inch diameter boring into the sub-slab soil/fill profile. These borings were extended to a depth of approximately four inches below the bottom of the concrete slab. Sub-slab vapor probes were constructed utilizing 1/8 inch outside diameter (O.D.) polyethylene tubing. The tubing inlets were placed at approximately two inches below the bottom of the concrete slab, and the tubing was then extended up through the center of each corehole to approximately three feet above the floor surface. Within each boring, the space surrounding the tubing was backfilled with clean, glass beads to a depth approximately three inches below the slab surface. The remaining space (except for the top 1" of the corehole) was then backfilled with sculpy modeling clay. The above-floor end of the tubing was fitted with an air-tight valve to allow direct connection to the sampling device. Finally, the sub-slab vapor probe was left undisturbed for approximately 1/2 hour after installation.

Each sample probe was purged just prior to sampling using a new plastic 20 cc syringe. A total of three probe volumes (calculated based on the length of the tubing) were purged at a rate of less than 200 milliliters (ml) per minute. A flow regulator (preset for a one-hour draw at a rate of 16 ml per minute) and a negative pressure summa canister (certified clean by the analytical laboratory) were connected to the above-floor end of the tubing and the canister valve was opened to initiate sample collection. Once the entire volume of sample (one liter) was collected, the valve on



the summa canister was closed and the flow regulator and tubing were disconnected. Vacuum/air pressure readings were taken both at the onset and at the end of the sampling, and were recorded on a field sheet (Attachment 3).

One indoor air sample was collected concurrently with each sub-slab vapor sample using a separate flow regulator (collection time; one hour at 16 ml per minute) and a lab-certified clean summa canister. These samples were collected from the same general locations as the sub-slab vapor samples, but at a height of approximately four feet above the floor surface. Pre and post sampling vacuum/air pressure readings were also taken and recorded on a field sheet for these samples. The sample canisters were capped immediately after sampling and labeled for proper identification. All samples were handled under chain-of-custody procedures until their receipt by the analytical laboratory where they were analyzed for VOCs using USEPA Method TO-15.

## 6.0 DISCUSSION OF RESULTS

### 6.1 Soil/Fill Results

The analytical results indicate that five different halogenated organic compounds were detected in the soil/fill samples collected across the subject site (Table 1; Attachment 4), including Vinyl chloride, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Trichloroethene, and Tetrachloroethene. Based on the suspect source for this contamination being the historical dry cleaner that was on-site, it has been assumed by HEI that Tetrachloroethene is the parent compound, and all others represent daughter compounds that have resulted from chemical degradation within the soil profile over time. At least one halogenated organic compound was detected in each of the 30 soil/fill samples analyzed. However, only seven soil/fill samples from six separate borings contained any halogenated organic compounds at levels that exceeded the applicable NYSDEC Soil Cleanup Objectives for Unrestricted Use Sites (UUSCOs) as presented in 6 NYCRR Subpart 375-6. All of the halogenated organic compounds levels detected were at least one order of magnitude below the applicable Soil Cleanup Objectives for Commercial Use Sites (CUSCOs). In addition, all halogenated organic compounds levels detected that exceeded the applicable UUSCOs during this investigation were located within the western portion of the subject site within the undeveloped area.

Based on the analytical results obtained for the halogenated organic compounds detected in the soil/fill samples collected across the subject site, the vertical distribution within the soil profile is as follows: 1) detected levels below the 8' bg depth (Table 1) were below the UUSCOs in samples BH16, BH20, BH21, BH23, BH25, WH1 and WH2, with the exception of BH15 (8'-12') and BH19 (8'-12'), both of which exceeded for Tetrachloroethene; 2) within the 4'-8' depth interval, samples from BH1, BH3, BH4, BH11, BH15, BH17, BH19, BH20, BH21, BH23 and BH25, were below the UUSCOs, while BH13 exceeded for cis-1,2-Dichloroethene; and 3) within the 0'-4' depth interval, the sample from BH27 was below the UUSCOs, while BH15

(Trichloroethene), BH16 (cis-1,2-Dichloroethene, Trichloroethene and Tetrachloroethene), WH1 (Tetrachloroethene), and WH2 (Trichloroethene and Tetrachloroethene) exceeded the UUSCOs.

## **6.2 Groundwater Results**

There were halogenated organic compounds detected in three of the four groundwater wells sampled and analyzed, with the exception being MW3 located north of the building, which did not exhibit any contaminant detections. MW4, located within the former filling station in the southeast corner of the subject site, exhibited a level of 1,2-Dichloroethane which slightly exceeded the Class GA groundwater Standard. However, based upon the soil and groundwater sample results from this investigation, HEI suspects this contamination may be related to the historical automotive repair operations performed in that area of the subject site. The groundwater samples collected from MW1 and MW2 located along the western property boundary in the vicinity of the historical dry cleaner exhibited elevated halogenated organic compounds levels.

Water level readings taken at the subject site indicate that the depth to the water table is approximately five feet below grade. Monitoring well MW4 (WH4) represents the upgradient well within this specific well field. An approximate gradient of slightly greater than one foot was detected across the well field, with the flow direction for the shallow groundwater being to the north-northwest.

## **6.3 Sub-Slab Vapor & Indoor Air Results**

The analytical results from the subslab and indoor air monitoring indicate that a variety of volatile organic compounds (VOCs) were detected above laboratory reporting limits in all of the sub-slab and indoor air samples (Table 4). In evaluating the levels detected, it must be first understood that there is no clear-cut approach to determining what the results mean specifically. For the entire list of parameters that are analyzed in the USEPA's T0-15 scan, the NYSDOH has either set air guidance values for only three parameters or has prepared a decision matrix for only six separate parameters (three parameters are on both lists). Other guidance is obtained from NYSDOH residential and USEPA commercial exposure case studies where indoor air contaminant levels have been recorded. However, for commercial settings, consideration must also be given to using OSHA's Limits for Air Contaminants as part of the evaluation process.

Conceptually, if an air contaminant is detected in indoor air but not beneath the concrete floor slab, then the contaminant has an interior source. Also, it is most common that a parameter's air concentration will be substantially higher beneath the concrete floor slab than in the indoor air if vapor intrusion is taking place (a ratio of 100 is considered a strong indicator of vapor intrusion potential). Generally, it has been assumed by others that the 90<sup>th</sup> percentile of indoor air levels as identified by NYSDOH and USEPA case studies (Table 1) represent indoor air background levels.

In evaluating the subject site, virtually all parameters detected in the indoor air samples are at lower levels than considered background using either the NYSDOH or the USEPA guidance values. Three exceptions are noted: 1) Tetrachloroethene and Trichloroethene in all four indoor air samples; and 2) Carbon tetrachloride in indoor air samples IA 1 and IA2. However, if the OSHA air contaminant limits for work place exposure are applied, Methyl ethyl ketone, Carbon tetrachloride, Toluene, Tetrachloroethene and Trichloroethene all exceed these limits in at least two of the indoor air samples. For two of these air contaminants (Methyl ethyl ketone and Carbon tetrachloride), it should be noted that the subslab level was either not detected or was detected at nearly the same concentration as in the indoor air samples in all four sampling locations. These conditions indicate a strong potential for an interior, above-slab source.

With respect to evaluating the remaining three parameters (Toluene, Tetrachloroethene and Trichloroethene), as noted above, a ratio of 100 between the subslab results and indoor air results is considered a strong indicator of vapor intrusion potential. Only location BH2 presented ratios exceeding 100 (Tetrachloroethene = 620; Trichloroethene = 147), while all other ratios were below 33, and many being single digit. It should be noted that even at these highest levels being detected (at BH2), neither exceeded the NYSDOH-defined Air Guidance Value. It is also noteworthy that this BH2 location is the closest interior sampling location to the historical dry cleaner location. If the NYSDOH matrix evaluation procedure is applied to this set of data for BH2, the results indicate that a mitigation system is required to properly manage both compounds in the indoor air at the subject site.

## 7.0 CONCLUSIONS

In evaluating the lateral distribution of halogenated organic compounds, including the analytical results and the VOCs headspace screening results from this investigation (See Attachments 2 and 3), it appears that no significant impact has been detected along the southern property boundary from BH17 to BH24 and BH25. The elevated PID readings recorded for BH24 and BH25 appear to be associated with petroleum odors noted in these borings, and detected in the recent Phase II ESA and Follow-up investigations. Similarly, the area of the subject site north of the existing building that is represented by BH10-BH12, BH18 and BH26-BH30 presents similar, non-impacted subsurface conditions. Inside the building, with the exception of BH4 (located within the historical filling station limits), the PID readings and related analytical results were low. Soil/fill analytical results support the elevated PID readings for BH4 as being related to petroleum contamination. However, the subslab air analytical results for BH2 indicated very high levels of Tetrachloroethene and moderate levels of Trichloroethene (low levels of these two compounds were detected in the other three subslab air samples). Of significance, it should be noted that BH20, located approximately 25 feet to the west of this corner of the building, yielded results indicating minimal impact. Within the western portion of the site, the borings immediately along the western property boundary do not exhibit high PID readings, with only BH5 (0'-4') and BH6 (8'-12') providing readings that would be suspect of

yielding analytical results above UUSCOs. For boring locations more interior on-site relative to the historical location of the dry cleaner, the levels of halogenated organic compounds increase substantially, with the highest levels encountered in BH 15 and BH16. Halogenated organic compounds levels encountered in BH13, BH14 (through PID readings), BH19, WH1 and WH2 exceed (or likely exceed) applicable UUSCOs, but only to a very limited extent.

In evaluating the vertical distribution of halogenated organic compounds, it appears that a shallow impact is noted from the southeast corner of the subject site north to near the access driveway and east to the asphalt parking area, which is generally throughout the area of concern noted above. HEI suspects this may be the result of the grading of this portion of the site following the demolition of the dry cleaner and the development of the site for its current use. The area of deeper impact centers around BH15 and BH16, which are both located along the northeastern side of the historical dry cleaner. This deeper impact is also noted in BH13 and BH19 to the north and east, but at levels exceeding the UUSCOs to a very limited extent.

With respect to groundwater quality, the two monitoring wells located in the eastern portion of the subject site (MW3 and MW4) do not appear to be impacted by the historical dry cleaner. Monitoring well MW1 (WH1), which is located a short distance to the west of the area of greatest impact, exhibits the highest levels of contamination by halogenated organic compounds. Such results would be anticipated considering the close proximity to the suspect source. MW2 (WH2) also exhibits considerable levels of contamination by halogenated organic compounds, which would also be anticipated considering its location almost directly downgradient from the suspect source. A primary physical characteristic of the specific halogenated hydrocarbons detected on-site is that their specific gravity is heavier than water, which tends to make them 'sink' within the groundwater as they migrate from the source. This characteristic, when considered with the vertical distribution of the contaminants with the area of greatest impact and the flow direction of the on-site groundwater, provides insight into the extents of the two areas of impact detected on the subject site.

Using NYSDOH evaluation procedures for vapor intrusion related to the specific halogenated organic compounds detected on the subject site, the need for the design and installation of a mitigation system, such as a subslab depressurization operation, appears clear based on guidance available from that agency.

## **8.0 SUMMARY**

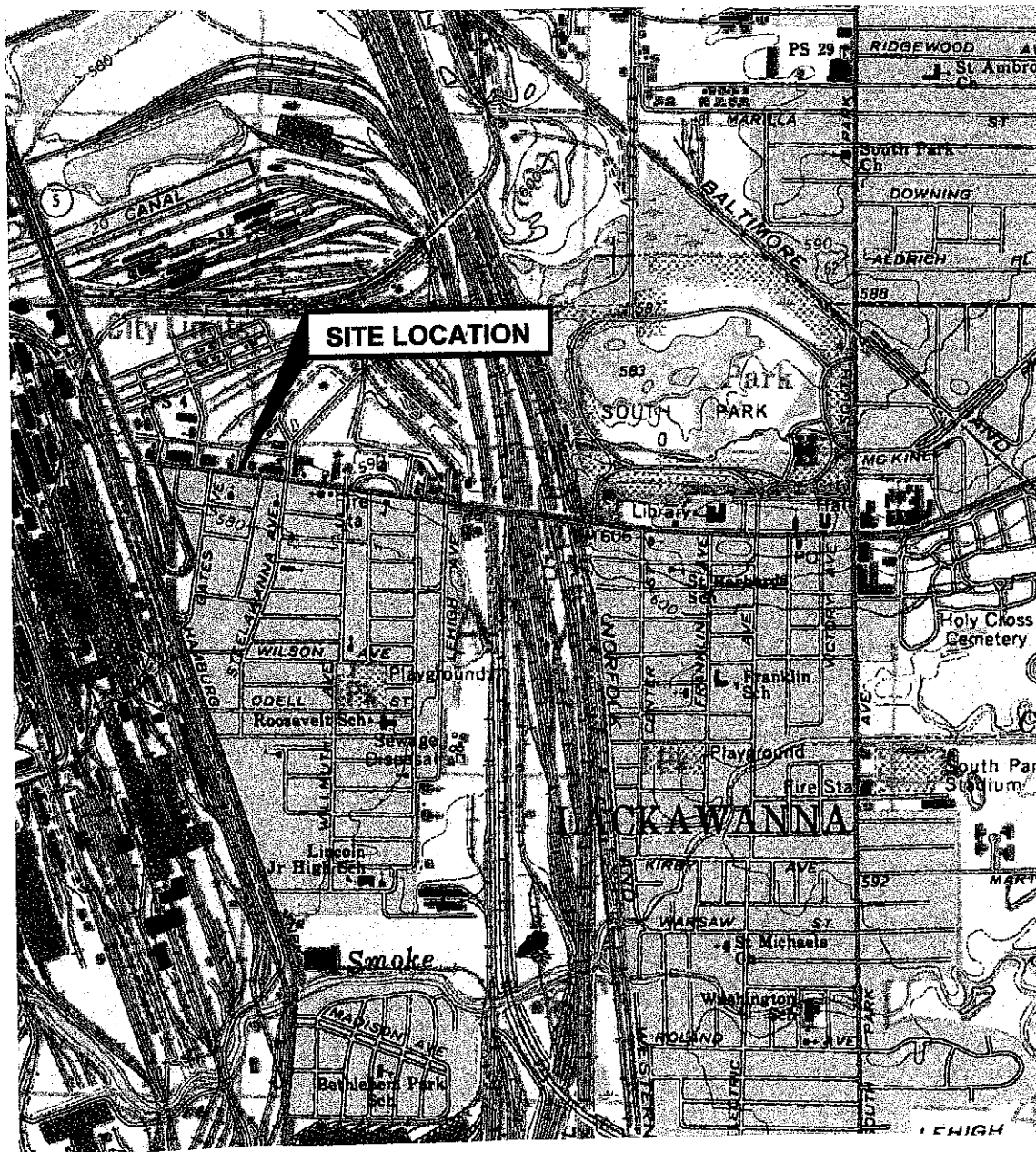
In summary, this focused investigation has determined that past dry cleaning operations have impacted the on-site soil profile to a significant extent within the western portion of the site. Within and immediately east of the approximate bounds of the former dry cleaner facility historically located in the southwestern corner of the subject site, elevated levels of Tetrachloroethene and several daughter compounds have been detected within the soil profile both near the surface and to depth (in a limited area) and in the shallow groundwater. Contaminant migration toward the

north-northwest mimics the direction of flow of the shallow groundwater across the subject site. Impacts to subslab air and the indoor air of the existing building were detected, especially in the southwest corner, which is nearest the suspect source of the contamination.

Given the existing data and information regarding conditions of environmental concern at the subject site, HEI suggests that the 100 Ridge Road, Lackawanna site is an excellent candidate for the New York State Brownfield Cleanup Program. Remediation will be necessary to protect human health and to reduce the impacts of the existing contamination from further impacting the environment. The planned reuse of the site for commercial and industrial purposes will help direct the extent of remediation at this site. Remedial options may include the excavation and removal of the most highly contaminated soil for off-site disposal as source control. The implementation of a control system for vapor intrusion into the building interior warrants consideration before re-occupation. The development and implementation of a Site Management Plan may also be necessary to prevent human exposure and provide proper materials management procedures in the event of future site disturbance.

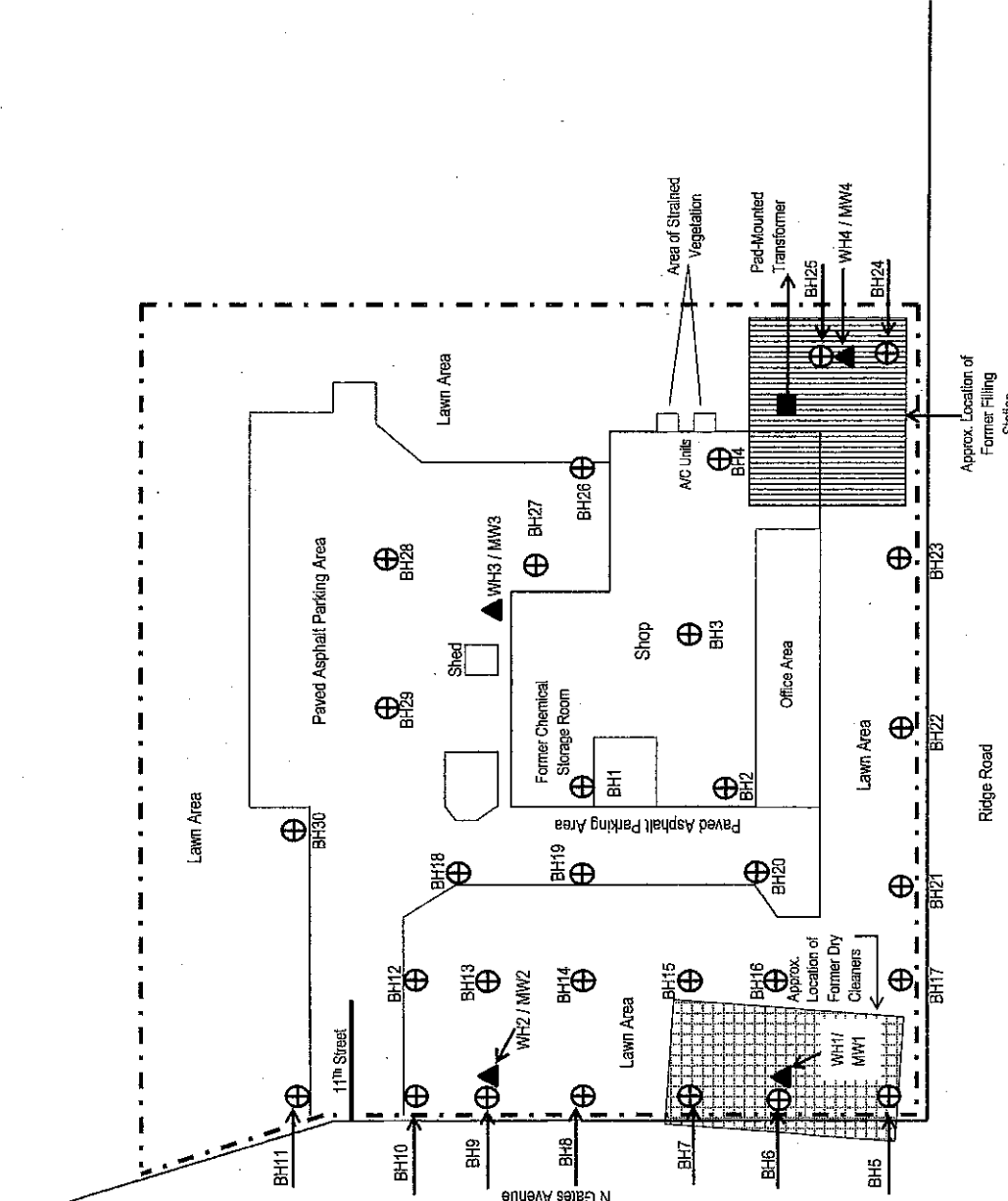
## **Attachment 1**

### **Figures**



THIS DRAWING IS FOR ILLUSTRATIVE AND INFORMATIONAL PURPOSES ONLY  
 AND WAS ADAPTED FROM USGS, BUFFALO SE, NEW YORK 1965 QUADRANGLE.

<b>HAZARD EVALUATIONS, INC.</b>		
<i>Phase I/II Audits - Site Investigations - Facility Inspections</i>		
<b>LOCATION PLAN</b>		
COMMERCIAL PROPERTY		
100 RIDGE ROAD		
LACKAWANNA, NEW YORK		
<b>LACKAWANNA COMMUNITY DEVELOPMENT CORP.</b>		
LACKAWANNA, NEW YORK		
DRAWN BY: LSH	SCALE: NOT TO SCALE	PROJECT: 30302
CHECKED BY: CMH	DATE: 01/1/11	FIGURE NO: 1



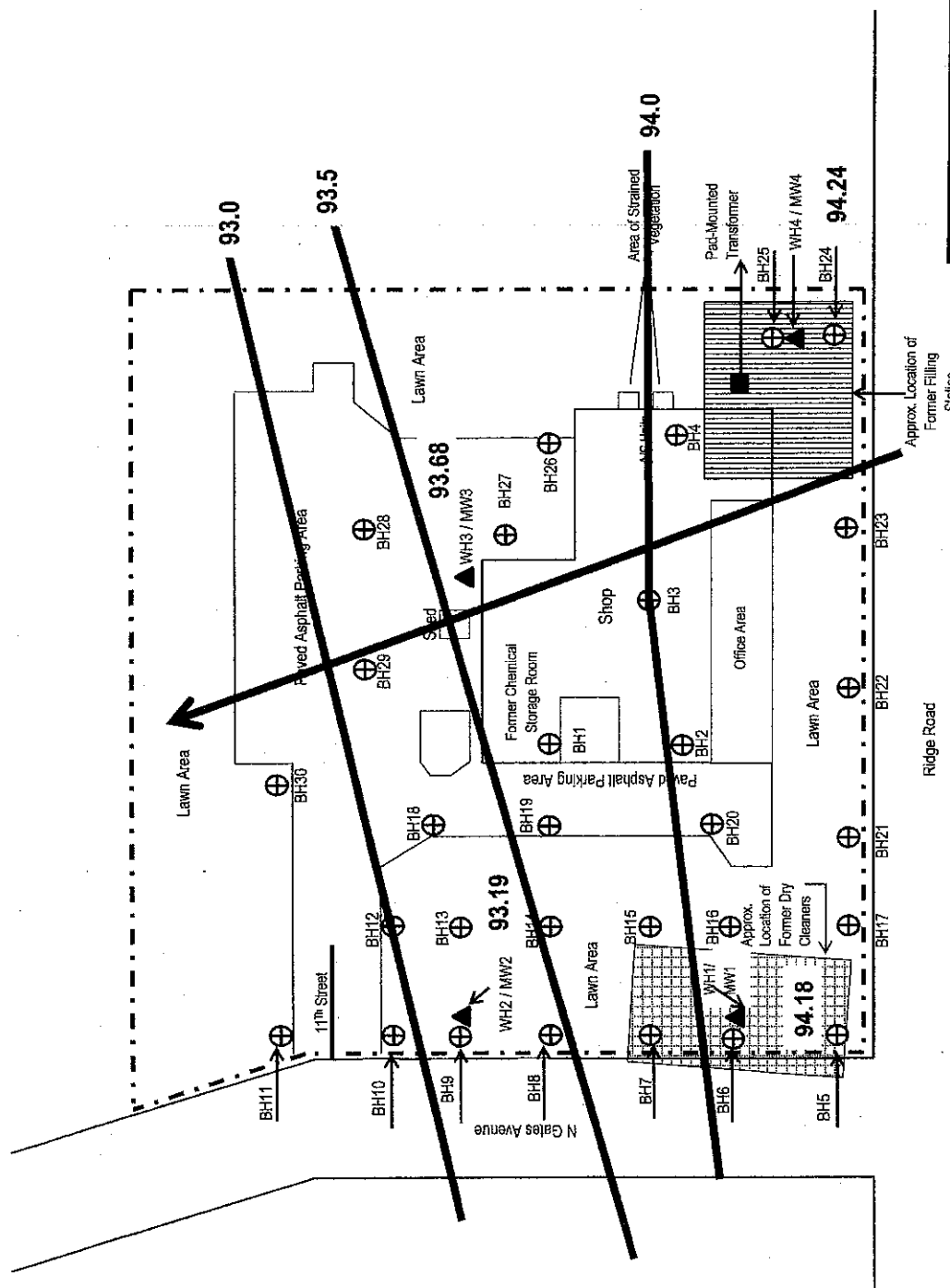
**HAZARD EVALUATIONS, INC.**  
 Phase I/II Audits – Site Investigations – Facility Inspections

**SAMPLING LOCATION PLAN**  
 COMMERCIAL PROPERTY  
 100 RIDGE ROAD  
 LACKAWANNA, NEW YORK

**LACKAWANNA COMMUNITY DEVELOPMENT CORP.**  
 LACKAWANNA, NEW YORK

DRAWN BY: LSH    SCALE: NOT TO SCALE    PROJECT: 30302  
 CHECKED BY: CMH    DATE: 010/11    FIGURE NO: 2





**HAZARD EVALUATIONS, INC.**

Phase I/II Audits – Site Investigations – Facility Inspections

**GROUNDWATER FLOW DIRECTION**

COMMERCIAL PROPERTY

100 RIDGE ROAD

LACKAWANNA, NEW YORK

**LACKAWANNA COMMUNITY DEVELOPMENT CORP.**

LACKAWANNA, NEW YORK

DRAWN BY: LSH

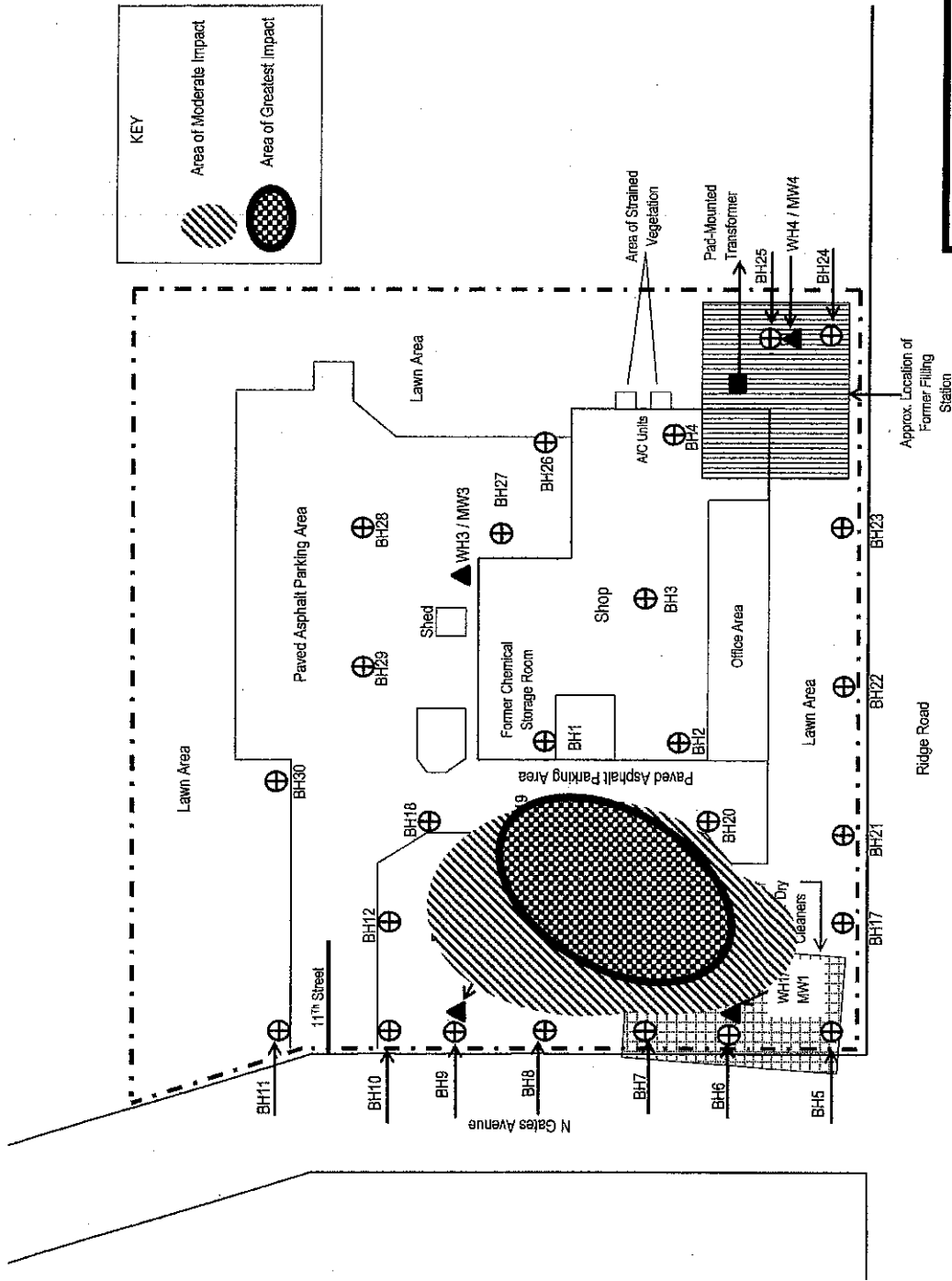
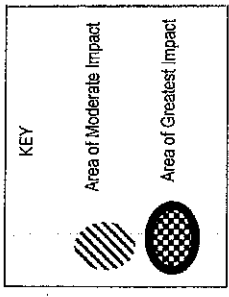
SCALE: NOT TO SCALE

PROJECT: 30302

CHECKED BY: CMH

DATE: 01/1/11

FIGURE NO: 3



**HAZARD EVALUATIONS, INC.**  
 Phase I/II Audits – Site Investigations – Facility Inspections

**AREAS OF IMPACT**  
 COMMERCIAL PROPERTY  
 100 RIDGE ROAD  
 LACKAWANNA, NEW YORK

**LACKAWANNA COMMUNITY DEVELOPMENT CORP.**  
 LACKAWANNA, NEW YORK

DRAWN BY: LSH      SCALE: NOT TO SCALE      PROJECT: 30302  
 CHECKED BY: CMH      DATE: 01/1/11      FIGURE NO: 4

**Attachment 2**

**Boring Logs & Well Construction Details**

<b>HAZARD EVALUATIONS, INC.</b> 3752 N. Buffalo Road Orchard Park, NY 14127		Project Address: 100 Ridge Road, Lackawanna, NY	
Contractor: Trek Environmental		Boring Location: WH1	
Driller: Jim		Ground Surface Elevation:	
HEI Representative: Joshua Kraft		Start Date: 10/5/11	
		End Date: 10/6/11	
Type of Drill Rig:		Drive Sampler Type:	
Auger Size and Type:		Inside Diameter:	
Overburden Sampling Method:		Other:	

DEPTH	SAMPLE			Visual Classification	PID Field Screen (PPM)	Remarks
	Sample No. & Depth	Sample Recovery	Strata Change			
0	0 - 4'	4'	0 - 1.5'	Medium brown sandy soil with dark gray granular fill mixed throughout.  Light gray rocky fill material mixed with dark brown sandy soil.  Medium to light brown, sandy claylike soil with small gravelly pieces mixed throughout.	7.2	
			1.5' - 2'			
			2' - 4'			
4	4' - 8'	4'	4' - 5.5'	Medium brown, medium stiff sandy clay with traces of dark brown material.  Light brown, medium stiff sandy clay.	3.2	
			5.5' - 8'			
8	8' - 12'	4'	8' - 12'	Light brown, damp sandy clay with small stony pieces noted throughout the sample.	4.9	
12	12' - 13.5'	4'	12' - 13.5'	Medium soft, moist, light brown sandy clay.	5.3	
16	(Refusal at 13.5' depth).					

**GENERAL NOTES:**

- 1) Stratification lines represent approximate boundary between soil types, transitions may be gradual
- 2) BGS = Below Grade or Ground Surface

<b>HAZARD EVALUATIONS, INC.</b> 3752 N. Buffalo Road Orchard Park, NY 14127	Project Address: 100 Ridge Road, Lackawanna, NY

Contractor: Trek Environmental	Boring Location: WH2
Driller: Jim	Ground Surface Elevation:
HEI Representative: Joshua Kraft	Start Date: 10/5/11
	End Date: 10/6/11

Type of Drill Rig:	Drive Sampler Type:
Auger Size and Type:	Inside Diameter:
Overburden Sampling Method:	Other:

D E P T H	SAMPLE			Visual Classification	PID Field Screen (PPM)	Remarks
	Sample No. & Depth	Sample Recovery	Strata Change			
0	0 - 4'	4'	0-2'	Medium brown sandy soil. Medium to light brown sandy soil.	20.2	
			2'-4'			
4	4' - 8'	4'	4' - 5'	Medium brown, moist sandy soil. Medium to light brown, moist sandy claylike soil. Light brown, stiff, sandy claylike soil.	6.1	
			5' - 6'			
			6' - 8'			
8	8' - 12'	4'	8' - 11'	Light brown, stiff to medium stiff sandy clay. Medium brown, moist, medium soft, sandy clay with small stony pieces noted throughout.	4.5	
			11' - 12'			
12	12' - 14.5'	2.5'	12' - 13'	Medium brown, moist sandy soil. Light brown, medium soft, sandy clay with stony pieces noted mixed throughout.	1.2	
	(Refusal at 14.5' depth).		13' - 14.5'			
16						

**GENERAL NOTES:**  
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual  
2) BGS = Below Grade or Ground Surface

<b>HAZARD EVALUATIONS, INC.</b> 3752 N. Buffalo Road Orchard Park, NY 14127		Project Address: 100 Ridge Road, Lackawanna, NY	
Contractor: Trek Environmental		Boring Location: WH3	
Driller: Jim		Ground Surface Elevation:	
HEI Representative: Joshua Kraft		Start Date: 10/5/11	
		End Date: 10/6/11	
Type of Drill Rig:		Drive Sampler Type:	
Auger Size and Type:		Inside Diameter:	
Overburden Sampling Method:		Other:	

DEPTH	SAMPLE			Visual Classification	PID Field Screen (PPM)	Remarks
	Sample No. & Depth	Sample Recovery	Strata Change			
0	0 - 4'	4'	0 - 0.5'	Dark gray asphaltic fill.	0.5	
			0.5' - 2'	Dark gray asphaltic fill mixed with light brown sandy soil.		
4	4' - 8'	4'	2' - 3.5'	Medium stiff to medium brown, sandy clay.	0.5	
			3.5' - 4'	Medium brown, medium stiff sandy clay.		
8	8' - 12'	4'	4' - 8'	Medium to dark brown, damp sandy claylike soil.	0.0	
			8' - 11'	Moist, dark brown, soft sandy claylike soil.		
12	12' - 16'	4'	11' - 12'	Dark brown, medium stiff sandy clay.	0.0	
			12' - 13'	Moist, dark brown, medium soft to medium stiff sandy clay.		
16	16' - 20'	4'	13' - 16'	Moist, light brown, stiff clay with traces of dark material mixed throughout.	0.0	
			16' - 19'	Light brown, moist, medium stiff sandy clay.		
20	20' - 23.6' (Refusal at 23.6' depth).	3.6'	19' - 20'	Light brown, moist, medium soft sandy clay.	0.0	
			20' - 23.6'	Light brown, wet, medium soft to soft, sandy clay.		
24						

**GENERAL NOTES:**  
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual  
2) BGS = Below Grade or Ground Surface

<b>HAZARD EVALUATIONS, INC.</b> 3752 N. Buffalo Road Orchard Park, NY 14127		Project Address: 100 Ridge Road, Lackawanna, NY	
Contractor: Trek Environmental		Boring Location: WH4	
Driller: Jim		Ground Surface Elevation:	
HEI Representative: Joshua Kraft		Start Date: 10/5/11	
		End Date: 10/6/11	
Type of Drill Rig:		Drive Sampler Type:	
Auger Size and Type:		Inside Diameter:	
Overburden Sampling Method:		Other:	

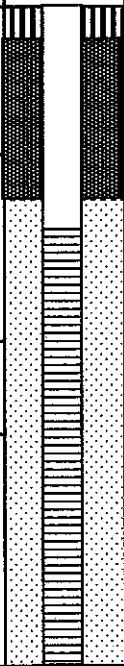
D E P T H	SAMPLE			Visual Classification	PID Field Screen (PPM)	Remarks
	Sample No. & Depth	Sample Recovery	Strata Change			
0	0 - 4'	(~ 1', poor recovery).	0 - 4'	Medium to light brown moist sandy soil.	0.0	
4	4' - 8'	4'	4' - 8'	Medium brown sandy claylike soil with bits of light gray granular fill mixed throughout.	0.8	
8	8' - 12'	4'	8' - 8.5'	Medium brown, moist, soft sandy clay.	0.4	
12			8.5' - 10'	Medium brown, medium stiff to stiff sandy clay.	0.5	
			10' - 12'	Medium to light brown, moist, soft sandy clay.		
16	12' - 16'	4'	12' - 12.5'	Light grey, wet, gravelly sand.	0.0	
			12.5' - 14'	Light, grayish, soft sandy clay with gravelly sand mixed throughout.		
			14' - 16'	Light grayish brown, stiff clay.		
20	16' - 20'	4'	16' - 18'	Light grayish brown, wet, sandy claylike soil with stony pieces mixed through.	0.0	
			18' - 20'	Light, grayish brown, moist, stiff to medium stiff sandy claylike soil.		
24	20' - 22.7' (Refusal at 22.7' depth).	2.7'	20' - 22.7'	Light, grayish brown, wet, soft to medium soft sandy claylike soil.	0.0	





**GENERAL NOTES:**  
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual  
2) BGS = Below Grade or Ground Surface

<b>Hazard Evaluations, Inc.</b>	Date started: 10/5/2011	Hole No.: WH1
	Date finished: 10/6/2011	Sheet 1 of 1

Client: Lackawanna Community Development Corp.  
 Location: 100 Ridge Road, Lackawanna, NY

Project No.: 30301	Drilling Co.: Trek Environmental	Weather: Sunny and cool.
Proj. Mgr: Mark Hanna	Driller: Jim	
	Drill Rig:	

Depth (ft.)	Sample			Well Construction Details	Field Analytical Readings	Well Details	Groundwater and Other Observations
	No.	Depth (ft.)	Blows /6"				
4	1	0 - 4'	N/A	Cement (0 - 0.5')			Water at 5.24'
				Bentonite (0.5' - 3.5')			
8	2	4' - 8'		Sand (3.5' - 14.5')			
				Screen (4.5' - 14.5')			
12	3	8' - 12'					
16	4	12' - 14.5'		Bottom of screen (14.5')			
				Bottom of Borehole (14.5')			
20							
24							

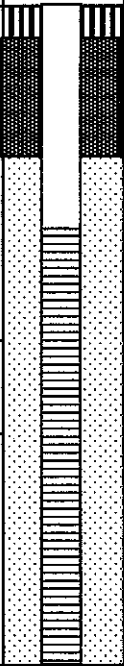
S=Split Spoon: _____ T= Shelby Tube: _____ R= Rock Core: _____ WH = _____ N = ASTM D1586	<b>Backfill Well Key:</b>  Cement  Native Fill  Sand  Bentonite
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<b>Hazard Evaluations, Inc.</b>	Date started: 10/5/2011	Hole No.: WH2
	Date finished: 10/6/2011	Sheet 1 of 1

Client: Lackawanna Community Development Corp.  
 Location: 100 Ridge Road, Lackawanna, NY

Project No.: 30301	Drilling Co.: Trek Environmental	Weather: Sunny and cool.
Proj. Mgr: Mark Hanna	Driller: Jim	
	Drill Rig:	

Depth (ft.)	Sample			Well Construction Details	Field Analytical Readings	Well Details	Groundwater and Other Observations
	No.	Depth (ft.)	Blows /6"				
4	1	0 - 4'	N/A	Cement (0 - 0.5')			Water at 5.74'
				Bentonite (0.5' - 3.0')			
8	2	4' - 8'		Sand (3.0' - 14.3')			
				Screen (4.3' - 14.3')			
12	3	8' - 12'					
16	4	12' - 14.3'		Bottom of screen (14.3')			
				Bottom of Borehole (14.3')			
20							
24							

S=Split Spoon: _____ T= Shelby Tube: _____ R= Rock Core: _____ WH = _____ N = ASTM D1586	<b>Backfill Well Key:</b>  Cement  Sand  Native Fill  Bentonite
--	---

<b>Hazard Evaluations, Inc.</b>	Date started: 10/5/2011	Hole No.: WH3
	Date finished: 10/6/2011	Sheet 1 of 1

Client: Lackawanna Community Development Corp.  
 Location: 100 Ridge Road, Lackawanna, NY

Project No.: 30301	Drilling Co.: Trek Environmental	Weather: Sunny and cool.
Proj. Mgr: Mark Hanna	Driller: Jim	
	Drill Rig:	

Depth (ft.)	Sample			Well Construction Details	Field Analytical Readings	Well Details	Groundwater and Other Observations
	No.	Depth (ft.)	Blows /6"				
4	1	0 - 4'	N/A	Cement (0 - 0.5')			Water at 5.26'
				Bentonite (0.5' - 13.0')			
8	2	4' - 8'					
12	3	8' - 12'					
16	4	12' - 16'		Sand (13.0' - 24.0')			
				Screen (14.0' - 24.0')			
20		16' - 20'					
24		20' - 24'					
				Bottom of screen (24.0')			
				Bottom of bore hole (24.0')			

S= Split Spoon: _____ T= Shelby Tube: _____ R= Rock Core: _____ WH = _____ N = ASTM D1586	<b>Backfill Well Key:</b> Cement Sand Native Fill Bentonite
---	---

<b>Hazard Evaluations, Inc.</b>				Date started: 10/5/2011	Hole No.: WH4		
				Date finished: 10/6/2011	Sheet 1 of 1		
Client: Lackawanna Community Development Corp.							
Location: 100 Ridge Road, Lackawanna, NY							
Project No.: 30301			Drilling Co.: Trek Environmental		Weather: Sunny and cool.		
Proj. Mgr.: Mark Hanna			Driller: Jim				
Drill Rig:							
Depth (ft.)	Sample			Well Construction Details	Field Analytical Readings	Well Details	Groundwater and Other Observations
	No.	Depth (ft.)	Blows /6"				
0	1	0 - 4'	N/A	Cement (0 - 0.5')			
4	2	4' - 8'		Bentonite (0.5' - 11.5')			Water at 6.12'
8	3	8' - 12'					
12				Sand (11.5' - 23.2')			
	4	12' - 16'		Screen (13.2' - 23.2')			
16							
	5	16' - 20'					
20							
	6	20' - 23.2'					
24				Bottom of screen (23.2')			
				Bottom of bore hole (23.2')			

S=Split Spoon: \_\_\_\_\_ T= Shelby Tube: \_\_\_\_\_

R= Rock Core: \_\_\_\_\_ WH = \_\_\_\_\_

N = ASTM D1586

**Backfill Well Key:**

	Cement		Native Fill
	Sand		Bentonite

**Attachment 3**

**Field Notes, Field Sheets & Water Surface Calculations**

Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
Orchard Park, NY 14127  
P (716) 667-3130  
F (716) 667-3156

## FIELD INVESTIGATION REPORT

HEI arrived on-site at approximately 8:30am.

PID Calibration: Zero calibration (fresh air) = 0.0ppm.  
Span calibration (100 ppm Isobutylene) = 99.0ppm.

BH1 (0-4'): Light gray concrete fill and sandy soil. PID = 0.0ppm.  
(4'-8'): Light gray concrete fill overlying light to medium brown sandy soil with rocky pieces becoming claylike within the bottom 1' of boring. PID = 0.4ppm.  
(8'-12'): Light brown sandy soil overlying approximately 1.5' of wet, sandy claylike soil overlying light brown sandy clay becoming more stiff with increased depth. PID = 0.2ppm.

BH2 (0-4'): Concrete fill and mixed with light to medium grayish brown sandy soil. PID = 0.4ppm.  
(4'-8"): Traces of light gray concrete fill within medium brown sandy soil, overlying approximately 2' of light brown stiff sandy claylike soil. PID = 0.1ppm.  
(8'-12'): Light brown sandy soil and gravelly fill overlying light brown sandy claylike soil. PID = 0.0ppm.

BH3 (0-4'): Approximately 2' of sandy concrete fill overlying medium to reddish brown sandy soil with stony pieces noted throughout. PID = 0.2ppm.  
(4'-8'): Medium brown, sandy claylike soil overlying approximately 1' of orangeish yellow granular fill overlying approximately 6" of medium brown, moist, claylike soil within the bottom portion of sample. PID = 0.7ppm.  
(8'-12'): Wet, medium brown sandy soil with small gravelly layer noted within the top 6" of boring overlying medium brown soft sandy clay. PID = 0.0ppm.

BH4 (0-4'): Approximately 6" of concrete fill overlying approximately 1' of light brown sandy soil and fill overlying approximately 2.5' of dark to medium brown sandy soil with minor amounts of fill. PID = 0.0ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
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## FIELD INVESTIGATION REPORT

(.....BH4 continued.....)

(4'-8')	Dark brown, sandy claylike soil becoming softer with increased depth. heavy dark staining and strong odor noted. PID = 751ppm.
(8'-12')	Soft clay with dark gray staining overlying approximately 6" of light brown stiff clay with no staining. Strong odor noted. PID = 23.5ppm.
(12'-14')	Wet, stiff, medium brown clay with noticeable dark material and a light odor. Refusal at approximately 14' depth. PID = 27.2ppm.
BH5 (0-4')	Medium brown sandy soil with minor amounts of fill material within the top 1' of sample. PID = 3.1ppm.
(4'-8')	Damp, medium to light brown sandy soil becoming claylike with increased depth. PID = 0.0ppm.
(8'-12')	Light brown sandy claylike soil becoming more stiff with increased depth. PID = 0.0ppm.
BH6 (0-4')	Medium brown sandy soil with fill material at approximately 2' depth, overlying 1' of medium to light brown sandy soil. PID = 0.5ppm.
(4'-8')	Medium brown sandy soil becoming claylike and moist with increased depth. PID = 0.7ppm.
(8-12')	Light brown sandy claylike soil becoming more dense with increased depth. PID = 2.8ppm.
(12'-16')	Light brown sandy claylike soil becoming softer and slightly damp with increased depth. PID = 1.7ppm.
BH7 (0-4')	Approximately 1.5' of medium brown sandy soil overlying approximately 1' of medium to with sandy soil with gravelly pieces overlying medium to light brown sandy soil with rocky pieces. PID = 0.9ppm.
(4'-8')	Light brown sandy claylike soil becoming more dense with increased depth. PID = 0.4ppm.
(8'-12')	Light, soft brown sandy claylike soil overlying approximately 3' of dense sandy claylike soil. PID = 0.2ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_

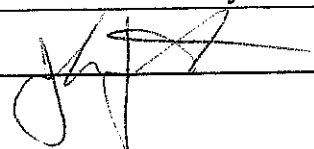
Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
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## FIELD INVESTIGATION REPORT

BH8 (0-4')	Medium brown sandy soil overlying medium to light brown sandy soil with gravelly pieces mixed throughout, underlain by medium to light brown sandy soil. PID = 0.9ppm.
(4'-8')	Medium dense, light brown, sandy claylike soil overlying loose, medium brown sandy soil, becoming dense and claylike within the bottom 2' of sample. PID = 0.3ppm.
(8'-12')	Dark to medium brown soft, claylike soil becoming dense at approximately 1.5' depth. PID = 0.0ppm.
BH9 (0-4')	Medium brown soil overlying dark fill material, mixed with medium brown sandy soil to approximately 3' depth. PID = 0.0ppm.
(4'-8')	Medium to light brown stiff clay. PID = 1.1ppm.
(8-12')	Medium to light brown, medium soft to medium stiff claylike soil. PID = 0.1ppm.
BH10 (0-4')	Grayish brown sandy soil and granular fill over approximately 1' of damp sandy brown soil overlying light gray to tanish white granular fill. PID = 0.0ppm.
(4'-8')	Approximately 1' of light tan to white granular fill overlying granular green fill overlying dark to light brown damp, soft to medium soft sandy claylike soil. PID = 0.0ppm.
(8'-12')	Approximately 6" of gravelly material overlying 3.5' of light brown stiff clay becoming softer within the bottom of sample. PID = 0.0ppm.
BH11 (0-4')	Medium brown sandy soil with granular pieces mixed throughout the bottom 1' of sample. PID = 0.0ppm.
(4'-8')	Approximately 1.5' of granular fill overlying 2.5' of green granular fill. PID = 0.1ppm.
(8'-12')	Approximately 6" of gravelly material overlying 3.5' of light brown moist stiff clay. PID = 0.0ppm.

Signature



Title Environmental Scientist

Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
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## FIELD INVESTIGATION REPORT

BH12 (0-4')	Medium brown sandy soil with fill material mixed within the top 1.5' of sample overlying gray, green and light tan granular fill. PID = 0.0ppm.
(4'-8')	Tanish granular fill overlying green granular fill. PID = 0.0ppm.
(8'-12')	Medium brown to dark brown wet sandy soil. Poor recovery. PID = 0.0ppm
BH13 (0-4')	Dark to medium brown sandy soil mixed with fill pieces. PID = 0.0ppm.
(4'-8')	Medium brown sandy soil with fill material mixed throughout overlying light brown sandy soil. PID = 1.3ppm.
(8'-12')	Medium to light brown moist soft clay. PID = 0.0ppm.
BH14 (0-4')	Approximately 2' of medium brown sandy soil overlying medium brown sandy soil and light gray fill over gray fill mixed with light brown sandy soil. PID = 0.0ppm.
(4'-8')	Medium brown stiff claylike soil overlying approximately 6" of granular fill underlain by medium to light brown, stiff claylike soil. PID = 1.4ppm.
(8'-12')	Medium to light brown stiff clay with fill material noted within the top 6" of sample. PID = 0.0ppm.
BH15 (0-4')	Medium brown to dark brown sandy soil mixed with stony fill material at approximately 1-2' depth overlying light to medium brown sandy claylike soil. PID = 7.6ppm.
(4'-8')	Medium to light brown, medium stiff, sandy claylike soil becoming medium Soft within the bottom of sample. PID = 4.7ppm.
(8'-12')	Medium brown moist sandy claylike soil. PID = 3.9ppm.
(12'-13')	Medium to dark brown moist sandy soil, refusal at approximately 13'. No recovery.
BH16 (0-4')	Medium brown soil overlying dark fill material and dark brown to medium brown sandy soil overlying approximately 1' of light gray fill. PID = 597ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_



Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
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## FIELD INVESTIGATION REPORT

(...continued from page 4)

BH16 (4'-8'): Medium to light brown medium stiff to stiff sandy claylike soil becoming medium soft within the bottom portion of sample. PID = 20.9ppm.  
(8'-12'): Medium to light brown medium stiff claylike soil. PID = 33.9ppm.  
(12'-13'): Soft, light brown claylike soil. Refusal encountered at approximately 13' depth. PID = 36.8ppm.

BH17 (0-4'): Medium brown soil with fill material mixed in at approximately 2' depth. Fine, light brown sandy soil and fill material to approximately 4' depth. PID = 2.8ppm.  
(4'-8'): Light brown, medium stiff sandy claylike soil. PID = 4.8ppm.  
(8'-12'): Medium to light brown, medium stiff claylike soil. PID = 0.7ppm.

BH18 (0-4'): Approximately 6" of asphaltic fill overlying medium to light brown sandy soil mixed with fill to approximately 3' depth, underlain by medium brown soil with stony pieces mixed throughout. PID = 0.1ppm.  
(4'-8'): Medium brown sandy claylike soil overlying approximately 1.5' of green granular fill underlain by tan to light gray granular fill with approximately 6" of dark brown claylike soil. PID = 0.1ppm.  
(8'-12'): Medium brown to grayish brown, moist sandy claylike soil with gravelly pieces mixed throughout overlying approximately 2' of light to medium brown, soft sandy claylike soil. PID = 0.1ppm.

BH19 (0-4'): Approximately 6" of asphaltic fill overlying medium/light brown sandy soil and fill overlying medium to dark brown sandy soil with granular fill within the bottom 6" of sample. PID = 0.3ppm.  
(4'-8'): Medium brown, medium stiff sandy claylike soil becoming light brown, and softer within the bottom 1' of boring. PID = 1.6ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
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## FIELD INVESTIGATION REPORT

(.... continued from page 5)

BH19 (8'-12'): Soft, medium to light brown, moist, sandy claylike soil. PID = 1.2ppm.  
(12'-16'): Moist, soft, light brown clay overlying approximately 3' of dry, light brown sandy clay with stony pieces mixed throughout. PID = 0.2ppm.

BH20 (0-4'): Approximately 6" of asphaltic fill overlying 1.5' of asphaltic/light gray fill mixed with light brown sandy soil overlying dark brown sandy soil becoming light within the bottom of boring. PID = 0.0ppm.

(4'-8'): Medium soft to soft, medium brown sandy claylike soil with dark material within the top 1' of sample. Bottom 1' of sample consists of light brown medium stiff sandy clay. PID = 1.8ppm.

(8'-12'): Light brown, moist sandy claylike soil becoming more stiff with increased depth. PID = 7.5ppm.

(12'-16'): Wet, sandy claylike soil. Poor recovery. PID = 2.3ppm.

BH21 (0-4'): Medium brown soil overlying medium to dark brown sandy soil, becoming lighter in color within the bottom 1' of boring. Traces of light gray fill noted throughout the sample. PID = 1.4ppm.

(4'-8'): Medium to light brown sandy soil becoming claylike within the bottom of boring. PID = 6.8ppm.

(8'-12'): Medium brown to light brown, sandy claylike soil. PID = 4.1ppm.

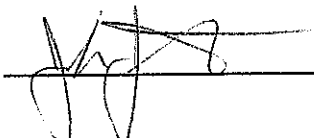
(12'-14.5'): Light brown, damp sandy claylike soil with stony pieces mixed throughout. PID = 4.2ppm.

BH22 (0-4'): Medium brown soil becoming sandy at approximately 1' depth overlying light brown sandy soil. PID = 0.0ppm.

(4'-8'): Approximately 3' of medium brown sandy soil becoming claylike with increased depth overlying light brown sandy claylike soil. PID = 0.0ppm.

(8'-12'): Wet, light brown, soft, claylike soil. PID = 0.0ppm.

Signature



Title

Environmental Scientist

Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
Orchard Park, NY 14127  
P (716) 667-3130  
F (716) 667-3156

## FIELD INVESTIGATION REPORT

BH23 (0-4')	Medium brown soil overlying medium to dark brown sandy soil and multi colored fill material. PID = 0.3ppm.
(4'-8')	Medium to light brown sandy soil becoming claylike within the bottom 1' of sample. PID = 0.8ppm.
(8'-10')	Brownish gray, sandy claylike soil. PID = 0.6ppm.
(10'-12')	Medium soft, sandy claylike soil becoming more dense with increased depth. PID = 0.2ppm.
BH24 (0-4')	Medium brown soil overlying 2' of medium brown sandy soil with light gray and brick fill overlying medium to light brown, damp sandy claylike soil. PID = 0.4ppm.
(4'-8')	Approximately 2' of medium brown to light brown sandy claylike soil overlying 2' of gray claylike soil with heavy staining and a significant petroleum type odor identified. PID = 43.7ppm.
(8'-10')	Light, brownish gray, claylike soil with noticeable areas of dark staining. PID = 14.2ppm.
(10'-12')	Light, grayish brown claylike soil. PID = 0.8ppm.
BH25 (0-4')	Medium brown soil overlying approximately 3' of medium brown sandy soil with assorted fill pieces mixed throughout. PID = 0.0ppm.
(4'-8')	Medium brown, claylike soil mixed with light gray to tan granular fill overlying dark gray, claylike soil with apparent staining and a light petroleum type odor. PID = 9.6ppm.
(8'-12')	Medium brown clay with light staining overlying approximately 3' of light grayish brown, soft sandy claylike soil. PID = 4.1ppm.
(12'-16')	Moist, light grayish brown, moist sandy claylike soil becoming drier with increased depth. PID = 0.3ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
Orchard Park, NY 14127  
P (716) 667-3130  
F (716) 667-3156

## FIELD INVESTIGATION REPORT

BH26 (0-4')	Approximately 6" of medium brown soil overlying light brown sandy soil and fill underlain by medium brown moist sandy soil with fill pieces mixed throughout. PID = 0.1ppm.
(4'-8')	Medium brown sandy soil overlying green to grayish green granular fill. PID = 0.2ppm.
(8'-12')	Medium brown, soft claylike soil with green staining overlying green and reddish brown granular fill with approximately 6" of dark brown, soft claylike soil at bottom of boring. PID = 0.0ppm.
BH27 (0-4')	Asphalty and assorted fill to approximately 1' depth overlying whitish to light gray assorted fill underlain by reddish rusty fill and medium brown, damp, sandy claylike soil. PID = 0.7ppm.
(4'-8')	Medium brown to dark brown sandy claylike soil overlying dark brown to reddish brown sandy, moist claylike soil. PID = 0.0ppm.
(8'-12')	Medium to dark brown, wet sandy soil becoming claylike within the bottom 6" of boring. PID = 0.0ppm.
BH28 (0-4')	Asphalty fill mixed with light brown sandy soil becoming darker with increased depth. PID = 0.2ppm.
(4'-8')	Gray granular fill underlain by tan granular fill overlying reddish brown sandy soil and green granular fill. PID = 0.3ppm.
(8'-12')	Green granular fill with approximately 6" of dark brown moist claylike soil. PID = 0.0ppm.
BH29 (0-4')	Asphalty fill overlying light brown sandy soil with yellowish orange granular fill within the bottom 6" of sample. PID = 0.0ppm.
(4'-8')	Gray and tan granular fill overlying reddish to dark brown sandy soil with green granular fill within bottom 1' of sample. PID = 0.5ppm.
(8'-12')	Grayish green, wet granular fill overlying 6" of moist, gray, sandy claylike soil. PID = 0.0ppm.

Signature \_\_\_\_\_

Title \_\_\_\_\_

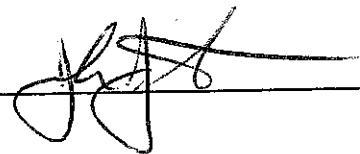
Date: 9/30/11-10/6/11 Project No. 30301  
Client: Lackawanna Community Development  
Project: Subsurface Investigation  
Site: 100 Ridge Road  
Weather: Cool and overcast

**Hazard Evaluations, Inc.**  
3752 N. Buffalo Rd.  
Orchard Park, NY 14127  
P (716) 667-3130  
F (716) 667-3156

## FIELD INVESTIGATION REPORT

BH30 (0-4')	Light gray sandy soil and fill material overlying approximately 1' of medium brown, moist sandy soil underlain by 2' of greenish granular fill with tan fill within the bottom of the boring. PID = 0.2ppm.
(4'-8')	Grayish green granular fill mixed with light tan granular fill. PID = 0.0ppm.
(8'-12')	Grayish green, moist granular green fill with dark brown claylike soil within the bottom 6" of sample. PID = 0.0ppm.

Signature



Title

Environmental Scientist

WHI (MWI)

Well Data Sheet

Date: 10-12-11 Job #: 30302

Crew: Joshua Kraft

Well Depth: 14.61'

Initial Phase Level:

Initial Water Level: 5.34'

Volume Calculation:  $14.61' - 5.34' = 9.27 \times 0.163 = 1.51 \times 3 = 4.53 \text{ gal}$

DTB-DTW\* ~~0.163~~ = 1-well vol  
0.163

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity
11:12am	4.53 gal				

Purge Method: Bailer/Submersible Pump

Initial Water Quality

Final Water Quality

SAMPLE RECORD

Date: 10-12-11

Time:

Crew: JJK

Method:

Sample ID:

Water Quality:

pH:

Conductivity: 1331

Temperature: 17.3°C

Turbidity:

Volume:

Analysis: 8260 UOLs

Chain of Custody #:

Sample Type:

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments:

Signature: 

WH2(MW2)

Well Data Sheet

Date: 10-12-11 Job #: 30302  
Crew: Joshua Kraft  
Well Depth: 13.92  
Initial Phase Level:  
Initial Water Level: 5.25'

Volume Calculation:  $13.92 - 5.25 = 8.67 \times 0.163 = 1.41 \times 3 =$  ~~4.24~~ 4.24 gal  
DTB-DTW\* 0.163 = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity
11:13am	4.24 gal				

Purge Method: Bailer Submersible Pump  
Initial Water Quality  
Final Water Quality

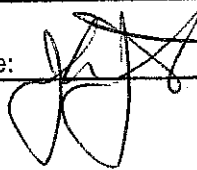
SAMPLE RECORD

Date: 10-12-11  
Time:  
Crew: JJK  
Method:  
Sample ID:  
Water Quality:  
pH:  
Conductivity: 1337  
Temperature: 15.8°C  
Turbidity:

Volume:  
Analysis: 8260 VOLTS  
Chain of Custody #:  
Sample Type:

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments:

Signature: 

WH3(MW3)

Well Data Sheet

Date: 10-12-11 Job #: 30302  
Crew: Joshua Kraft  
Well Depth: 23.90'  
Initial Phase Level:  
Initial Water Level: 5.28'

Volume Calculation:  $23.90' - 5.28' = 18.62 \times 0.163 = 3.04 \times 3 = 9.11 \text{ gal}$   
DTB-DTW \* 0.163 = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity
10:50am	9.11gal				

Purge Method: Bailer/Submersible Pump  
Initial Water Quality  
Final Water Quality

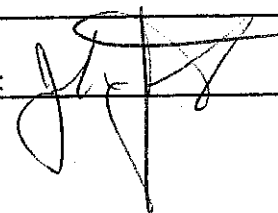
SAMPLE RECORD

Date: 10-12-11  
Time:  
Crew: JJK  
Method:  
Sample ID:  
Water Quality:  
pH:  
Conductivity: 1598  
Temperature: 17.2°C  
Turbidity:

Volume:  
Analysis: 8260 UCL  
Chain of Custody #:  
Sample Type:

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments:

Signature: 



WH4 (MW4)

Well Data Sheet

Date: 10-12-11 Job #: 30302  
Crew: Joshua Kraft  
Well Depth: 23.13'  
Initial Phase Level: \_\_\_\_\_  
Initial Water Level: 6.12'

Volume Calculation:  $23.13' - 6.12' = 17.01 \times 0.163^* = 2.773 \times 3 = 8.32 \text{ gal}$   
DTB-DTW\* 0.163 = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity
10:45am	8.32 gal				

Purge Method: Bailer/Submersible Pump  
Initial Water Quality \_\_\_\_\_  
Final Water Quality \_\_\_\_\_

SAMPLE RECORD

Date: 10-12-11  
Time: \_\_\_\_\_  
Crew: JJK  
Method: \_\_\_\_\_  
Sample ID: \_\_\_\_\_  
Water Quality: \_\_\_\_\_  
pH: \_\_\_\_\_  
Conductivity: 1472  
Temperature: 16.8°C  
Turbidity: \_\_\_\_\_

Volume: \_\_\_\_\_  
Analysis: 8260 Uoc's  
Chain of Custody #: \_\_\_\_\_  
Sample Type: \_\_\_\_\_

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments: \_\_\_\_\_

Signature: [Signature]

WH1 (MW1)

Well Data Sheet

Date: 11-18-11 Job #: 30302  
Crew: Joshua Kraft  
Well Depth: ~~14.81~~ 14.81  
Initial Phase Level:  
Initial Water Level: 5.26'

Volume Calculation:

DTB-DTW\* \_\_\_\_\_ = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity

Purge Method: Bailer/Submersible Pump  
Initial Water Quality  
Final Water Quality

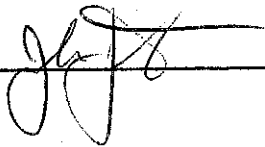
SAMPLE RECORD

Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
Crew: \_\_\_\_\_  
Method: \_\_\_\_\_  
Sample ID: \_\_\_\_\_  
Water Quality: \_\_\_\_\_  
pH: \_\_\_\_\_  
Conductivity: \_\_\_\_\_  
Temperature: \_\_\_\_\_  
Turbidity: \_\_\_\_\_

Volume: \_\_\_\_\_  
Analysis: \_\_\_\_\_  
Chain of Custody #: \_\_\_\_\_  
Sample Type: \_\_\_\_\_

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments: Only conducted ~~any~~ re-gauging of wells.

Signature: 

WHA (MWA)

Well Data Sheet

Date: 11-18-11 Job #: 30306  
Crew: Joshua Kraft  
Well Depth: 14.61'  
Initial Phase Level:  
Initial Water Level: 5.31'

Volume Calculation:

DTB-DTW\* \_\_\_\_\_ = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity

Purge Method: Bailer/Submersible Pump  
Initial Water Quality  
Final Water Quality

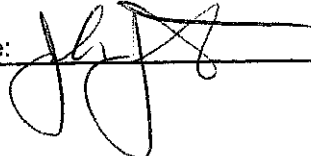
SAMPLE RECORD

Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
Crew: \_\_\_\_\_  
Method: \_\_\_\_\_  
Sample ID: \_\_\_\_\_  
Water Quality: \_\_\_\_\_  
pH: \_\_\_\_\_  
Conductivity: \_\_\_\_\_  
Temperature: \_\_\_\_\_  
Turbidity: \_\_\_\_\_

Volume: \_\_\_\_\_  
Analysis: \_\_\_\_\_  
Chain of Custody #: \_\_\_\_\_  
Sample Type: \_\_\_\_\_

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments: Only conducted re-gauging of wells.

Signature: 

W H3 (MW3)

Well Data Sheet

Date: 11-18-11

Job #: 30302

Crew: Joshua Kraft

Well Depth: 24.34'

Initial Phase Level:

Initial Water Level: 5.37'

Volume Calculation:

DTB-DTW\* \_\_\_\_\_ = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity

Purge Method: Bailer/Submersible Pump

Initial Water Quality

Final Water Quality

SAMPLE RECORD

Date:

Time:

Crew:

Method:

Sample ID:

Water Quality:

pH:

Conductivity:

Temperature:

Turbidity:

Volume:

Analysis:

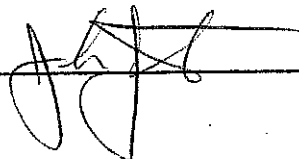
Chain of Custody #:

Sample Type:

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments: Only conducted re-gauging of wells.

Signature:



WH4 (MW4)

Well Data Sheet

Date: 11-18-11 Job #: 30302  
Crew: Joshua Kraft  
Well Depth: 23.64'  
Initial Phase Level: \_\_\_\_\_  
Initial Water Level: 6.03'

Volume Calculation:  
DTB-DTW\* \_\_\_\_\_ = 1-well vol

Purge Record

Time	Volume	pH	Cond.	Temp.	Turbidity

Purge Method: Bailer/Submersible Pump  
Initial Water Quality \_\_\_\_\_  
Final Water Quality \_\_\_\_\_

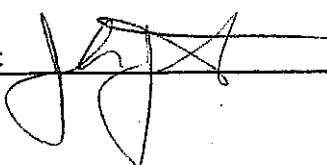
SAMPLE RECORD

Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
Crew: \_\_\_\_\_  
Method: \_\_\_\_\_  
Sample ID: \_\_\_\_\_  
Water Quality: \_\_\_\_\_  
pH: \_\_\_\_\_  
Conductivity: \_\_\_\_\_  
Temperature: \_\_\_\_\_  
Turbidity: \_\_\_\_\_

Volume: \_\_\_\_\_  
Analysis: \_\_\_\_\_  
Chain of Custody #: \_\_\_\_\_  
Sample Type: \_\_\_\_\_

Diameter	Multiply by
1"	0.041
2"	0.163
3"	0.367
4"	0.653
6"	1.468
8"	2.61

Comments: Only conducted re-gauging of wells.

Signature: 

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Bajezuk / A. Hallman

Sample Identification: SS-1

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:27 pm - 2:27 pm

Sample Depth: 8"

Sample Height: NA

Sampling Method(s) & Device(s): 1 hr summa can w/ regulator

Purge Volume: 180 mL

Sample Volume: 1 L

Sampling Canister Type & Size (if applicable): 1 L summa canister (Centek can # 133)

Vacuum Pressure of Canister Prior to Sampling: 27

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: moist

Soil Type in Sampling Zone: stone fill

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Centek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Bajezuk

Date: 10/4/11

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Bojczek / A. Hallman

Sample Identification: IA-1

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:27 pm - 2:27 pm

Sample Depth: NA

Sample Height: 44"

Sampling Method(s) & Device(s): 1 hr summa can w/ regulator

Purge Volume: NA

Sample Volume: 1L

Sampling Canister Type & Size (if applicable): 1L summa canister (centek can #139)

Vacuum Pressure of Canister Prior to Sampling: 29

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: ~~NA~~ NA

Soil Type in Sampling Zone: ~~NA~~ NA

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Centek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Bojczek

Date: 10/4/11

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Wojcik / A. Hallman

Sample Identification: SS-2

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:36pm - 2:36pm

Sample Depth: 9"

Sample Height: NA

Sampling Method(s) & Device(s): 1 hr summa can w/ regulator

Purge Volume: 180 mL

Sample Volume: 1 L

Sampling Canister Type & Size (if applicable): 1 L summa canister (certek can # 86)

Vacuum Pressure of Canister Prior to Sampling: 29

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: moist

Soil Type in Sampling Zone: stone fill/gravel

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Certek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Wojcik

Date: 10/4/11



HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Bajczuk / A. Hallinan

Sample Identification: IA-2

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:36 pm - 2:36 pm

Sample Depth: NA

Sample Height: 24 1/2"

Sampling Method(s) & Device(s): 1 hr summa can w/regulator

Purge Volume: NA

Sample Volume: 1 L

Sampling Canister Type & Size (if applicable): 1 L summa canister (Centek can # 422)

Vacuum Pressure of Canister Prior to Sampling: 30

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: NA

Soil Type in Sampling Zone: NA

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Centek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Bajczuk

Date: 10/4/11

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Bojczuk / A. Halloran

Sample Identification: SS-3

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:41 pm - 2:41 pm

Sample Depth: 8"

Sample Height: NA

Sampling Method(s) & Device(s): 1 hr summa can w/regulator

Purge Volume: 180 mL

Sample Volume: 1 L

Sampling Canister Type & Size (if applicable): 1 L summa canister (Centek can # 567)

Vacuum Pressure of Canister Prior to Sampling: 29

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: moist

Soil Type in Sampling Zone: stone fill

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Centek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Bojczuk

Date: 10/4/11

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Bojczyk / A. Hallinan

Sample Identification: IA-3

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:41 pm - 2:41 pm

Sample Depth: NA

Sample Height: 31 1/4"

Sampling Method(s) & Device(s): 1 hr Summa can w/ regulator

Purge Volume: NA

Sample Volume: 1L

Sampling Canister Type & Size (if applicable): 1L summa canister (Centek can # 360)

Vacuum Pressure of Canister Prior to Sampling: 29

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: NA

Soil Type in Sampling Zone: NA

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Centek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Bojczyk

Date: 10/4/11

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Wojcik / A. Hallinan

Sample Identification: SS-4

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:46 pm - 2:46 pm

Sample Depth: 13 1/2"

Sample Height: NA

Sampling Method(s) & Device(s): 1 hr summa can w/ regulator

Purge Volume: 180 mL

Sample Volume: 1 L

Sampling Canister Type & Size (if applicable): 1 L summa canister (Centek can # 158)

Vacuum Pressure of Canister Prior to Sampling: 27

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: moist

Soil Type in Sampling Zone: stone fill

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Centek Labs

Analysis: EPA TO-15

Comments: Encountered 2 floors  
Top 6"  
Bottom 5 1/2" } 11 1/2" total thickness

Sampler's Signature P. B/A

Date: 10/4/11

HAZARD EVALUATIONS, INC.  
AIR/VAPOR SAMPLING FIELD DATA SHEET

Client: LCDC Project No.: \_\_\_\_\_

Site Name & Address: 100 Ridge Rd., Lackawanna, NY

Person(s) Performing Sampling: P. Bojczuk / A. Hallinan

Sample Identification: IA-4

Sample Type:  Indoor Air (ambient)  Outdoor Air  Soil Vapor  Sub-slab Vapor

Date of Collection: 10/4/11 Time: 1:46 pm - 2:46 pm

Sample Depth: NA

Sample Height: 34"

Sampling Method(s) & Device(s): 1 hr Summa can w/regulator

Purge Volume: NA

Sample Volume: 1L

Sampling Canister Type & Size (if applicable): 1L Summa canister (Certek Can # 561)

Vacuum Pressure of Canister Prior to Sampling: 28

Vacuum Pressure of Canister After Sampling: 0

Apparent Moisture Content of Sampling Zone: NA

Soil Type in Sampling Zone: NA

Standard Chain of Custody Procedures Used for Handling & Delivery of Samples to Laboratory:

Yes  No. If no, provide reason(s) why? \_\_\_\_\_

Laboratory Name: Paradigm / Certek Labs

Analysis: EPA TO-15

Comments:

Sampler's Signature P. Bojczuk

Date: 10/4/11

**Groundwater Elevations and Depths to Water Table  
100 Ridge Road, Lackawanna, NY**

**October 12, 2011**

Well	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
WH1	99.44'	5.34'	94.10'
WH2	98.50'	5.25'	93.25'
WH3	99.05'	5.28'	93.77'
WH4	100.27'	6.12'	94.15'

**November 18, 2011**

Well	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
WH1	99.44'	5.26'	94.18'
WH2	98.50'	5.31'	93.19'
WH3	99.05'	5.37'	93.68'
WH4	100.27'	6.03'	94.24'

**Attachment 4**  
**Summary Data Tables**

**Table 1**  
**Soil Sample Analytical Results; Halogenated Volatile Organics**  
**100 Ridge Road, Lackawanna, New York**  
**October 4, 2011 Sampling Date**

Analytical Parameter	BH1 (4-8)	BH3 (4-8)	BH11 (4-8)	BH13 (4-8)	BH15 (0-4)	BH15 (4-8)	BH15 (8-12)	Unrestricted Use Soil Cleanup Objectives (RPSC 375-6.8)	Restricted Use Soil Cleanup Objectives Commercial (RPSC 375-6.8)
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	*	*
Bromomethane	ND	ND	ND	ND	ND	ND	ND	*	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	*	*
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	760	22,000
Chloroethane	ND	ND	ND	ND	ND	ND	ND	*	*
Chloromethane	ND	ND	ND	ND	ND	ND	ND	*	*
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	*	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	370	350,000
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	10,000	*
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	270	240,000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	20	30,000
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	330	500,000
cis-1,2-Dichloroethene	12.4	16.9	16.5	340	45.5	10.2	ND	250	500,000
trans-1,2-Dichloroethene	ND	ND	ND	15.9	ND	ND	ND	190	500,000
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	700,000	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	*	*
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	*	*
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	50	500,000
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	*	*
Tetrachloroethene	307	119	123	168	1,240	834	3,570	1,300	150,000
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	680	500,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	*	*
Trichloroethene	133	101	144	118	543	182	ND	470	200,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	*	*
Vinyl Chloride	ND	ND	ND	15.9	ND	ND	ND	20	13,000
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1,800	130,000



**Table 1 (Continued)**  
**Soil Sample Analytical Results; Halogenated Volatile Organics**  
**100 Ridge Road, Lackawanna, New York**  
**October 4, 2011 Sampling Date**

Analytical Parameter	BH16 (0-4)	BH16 (12-13.5)	BH17 (4-8)	BH19 (4-8)	BH19 (8-12)	BH20 (4-8)	BH20 (8-12)	BH20 (12-16)	Unrestricted Use Soil Cleanup Objectives (RPSC 375-6.8)	Restricted Use Soil Cleanup Objectives Commercial (RPSC 375-6.8)
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	760	22,000
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	370	350,000
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	10,000	*
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	270	240,000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	20	30,000
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	330	500,000
cis-1,2-Dichloroethene	1,270	ND	ND	109	ND	25.6	ND	9.71	250	500,000
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	190	500,000
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	700,000	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	*	*
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	50	500,000
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Tetrachloroethene	68,600	769	126	135	1,460	809	753	881	1,300	150,000
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	680	500,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Trichloroethene	2,820	56.7	42.1	67.8	ND	166	76.2	43.4	470	200,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	20	13,000
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,800	130,000

**Table 1 (Continued)**  
**Soil Sample Analytical Results; Halogenated Volatile Organics**  
**100 Ridge Road, Lackawanna, New York**  
**October 4, 2011 Sampling Date**

Analytical Parameter	BH21 (4-8)	BH21 (8-12)	BH21 (12-14.5)	BH23 (4-8)	BH23 (10-12)	BH25 (4-8)	BH25 (8-12)	BH25 (12-16)	Unrestricted Use Soil Cleanup Objectives (RPSC 375-6.8)	Restricted Use Soil Cleanup Objectives Commercial (RPSC 375-6.8)
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	760	22,000
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	370	350,000
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	10,000	*
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	270	240,000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	20	30,000
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	330	500,000
cis-1,2-Dichloroethene	8.73	ND	ND	ND	ND	ND	ND	ND	250	500,000
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	190	500,000
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	700,000	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	*	*
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	50	500,000
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Tetrachloroethene	141	327	364	113	28.3	86.7	89.2	38.5	1,300	150,000
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	680	500,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Trichloroethene	96.9	61.6	55.9	55.1	17.8	77.7	64.1	37.0	470	200,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	*	*
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	20	13,000
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1,800	130,000

**Table 1 (Continued)**  
**Soil Sample Analytical Results; Halogenated Volatile Organics**  
**100 Ridge Road, Lackawanna, New York**  
**October 4, 2011 Sampling Date**

Analytical Parameter	BH27 (0-4)	BH28 (4-8)	WH1 (0-4)	WH1 (12-13.5)	WH2 (0-4)	WH2 (8-12)	WH2 (12-14.5)	Unrestricted Use Soil Cleanup Objectives (RPSC 375-6.8)	Restricted Use Soil Cleanup Objectives Commercial (RPSC 375-6.8)
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	*	*
Bromomethane	ND	ND	ND	ND	ND	ND	ND	*	*
Bromoform	ND	ND	ND	ND	ND	ND	ND	*	*
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	760	22,000
Chloroethane	ND	ND	ND	ND	ND	ND	ND	*	*
Chloromethane	ND	ND	ND	ND	ND	ND	ND	*	*
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	*	*
Chloroform	ND	ND	ND	ND	ND	ND	ND	370	350,000
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	10,000	*
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	270	240,000
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	20	30,000
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	330	500,000
cis-1,2-Dichloroethene	32.5	32.8	ND	ND	48.7	ND	ND	250	500,000
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	190	500,000
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	700,000	*
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	*	*
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	*	*
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	50	500,000
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	*	*
Tetrachloroethene	624	516	1,480	597	1,630	224	112	1,300	150,000
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	680	500,000
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	*	*
Trichloroethene	401	393	359	70.2	930	79.7	76.0	470	200,000
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	*	*
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	20	13,000
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1,100	500,000
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	2,400	280,000
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	1,800	130,000

**Table 2**  
**Soil Sample Analytical Results; Volatile Organics TCL**  
**100 Ridge Road, Lackawanna, New York**  
**October 4, 2011 Sampling Date**

Analytical Parameter	BH4 (4-8)	Unrestricted Use Soil Cleanup Objectives (RPSC 375-6.8)	Restricted Use Soil Cleanup Objectives Commercial (RPSC 375-6.8)
Bromodichloromethane	ND	*	*
Bromomethane	ND	*	*
Bromoform	ND	*	*
Carbon Tetrachloride	ND	760	22,000
Chloroethane	ND	*	*
Chloromethane	ND	*	*
2-Chloroethyl vinyl ether	ND	*	*
Chloroform	ND	370	350,000
Dibromochloromethane	ND	10,000	*
1,1-Dichloroethane	ND	270	240,000
1,2-Dichloroethane	ND	20	30,000
1,1-Dichloroethene	ND	330	500,000
cis-1,2-Dichloroethene	ND	250	500,000
trans-1,2-Dichloroethene	ND	190	500,000
1,2-Dichloropropane	ND	700,000	*
cis-1,3-Dichloropropene	ND	*	*
trans-1,3-Dichloropropene	ND	*	*
Methylene Chloride	ND	50	500,000
1,1,2,2-Tetrachloroethane	ND	*	*
Tetrachloroethene	406	1,300	150,000
1,1,1-Trichloroethane	ND	680	500,000
1,1,2-Trichloroethane	ND	*	*
Trichloroethene	ND	470	200,000
Trichlorofluoromethane	ND	*	*
1,2,4-Trimethylbenzene	NA	3,600	190,000
1,3,5-Trimethylbenzene	NA	8,400	190,000
Vinyl Chloride	ND	20	13,000
Benzene	ND	60	44,000
n-Butylbenzene	NA	12,000	*
Chlorobenzene	ND	1,100	500,000
Hexachlorobenzene	NA	330	6,000
Ethylbenzene	2,020	1,000	390,000
Methyl tert-butyl ether	NA	930	500,000
n-Propylbenzene	NA	3,900	500,000
sec-Butylbenzene	NA	11,000	500,000
tert-Butylbenzene	NA	5,900	500,000
Naphthalene	NA	12,000	*
p-Isopropyltoluene	NA	10,000	*

**Table 2 (Continued)**  
**Soil Sample Analytical Results; Volatile Organics TCL**  
**100 Ridge Road, Lackawanna, New York**  
**October 4, 2011 Sampling Date**

Analytical Parameter	BH4 (4-8)	Unrestricted Use Soil Cleanup Objectives (RPSC 375-6.8)	Restricted Use Soil Cleanup Objectives Commercial (RPSC 375-6.8)
Isopropylbenzene	NA	2,300	*
Toluene	ND	700	500,000
Xylenes (mixed)	8,542	260	500,000
Styrene	ND	300,000	*
1,2-Dichlorobenzene	ND	1,100	500,000
1,3-Dichlorobenzene	ND	2,400	280,000
1,4-Dichlorobenzene	ND	1,800	130,000
Acetone	ND	50	500,000
2-Butanone (MEK)	ND	120	500,000
2-Hexanone	ND	*	*
4-Methyl-2-pentanone	ND	*	*
Carbon Disulfide	ND	*	*
Vinyl acetate	ND	*	*

- Notes:
- 1) Results from USEPA Method 8260 for Volatiles; All results in ppb (ug/kg).
  - 2) SCOs from 6NYCRR Subpart 375-6: Remedial Program Soil Cleanup (ppb).
  - 3) ND means compound not detected above MDL.
  - 4) Lightly shaded results indicate concentration exceeds UUSCO.
  - 5) Darker shaded results indicate concentration exceeds RUSCO.
  - 6) \* means no SCO determined, or if present, Soil Cleanup Level from DEC Policy CP51.
  - 7) NA means Not Applicable; -- means no analysis conducted

**Table 3**  
**Groundwater Sample Analytical Results; Volatile Organics**  
**100 Ridge Road, Lackawanna, New York**  
**October 12, 2011 Sampling Date**

Analytical Parameter	MW1	MW2	MW3	MW4	Water Quality Standards (See note)
Bromodichloromethane	ND	ND	ND	ND	NA
Bromomethane	ND	ND	ND	ND	5
Bromoform	ND	ND	ND	ND	NA
Carbon Tetrachloride	ND	ND	ND	ND	5
Chloroethane	ND	ND	ND	ND	5
Chloromethane	ND	ND	ND	ND	NA
2-Chloroethyl vinyl Ether	ND	ND	ND	ND	NA
Chloroform	ND	ND	ND	ND	7
Dibromochloromethane	ND	ND	ND	ND	5
1,1-Dichloroethane	ND	ND	ND	ND	5
1,2-Dichloroethane	ND	ND	ND	2.77	0.6
1,1-Dichloroethene	ND	ND	ND	ND	5
cis-1,2-Dichloroethene	ND	246	ND	ND	5
trans-1,2-Dichloroethene	ND	ND	ND	ND	5
1,2-Dichloropropane	ND	ND	ND	ND	1
1,3-Dichloropropene (mixed)	ND	ND	ND	ND	0.4
Methylene Chloride	ND	ND	ND	ND	5
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	5
Tetrachloroethene	6,680	1,390	ND	ND	5
1,1,1-Trichloroethane	ND	ND	ND	ND	5
1,1,2-Trichloroethane	ND	ND	ND	ND	1
Trichloroethene	266	85.3	ND	ND	5
Trichlorofluoromethane	ND	ND	ND	ND	5
Vinyl Chloride	ND	ND	ND	ND	2
Chlorobenzene	ND	ND	ND	ND	5
1,2-Dichlorobenzene	ND	ND	ND	ND	3
1,3-Dichlorobenzene	ND	ND	ND	ND	3
1,4-Dichlorobenzene	ND	ND	ND	ND	3

- Notes: 1) Results from USEPA Method 8260 for Volatiles; All results in ppb (ug/l).  
2) Water Quality Standards from either 6 NYCRR Subpart 703.5  
3) ND means compound not detected above MDL.  
4) Shaded results indicate concentration exceeds water quality standards.  
5) NA means not applicable; -- means no analysis conducted.

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 1	Indoor Air 1	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
1,1,1 - Trichloroethane			2	1.2	ND	3.1	20.6	1,900
1,1,2,2 - Tetrachloroethane				ND	ND			35
1,1,2 - Trichloroethane				ND	ND			45
1,1 - Dichloroethane				ND	ND			400
1,1 - Dichloroethene				ND	ND			
1,2,4 - Trichlorobenzene				ND	ND			
1,2,4 - Trimethylbenzene				34	0.75	9.5	9.5	
1,2 - Dibromoethane				ND	ND			2
1,2 - Dichlorobenzene				ND	ND			450
1,2 - Dichloroethane				4.2	ND	<0.25	<0.9	2
1,2 - Dichloropropane				ND	ND			350
1,3,5 - Trimethylbenzene				8.5	ND	3.6	3.7	
1,3 - butadiene				ND	ND			BD
1,3 - Dichlorobenzene				ND	ND			300
1,4 - Dichlorobenzene				ND	ND	1.3	5.5	450
1,4 - Dioxane				ND	ND			360
2,2,4 - trimethylpentane				ND	ND	6.5	4.5	
2 - Butanone (MEK)				ND	5.2	16	12	2
4 - Ethyltoluene				11	ND			
Acetone				89	26	110	99	2,400
Benzene				10	0.52	15	9.4	10ppm
Benzyl chloride				ND	ND			5
Bromodichloromethane				0.89	ND			
Bromoform				ND	ND			5
Bromomethane				ND	ND			
Carbon Disulfide				28	0.35		4.2	2
Carbon Tetrachloride			1	ND	0.83	0.8	<1.3	2
Chlorobenzene				ND	ND			350
Chloroethane				7.5	ND			
Chloroform				3.5	ND	1.4	1.1	240
Chloromethane				ND	0.86	3.3	3.7	
cis - 1,2 - Dichloroethene	Yes		2	ND	ND	<0.25	<1.9	2
cis - 1,3 - Dichloropropene				ND	ND			350
Cyclohexane				ND	ND	8.1		1,050

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 1	Indoor Air 1	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
Dibromochloromethane				ND	ND			
Dichlorodifluoromethane (Freon 12)				2.6	2.7	15	16.5	4,200
Ethyl acetate				3.5	ND		5.4	1,400
Ethylbenzene	Yes			17	ND	7.3	5.7	435
Freon 113				0.78	0.93			
Freon 114				ND	ND			
n-Heptane				7.9	0.92	19		2,000
Hexachloro-1,3-butadiene				ND	ND			
Hexane				36	3.1	18	10.2	1,800
Isopropyl alcohol				100	23		250	980
Methyl Butyl Ketone				ND	ND			410
Methyl Isobutyl ketone				ND	ND	2.2	6	410
Methyl tert-Butyl Ether				ND	ND	26	11.5	
Methylene chloride		60		ND	1.9	22	10	2
Propylene				ND	ND			
Styrene				ND	ND	1.3	1.9	2
Tetrachloroethene	Yes	100	2	30	6.5	2.9	15.9	2
Tetrahydrofuran				ND	ND			590
Toluene				55	2.6	58	43	2
trans-1,2-Dichloroethene				ND	ND			2
trans-1,3-Dichloropropene				ND	ND			350
Trichloroethene	Yes	5	1	2.5	0.55	0.5	4.2	2
Trichlorofluoromethane (Freon 11)				2.2	1.7	17	18.1	
m,p-Xylene	Yes			83	0.84	12	22.2	435
o-Xylene	Yes			30	ND	7.6	7.9	435
Vinyl acetate				ND	ND			
Vinyl bromide				ND	ND			
Vinyl Chloride			1	1.3	ND	<0.25	<1.9	1 ppm



Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 2	Indoor Air 2	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
1,1,1 - Trichloroethane			2	ND	ND	3.1	20.6	1,900
1,1,2,2 - Tetrachloroethane				ND	ND			35
1,1,2 - Trichloroethane				ND	ND			45
1,1 - Dichloroethane				ND	ND			400
1,1 - Dichloroethene				ND	ND			
1,2,4 - Trichlorobenzene	Yes			ND	ND	9.5	9.5	
1,2,4 - Trimethylbenzene				26	0.95			
1,2 - Dibromoethane				ND	ND			2
1,2 - Dichlorobenzene				ND	ND			450
1,2 - Dichloroethane				4.6	ND	<0.25	<0.9	2
1,2 - Dichloropropane				ND	ND			350
1,3,5 - Trimethylbenzene	Yes			6.0	ND	3.6	3.7	
1,3 - butadiene				ND	ND			BD
1,3 - Dichlorobenzene				ND	ND			300
1,4 - Dichlorobenzene				ND	ND	1.3	5.5	450
1,4 - Dioxane				ND	ND			360
2,2,4 - trimethylpentane				1.1	ND	6.5	4.5	
2 - Butanone (MEK)				ND	3.9	16	12	2
4 - Ethyltoluene				8.0	31			
Acetone				150	ND	110	99	2,400
Benzene				24	0.52	15	9.4	10ppm
Benzyl chloride				ND	ND			5
Bromodichloromethane				6.1	ND			
Bromoform				ND	ND			5
Bromomethane				ND	ND			
Carbon Disulfide				29	0.47		4.2	2
Carbon Tetrachloride			1	ND	0.77	0.8	<1.3	2
Chlorobenzene				ND	ND			350
Chloroethane				26	0.97			
Chloroform				19	ND	1.4	1.1	240
Chloromethane				ND	ND	3.3	3.7	
cis - 1,2 - Dichloroethene			2	8.9	ND	<0.25	<1.9	2
cis - 1,3 - Dichloropropene				ND	ND			350
Cyclohexane				11	ND	8.1		1,050

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 2	Indoor Air 2	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
Dibromochloromethane				ND	ND			
Dichlorodifluoromethane (Freon 12)				2.6	2.7	15	16.5	4,200
Ethyl acetate				ND	ND		5.4	1,400
Ethylbenzene	Yes			18	ND	7.3	5.7	435
Freon 113				0.86	0.86			
Freon 114				ND	ND			
n-Heptane				10	0.71	19		2,000
Hexachloro-1,3 - butadiene				ND	ND			
Hexane				45	3.4	18	10.2	1,800
Isopropyl alcohol				ND	66		250	980
Methyl Butyl Ketone				ND	ND			410
Methyl Isobutyl ketone				ND	ND	2.2	6	410
Methyl tert-Butyl Ether				ND	ND	26	11.5	
Methylene chloride		60		ND	1.5	22	10	2
Propylene				ND	ND			
Styrene				ND	ND	1.3	1.9	2
Tetrachloroethylene		100	2	49,000	79	2.9	15.9	2
Tetrahydrofuran				ND	ND			590
Toluene				65	2.8	58	43	2
trans-1,2 - Dichloroethene				4.6	ND			2
trans-1,3 - Dichloropropene				ND	ND			350
Trichloroethene		5	1	250	17	0.5	4.2	2
Trichlorofluoromethane (Freon 11)				13	2.1	17	18.1	
m,p - Xylene	Yes			83	1.1	12	22.2	435
o - Xylene	Yes			34	0.44	7.6	7.9	435
Vinyl acetate				ND	ND			
Vinyl bromide				ND	ND			
Vinyl Chloride			1	1.6	ND	<0.25	<1.9	1 ppm

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 3	Indoor Air 3	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
1,1,1 - Trichloroethane			2	0.94	ND	3.1	20.6	1,900
1,1,2,2 - Tetrachloroethane				ND	ND			35
1,1,2 - Trichloroethane				ND	ND			45
1,1 - Dichloroethane				ND	ND			400
1,1 - Dichloroethane				ND	ND			
1,2,4 - Trichlorobenzene	Yes			ND	ND	9.5	9.5	
1,2,4 - Trimethylbenzene				41	1.0			2
1,2 - Dibromoethane				ND	ND			450
1,2 - Dichlorobenzene				ND	ND			2
1,2 - Dichloroethane				3.5	ND	<0.25	<0.9	350
1,2 - Dichloropropane				ND	ND			
1,3,5 - Trimethylbenzene	Yes			10	ND	3.6	3.7	
1,3 - butadiene				ND	ND			BD
1,3 - Dichlorobenzene				ND	ND			300
1,4 - Dichlorobenzene				ND	ND	1.3	5.5	450
1,4 - Dioxane				ND	ND			360
2,2,4 - trimethylpentane				0.85	ND	6.5	4.5	
2 - Butanone (MEK)				ND	4.5	16	12	2
4 - Ethyltoluene				12	19			
Acetone				88	ND	110	99	2,400
Benzene				13	0.58	15	9.4	10ppm
Benzyl chloride				ND	ND			5
Bromodichloromethane				55	ND			
Bromoform				ND	ND			5
Bromomethane				ND	ND			
Carbon Disulfide				300	0.85		4.2	2
Carbon Tetrachloride			1	ND	0.83	0.8	<1.3	2
Chlorobenzene				ND	ND			350
Chloroethane				9.1	ND			
Chloroform				99	0.89	1.4	1.1	240
Chloromethane				0.78	0.86	3.3	3.7	
cis - 1,2 - Dichloroethane			2	ND	ND	<0.25	<1.9	2
cis - 1,3 - Dichloropropene				ND	ND			350
Cyclohexane				ND	ND	8.1		1,050

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 3	Indoor Air 3	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
Dibromochloromethane				13	ND			4,200
Dichlorodifluoromethane (Freon 12)				2.7	2.6	15	16.5	1,400
Ethyl acetate				2.0	1.1		5.4	435
Ethylbenzene	Yes			26	ND	7.3	5.7	
Freon 113				2.0	ND			
Freon 114				ND	ND			
n-Heptane				15	0.75	19		2,000
Hexachloro-1,3-butadiene				ND	ND			
Hexane				51	3.7	18	10.2	1,800
Isopropyl alcohol				ND	21		250	980
Methyl Butyl Ketone				ND	ND			410
Methyl Isobutyl ketone				ND	ND	2.2	6	410
Methyl tert-Butyl Ether				ND	ND	26	11.5	
Methylene chloride		60		1.1	1.3	22	10	2
Propylene				ND	ND			
Styrene				ND	ND	1.3	1.9	2
Tetrachloroethylene		100	2	41	6.3	2.9	15.9	2
Tetrahydrofuran				ND	ND			590
Toluene				81	2.9	58	43	2
trans-1,2-Dichloroethene				ND	ND			2
trans-1,3-Dichloropropene				ND	ND			350
Trichloroethene		5	1	2.9	0.76	0.5	4.2	2
Trichlorofluoromethane (Freon 11)				17	1.6	17	18.1	
m,p-Xylene	Yes			130	1.1	12	22.2	435
o-Xylene	Yes			47	0.49	7.6	7.9	435
Vinyl acetate				ND	ND			
Vinyl bromide				ND	ND			
Vinyl Chloride			1	1.1	ND	<0.25	<1.9	1 ppm

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 4	Indoor Air 4	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
1,1,1 - Trichloroethane			2	ND	ND	3.1	20.6	1,900
1,1,2,2 - Tetrachloroethane				ND	ND			35
1,1,2 - Trichloroethane				ND	ND			45
1,1 - Dichloroethane				ND	ND			400
1,1 - Dichloroethene				ND	ND			
1,2,4 - Trichlorobenzene	Yes			ND	ND			
1,2,4 - Trimethylbenzene				3.2	1.2	9.5	9.5	
1,2 - Dibromoethane				ND	ND			2
1,2 - Dichlorobenzene				ND	ND			450
1,2 - Dichloroethane				ND	ND	<0.25	<0.9	2
1,2 - Dichloropropane				ND	ND			350
1,3,5 - Trimethylbenzene	Yes			1.1	ND	3.6	3.7	
1,3 - butadiene				ND	ND			BD
1,3 - Dichlorobenzene				ND	ND			300
1,4 - Dichlorobenzene				ND	ND	1.3	5.5	450
1,4 - Dioxane				ND	ND			360
2,2,4 - trimethylpentane				ND	ND	6.5	4.5	
2 - Butanone (MEK)				1.1	4.3	16	12	2
4 - Ethyltoluene				0.75	ND			
Acetone				51	23	110	99	2,400
Benzene				0.65	0.58	15	9.4	10ppm
Benzyl chloride				ND	ND			5
Bromodichloromethane				ND	ND			
Bromoform				ND	ND			5
Bromomethane				ND	ND			
Carbon Disulfide				ND	1.0		4.2	2
Carbon Tetrachloride			1	0.70	0.77	0.8	<1.3	2
Chlorobenzene				ND	ND			350
Chloroethane				ND	ND			
Chloroform				1.3	0.89	1.4	1.1	240
Chloromethane				0.78	0.86	3.3	3.7	
cis - 1,2 - Dichloroethene			2	11	ND	<0.25	<1.9	2
cis - 1,3 - Dichloropropene				ND	ND			350
Cyclohexane				ND	ND	8.1		1,050

Table 4  
 Summary of Indoor Air & Sub-Slab Vapor Analytical Results  
 100 Ridge Road, Lackawanna, New York  
 Monitoring date: October 4, 2011

	Detected in Soil Under Building Slab*	NYSDOH Air Guideline Value	NYSDOH Decision Matrix	Sub-Slab 4	Indoor Air 4	NYSDOH (2006) Residential Indoor Air Background (90%)**	USEPA (2001) Commercial Indoor Air Background (90%)**	OSHA 1910.1000 Tables Z1 & Z2 Limits for Air Contaminants
Dibromochloromethane				ND	ND			
Dichlorodifluoromethane (Freon 12)				2.4	2.6	15	16.5	4,200
Ethyl acetate				ND	ND		5.4	1,400
Ethylbenzene	Yes			0.49	0.49	7.3	5.7	435
Freon 113				0.93	ND			
Freon 114				ND	ND			
n-Heptane				1.0	0.67	19		2,000
Hexachloro-1,3 - butadiene				ND	ND			
Hexane				0.72	3.7	18	10.2	1,800
Isopropyl alcohol				10	24		250	980
Methyl Butyl Ketone				ND	ND			410
Methyl Isobutyl ketone				ND	ND	2.2	6	410
Methyl tert-Butyl Ether				ND	ND	26	11.5	
Methylene chloride		60		20	1.3	22	10	2
Propylene				ND	ND			
Styrene				ND	ND	1.3	1.9	2
Tetrachloroethylene		100	2	4.1	<b>5.9</b>	2.9	15.9	2
Tetrahydrofuran				ND	ND			590
Toluene				3.3	3.0	58	43	2
trans-1,2-Dichloroethene				ND	ND			2
trans-1,3-Dichloropropene				ND	ND			350
Trichloroethene		5	1	25	<b>0.76</b>	0.5	4.2	2
Trichlorofluoromethane (Freon 11)				2.1	1.6	17	18.1	
m,p - Xylene	Yes			1.3	1.4	12	22.2	435
o - Xylene	Yes			0.71	0.66	7.6	7.9	435
Vinyl acetate				ND	ND			
Vinyl bromide				ND	ND			
Vinyl Chloride			1	0.91	ND	<0.25	<1.9	1 ppm

Notes: 1) Results, NYSDOH AGVs and Background Guidance presented in ug/m3 (unless otherwise indicated).

2) \* indicates soil results obtained from HEI subsurface investigation, November 2011.

3) \*\* Source of data: NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York", Tables C1 & C2, October 2006.

4) Shaded values represent exceedance of guidance values.

5) Italics/Bold result indicates exceedance of OSHA PEL

**Attachment 5**

**Laboratory Analytical Report**



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

## Analytical Report Cover Page

### **Hazard Evaluations, Inc.**

For Lab Project # 11-4361

Issued October 19, 2011

This report contains a total of 36 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"<" = analyzed for but not detected at or above the reporting limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.





179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Volatile Analysis Report for Soils/Solids/Sludges

Client: Hazard Evaluations Inc.

Client Job Site: 100 Ridge

Lab Project Number: 11-4361

Lab Sample Number: 14883

Client Job Number: 30301

Field Location: BH 15 (0-4)

Date Sampled: 10/04/2011

Field ID Number: N/A

Date Received: 10/12/2011

Sample Type: Soil

Date Analyzed: 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 23.6	1,1-Dichloroethene	< 23.6
Bromoform	< 59.1	cis-1,2-Dichloroethene	45.5
Bromomethane	< 23.6	trans-1,2-Dichloroethene	< 23.6
Carbon Tetrachloride	< 23.6	1,2-Dichloropropane	< 23.6
Chlorobenzene	< 23.6	cis-1,3-Dichloropropene	< 23.6
Chloroethane	< 23.6	trans-1,3-Dichloropropene	< 23.6
2-Chloroethyl vinyl Ether	< 118	Methylene chloride	< 59.1
Chloroform	< 23.6	1,1,2,2-Tetrachloroethane	< 23.6
Chloromethane	< 23.6	Tetrachloroethene	1,240
Dibromochloromethane	< 23.6	1,1,1-Trichloroethane	< 23.6
1,2-Dichlorobenzene	< 23.6	1,1,2-Trichloroethane	< 23.6
1,3-Dichlorobenzene	< 23.6	Trichloroethene	543
1,4-Dichlorobenzene	< 23.6	Trichlorofluoromethane	< 23.6
1,1-Dichloroethane	< 23.6	Vinyl chloride	< 23.6
1,2-Dichloroethane	< 23.6		

ELAP Number 10958

Method: EPA 8260B

Data File: V92463.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger: Technical Director

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114361V1.XLS


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### Volatile Analysis Report for Soils/Solids/Sludges

**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14884

**Client Job Number:** 30301

**Field Location:** BH 15 (4-8)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/14/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 7.77	1,1-Dichloroethene	< 7.77
Bromoform	< 19.4	cis-1,2-Dichloroethene	10.2
Bromomethane	< 7.77	trans-1,2-Dichloroethene	< 7.77
Carbon Tetrachloride	< 7.77	1,2-Dichloropropane	< 7.77
Chlorobenzene	< 7.77	cis-1,3-Dichloropropene	< 7.77
Chloroethane	< 7.77	trans-1,3-Dichloropropene	< 7.77
2-Chloroethyl vinyl Ether	< 38.8	Methylene chloride	< 19.4
Chloroform	< 7.77	1,1,2,2-Tetrachloroethane	< 7.77
Chloromethane	< 7.77	Tetrachloroethene	834
Dibromochloromethane	< 7.77	1,1,1-Trichloroethane	< 7.77
1,2-Dichlorobenzene	< 7.77	1,1,2-Trichloroethane	< 7.77
1,3-Dichlorobenzene	< 7.77	Trichloroethene	182
1,4-Dichlorobenzene	< 7.77	Trichlorofluoromethane	< 7.77
1,1-Dichloroethane	< 7.77	Vinyl chloride	< 7.77
1,2-Dichloroethane	< 7.77		

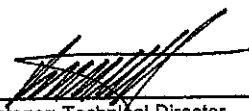
ELAP Number 10958

Method: EPA 8260B

Data File: V92425.D

Comments: ug / Kg = microgram per Kilogram

Signature:


  
 \_\_\_\_\_

Bruce Hoogesteger: Technical Director

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114361V2.XLS



**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14885

**Client Job Number:** 30301

**Field Location:** BH 15 (8-12)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 97.9	1,1-Dichloroethene	< 97.9
Bromoform	< 245	cis-1,2-Dichloroethene	< 97.9
Bromomethane	< 97.9	trans-1,2-Dichloroethene	< 97.9
Carbon Tetrachloride	< 97.9	1,2-Dichloropropane	< 97.9
Chlorobenzene	< 97.9	cis-1,3-Dichloropropene	< 97.9
Chloroethane	< 97.9	trans-1,3-Dichloropropene	< 97.9
2-Chloroethyl vinyl Ether	< 489	Methylene chloride	< 245
Chloroform	< 97.9	1,1,2,2-Tetrachloroethane	< 97.9
Chloromethane	< 97.9	Tetrachloroethene	3,570
Dibromochloromethane	< 97.9	1,1,1-Trichloroethane	< 97.9
1,2-Dichlorobenzene	< 97.9	1,1,2-Trichloroethane	< 97.9
1,3-Dichlorobenzene	< 97.9	Trichloroethene	< 97.9
1,4-Dichlorobenzene	< 97.9	Trichlorofluoromethane	< 97.9
1,1-Dichloroethane	< 97.9	Vinyl chloride	< 97.9
1,2-Dichloroethane	< 97.9		

ELAP Number 10958

Method: EPA 8260B

Data File: V92464.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14886

**Client Job Number:** 30301

**Field Location:** BH 16 (0-4)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/17/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 933	1,1-Dichloroethene	< 933
Bromoform	< 2,330	cis-1,2-Dichloroethene	1,270
Bromomethane	< 933	trans-1,2-Dichloroethene	< 933
Carbon Tetrachloride	< 933	1,2-Dichloropropane	< 933
Chlorobenzene	< 933	cis-1,3-Dichloropropene	< 933
Chloroethane	< 933	trans-1,3-Dichloropropene	< 933
2-Chloroethyl vinyl Ether	< 4,660	Methylene chloride	< 2,330
Chloroform	< 933	1,1,2,2-Tetrachloroethane	< 933
Chloromethane	< 933	Tetrachloroethene	68,600
Dibromochloromethane	< 933	1,1,1-Trichloroethane	< 933
1,2-Dichlorobenzene	< 933	1,1,2-Trichloroethane	< 933
1,3-Dichlorobenzene	< 933	Trichloroethene	2,820
1,4-Dichlorobenzene	< 933	Trichlorofluoromethane	< 933
1,1-Dichloroethane	< 933	Vinyl chloride	< 933
1,2-Dichloroethane	< 933		

ELAP Number 10958

Method: EPA 8260B

Data File: V92489.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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114361V4.XLS



### Volatile Analysis Report for Soils/Solids/Sludges

**Client:** Hazard Evaluations Inc.

<b>Client Job Site:</b> 100 Ridge	<b>Lab Project Number:</b> 11-4361
	<b>Lab Sample Number:</b> 14887
<b>Client Job Number:</b> 30301	<b>Date Sampled:</b> 10/04/2011
<b>Field Location:</b> BH 16 (12-13.5)	<b>Date Received:</b> 10/12/2011
<b>Field ID Number:</b> N/A	<b>Date Analyzed:</b> 10/15/2011
<b>Sample Type:</b> Soil	

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 55.1	1,1-Dichloroethene	< 55.1
Bromoform	< 138	cis-1,2-Dichloroethene	< 55.1
Bromomethane	< 55.1	trans-1,2-Dichloroethene	< 55.1
Carbon Tetrachloride	< 55.1	1,2-Dichloropropane	< 55.1
Chlorobenzene	< 55.1	cis-1,3-Dichloropropene	< 55.1
Chloroethane	< 55.1	trans-1,3-Dichloropropene	< 55.1
2-Chloroethyl vinyl Ether	< 276	Methylene chloride	< 138
Chloroform	< 55.1	1,1,2,2-Tetrachloroethane	< 55.1
Chloromethane	< 55.1	Tetrachloroethene	769
Dibromochloromethane	< 55.1	1,1,1-Trichloroethane	< 55.1
1,2-Dichlorobenzene	< 55.1	1,1,2-Trichloroethane	< 55.1
1,3-Dichlorobenzene	< 55.1	Trichloroethene	56.7
1,4-Dichlorobenzene	< 55.1	Trichlorofluoromethane	< 55.1
1,1-Dichloroethane	< 55.1	Vinyl chloride	< 55.1
1,2-Dichloroethane	< 55.1		

ELAP Number 10958

Method: EPA 8260B

Data File: V92466.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_


  
 Bruce Hoogesteger, Technical Director

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114361V5.XLS



**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14888

**Client Job Number:** 30301

**Field Location:** BH 17 (4-8)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/14/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 7.33	1,1-Dichloroethene	< 7.33
Bromoform	< 18.3	cis-1,2-Dichloroethene	< 7.33
Bromomethane	< 7.33	trans-1,2-Dichloroethene	< 7.33
Carbon Tetrachloride	< 7.33	1,2-Dichloropropane	< 7.33
Chlorobenzene	< 7.33	cis-1,3-Dichloropropene	< 7.33
Chloroethane	< 7.33	trans-1,3-Dichloropropene	< 7.33
2-Chloroethyl vinyl Ether	< 36.7	Methylene chloride	< 18.3
Chloroform	< 7.33	1,1,2,2-Tetrachloroethane	< 7.33
Chloromethane	< 7.33	Tetrachloroethene	126
Dibromochloromethane	< 7.33	1,1,1-Trichloroethane	< 7.33
1,2-Dichlorobenzene	< 7.33	1,1,2-Trichloroethane	< 7.33
1,3-Dichlorobenzene	< 7.33	Trichloroethene	42.1
1,4-Dichlorobenzene	< 7.33	Trichlorofluoromethane	< 7.33
1,1-Dichloroethane	< 7.33	Vinyl chloride	< 7.33
1,2-Dichloroethane	< 7.33		

ELAP Number 10958

Method: EPA 8260B

Data File: V92429.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14889

**Client Job Number:** 30301

**Field Location:** BH 21 (4-8)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/14/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 6.05	1,1-Dichloroethene	< 6.05
Bromoform	< 15.1	cis-1,2-Dichloroethene	8.73
Bromomethane	< 6.05	trans-1,2-Dichloroethene	< 6.05
Carbon Tetrachloride	< 6.05	1,2-Dichloropropane	< 6.05
Chlorobenzene	< 6.05	cis-1,3-Dichloropropene	< 6.05
Chloroethane	< 6.05	trans-1,3-Dichloropropene	< 6.05
2-Chloroethyl vinyl Ether	< 30.2	Methylene chloride	< 15.1
Chloroform	< 6.05	1,1,2,2-Tetrachloroethane	< 6.05
Chloromethane	< 6.05	Tetrachloroethene	141
Dibromochloromethane	< 6.05	1,1,1-Trichloroethane	< 6.05
1,2-Dichlorobenzene	< 6.05	1,1,2-Trichloroethane	< 6.05
1,3-Dichlorobenzene	< 6.05	Trichloroethene	96.9
1,4-Dichlorobenzene	< 6.05	Trichlorofluoromethane	< 6.05
1,1-Dichloroethane	< 6.05	Vinyl chloride	< 6.05
1,2-Dichloroethane	< 6.05		

ELAP Number 10958

Method: EPA 8260B

Data File: V92430.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

**Bruce Hoogesteger, Technical Director**

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14890

**Client Job Number:** 30301

**Date Sampled:** 10/04/2011

**Field Location:** BH 21 (8-12)

**Date Received:** 10/12/2011

**Field ID Number:** N/A

**Date Analyzed:** 10/14/2011

**Sample Type:** Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 7.15	1,1-Dichloroethene	< 7.15
Bromoform	< 17.9	cis-1,2-Dichloroethene	< 7.15
Bromomethane	< 7.15	trans-1,2-Dichloroethene	< 7.15
Carbon Tetrachloride	< 7.15	1,2-Dichloropropane	< 7.15
Chlorobenzene	< 7.15	cis-1,3-Dichloropropene	< 7.15
Chloroethane	< 7.15	trans-1,3-Dichloropropene	< 7.15
2-Chloroethyl vinyl Ether	< 35.7	Methylene chloride	< 17.9
Chloroform	< 7.15	1,1,2,2-Tetrachloroethane	< 7.15
Chloromethane	< 7.15	Tetrachloroethene	327
Dibromochloromethane	< 7.15	1,1,1-Trichloroethane	< 7.15
1,2-Dichlorobenzene	< 7.15	1,1,2-Trichloroethane	< 7.15
1,3-Dichlorobenzene	< 7.15	Trichloroethene	61.6
1,4-Dichlorobenzene	< 7.15	Trichlorofluoromethane	< 7.15
1,1-Dichloroethane	< 7.15	Vinyl chloride	< 7.15
1,2-Dichloroethane	< 7.15		

ELAP Number 10958

Method: EPA 8260B

Data File: V92431.D

Comments: ug / Kg = microgram per Kilogram

Matrix Spike outliers indicate probable matrix interference

Signature:

  
 Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14891

**Client Job Number:** 30301

**Field Location:** BH 21 (12-14.5)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/14/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 8.60	1,1-Dichloroethene	< 8.60
Bromoform	< 21.5	cis-1,2-Dichloroethene	< 8.60
Bromomethane	< 8.60	trans-1,2-Dichloroethene	< 8.60
Carbon Tetrachloride	< 8.60	1,2-Dichloropropane	< 8.60
Chlorobenzene	< 8.60	cis-1,3-Dichloropropene	< 8.60
Chloroethane	< 8.60	trans-1,3-Dichloropropene	< 8.60
2-Chloroethyl vinyl Ether	< 43.0	Methylene chloride	< 21.5
Chloroform	< 8.60	1,1,2,2-Tetrachloroethane	< 8.60
Chloromethane	< 8.60	Tetrachloroethene	364
Dibromochloromethane	< 8.60	1,1,1-Trichloroethane	< 8.60
1,2-Dichlorobenzene	< 8.60	1,1,2-Trichloroethane	< 8.60
1,3-Dichlorobenzene	< 8.60	Trichloroethene	55.9
1,4-Dichlorobenzene	< 8.60	Trichlorofluoromethane	< 8.60
1,1-Dichloroethane	< 8.60	Vinyl chloride	< 8.60
1,2-Dichloroethane	< 8.60		

ELAP Number 10958

Method: EPA 8260B

Data File: V92432.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14892

**Client Job Number:** 30301

**Field Location:** BH 23 (4-8)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/14/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 6.25	1,1-Dichloroethene	< 6.25
Bromoform	< 15.6	cis-1,2-Dichloroethene	< 6.25
Bromomethane	< 6.25	trans-1,2-Dichloroethene	< 6.25
Carbon Tetrachloride	< 6.25	1,2-Dichloropropane	< 6.25
Chlorobenzene	< 6.25	cis-1,3-Dichloropropene	< 6.25
Chloroethane	< 6.25	trans-1,3-Dichloropropene	< 6.25
2-Chloroethyl vinyl Ether	< 31.3	Methylene chloride	< 15.6
Chloroform	< 6.25	1,1,2,2-Tetrachloroethane	< 6.25
Chloromethane	< 6.25	Tetrachloroethene	113
Dibromochloromethane	< 6.25	1,1,1-Trichloroethane	< 6.25
1,2-Dichlorobenzene	< 6.25	1,1,2-Trichloroethane	< 6.25
1,3-Dichlorobenzene	< 6.25	Trichloroethene	55.1
1,4-Dichlorobenzene	< 6.25	Trichlorofluoromethane	< 6.25
1,1-Dichloroethane	< 6.25	Vinyl chloride	< 6.25
1,2-Dichloroethane	< 6.25		

ELAP Number 10958

Method: EPA 8260B

Data File: V92433.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14893

**Client Job Number:** 30301

**Field Location:** BH 23 (10-12)

**Date Sampled:** 10/04/2011

**Date Received:** 10/12/2011

**Field ID Number:** N/A

**Date Analyzed:** 10/14/2011

**Sample Type:** Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 8.16	1,1-Dichloroethene	< 8.16
Bromoform	< 20.4	cis-1,2-Dichloroethene	< 8.16
Bromomethane	< 8.16	trans-1,2-Dichloroethene	< 8.16
Carbon Tetrachloride	< 8.16	1,2-Dichloropropane	< 8.16
Chlorobenzene	< 8.16	cis-1,3-Dichloropropene	< 8.16
Chloroethane	< 8.16	trans-1,3-Dichloropropene	< 8.16
2-Chloroethyl vinyl Ether	< 40.8	Methylene chloride	< 20.4
Chloroform	< 8.16	1,1,2,2-Tetrachloroethane	< 8.16
Chloromethane	< 8.16	Tetrachloroethene	28.3
Dibromochloromethane	< 8.16	1,1,1-Trichloroethane	< 8.16
1,2-Dichlorobenzene	< 8.16	1,1,2-Trichloroethane	< 8.16
1,3-Dichlorobenzene	< 8.16	Trichloroethene	17.8
1,4-Dichlorobenzene	< 8.16	Trichlorofluoromethane	< 8.16
1,1-Dichloroethane	< 8.16	Vinyl chloride	< 8.16
1,2-Dichloroethane	< 8.16		

ELAP Number 10958

Method: EPA 8260B

Data File: V92434.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14894

**Client Job Number:** 30301

**Date Sampled:** 10/04/2011

**Field Location:** BH 25 (4-B)

**Date Received:** 10/12/2011

**Field ID Number:** N/A

**Date Analyzed:** 10/14/2011

**Sample Type:** Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 7.43	1,1-Dichloroethene	< 7.43
Bromoform	< 18.6	cis-1,2-Dichloroethene	8.12
Bromomethane	< 7.43	trans-1,2-Dichloroethene	< 7.43
Carbon Tetrachloride	< 7.43	1,2-Dichloropropane	< 7.43
Chlorobenzene	< 7.43	cis-1,3-Dichloropropene	< 7.43
Chloroethane	< 7.43	trans-1,3-Dichloropropene	< 7.43
2-Chloroethyl vinyl Ether	< 37.1	Methylene chloride	< 18.6
Chloroform	< 7.43	1,1,2,2-Tetrachloroethane	< 7.43
Chloromethane	< 7.43	Tetrachloroethene	86.7
Dibromochloromethane	< 7.43	1,1,1-Trichloroethane	< 7.43
1,2-Dichlorobenzene	< 7.43	1,1,2-Trichloroethane	< 7.43
1,3-Dichlorobenzene	< 7.43	Trichloroethene	77.7
1,4-Dichlorobenzene	< 7.43	Trichlorofluoromethane	< 7.43
1,1-Dichloroethane	< 7.43	Vinyl chloride	< 7.43
1,2-Dichloroethane	< 7.43		

ELAP Number 10958

Method: EPA 8260B

Data File: V92435.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger: Technical Director

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114381W2.XLS



**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14895

**Client Job Number:** 30301

**Field Location:** BH 25 (8-12)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 8.28	1,1-Dichloroethene	< 8.28
Bromoform	< 20.7	cis-1,2-Dichloroethene	< 8.28
Bromomethane	< 8.28	trans-1,2-Dichloroethene	< 8.28
Carbon Tetrachloride	< 8.28	1,2-Dichloropropane	< 8.28
Chlorobenzene	< 8.28	cis-1,3-Dichloropropene	< 8.28
Chloroethane	< 8.28	trans-1,3-Dichloropropene	< 8.28
2-Chloroethyl vinyl Ether	< 41.4	Methylene chloride	< 20.7
Chloroform	< 8.28	1,1,2,2-Tetrachloroethane	< 8.28
Chloromethane	< 8.28	Tetrachloroethene	89.2
Dibromochloromethane	< 8.28	1,1,1-Trichloroethane	< 8.28
1,2-Dichlorobenzene	< 8.28	1,1,2-Trichloroethane	< 8.28
1,3-Dichlorobenzene	< 8.28	Trichloroethene	64.1
1,4-Dichlorobenzene	< 8.28	Trichlorofluoromethane	< 8.28
1,1-Dichloroethane	< 8.28	Vinyl chloride	< 8.28
1,2-Dichloroethane	< 8.28		

ELAP Number 10958

Method: EPA 8260B

Data File: V92436.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14896

**Client Job Number:** 30301

**Field Location:** BH 25 (12-16)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 10.7	1,1-Dichloroethene	< 10.7
Bromoform	< 26.9	cis-1,2-Dichloroethene	< 10.7
Bromomethane	< 10.7	trans-1,2-Dichloroethene	< 10.7
Carbon Tetrachloride	< 10.7	1,2-Dichloropropane	< 10.7
Chlorobenzene	< 10.7	cis-1,3-Dichloropropene	< 10.7
Chloroethane	< 10.7	trans-1,3-Dichloropropene	< 10.7
2-Chloroethyl vinyl Ether	< 53.7	Methylene chloride	< 26.9
Chloroform	< 10.7	1,1,2,2-Tetrachloroethane	< 10.7
Chloromethane	< 10.7	Tetrachloroethene	38.5
Dibromochloromethane	< 10.7	1,1,1-Trichloroethane	< 10.7
1,2-Dichlorobenzene	< 10.7	1,1,2-Trichloroethane	< 10.7
1,3-Dichlorobenzene	< 10.7	Trichloroethene	37.0
1,4-Dichlorobenzene	< 10.7	Trichlorofluoromethane	< 10.7
1,1-Dichloroethane	< 10.7	Vinyl chloride	< 10.7
1,2-Dichloroethane	< 10.7		

ELAP Number 10958

Method: EPA 8260B

Data File: V92467.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

Client: Hazard Evaluations Inc.

Client Job Site: 100 Ridge

Lab Project Number: 11-4361

Lab Sample Number: 14898

Client Job Number: 30301

Date Sampled: 09/30/2011

Field Location: BH 13 (4-8)

Date Received: 10/12/2011

Field ID Number: N/A

Date Analyzed: 10/13/2011

Sample Type: Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 8.72	1,1-Dichloroethene	< 8.72
Bromoform	< 21.8	cis-1,2-Dichloroethene	340
Bromomethane	< 8.72	trans-1,2-Dichloroethene	15.9
Carbon Tetrachloride	< 8.72	1,2-Dichloropropane	< 8.72
Chlorobenzene	< 8.72	cis-1,3-Dichloropropene	< 8.72
Chloroethane	< 8.72	trans-1,3-Dichloropropene	< 8.72
2-Chloroethyl vinyl Ether	< 43.6	Methylene chloride	< 21.8
Chloroform	< 8.72	1,1,2,2-Tetrachloroethane	< 8.72
Chloromethane	< 8.72	Tetrachloroethene	168
Dibromochloromethane	< 8.72	1,1,1-Trichloroethane	< 8.72
1,2-Dichlorobenzene	< 8.72	1,1,2-Trichloroethane	< 8.72
1,3-Dichlorobenzene	< 8.72	Trichloroethene	118
1,4-Dichlorobenzene	< 8.72	Trichlorofluoromethane	< 8.72
1,1-Dichloroethane	< 8.72	Vinyl chloride	15.9
1,2-Dichloroethane	< 8.72		

ELAP Number 10958

Method: EPA 8260B

Data File: V92346.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger: Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client:** Hazard Evaluations Inc.
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14899

**Client Job Number:** 30301

**Field Location:** BH 3 (4-8)

**Date Sampled:** 10/05/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 11.8	1,1-Dichloroethene	< 11.8
Bromoform	< 29.4	cis-1,2-Dichloroethene	16.9
Bromomethane	< 11.8	trans-1,2-Dichloroethene	< 11.8
Carbon Tetrachloride	< 11.8	1,2-Dichloropropane	< 11.8
Chlorobenzene	< 11.8	cis-1,3-Dichloropropene	< 11.8
Chloroethane	< 11.8	trans-1,3-Dichloropropene	< 11.8
2-Chloroethyl vinyl Ether	< 58.9	Methylene chloride	< 29.4
Chloroform	< 11.8	1,1,2,2-Tetrachloroethane	< 11.8
Chloromethane	< 11.8	Tetrachloroethene	119
Dibromochloromethane	< 11.8	1,1,1-Trichloroethane	< 11.8
1,2-Dichlorobenzene	< 11.8	1,1,2-Trichloroethane	< 11.8
1,3-Dichlorobenzene	< 11.8	Trichloroethene	101
1,4-Dichlorobenzene	< 11.8	Trichlorofluoromethane	< 11.8
1,1-Dichloroethane	< 11.8	Vinyl chloride	< 11.8
1,2-Dichloroethane	< 11.8		


ELAP Number 10958

Method: EPA 8260B

Data File: V92470.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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114361W7.XLS





**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14900

**Client Job Number:** 30301

**Field Location:** BH 19 (4-8)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 11.5	1,1-Dichloroethene	< 11.5
Bromoform	< 28.7	cis-1,2-Dichloroethene	109
Bromomethane	< 11.5	trans-1,2-Dichloroethene	< 11.5
Carbon Tetrachloride	< 11.5	1,2-Dichloropropane	< 11.5
Chlorobenzene	< 11.5	cis-1,3-Dichloropropene	< 11.5
Chloroethane	< 11.5	trans-1,3-Dichloropropene	< 11.5
2-Chloroethyl vinyl Ether	< 57.5	Methylene chloride	< 28.7
Chloroform	< 11.5	1,1,2,2-Tetrachloroethane	< 11.5
Chloromethane	< 11.5	Tetrachloroethene	135
Dibromochloromethane	< 11.5	1,1,1-Trichloroethane	< 11.5
1,2-Dichlorobenzene	< 11.5	1,1,2-Trichloroethane	< 11.5
1,3-Dichlorobenzene	< 11.5	Trichloroethene	67.8
1,4-Dichlorobenzene	< 11.5	Trichlorofluoromethane	< 11.5
1,1-Dichloroethane	< 11.5	Vinyl chloride	< 11.5
1,2-Dichloroethane	< 11.5		

ELAP Number 10958

Method: EPA 8260B

Data File: V92471.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14901

**Client Job Number:** 30301

**Date Sampled:** 10/04/2011

**Field Location:** BH 19 (8-12)

**Date Received:** 10/12/2011

**Field ID Number:** N/A

**Date Analyzed:** 10/18/2011

**Sample Type:** Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 27.6	1,1-Dichloroethene	< 27.6
Bromoform	< 69.0	cis-1,2-Dichloroethene	< 27.6
Bromomethane	< 27.6	trans-1,2-Dichloroethene	< 27.6
Carbon Tetrachloride	< 27.6	1,2-Dichloropropane	< 27.6
Chlorobenzene	< 27.6	cis-1,3-Dichloropropene	< 27.6
Chloroethane	< 27.6	trans-1,3-Dichloropropene	< 27.6
2-Chloroethyl vinyl Ether	< 138	Methylene chloride	< 69.0
Chloroform	< 27.6	1,1,2-Tetrachloroethane	< 27.6
Chloromethane	< 27.6	Tetrachloroethene	1,460
Dibromochloromethane	< 27.6	1,1,1-Trichloroethane	< 27.6
1,2-Dichlorobenzene	< 27.6	1,1,2-Trichloroethane	< 27.6
1,3-Dichlorobenzene	< 27.6	Trichloroethene	53.0
1,4-Dichlorobenzene	< 27.6	Trichlorofluoromethane	< 27.6
1,1-Dichloroethane	< 27.6	Vinyl chloride	< 27.6
1,2-Dichloroethane	< 27.6		

ELAP Number 10958

Method: EPA 8260B

Data File: V92525.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

  
Bruce Hoogesteger: Technical Director

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114361W9.XLS



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### Volatile Analysis Report for Soils/Solids/Sludges

Client: Hazard Evaluations Inc.

Client Job Site: 100 Ridge

Lab Project Number: 11-4361

Lab Sample Number: 14902

Client Job Number: 30301

Field Location: BH 1 (4-8)

Date Sampled: 10/05/2011

Field ID Number: N/A

Date Received: 10/12/2011

Sample Type: Soil

Date Analyzed: 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 9.68	1,1-Dichloroethene	< 9.68
Bromoform	< 24.2	cis-1,2-Dichloroethene	12.4
Bromomethane	< 9.68	trans-1,2-Dichloroethene	< 9.68
Carbon Tetrachloride	< 9.68	1,2-Dichloropropane	< 9.68
Chlorobenzene	< 9.68	cis-1,3-Dichloropropene	< 9.68
Chloroethane	< 9.68	trans-1,3-Dichloropropene	< 9.68
2-Chloroethyl vinyl Ether	< 48.4	Methylene chloride	< 24.2
Chloroform	< 9.68	1,1,2-Tetrachloroethane	< 9.68
Chloromethane	< 9.68	Tetrachloroethene	307
Dibromochloromethane	< 9.68	1,1,1-Trichloroethane	< 9.68
1,2-Dichlorobenzene	< 9.68	1,1,2-Trichloroethane	< 9.68
1,3-Dichlorobenzene	< 9.68	Trichloroethene	133
1,4-Dichlorobenzene	< 9.68	Trichlorofluoromethane	< 9.68
1,1-Dichloroethane	< 9.68	Vinyl chloride	< 9.68
1,2-Dichloroethane	< 9.68		

ELAP Number 10958

Method: EPA 8260B

Data File: V92473.D

Comments: ug / Kg = microgram per Kilogram  
Surrogate outliers indicate probable matrix interference

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14903

**Client Job Number:** 30301

**Date Sampled:** 10/04/2011

**Field Location:** BH 20 (4-8)

**Date Received:** 10/12/2011

**Field ID Number:** N/A

**Date Analyzed:** 10/15/2011

**Sample Type:** Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 10.9	1,1-Dichloroethene	< 10.9
Bromoform	< 27.2	cis-1,2-Dichloroethene	25.6
Bromomethane	< 10.9	trans-1,2-Dichloroethene	< 10.9
Carbon Tetrachloride	< 10.9	1,2-Dichloropropane	< 10.9
Chlorobenzene	< 10.9	cis-1,3-Dichloropropene	< 10.9
Chloroethane	< 10.9	trans-1,3-Dichloropropene	< 10.9
2-Chloroethyl vinyl Ether	< 54.3	Methylene chloride	< 27.2
Chloroform	< 10.9	1,1,2,2-Tetrachloroethane	< 10.9
Chloromethane	< 10.9	Tetrachloroethene	809
Dibromochloromethane	< 10.9	1,1,1-Trichloroethane	< 10.9
1,2-Dichlorobenzene	< 10.9	1,1,2-Trichloroethane	< 10.9
1,3-Dichlorobenzene	< 10.9	Trichloroethene	166
1,4-Dichlorobenzene	< 10.9	Trichlorofluoromethane	< 10.9
1,1-Dichloroethane	< 10.9	Vinyl chloride	< 10.9
1,2-Dichloroethane	< 10.9		

ELAP Number 10958

Method: EPA 8260B

Data File: V92474.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14904

**Client Job Number:** 30301

**Field Location:** BH 20 (8-12)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 10.3	1,1-Dichloroethene	< 10.3
Bromoform	< 25.8	cis-1,2-Dichloroethene	< 10.3
Bromomethane	< 10.3	trans-1,2-Dichloroethene	< 10.3
Carbon Tetrachloride	< 10.3	1,2-Dichloropropane	< 10.3
Chlorobenzene	< 10.3	cis-1,3-Dichloropropene	< 10.3
Chloroethane	< 10.3	trans-1,3-Dichloropropene	< 10.3
2-Chloroethyl vinyl Ether	< 51.5	Methylene chloride	< 25.8
Chloroform	< 10.3	1,1,2,2-Tetrachloroethane	< 10.3
Chloromethane	< 10.3	Tetrachloroethene	753
Dibromochloromethane	< 10.3	1,1,1-Trichloroethane	< 10.3
1,2-Dichlorobenzene	< 10.3	1,1,2-Trichloroethane	< 10.3
1,3-Dichlorobenzene	< 10.3	Trichloroethene	76.2
1,4-Dichlorobenzene	< 10.3	Trichlorofluoromethane	< 10.3
1,1-Dichloroethane	< 10.3	Vinyl chloride	< 10.3
1,2-Dichloroethane	< 10.3		

ELAP Number 10958

Method: EPA 8260B

Data File: V92475.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14905

**Client Job Number:** 30301

**Date Sampled:** 10/04/2011

**Field Location:** BH 20 (12-16)

**Date Received:** 10/12/2011

**Field ID Number:** N/A

**Date Analyzed:** 10/15/2011

**Sample Type:** Soil

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 9.50	1,1-Dichloroethene	< 9.50
Bromoform	< 23.7	cis-1,2-Dichloroethene	9.71
Bromomethane	< 9.50	trans-1,2-Dichloroethene	< 9.50
Carbon Tetrachloride	< 9.50	1,2-Dichloropropane	< 9.50
Chlorobenzene	< 9.50	cis-1,3-Dichloropropene	< 9.50
Chloroethane	< 9.50	trans-1,3-Dichloropropene	< 9.50
2-Chloroethyl vinyl Ether	< 47.5	Methylene chloride	< 23.7
Chloroform	< 9.50	1,1,2,2-Tetrachloroethane	< 9.50
Chloromethane	< 9.50	Tetrachloroethene	881
Dibromochloromethane	< 9.50	1,1,1-Trichloroethane	< 9.50
1,2-Dichlorobenzene	< 9.50	1,1,2-Trichloroethane	< 9.50
1,3-Dichlorobenzene	< 9.50	Trichloroethene	43.4
1,4-Dichlorobenzene	< 9.50	Trichlorofluoromethane	< 9.50
1,1-Dichloroethane	< 9.50	Vinyl chloride	< 9.50
1,2-Dichloroethane	< 9.50		

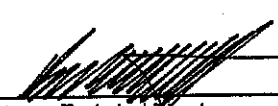
ELAP Number 10958

Method: EPA 8260B

Data File: V92476.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14906

**Client Job Number:** 30301

**Field Location:** WH 2 (0-4)

**Date Sampled:** 10/06/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/18/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 27.8	1,1-Dichloroethene	< 27.8
Bromoform	< 69.6	cis-1,2-Dichloroethene	48.7
Bromomethane	< 27.8	trans-1,2-Dichloroethene	< 27.8
Carbon Tetrachloride	< 27.8	1,2-Dichloropropane	< 27.8
Chlorobenzene	< 27.8	cis-1,3-Dichloropropene	< 27.8
Chloroethane	< 27.8	trans-1,3-Dichloropropene	< 27.8
2-Chloroethyl vinyl Ether	< 139	Methylene chloride	< 69.6
Chloroform	< 27.8	1,1,2,2-Tetrachloroethane	< 27.8
Chloromethane	< 27.8	Tetrachloroethene	1,630
Dibromochloromethane	< 27.8	1,1,1-Trichloroethane	< 27.8
1,2-Dichlorobenzene	< 27.8	1,1,2-Trichloroethane	< 27.8
1,3-Dichlorobenzene	< 27.8	Trichloroethene	930
1,4-Dichlorobenzene	< 27.8	Trichlorofluoromethane	< 27.8
1,1-Dichloroethane	< 27.8	Vinyl chloride	< 27.8
1,2-Dichloroethane	< 27.8		

ELAP Number 10958

Method: EPA 8260B

Data File: V92526.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14907

**Client Job Number:** 30301

**Field Location:** WH 2 (8-12)

**Date Sampled:** 10/06/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 10.3	1,1-Dichloroethene	< 10.3
Bromoform	< 25.7	cis-1,2-Dichloroethene	< 10.3
Bromomethane	< 10.3	trans-1,2-Dichloroethene	< 10.3
Carbon Tetrachloride	< 10.3	1,2-Dichloropropane	< 10.3
Chlorobenzene	< 10.3	cis-1,3-Dichloropropene	< 10.3
Chloroethane	< 10.3	trans-1,3-Dichloropropene	< 10.3
2-Chloroethyl vinyl Ether	< 51.5	Methylene chloride	< 25.7
Chloroform	< 10.3	1,1,2,2-Tetrachloroethane	< 10.3
Chloromethane	< 10.3	Tetrachloroethene	224
Dibromochloromethane	< 10.3	1,1,1-Trichloroethane	< 10.3
1,2-Dichlorobenzene	< 10.3	1,1,2-Trichloroethane	< 10.3
1,3-Dichlorobenzene	< 10.3	Trichloroethene	79.7
1,4-Dichlorobenzene	< 10.3	Trichlorofluoromethane	< 10.3
1,1-Dichloroethane	< 10.3	Vinyl chloride	< 10.3
1,2-Dichloroethane	< 10.3		

ELAP Number 10958

Method: EPA 8260B

Data File: V92478.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14908

**Client Job Number:** 30301

**Field Location:** WH 2 (12-14.5)

**Date Sampled:** 10/06/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/15/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 9.88	1,1-Dichloroethene	< 9.88
Bromoform	< 24.7	cis-1,2-Dichloroethene	< 9.88
Bromomethane	< 9.88	trans-1,2-Dichloroethene	< 9.88
Carbon Tetrachloride	< 9.88	1,2-Dichloropropane	< 9.88
Chlorobenzene	< 9.88	cis-1,3-Dichloropropene	< 9.88
Chloroethane	< 9.88	trans-1,3-Dichloropropene	< 9.88
2-Chloroethyl vinyl Ether	< 49.4	Methylene chloride	< 24.7
Chloroform	< 9.88	1,1,2,2-Tetrachloroethane	< 9.88
Chloromethane	< 9.88	Tetrachloroethene	112
Dibromochloromethane	< 9.88	1,1,1-Trichloroethane	< 9.88
1,2-Dichlorobenzene	< 9.88	1,1,2-Trichloroethane	< 9.88
1,3-Dichlorobenzene	< 9.88	Trichloroethene	76.0
1,4-Dichlorobenzene	< 9.88	Trichlorofluoromethane	< 9.88
1,1-Dichloroethane	< 9.88	Vinyl chloride	< 9.88
1,2-Dichloroethane	< 9.88		

ELAP Number 10958

Method: EPA 8260B

Data File: V92479.D

Comments: ug / Kg = microgram per Kilogram  
 Matrix Spike outliers indicate probable matrix interference

Signature:

  
 Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

**Client:** Hazard Evaluations Inc.
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14909

**Client Job Number:** 30301

**Field Location:** BH 28 (4-8)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/18/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 17.6	1,1-Dichloroethene	< 17.6
Bromoform	< 43.9	cis-1,2-Dichloroethene	32.8
Bromomethane	< 17.6	trans-1,2-Dichloroethene	< 17.6
Carbon Tetrachloride	< 17.6	1,2-Dichloropropane	< 17.6
Chlorobenzene	< 17.6	cis-1,3-Dichloropropene	< 17.6
Chloroethane	< 17.6	trans-1,3-Dichloropropene	< 17.6
2-Chloroethyl vinyl Ether	< 87.8	Methylene chloride	< 43.9
Chloroform	< 17.6	1,1,2,2-Tetrachloroethane	< 17.6
Chloromethane	< 17.6	Tetrachloroethene	516
Dibromochloromethane	< 17.6	1,1,1-Trichloroethane	< 17.6
1,2-Dichlorobenzene	< 17.6	1,1,2-Trichloroethane	< 17.6
1,3-Dichlorobenzene	< 17.6	Trichloroethene	393
1,4-Dichlorobenzene	< 17.6	Trichlorofluoromethane	< 17.6
1,1-Dichloroethane	< 17.6	Vinyl chloride	< 17.6
1,2-Dichloroethane	< 17.6		

ELAP Number 10958

Method: EPA 8260B

Data File: V92527.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger, Technical Director

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### Volatile Analysis Report for Soils/Solids/Sludges

Client: **Hazard Evaluations Inc.**

Client Job Site: 100 Ridge

Lab Project Number: 11-4361

Lab Sample Number: 14910

Client Job Number: 30301

Field Location: WH 1 (0-4)

Date Sampled: 10/06/2011

Field ID Number: N/A

Date Received: 10/12/2011

Sample Type: Soil

Date Analyzed: 10/18/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 27.2	1,1-Dichloroethene	< 27.2
Bromoform	< 67.9	cis-1,2-Dichloroethene	< 27.2
Bromomethane	< 27.2	trans-1,2-Dichloroethene	< 27.2
Carbon Tetrachloride	< 27.2	1,2-Dichloropropane	< 27.2
Chlorobenzene	< 27.2	cis-1,3-Dichloropropene	< 27.2
Chloroethane	< 27.2	trans-1,3-Dichloropropene	< 27.2
2-Chloroethyl vinyl Ether	< 136	Methylene chloride	< 67.9
Chloroform	< 27.2	1,1,2,2-Tetrachloroethane	< 27.2
Chloromethane	< 27.2	Tetrachloroethene	1,460
Dibromochloromethane	< 27.2	1,1,1-Trichloroethane	< 27.2
1,2-Dichlorobenzene	< 27.2	1,1,2-Trichloroethane	< 27.2
1,3-Dichlorobenzene	< 27.2	Trichloroethene	359
1,4-Dichlorobenzene	< 27.2	Trichlorofluoromethane	< 27.2
1,1-Dichloroethane	< 27.2	Vinyl chloride	< 27.2
1,2-Dichloroethane	< 27.2		

ELAP Number 10958

Method: EPA 8260B

Data File: V92537.D

Comments: ug / Kg = microgram per Kilogram

Signature: \_\_\_\_\_

Bruce Hoogesteger: Technical Director

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**Volatile Analysis Report for Soils/Solids/Sludges**
**Client: Hazard Evaluations Inc.**
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14911

**Client Job Number:** 30301

**Field Location:** WH 1 (12-13.5)

**Date Sampled:** 10/06/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/18/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 6.48	1,1-Dichloroethene	< 6.48
Bromoform	< 16.2	cis-1,2-Dichloroethene	< 6.48
Bromomethane	< 6.48	trans-1,2-Dichloroethene	< 6.48
Carbon Tetrachloride	< 6.48	1,2-Dichloropropane	< 6.48
Chlorobenzene	< 6.48	cis-1,3-Dichloropropene	< 6.48
Chloroethane	< 6.48	trans-1,3-Dichloropropene	< 6.48
2-Chloroethyl vinyl Ether	< 32.4	Methylene chloride	< 16.2
Chloroform	< 6.48	1,1,2,2-Tetrachloroethane	< 6.48
Chloromethane	< 6.48	Tetrachloroethene	597
Dibromochloromethane	< 6.48	1,1,1-Trichloroethane	< 6.48
1,2-Dichlorobenzene	< 6.48	1,1,2-Trichloroethane	< 6.48
1,3-Dichlorobenzene	< 6.48	Trichloroethene	70.2
1,4-Dichlorobenzene	< 6.48	Trichlorofluoromethane	< 6.48
1,1-Dichloroethane	< 6.48	Vinyl chloride	< 6.48
1,2-Dichloroethane	< 6.48		


ELAP Number 10958

Method: EPA 8260B

Data File: V92528.D

Comments: ug / Kg = microgram per Kilogram

Signature:

  
 Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

114361X9.XLS



**Volatile Analysis Report for Soils/Solids/Sludges**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14912

**Client Job Number:** 30301

**Field Location:** BH 27 (0-4)

**Date Sampled:** 10/04/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/18/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 9.19	1,1-Dichloroethene	< 9.19
Bromoform	< 23.0	cis-1,2-Dichloroethene	32.5
Bromomethane	< 9.19	trans-1,2-Dichloroethene	< 9.19
Carbon Tetrachloride	< 9.19	1,2-Dichloropropane	< 9.19
Chlorobenzene	< 9.19	cis-1,3-Dichloropropene	< 9.19
Chloroethane	< 9.19	trans-1,3-Dichloropropene	< 9.19
2-Chloroethyl Vinyl Ether	< 46.0	Methylene chloride	< 23.0
Chloroform	< 9.19	1,1,2,2-Tetrachloroethane	< 9.19
Chloromethane	< 9.19	Tetrachloroethene	624
Dibromochloromethane	< 9.19	1,1,1-Trichloroethane	< 9.19
1,2-Dichlorobenzene	< 9.19	1,1,2-Trichloroethane	< 9.19
1,3-Dichlorobenzene	< 9.19	Trichloroethene	401
1,4-Dichlorobenzene	< 9.19	Trichlorofluoromethane	< 9.19
1,1-Dichloroethane	< 9.19	Vinyl chloride	< 9.19
1,2-Dichloroethane	< 9.19		

ELAP Number 10958

Method: EPA 8260B

Data File: V92530.D

Comments: ug / Kg = microgram per Kilogram  
Surrogate outliers indicate probable matrix interference

Signature: \_\_\_\_\_

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.


**PARADIGM**  
 ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

### Volatile Analysis Report for Soils/Solids/Sludges

**Client:** Hazard Evaluations Inc.
**Client Job Site:** 100 Ridge

**Lab Project Number:** 11-4361

**Lab Sample Number:** 14913

**Client Job Number:** 30301

**Field Location:** BH 11 (4-8)

**Date Sampled:** 09/30/2011

**Field ID Number:** N/A

**Date Received:** 10/12/2011

**Sample Type:** Soil

**Date Analyzed:** 10/13/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
Bromodichloromethane	< 15.0	1,1-Dichloroethene	< 15.0
Bromoform	< 37.5	cis-1,2-Dichloroethene	16.5
Bromomethane	< 15.0	trans-1,2-Dichloroethene	< 15.0
Carbon Tetrachloride	< 15.0	1,2-Dichloropropane	< 15.0
Chlorobenzene	< 15.0	cis-1,3-Dichloropropene	< 15.0
Chloroethane	< 15.0	trans-1,3-Dichloropropene	< 15.0
2-Chloroethyl vinyl Ether	< 75.0	Methylene chloride	< 37.5
Chloroform	< 15.0	1,1,2,2-Tetrachloroethane	< 15.0
Chloromethane	< 15.0	Tetrachloroethene	123
Dibromochloromethane	< 15.0	1,1,1-Trichloroethane	< 15.0
1,2-Dichlorobenzene	< 15.0	1,1,2-Trichloroethane	< 15.0
1,3-Dichlorobenzene	< 15.0	Trichloroethene	144
1,4-Dichlorobenzene	< 15.0	Trichlorofluoromethane	< 15.0
1,1-Dichloroethane	< 15.0	Vinyl chloride	< 15.0
1,2-Dichloroethane	< 15.0		


ELAP Number 10958

Method: EPA 8260B

Data File: V92347.D

Comments: ug / Kg = microgram per Kilogram

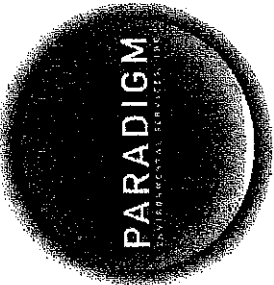
Signature:

  
 Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

114381Y1.XLS

# CHAIN OF CUSTODY



**PARADIGM**  
ENVIRONMENTAL SERVICES

**REPORT TO:**

COMPANY: Harzard Evaluation Inc.  
 ADDRESS: 3752 N. Buffalo Rd.  
 CITY: Dunkirk STATE: NY ZIP: 14127  
 PHONE: 716 667-3132 FAX: 716 667-3156  
 ATTN: Harzard & Josh Kraft

**INVOICE TO:**

COMPANY: Same  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_  
 ATTN: \_\_\_\_\_

LAB PROJECT #: 11-4361 CLIENT PROJECT #: 30301  
 TURNAROUND TIME: (WORKING DAYS) \_\_\_\_\_  
 Quotation # \_\_\_\_\_  
 STD:  1  2  3  5 OTHER: \_\_\_\_\_

PROJECT NAME/SITE NAME: 160 Ridge

COMMENTS: \_\_\_\_\_

**REQUESTED ANALYSIS**

DATE	TIME	COMPOSITE	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R S	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/4/11			X	BH 15 (0-4)	Soil	1	Chlorinated Hydrocarbons	148883
2/10/11			X	BH 15 (4-8)				148884
3/10/11			X	BH 15 (8-12)				148885
4/10/11			X	BH 16 (0-4)				148886
5/10/11			X	BH 16 (8-12) (10-13.5)				148887
6/10/11			X	BH 17 (4-8)				148888
7/10/11			X	BH 21 (4-8)				148889
8/10/11			X	BH 21 (8-12)				148890
9/10/11			X	BH 21 (12-14.5)				148891
10/10/11			X	BH 23 (4-8)				148892

**USE ONLY BELOW THIS LINE**

Sample Condition: Per NELAC/IAP 210/241/242/243/244

Receipt Parameter: \_\_\_\_\_ NELAC Compliance: Y  N

Container Type: \_\_\_\_\_ Preservation: NA Y  N

Holding Time: \_\_\_\_\_ Holding Time: Y  N

Temperature: 30 Cooled from temp milk Y  N

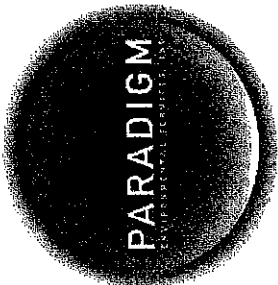
Sampled By: Josh Kraft Date/Time: 9/30-10/6/11  
 Relinquished By: [Signature] Date/Time: 10/11/11  
 Received By: [Signature] Date/Time: 10-11-11 15:55  
 Received @ Lab By: [Signature] Date/Time: 10/12/11 1440

Total Cost: \_\_\_\_\_

P.I.F. \_\_\_\_\_

2054

# CHAIN OF CUSTODY



REPORT ID: **INVOICE TO:**

LAB PROJECT #: **11-4361** CLIENT PROJECT #: **30801**

TURNAROUND TIME: (WORKING DAYS) 1  2  3  4  5  OTHER

COMPANY: **Same**

ADDRESS: **3752 N. Buffalo Rd**

CITY: **Orchard Park** STATE: **NY** ZIP: **14127**

PHONE: **716-667-3130** FAX: **716-667-3156**

ATTN: **Mark Hanna + Josh Kraft**

PROJECT NAME/SITE NAME: **100 Ridge**

COMMENTS:

DATE	TIME	COMPOSITE	GRAAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINER NUMBERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	10/4/11		X	BH23 (10-12)	531	1	Chlorinated Hydrocarbons	14893
2	10/4/11		X	BH25 (4-8)		X		14894
3	10/4/11		X	BH25 (8-12)		X		14895
4	10/4/11		X	BH25 (12-16)		X		14896
5	10/5/11		X	BH4 (4-8)		X		14897
6	9/30/11		X	BH13 (4-8)		X		14898
7	10/5/11		X	BH3 (4-8)		X		14899
8	10/4/11		X	BH19 (4-8)		X		14900
9	10/4/11		X	BH19 (8-12)		X		14901
10	10/5/11		X	BH1 (4-8)		X		14902

**NEVER USE ONLY BELOW THIS LINE**

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter: Container Type:  Y  N  NELAC Compliance

Comments: Preservation: **NA**  Y  N  Comments: **30C**  X  N

Holding Time:  Y  Y  N  Comments: **3100**  X  N

Temperature:  Y  Y  N  Comments: **3100**  X  N

Sampled By: **Josh Kraft** Date/Time: **9/30-10/6/11**

Relinquished By: **[Signature]** Date/Time: **10/11/11**

Received By: **[Signature]** Date/Time: **10/11/11**

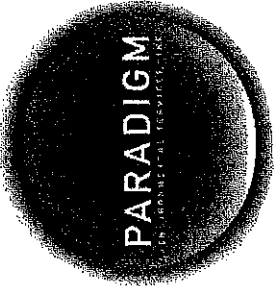
Received @ Lab By: **[Signature]** Date/Time: **10/12/11 11:40**

Total Cost:  P.I.F.



30fy

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311



# CHAIN OF CUSTODY

**REPORT TO:** COMPANY: Harvard Environmental, Inc. ADDRESS: 3752 N. Durbin Rd CITY: Durbin Park STATE: NY ZIP: 14122 PHONE: 716-667-3130 FAX: 716-667-3156 ATTN: Mark Hanna + Josh Kraft

**INVOICE TO:** COMPANY: Same ADDRESS: \_\_\_\_\_ CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_ ATTN: \_\_\_\_\_

LAB PROJECT #: 11-4361 CLIENT PROJECT #: 30301  
 TURNAROUND TIME (WORKING DAYS): 1 2 3 5 STD OTHER

PROJECT NAME/SITE NAME: 100 Ridge Quotation # \_\_\_\_\_

COMMENTS: \_\_\_\_\_

## REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRA B	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAMINANTS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 10/4/11		X	BH20 (4-8)	Soil J	X	Chlorinated Hydrocarbons		14903
2 10/4/11		X	BH20 (8-12)					14904
3 10/4/11		X	BH20 (12-16)					14905
4 10/6/11		X	WH2 (0-4)					14906
5 10/6/11		X	WH2 (8-12)					14907
6 10/6/11		X	WH2 (12-14.5)					14908
7 10/6/11		X	BH28 (4-8)					14909
8 10/6/11		X	WH1 (0-4)					14910
9 10/6/11		X	WH1 (12-13.5)					14911
10 10/11/11		X	BH27 (0-4)					14912

PLEASE USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/LAP 210/241/242/243/244

Receipt Parameter: Container Type:  Y  N NELAC Compliance:  Y  N

Comments: \_\_\_\_\_ Preservation: NA  Y  N

Comments: \_\_\_\_\_ Holding Time:  Y  N

Comments: \_\_\_\_\_ Temperature: 3°C Cool  Y  N

Comments: \_\_\_\_\_

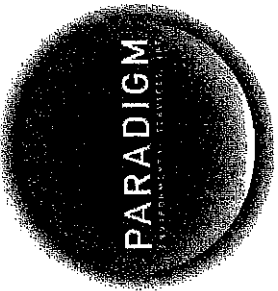
Sampled By: Joshua Kraft Date/Time: 9/30 - 10/6/11

Relinquished By: [Signature] Date/Time: 10/11/11

Received By: [Signature] Date/Time: 10/11/11 15:25

Received @ Lab By: William Popen Date/Time: 10/12/11 11:00 P.I.F. 1440

Total Cost: \_\_\_\_\_



# CHAIN OF CUSTODY

REPORT TO: **INVOICE TO:**

COMPANY: **Hazard Evaluations Inc**      COMPANY: **Same**  
 ADDRESS: **3752 N Buffalo Rd**      ADDRESS: \_\_\_\_\_  
 CITY: **Orchard Park**      CITY: \_\_\_\_\_ STATE: \_\_\_\_\_  
 PHONE: **716-667-3130**      PHONE: \_\_\_\_\_  
 ATTN: **Mark Hogan + Josh Kraft**      ATTN: \_\_\_\_\_  
 ZIP: **14117**      ZIP: \_\_\_\_\_  
 FAX: **716-667-3156**      FAX: \_\_\_\_\_

LAB PROJECT #: **11-4361**      CLIENT PROJECT #: **30301**  
 TURNAROUND TIME (WORKING DAYS): \_\_\_\_\_  
 Quotation #: \_\_\_\_\_

STD  1     2     3     5    OTHER

PROJECT NAME/SITE NAME: **100 Ridge**  
 COMMENTS: \_\_\_\_\_

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	9/30/11		X	BH11 (4-8)	Soil	1	Chromat Hydrocarbons	14913
2								
3								
4								
5								
6								
7								
8								
9								
10								

**LAB USE ONLY BELOW THIS LINE**

Sample Condition: Per NELAC/ELAP 210/241/242/243/244  
 Receipt Parameter: \_\_\_\_\_      NELAC Compliance: Y  N   
 Container Type: \_\_\_\_\_  
 Preservation: **NA**      Y  N   
 Holding Time: \_\_\_\_\_      Y  N   
 Temperature: **30C/16C**      Y  N   
 Comments: **from temp black**

Sampled By: **Josh Kraft**      Date/Time: **9/30/11**  
 Relinquished By: \_\_\_\_\_      Date/Time: **10/11/11**  
 Received By: \_\_\_\_\_      Date/Time: **10-11-11 1525**  
 Received @ Lab By: **Mark Hagan**      Date/Time: **10/12/11 1440**

Total Cost: \_\_\_\_\_      P.I.F. \_\_\_\_\_

**up 10/12**



**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

## Analytical Report Cover Page

### *Hazard Evaluations, Inc.*

For Lab Project # 11-4396

Issued October 20, 2011

This report contains a total of 8 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"<" = analyzed for but not detected at or above the reporting limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.



**Volatile Analysis Report for Non-potable Water**

Client: **Hazard Evaluations Inc.**

Client Job Site: 100 Ridge Wells

Lab Project Number: 11-4396

Lab Sample Number: 14997

Client Job Number: N/A

Date Sampled: 10/12/2011

Field Location: MW1

Date Received: 10/13/2011

Field ID Number: N/A

Date Analyzed: 10/19/2011

Sample Type: Water

Compound	Results in ug / L	Compound	Results in ug / L
Bromodichloromethane	< 100	1,1-Dichloroethene	< 100
Bromoform	< 250	cis-1,2-Dichloroethene	< 100
Bromomethane	< 100	trans-1,2-Dichloroethene	< 100
Carbon Tetrachloride	< 100	1,2-Dichloropropane	< 100
Chlorobenzene	< 100	cis-1,3-Dichloropropene	< 100
Chloroethane	< 100	trans-1,3-Dichloropropene	< 100
2-Chloroethyl vinyl Ether	< 500	Methylene chloride	< 250
Chloroform	< 100	1,1,2,2-Tetrachloroethane	< 100
Chloromethane	< 100	Tetrachloroethene	6,680
Dibromochloromethane	< 100	1,1,1-Trichloroethane	< 100
1,2-Dichlorobenzene	< 100	1,1,2-Trichloroethane	< 100
1,3-Dichlorobenzene	< 100	Trichloroethene	266
1,4-Dichlorobenzene	< 100	Trichlorofluoromethane	< 100
1,1-Dichloroethane	< 100	Vinyl chloride	< 100
1,2-Dichloroethane	< 100		

ELAP Number 10958

Method: EPA 8260B

Data File: V92592.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



### Volatile Analysis Report for Non-potable Water

 Client: **Hazard Evaluations Inc.**

Client Job Site: 100 Ridge Wells

Lab Project Number: 11-4396

Lab Sample Number: 14998

Client Job Number: N/A

Date Sampled: 10/12/2011

Field Location: MW2

Date Received: 10/13/2011

Field ID Number: N/A

Date Analyzed: 10/19/2011

Sample Type: Water

Compound	Results in ug / L	Compound	Results in ug / L
Bromodichloromethane	< 20.0	1,1-Dichloroethene	< 20.0
Bromoform	< 50.0	cis-1,2-Dichloroethene	246
Bromomethane	< 20.0	trans-1,2-Dichloroethene	< 20.0
Carbon Tetrachloride	< 20.0	1,2-Dichloropropane	< 20.0
Chlorobenzene	< 20.0	cis-1,3-Dichloropropene	< 20.0
Chloroethane	< 20.0	trans-1,3-Dichloropropene	< 20.0
2-Chloroethyl vinyl Ether	< 100	Methylene chloride	< 50.0
Chloroform	< 20.0	1,1,2,2-Tetrachloroethane	< 20.0
Chloromethane	< 20.0	Tetrachloroethene	1,390
Dibromochloromethane	< 20.0	1,1,1-Trichloroethane	< 20.0
1,2-Dichlorobenzene	< 20.0	1,1,2-Trichloroethane	< 20.0
1,3-Dichlorobenzene	< 20.0	Trichloroethene	85.3
1,4-Dichlorobenzene	< 20.0	Trichlorofluoromethane	< 20.0
1,1-Dichloroethane	< 20.0	Vinyl chloride	< 20.0
1,2-Dichloroethane	< 20.0		


ELAP Number 10958

Method: EPA 8260B

Data File: V92593.D

Comments: ug / L = microgram per Liter

Signature:

  
 Bruce Hoogesteger, Technical Director

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114396V2.XLS



**Volatile Analysis Report for Non-potable Water**

Client: **Hazard Evaluations Inc.**

Client Job Site: 100 Ridge Wells

Lab Project Number: 11-4396

Lab Sample Number: 14999

Client Job Number: N/A

Field Location: MW3

Date Sampled: 10/12/2011

Field ID Number: N/A

Date Received: 10/13/2011

Sample Type: Water

Date Analyzed: 10/19/2011

Compound	Results in ug / L	Compound	Results in ug / L
Bromodichloromethane	< 2.00	1,1-Dichloroethene	< 2.00
Bromoform	< 5.00	cis-1,2-Dichloroethene	< 2.00
Bromomethane	< 2.00	trans-1,2-Dichloroethene	< 2.00
Carbon Tetrachloride	< 2.00	1,2-Dichloropropane	< 2.00
Chlorobenzene	< 2.00	cis-1,3-Dichloropropene	< 2.00
Chloroethane	< 2.00	trans-1,3-Dichloropropene	< 2.00
2-Chloroethyl vinyl Ether	< 10.0	Methylene chloride	< 5.00
Chloroform	< 2.00	1,1,2,2-Tetrachloroethane	< 2.00
Chloromethane	< 2.00	Tetrachloroethene	< 2.00
Dibromochloromethane	< 2.00	1,1,1-Trichloroethane	< 2.00
1,2-Dichlorobenzene	< 2.00	1,1,2-Trichloroethane	< 2.00
1,3-Dichlorobenzene	< 2.00	Trichloroethene	< 2.00
1,4-Dichlorobenzene	< 2.00	Trichlorofluoromethane	< 2.00
1,1-Dichloroethane	< 2.00	Vinyl chloride	< 2.00
1,2-Dichloroethane	< 2.00		

ELAP Number 10958

Method: EPA 8260B

Data File: V92591.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for Non-potable Water**

Client: **Hazard Evaluations Inc.**

Client Job Site: 100 Ridge Wells

Lab Project Number: 11-4396

Lab Sample Number: 15000

Client Job Number: N/A

Date Sampled: 10/12/2011

Field Location: MW4

Date Received: 10/13/2011

Field ID Number: N/A

Date Analyzed: 10/18/2011

Sample Type: Water

Compound	Results in ug / L	Compound	Results in ug / L
Bromodichloromethane	< 2.00	1,1-Dichloroethene	< 2.00
Bromoform	< 5.00	cis-1,2-Dichloroethene	< 2.00
Bromomethane	< 2.00	trans-1,2-Dichloroethene	< 2.00
Carbon Tetrachloride	< 2.00	1,2-Dichloropropane	< 2.00
Chlorobenzene	< 2.00	cls-1,3-Dichloropropene	< 2.00
Chloroethane	< 2.00	trans-1,3-Dichloropropene	< 2.00
2-Chloroethyl vinyl Ether	< 10.0	Methylene chloride	< 5.00
Chloroform	< 2.00	1,1,2,2-Tetrachloroethane	< 2.00
Chloromethane	< 2.00	Tetrachloroethene	< 2.00
Dibromochloromethane	< 2.00	1,1,1-Trichloroethane	< 2.00
1,2-Dichlorobenzene	< 2.00	1,1,2-Trichloroethane	< 2.00
1,3-Dichlorobenzene	< 2.00	Trichloroethene	< 2.00
1,4-Dichlorobenzene	< 2.00	Trichlorofluoromethane	< 2.00
1,1-Dichloroethane	< 2.00	Vinyl chloride	< 2.00
1,2-Dichloroethane	2.77		

ELAP Number 10958

Method: EPA 8260B

Data File: V92551.D

Comments: ug / L = microgram per Liter

Surrogate outliers indicate probable matrix interference

Signature: \_\_\_\_\_

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



**Volatile Analysis Report for Non-potable Water**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge Wells

**Lab Project Number:** 11-4396

**Lab Sample Number:** 15001

**Client Job Number:** N/A

**Field Location:** Decon Blank

**Date Sampled:** 10/06/2011

**Field ID Number:** N/A

**Date Received:** 10/13/2011

**Sample Type:** Water

**Date Analyzed:** 10/18/2011

Compound	Results in ug / L	Compound	Results in ug / L
Bromodichloromethane	9.80	1,1-Dichloroethene	< 2.00
Bromoform	< 5.00	cis-1,2-Dichloroethene	< 2.00
Bromomethane	< 2.00	trans-1,2-Dichloroethene	< 2.00
Carbon Tetrachloride	< 2.00	1,2-Dichloropropane	< 2.00
Chlorobenzene	< 2.00	cis-1,3-Dichloropropene	< 2.00
Chloroethane	< 2.00	trans-1,3-Dichloropropene	< 2.00
2-Chloroethyl vinyl Ether	< 10.0	Methylene chloride	< 5.00
Chloroform	24.1	1,1,2,2-Tetrachloroethane	< 2.00
Chloromethane	< 2.00	Tetrachloroethene	< 2.00
Dibromochloromethane	4.13	1,1,1-Trichloroethane	< 2.00
1,2-Dichlorobenzene	< 2.00	1,1,2-Trichloroethane	< 2.00
1,3-Dichlorobenzene	< 2.00	Trichloroethene	< 2.00
1,4-Dichlorobenzene	< 2.00	Trichlorofluoromethane	< 2.00
1,1-Dichloroethane	< 2.00	Vinyl chloride	< 2.00
1,2-Dichloroethane	< 2.00		

ELAP Number 10958

Method: EPA 8260B

Data File: V92552.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.





**Volatile Analysis Report for Non-potable Water**

**Client:** Hazard Evaluations Inc.

**Client Job Site:** 100 Ridge Wells

**Lab Project Number:** 11-4396

**Lab Sample Number:** 15002

**Client Job Number:** N/A

**Field Location:** Trip Blank

**Date Sampled:** 10/12/2011

**Field ID Number:** N/A

**Date Received:** 10/13/2011

**Sample Type:** Water

**Date Analyzed:** 10/18/2011

Compound	Results in ug / L	Compound	Results in ug / L
Bromodichloromethane	8.91	1,1-Dichloroethene	< 2.00
Bromoform	< 5.00	cis-1,2-Dichloroethene	< 2.00
Bromomethane	< 2.00	trans-1,2-Dichloroethene	< 2.00
Carbon Tetrachloride	< 2.00	1,2-Dichloropropane	< 2.00
Chlorobenzene	< 2.00	cis-1,3-Dichloropropene	< 2.00
Chloroethane	< 2.00	trans-1,3-Dichloropropene	< 2.00
2-Chloroethyl vinyl Ether	< 10.0	Methylene chloride	< 5.00
Chloroform	25.1	1,1,2,2-Tetrachloroethane	< 2.00
Chloromethane	< 2.00	Tetrachloroethene	< 2.00
Dibromochloromethane	3.34	1,1,1-Trichloroethane	< 2.00
1,2-Dichlorobenzene	< 2.00	1,1,2-Trichloroethane	< 2.00
1,3-Dichlorobenzene	< 2.00	Trichloroethene	< 2.00
1,4-Dichlorobenzene	< 2.00	Trichlorofluoromethane	< 2.00
1,1-Dichloroethane	< 2.00	Vinyl chloride	< 2.00
1,2-Dichloroethane	< 2.00		

ELAP Number 10958

Method: EPA 8260B

Data File: V92547.D

Comments: ug / L = microgram per Liter

Signature: \_\_\_\_\_

*[Handwritten Signature]*  
Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

# CHAIN OF CUSTODY



**REPORT TO:** COMPANY: Hazard Evaluation, Inc. **INVOICE TO:** COMPANY: Same CLIENT PROJECT #: 11-4396

ADDRESS: 3752 N. Buffalo Road ADDRESS:  TURNAROUND TIME (WORKING DAYS): 1 2 3 4 5

CITY: Orchard Park CITY:  STATE: NY STATE:  ZIP: 14127 ZIP:  OTHER:

PHONE: (716) 667-3130 PHONE: (716) 667-3156 FAX:  FAX:  ATTN: Josh Kraft + Mark Heenan ATTN:  Quotation #

PROJECT NAME/SITE NAME: 100 Ridge Wells

COMMENTS:

DATE		TIME	COMPOSITE	GRA B	SAMPLE LOCATION/FIELD ID	MATRIX	CONTAINMENT NUMBERS	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/12/11	3:30	X	MW1	Water	2	Chlorinated Hydrocarbons			14997
210/12/11	3:35	X	MW2	Water	2				14998
3/10/12/11	3:45	X	MW3	Water	2				14999
4/10/12/11	4:00	X	MW4	Water	2				15000
5/10/12/11	pm	X	Decor Blank	Water	2				15001
6/10/12/11	pm	X	Trip Blank	Water	2				15002
7									
8									
9									
10									

→ Trip Blank was provided by client, not put together at Paradigm Rock. EAH 10/13

**LAB USE ONLY BELOW THIS LINE**

Sample Condition: Per NELAC/IAP 210/241/242/243/244

Receipt Parameter: Y  Container Type: Y  NELAC Compliance: N

Comments:  Preservation: Y  10/12/11 Date/Time

Comments:  Holding Time: Y  10/13/11 Date/Time

Comments:  Temperature: Y  10-13-11 10:45 Date/Time

Comments: Original from temp blank up 10/13 10/13/11 1525 Date/Time

Received @ Lab By: Josh Kraft P.I.F.

Total Cost:



**CEN TEK LABORATORIES, LLC**

Date: 18-Oct-11

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**CLIENT:** Paradigm Environmental Services, Inc.  
**Project:** 100 Ridge Rd  
**Lab Order:** C1110008

**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: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	SS-1
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	133,276
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-001A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>		Analyst: RJP		
1,1,1-Trichloroethane	1.2	0.83		ug/m3	1	10/7/2011 8:10:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 8:10:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 8:10:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 8:10:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 8:10:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 8:10:00 AM
1,2,4-Trimethylbenzene	34	7.5		ug/m3	10	10/12/2011 1:55:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 8:10:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 8:10:00 AM
1,2-Dichloroethane	4.2	0.62		ug/m3	1	10/7/2011 8:10:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 8:10:00 AM
1,3,5-Trimethylbenzene	8.6	7.5		ug/m3	10	10/12/2011 1:55:00 PM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 8:10:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 8:10:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 8:10:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 8:10:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	10/7/2011 8:10:00 AM
4-ethyltoluene	11	7.5		ug/m3	10	10/12/2011 1:55:00 PM
Acetone	89	65		ug/m3	90	10/12/2011 2:27:00 PM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 8:10:00 AM
Benzene	10	4.9		ug/m3	10	10/12/2011 1:55:00 PM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 8:10:00 AM
Bromodichloromethane	0.89	1.0	J	ug/m3	1	10/7/2011 8:10:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 8:10:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 8:10:00 AM
Carbon disulfide	28	4.7		ug/m3	10	10/12/2011 1:55:00 PM
Carbon tetrachloride	< 0.96	0.96		ug/m3	1	10/7/2011 8:10:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 8:10:00 AM
Chloroethane	7.5	4.0		ug/m3	10	10/12/2011 1:55:00 PM
Chloroform	3.5	0.74		ug/m3	1	10/7/2011 8:10:00 AM
Chloromethane	< 0.31	0.31		ug/m3	1	10/7/2011 8:10:00 AM
cis-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 8:10:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 8:10:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 8:10:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 8:10:00 AM
Ethyl acetate	3.5	0.92		ug/m3	1	10/7/2011 8:10:00 AM
Ethylbenzene	17	6.6		ug/m3	10	10/12/2011 1:55:00 PM
Freon 11	2.2	0.86		ug/m3	1	10/7/2011 8:10:00 AM
Freon 113	0.78	1.2	J	ug/m3	1	10/7/2011 8:10:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 8:10:00 AM

<b>Qualifiers:</b>	** Reporting Limit	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected at or below quantitation limits
JN	Non-routine analyte, Quantitation estimated.	ND Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits	

**Centek Laboratories, LLC**

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	SS-1
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	133,276
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-001A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>			<b>TO-15</b>			Analyst: RJP
Freon 12	2.6	0.75		ug/m3	1	10/7/2011 8:10:00 AM
Heptane	7.9	6.2		ug/m3	10	10/12/2011 1:55:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 8:10:00 AM
Hexane	36	5.4		ug/m3	10	10/12/2011 1:55:00 PM
Isopropyl alcohol	100	35		ug/m3	90	10/12/2011 2:27:00 PM
m&p-Xylene	83	13		ug/m3	10	10/12/2011 1:55:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 8:10:00 AM
Methyl Ethyl Ketone	< 0.90	0.90		ug/m3	1	10/7/2011 8:10:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 8:10:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 8:10:00 AM
Methylene chloride	< 0.53	0.53		ug/m3	1	10/7/2011 8:10:00 AM
o-Xylene	30	6.6		ug/m3	10	10/12/2011 1:55:00 PM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 8:10:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 8:10:00 AM
Tetrachloroethylene	30	10		ug/m3	10	10/12/2011 1:55:00 PM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 8:10:00 AM
Toluene	55	5.7		ug/m3	10	10/12/2011 1:55:00 PM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 8:10:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 8:10:00 AM
Trichloroethene	2.5	0.82		ug/m3	1	10/7/2011 8:10:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 8:10:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 8:10:00 AM
Vinyl chloride	1.3	0.39		ug/m3	1	10/7/2011 8:10:00 AM

<b>Qualifiers:</b>	** Reporting Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits		

## Centek Laboratories, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	IA-1
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	139,281
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-005A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>			<b>TO-15</b>			Analyst: RJP
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 5:55:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 5:55:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 5:55:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 5:55:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 5:55:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 5:55:00 AM
1,2,4-Trimethylbenzene	0.75	0.75		ug/m3	1	10/7/2011 5:55:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 5:55:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 5:55:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 5:55:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 5:55:00 AM
1,3,5-Trimethylbenzene	< 0.75	0.75		ug/m3	1	10/7/2011 5:55:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 5:55:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 5:55:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 5:55:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 5:55:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	10/7/2011 5:55:00 AM
4-ethyltoluene	< 0.75	0.75		ug/m3	1	10/7/2011 5:55:00 AM
Acetone	26	7.2		ug/m3	10	10/13/2011 8:55:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 5:55:00 AM
Benzene	0.52	0.49		ug/m3	1	10/7/2011 5:55:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 5:55:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	10/7/2011 5:55:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 5:55:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 5:55:00 AM
Carbon disulfide	0.35	0.47	J	ug/m3	1	10/7/2011 5:55:00 AM
Carbon tetrachloride	0.83	0.26		ug/m3	1	10/7/2011 5:55:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 5:55:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	10/7/2011 5:55:00 AM
Chloroform	< 0.74	0.74		ug/m3	1	10/7/2011 5:55:00 AM
Chloromethane	0.86	0.31		ug/m3	1	10/7/2011 5:55:00 AM
cis-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 5:55:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 5:55:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 5:55:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 5:55:00 AM
Ethyl acetate	< 0.92	0.92		ug/m3	1	10/7/2011 5:55:00 AM
Ethylbenzene	< 0.66	0.66		ug/m3	1	10/7/2011 5:55:00 AM
Freon 11	1.7	0.86		ug/m3	1	10/7/2011 5:55:00 AM
Freon 113	0.93	1.2	J	ug/m3	1	10/7/2011 5:55:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 5:55:00 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, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	IA-1
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	139,281
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-005A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						Analyst: RJP
		<b>TO-15</b>				
Freon 12	2.7	0.75		ug/m3	1	10/7/2011 5:55:00 AM
Heptane	0.92	0.62		ug/m3	1	10/7/2011 5:55:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 5:55:00 AM
Hexane	3.1	0.54		ug/m3	1	10/7/2011 5:55:00 AM
Isopropyl alcohol	23	3.7		ug/m3	10	10/13/2011 8:55:00 AM
m&p-Xylene	0.84	1.3	J	ug/m3	1	10/7/2011 5:55:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 5:55:00 AM
Methyl Ethyl Ketone	5.2	0.90		ug/m3	1	10/7/2011 5:55:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 5:55:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 5:55:00 AM
Methylene chloride	1.9	0.53		ug/m3	1	10/7/2011 5:55:00 AM
o-Xylene	< 0.66	0.66		ug/m3	1	10/7/2011 5:55:00 AM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 5:55:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 5:55:00 AM
Tetrachloroethylene	6.5	1.0		ug/m3	1	10/7/2011 5:55:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 5:55:00 AM
Toluene	2.6	0.57		ug/m3	1	10/7/2011 5:55:00 AM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 5:55:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 5:55:00 AM
Trichloroethene	0.55	0.22		ug/m3	1	10/7/2011 5:55:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 5:55:00 AM
Vinyl Bromide	< 0.87	0.87		ug/m3	1	10/7/2011 5:55:00 AM
Vinyl chloride	< 0.10	0.10		ug/m3	1	10/7/2011 5:55:00 AM

<b>Qualifiers:</b>	** Reporting Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits		

## Centek Laboratories, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	SS-2
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	85,567
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-002A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>				Analyst: RJP
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 8:44:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 8:44:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 8:44:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 8:44:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 8:44:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 8:44:00 AM
1,2,4-Trimethylbenzene	26	7.5		ug/m3	10	10/12/2011 2:59:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 8:44:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 8:44:00 AM
1,2-Dichloroethane	4.6	0.62		ug/m3	1	10/7/2011 8:44:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 8:44:00 AM
1,3,5-Trimethylbenzene	6.0	7.5	J	ug/m3	10	10/12/2011 2:59:00 PM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 8:44:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 8:44:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 8:44:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 8:44:00 AM
2,2,4-Trimethylpentane	1.1	0.71		ug/m3	1	10/7/2011 8:44:00 AM
4-ethyltoluene	8.0	7.5		ug/m3	10	10/12/2011 2:59:00 PM
Acetone	150	29		ug/m3	40	10/12/2011 3:31:00 PM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 8:44:00 AM
Benzene	24	4.9		ug/m3	10	10/12/2011 2:59:00 PM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 8:44:00 AM
Bromodichloromethane	6.1	1.0		ug/m3	1	10/7/2011 8:44:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 8:44:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 8:44:00 AM
Carbon disulfide	29	4.7		ug/m3	10	10/12/2011 2:59:00 PM
Carbon tetrachloride	< 0.96	0.96		ug/m3	1	10/7/2011 8:44:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 8:44:00 AM
Chloroethane	26	4.0		ug/m3	10	10/12/2011 2:59:00 PM
Chloroform	19	7.4		ug/m3	10	10/12/2011 2:59:00 PM
Chloromethane	< 0.31	0.31		ug/m3	1	10/7/2011 8:44:00 AM
cis-1,2-Dichloroethene	8.9	6.0		ug/m3	10	10/12/2011 2:59:00 PM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 8:44:00 AM
Cyclohexane	11	5.2		ug/m3	10	10/12/2011 2:59:00 PM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 8:44:00 AM
Ethyl acetate	< 0.92	0.92		ug/m3	1	10/7/2011 8:44:00 AM
Ethylbenzene	18	6.6		ug/m3	10	10/12/2011 2:59:00 PM
Freon 11	13	6.6		ug/m3	10	10/12/2011 2:59:00 PM
Freon 113	0.86	1.2	J	ug/m3	1	10/7/2011 8:44:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 8:44:00 AM

<b>Qualifiers:</b>	** Reporting Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits		



## Centek Laboratories, LLC

Date: 18-Oct-11

CLIENT:	Paradigm Environmental Services, Inc.	Client Sample ID:	SS-2
Lab Order:	C1110008	Tag Number:	85,567
Project:	100 Ridge Rd	Collection Date:	10/4/2011
Lab ID:	C1110008-002A	Matrix:	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>		Analyst: RJP		
Freon 12	2.6	0.75		ug/m3	1	10/7/2011 8:44:00 AM
Heptane	10	6.2		ug/m3	10	10/12/2011 2:59:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 8:44:00 AM
Hexane	46	5.4		ug/m3	10	10/12/2011 2:59:00 PM
Isopropyl alcohol	< 0.37	0.37		ug/m3	1	10/7/2011 8:44:00 AM
m&p-Xylene	83	13		ug/m3	10	10/12/2011 2:59:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 8:44:00 AM
Methyl Ethyl Ketone	< 0.90	0.90		ug/m3	1	10/7/2011 8:44:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 8:44:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 8:44:00 AM
Methylene chloride	< 0.53	0.53		ug/m3	1	10/7/2011 8:44:00 AM
o-Xylene	34	6.6		ug/m3	10	10/12/2011 2:59:00 PM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 8:44:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 8:44:00 AM
Tetrachloroethylene	49000	7600		ug/m3	7290	10/12/2011 5:08:00 PM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 8:44:00 AM
Toluene	65	5.7		ug/m3	10	10/12/2011 2:59:00 PM
trans-1,2-Dichloroethene	4.6	0.60		ug/m3	1	10/7/2011 8:44:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 8:44:00 AM
Trichloroethene	250	33		ug/m3	40	10/12/2011 3:31:00 PM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 8:44:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 8:44:00 AM
Vinyl chloride	1.6	0.39		ug/m3	1	10/7/2011 8:44:00 AM

Qualifiers:	** Reporting Limit	.	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E	Value above quantitation range
	H Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
	JN Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits		

## Centek Laboratories, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	IA-2
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	422,265
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-006A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						Analyst: RJP
						<b>TO-15</b>
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 6:29:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 6:29:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 6:29:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 6:29:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 6:29:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 6:29:00 AM
1,2,4-Trimethylbenzene	0.95	0.75		ug/m3	1	10/7/2011 6:29:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 6:29:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 6:29:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 6:29:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 6:29:00 AM
1,3,5-Trimethylbenzene	< 0.75	0.75		ug/m3	1	10/7/2011 6:29:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 6:29:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 6:29:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 6:29:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 6:29:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	10/7/2011 6:29:00 AM
4-ethyltoluene	< 0.75	0.75		ug/m3	1	10/7/2011 6:29:00 AM
Acetone	31	7.2		ug/m3	10	10/13/2011 9:27:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 6:29:00 AM
Benzene	0.52	0.49		ug/m3	1	10/7/2011 6:29:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 6:29:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	10/7/2011 6:29:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 6:29:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 6:29:00 AM
Carbon disulfide	0.47	0.47		ug/m3	1	10/7/2011 6:29:00 AM
Carbon tetrachloride	0.77	0.26		ug/m3	1	10/7/2011 6:29:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 6:29:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	10/7/2011 6:29:00 AM
Chloroform	< 0.74	0.74		ug/m3	1	10/7/2011 6:29:00 AM
Chloromethane	0.97	0.31		ug/m3	1	10/7/2011 6:29:00 AM
cis-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 6:29:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 6:29:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 6:29:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 6:29:00 AM
Ethyl acetate	< 0.92	0.92		ug/m3	1	10/7/2011 6:29:00 AM
Ethylbenzene	< 0.66	0.66		ug/m3	1	10/7/2011 6:29:00 AM
Freon 11	2.1	0.86		ug/m3	1	10/7/2011 6:29:00 AM
Freon 113	0.86	1.2	J	ug/m3	1	10/7/2011 6:29:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 6:29:00 AM

<b>Qualifiers:</b>	** Reporting Limit	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected at or below quantitation limits
	JN Non-routine analyte, Quantitation estimated.	ND Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits	

## Centek Laboratories, LLC

Date: 18-Oct-11

CLIENT:	Paradigm Environmental Services, Inc.	Client Sample ID:	IA-2
Lab Order:	C1110008	Tng Number:	422,265
Project:	100 Ridge Rd	Collection Date:	10/4/2011
Lab ID:	C1110008-006A	Matrix:	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						Analyst: RJP
			<b>TO-15</b>			
Freon 12	2.7	0.75		ug/m3	1	10/7/2011 6:29:00 AM
Heptane	0.71	0.62		ug/m3	1	10/7/2011 6:29:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 6:29:00 AM
Hexane	3.4	0.54		ug/m3	1	10/7/2011 6:29:00 AM
Isopropyl alcohol	68	3.7		ug/m3	10	10/13/2011 9:27:00 AM
m&p-Xylene	1.1	1.3	J	ug/m3	1	10/7/2011 6:29:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 6:29:00 AM
Methyl Ethyl Ketone	3.9	0.90		ug/m3	1	10/7/2011 6:29:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 6:29:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 6:29:00 AM
Methylene chloride	1.5	0.53		ug/m3	1	10/7/2011 6:29:00 AM
o-Xylene	0.44	0.66	J	ug/m3	1	10/7/2011 6:29:00 AM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 6:29:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 6:29:00 AM
Tetrachloroethylene	79	10		ug/m3	10	10/13/2011 9:27:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 6:29:00 AM
Toluene	2.8	0.57		ug/m3	1	10/7/2011 6:29:00 AM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 6:29:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 6:29:00 AM
Trichloroethene	1.7	0.22		ug/m3	1	10/7/2011 6:29:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 6:29:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 6:29:00 AM
Vinyl chloride	< 0.10	0.10		ug/m3	1	10/7/2011 6:29:00 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, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b> SS-3
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b> 158,403
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b> 10/4/2011
<b>Lab ID:</b>	C1110008-003A	<b>Matrix:</b> AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>						<b>Analyst: RJP</b>
		<b>TO-15</b>				
1,1,1-Trichloroethane	0.94	0.83		ug/m3	1	10/7/2011 9:18:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 9:18:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 9:18:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 9:18:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 9:18:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 9:18:00 AM
1,2,4-Trimethylbenzene	41	7.5		ug/m3	10	10/12/2011 5:40:00 PM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 9:18:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 9:18:00 AM
1,2-Dichloroethane	3.5	0.62		ug/m3	1	10/7/2011 9:18:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 9:18:00 AM
1,3,5-Trimethylbenzene	10	7.5		ug/m3	10	10/12/2011 5:40:00 PM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 9:18:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 9:18:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 9:18:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 9:18:00 AM
2,2,4-trimethylpentane	0.85	0.71		ug/m3	1	10/7/2011 9:18:00 AM
4-ethyltoluene	12	7.5		ug/m3	10	10/12/2011 5:40:00 PM
Acetone	88	29		ug/m3	40	10/12/2011 6:15:00 PM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 9:18:00 AM
Benzene	13	4.9		ug/m3	10	10/12/2011 5:40:00 PM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 9:18:00 AM
Bromodichloromethane	55	10		ug/m3	10	10/12/2011 5:40:00 PM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 9:18:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 9:18:00 AM
Carbon disulfide	300	19		ug/m3	40	10/12/2011 6:15:00 PM
Carbon tetrachloride	< 0.96	0.96		ug/m3	1	10/7/2011 9:18:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 9:18:00 AM
Chloroethane	9.1	4.0		ug/m3	10	10/12/2011 5:40:00 PM
Chloroform	99	30		ug/m3	40	10/12/2011 6:15:00 PM
Chloromethane	0.78	0.31		ug/m3	1	10/7/2011 9:18:00 AM
cis-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 9:18:00 AM
cis-1,3-Dichloropropane	< 0.69	0.69		ug/m3	1	10/7/2011 9:18:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 9:18:00 AM
Dibromochloromethane	13	1.3		ug/m3	1	10/7/2011 9:18:00 AM
Ethyl acetate	2.0	0.92		ug/m3	1	10/7/2011 9:18:00 AM
Ethylbenzene	26	6.6		ug/m3	10	10/12/2011 5:40:00 PM
Freon 11	17	6.6		ug/m3	10	10/12/2011 5:40:00 PM
Freon 113	2.0	1.2		ug/m3	1	10/7/2011 9:18:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 9:18:00 AM

<b>Qualifiers:</b>	** Reporting Limit	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

## Centek Laboratories, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	SS-3
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	158,403
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-003A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>		Analyst: RJP		
Freon 12	2.7	0.75		ug/m3	1	10/7/2011 9:18:00 AM
Heptane	15	6.2		ug/m3	10	10/12/2011 5:40:00 PM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 9:18:00 AM
Hexane	51	5.4		ug/m3	10	10/12/2011 5:40:00 PM
Isopropyl alcohol	< 0.37	0.37		ug/m3	1	10/7/2011 9:18:00 AM
m&p-Xylene	130	13		ug/m3	10	10/12/2011 5:40:00 PM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 9:18:00 AM
Methyl Ethyl Ketone	< 0.90	0.90		ug/m3	1	10/7/2011 9:18:00 AM
Methyl isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 9:18:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 9:18:00 AM
Methylene chloride	1.1	0.53		ug/m3	1	10/7/2011 9:18:00 AM
o-Xylene	47	6.6		ug/m3	10	10/12/2011 5:40:00 PM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 9:18:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 9:18:00 AM
Tetrachloroethylene	41	10		ug/m3	10	10/12/2011 5:40:00 PM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 9:18:00 AM
Toluene	81	5.7		ug/m3	10	10/12/2011 5:40:00 PM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 9:18:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 9:18:00 AM
Trichloroethene	2.9	0.82		ug/m3	1	10/7/2011 9:18:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 9:18:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 9:18:00 AM
Vinyl chloride	1.1	0.39		ug/m3	1	10/7/2011 9:18:00 AM

<b>Qualifiers:</b>	** Reporting Limit	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected at or below quantitation limits
	JN Non-routine analyte. Quantitation estimated.	ND Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits	

**Centek Laboratories, LLC**

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	IA-3
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	360,125
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-007A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>		<b>TO-15</b>		Analyst: RJP		
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 7:03:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 7:03:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 7:03:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 7:03:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 7:03:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 7:03:00 AM
1,2,4-Trimethylbenzene	1.0	0.75		ug/m3	1	10/7/2011 7:03:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 7:03:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 7:03:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 7:03:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 7:03:00 AM
1,3,5-Trimethylbenzene	< 0.75	0.75		ug/m3	1	10/7/2011 7:03:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 7:03:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 7:03:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 7:03:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 7:03:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	10/7/2011 7:03:00 AM
4-ethyltoluene	< 0.75	0.75		ug/m3	1	10/7/2011 7:03:00 AM
Acetone	19	7.2		ug/m3	10	10/13/2011 10:00:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 7:03:00 AM
Benzene	0.58	0.49		ug/m3	1	10/7/2011 7:03:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 7:03:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	10/7/2011 7:03:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 7:03:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 7:03:00 AM
Carbon disulfide	0.85	0.47		ug/m3	1	10/7/2011 7:03:00 AM
Carbon tetrachloride	0.83	0.26		ug/m3	1	10/7/2011 7:03:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 7:03:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	10/7/2011 7:03:00 AM
Chloroform	0.89	0.74		ug/m3	1	10/7/2011 7:03:00 AM
Chloromethane	0.86	0.31		ug/m3	1	10/7/2011 7:03:00 AM
cis-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 7:03:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 7:03:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 7:03:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 7:03:00 AM
Ethyl acetate	1.1	0.92		ug/m3	1	10/7/2011 7:03:00 AM
Ethylbenzene	< 0.66	0.66		ug/m3	1	10/7/2011 7:03:00 AM
Freon 11	1.6	0.86		ug/m3	1	10/7/2011 7:03:00 AM
Freon 113	< 1.2	1.2		ug/m3	1	10/7/2011 7:03:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 7:03:00 AM

<b>Qualifiers:</b>	** Reporting Limit	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected at or below quantitation limits
JN	Non-routine analyte, Quantitation estimated.	ND Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits	

## Centek Laboratories, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	IA-3
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	360,125
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-007A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>						Analyst: RJP
Freon 12	2.6	0.75		ug/m3	1	10/7/2011 7:03:00 AM
Heptane	0.75	0.62		ug/m3	1	10/7/2011 7:03:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 7:03:00 AM
Hexane	3.7	0.54		ug/m3	1	10/7/2011 7:03:00 AM
Isopropyl alcohol	21	3.7		ug/m3	10	10/13/2011 10:00:00 AM
m&p-Xylene	1.1	1.3	J	ug/m3	1	10/7/2011 7:03:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 7:03:00 AM
Methyl Ethyl Ketone	4.5	0.90		ug/m3	1	10/7/2011 7:03:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 7:03:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 7:03:00 AM
Methylene chloride	1.3	0.53		ug/m3	1	10/7/2011 7:03:00 AM
o-Xylene	0.49	0.66	J	ug/m3	1	10/7/2011 7:03:00 AM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 7:03:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 7:03:00 AM
Tetrachloroethylene	6.3	1.0		ug/m3	1	10/7/2011 7:03:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 7:03:00 AM
Toluene	2.9	0.57		ug/m3	1	10/7/2011 7:03:00 AM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 7:03:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 7:03:00 AM
Trichloroethene	0.76	0.22		ug/m3	1	10/7/2011 7:03:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 7:03:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 7:03:00 AM
Vinyl chloride	< 0.10	0.10		ug/m3	1	10/7/2011 7:03:00 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, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	SS-4
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	139,281
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-004A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>		<b>TO-15</b>				<b>Analyst: RJP</b>
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 9:52:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 9:52:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 9:52:00 AM
1,1-Dichloroethane	0.45	0.62	J	ug/m3	1	10/7/2011 9:52:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 9:52:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 9:52:00 AM
1,2,4-Trimethylbenzene	3.2	0.75		ug/m3	1	10/7/2011 9:52:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 9:52:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 9:52:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 9:52:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 9:52:00 AM
1,3,5-Trimethylbenzene	1.1	0.75		ug/m3	1	10/7/2011 9:52:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 9:52:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 9:52:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 9:52:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 9:52:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	10/7/2011 9:52:00 AM
4-ethyltoluene	0.76	0.75		ug/m3	1	10/7/2011 9:52:00 AM
Acetone	51	7.2		ug/m3	10	10/13/2011 8:23:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 9:52:00 AM
Benzene	0.66	0.49		ug/m3	1	10/7/2011 9:52:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 9:52:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	10/7/2011 9:52:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 9:52:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 9:52:00 AM
Carbon disulfide	< 0.47	0.47		ug/m3	1	10/7/2011 9:52:00 AM
Carbon tetrachloride	0.70	0.96	J	ug/m3	1	10/7/2011 9:52:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 9:52:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	10/7/2011 9:52:00 AM
Chloroform	1.3	0.74		ug/m3	1	10/7/2011 9:52:00 AM
Chloromethane	0.78	0.31		ug/m3	1	10/7/2011 9:52:00 AM
cis-1,2-Dichloroethane	11	6.0		ug/m3	10	10/13/2011 8:23:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 9:52:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 9:52:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 9:52:00 AM
Ethyl acetate	< 0.92	0.92		ug/m3	1	10/7/2011 9:52:00 AM
Ethylbenzene	0.49	0.66	J	ug/m3	1	10/7/2011 9:52:00 AM
Freon 11	2.1	0.86		ug/m3	1	10/7/2011 9:52:00 AM
Freon 113	0.93	1.2	J	ug/m3	1	10/7/2011 9:52:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 9:52:00 AM

<b>Qualifiers:</b>	<b>** Reporting Limit</b>	.	Results reported are not blank corrected
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected at or below quantitation limits
JN	Non-routine analyte, Quantitation estimated.	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		



## Centek Laboratories, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b> SS-4
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b> 139,281
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b> 10/4/2011
<b>Lab ID:</b>	C1110008-004A	<b>Matrix:</b> AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 BY METHOD TO15</b>				<b>TO-15</b>		<b>Analyst: RJP</b>
Freon 12	2.4	0.75		ug/m3	1	10/7/2011 9:52:00 AM
Heptane	1.0	0.62		ug/m3	1	10/7/2011 9:52:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 9:52:00 AM
Hexane	0.72	0.54		ug/m3	1	10/7/2011 9:52:00 AM
Isopropyl alcohol	10	3.7		ug/m3	10	10/13/2011 8:23:00 AM
m&p-Xylene	1.3	1.3	J	ug/m3	1	10/7/2011 9:52:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 9:52:00 AM
Methyl Ethyl Ketone	1.1	0.90		ug/m3	1	10/7/2011 9:52:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 9:52:00 AM
Methyl tert-butyl ether	< 0.55	0.65		ug/m3	1	10/7/2011 9:52:00 AM
Methylene chloride	20	5.3		ug/m3	10	10/13/2011 8:23:00 AM
o-Xylene	0.71	0.66		ug/m3	1	10/7/2011 9:52:00 AM
Propylene	< 0.25	0.26		ug/m3	1	10/7/2011 9:52:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 9:52:00 AM
Tetrachloroethylene	4.1	1.0		ug/m3	1	10/7/2011 9:52:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 9:52:00 AM
Toluene	3.3	0.57		ug/m3	1	10/7/2011 9:52:00 AM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 9:52:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 9:52:00 AM
Trichloroethene	25	8.2		ug/m3	10	10/13/2011 8:23:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 9:52:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 9:52:00 AM
Vinyl chloride	0.91	0.39		ug/m3	1	10/7/2011 9:52:00 AM

<b>Qualifiers:</b>	<b>**</b> Reporting Limit	Results reported are not blank corrected
	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected at or below quantitation limits
	JN Non-routine analyte, Quantitation estimated.	ND Not Detected at the Reporting Limit
	S Spike Recovery outside accepted recovery limits	

## Centek Laboratories, LLC

Date: 18-Oct-11

CLIENT: Paradigm Environmental Services, Inc.  
 Lab Order: C1110008  
 Project: 100 Ridge Rd  
 Lab ID: C1110008-008A

Client Sample ID: IA-4  
 Tag Number: 561,441  
 Collection Date: 10/4/2011  
 Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
1UG/M3 W/ 0.25UG/M3 CT-TCE-VC		TO-15		Analyst: RJP		
1,1,1-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 7:37:00 AM
1,1,2,2-Tetrachloroethane	< 1.0	1.0		ug/m3	1	10/7/2011 7:37:00 AM
1,1,2-Trichloroethane	< 0.83	0.83		ug/m3	1	10/7/2011 7:37:00 AM
1,1-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 7:37:00 AM
1,1-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 7:37:00 AM
1,2,4-Trichlorobenzene	< 1.1	1.1		ug/m3	1	10/7/2011 7:37:00 AM
1,2,4-Trimethylbenzene	1.2	0.75		ug/m3	1	10/7/2011 7:37:00 AM
1,2-Dibromoethane	< 1.2	1.2		ug/m3	1	10/7/2011 7:37:00 AM
1,2-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 7:37:00 AM
1,2-Dichloroethane	< 0.62	0.62		ug/m3	1	10/7/2011 7:37:00 AM
1,2-Dichloropropane	< 0.70	0.70		ug/m3	1	10/7/2011 7:37:00 AM
1,3,5-Trimethylbenzene	< 0.75	0.75		ug/m3	1	10/7/2011 7:37:00 AM
1,3-butadiene	< 0.34	0.34		ug/m3	1	10/7/2011 7:37:00 AM
1,3-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 7:37:00 AM
1,4-Dichlorobenzene	< 0.92	0.92		ug/m3	1	10/7/2011 7:37:00 AM
1,4-Dioxane	< 1.1	1.1		ug/m3	1	10/7/2011 7:37:00 AM
2,2,4-trimethylpentane	< 0.71	0.71		ug/m3	1	10/7/2011 7:37:00 AM
4-ethyltoluene	< 0.75	0.75		ug/m3	1	10/7/2011 7:37:00 AM
Acetone	23	7.2		ug/m3	10	10/13/2011 10:32:00 AM
Allyl chloride	< 0.48	0.48		ug/m3	1	10/7/2011 7:37:00 AM
Benzene	0.58	0.49		ug/m3	1	10/7/2011 7:37:00 AM
Benzyl chloride	< 0.88	0.88		ug/m3	1	10/7/2011 7:37:00 AM
Bromodichloromethane	< 1.0	1.0		ug/m3	1	10/7/2011 7:37:00 AM
Bromoform	< 1.6	1.6		ug/m3	1	10/7/2011 7:37:00 AM
Bromomethane	< 0.59	0.59		ug/m3	1	10/7/2011 7:37:00 AM
Carbon disulfide	1.0	0.47		ug/m3	1	10/7/2011 7:37:00 AM
Carbon tetrachloride	0.77	0.26		ug/m3	1	10/7/2011 7:37:00 AM
Chlorobenzene	< 0.70	0.70		ug/m3	1	10/7/2011 7:37:00 AM
Chloroethane	< 0.40	0.40		ug/m3	1	10/7/2011 7:37:00 AM
Chloroform	0.89	0.74		ug/m3	1	10/7/2011 7:37:00 AM
Chloromethane	0.86	0.31		ug/m3	1	10/7/2011 7:37:00 AM
cis-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 7:37:00 AM
cis-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 7:37:00 AM
Cyclohexane	< 0.52	0.52		ug/m3	1	10/7/2011 7:37:00 AM
Dibromochloromethane	< 1.3	1.3		ug/m3	1	10/7/2011 7:37:00 AM
Ethyl acetate	< 0.92	0.92		ug/m3	1	10/7/2011 7:37:00 AM
Ethylbenzene	0.49	0.66	J	ug/m3	1	10/7/2011 7:37:00 AM
Freon 11	1.6	0.86		ug/m3	1	10/7/2011 7:37:00 AM
Freon 113	< 1.2	1.2		ug/m3	1	10/7/2011 7:37:00 AM
Freon 114	< 1.1	1.1		ug/m3	1	10/7/2011 7:37:00 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, LLC

Date: 18-Oct-11

<b>CLIENT:</b>	Paradigm Environmental Services, Inc.	<b>Client Sample ID:</b>	IA-4
<b>Lab Order:</b>	C1110008	<b>Tag Number:</b>	561,441
<b>Project:</b>	100 Ridge Rd	<b>Collection Date:</b>	10/4/2011
<b>Lab ID:</b>	C1110008-008A	<b>Matrix:</b>	AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
<b>1UG/M3 W/ 0.25UG/M3 CT-TCE-VC</b>			<b>TO-15</b>			<b>Analyst: RJP</b>
Freon 12	2.6	0.75		ug/m3	1	10/7/2011 7:37:00 AM
Heptane	0.67	0.62		ug/m3	1	10/7/2011 7:37:00 AM
Hexachloro-1,3-butadiene	< 1.6	1.6		ug/m3	1	10/7/2011 7:37:00 AM
Hexane	3.7	0.54		ug/m3	1	10/7/2011 7:37:00 AM
Isopropyl alcohol	24	3.7		ug/m3	10	10/13/2011 10:32:00 AM
m&p-Xylene	1.4	1.3		ug/m3	1	10/7/2011 7:37:00 AM
Methyl Butyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 7:37:00 AM
Methyl Ethyl Ketone	4.3	0.90		ug/m3	1	10/7/2011 7:37:00 AM
Methyl Isobutyl Ketone	< 1.2	1.2		ug/m3	1	10/7/2011 7:37:00 AM
Methyl tert-butyl ether	< 0.55	0.55		ug/m3	1	10/7/2011 7:37:00 AM
Methylene chloride	1.3	0.53		ug/m3	1	10/7/2011 7:37:00 AM
o-Xylene	0.66	0.66		ug/m3	1	10/7/2011 7:37:00 AM
Propylene	< 0.26	0.26		ug/m3	1	10/7/2011 7:37:00 AM
Styrene	< 0.65	0.65		ug/m3	1	10/7/2011 7:37:00 AM
Tetrachloroethylene	5.9	1.0		ug/m3	1	10/7/2011 7:37:00 AM
Tetrahydrofuran	< 0.45	0.45		ug/m3	1	10/7/2011 7:37:00 AM
Toluene	3.0	0.57		ug/m3	1	10/7/2011 7:37:00 AM
trans-1,2-Dichloroethene	< 0.60	0.60		ug/m3	1	10/7/2011 7:37:00 AM
trans-1,3-Dichloropropene	< 0.69	0.69		ug/m3	1	10/7/2011 7:37:00 AM
Trichloroethene	0.76	0.22		ug/m3	1	10/7/2011 7:37:00 AM
Vinyl acetate	< 0.54	0.54		ug/m3	1	10/7/2011 7:37:00 AM
Vinyl Bromide	< 0.67	0.67		ug/m3	1	10/7/2011 7:37:00 AM
Vinyl chloride	< 0.10	0.10		ug/m3	1	10/7/2011 7:37:00 AM

<b>Qualifiers:</b>	<b>**</b> Reporting Limit	.	Results reported are not blank corrected
	<b>B</b> Analyte detected in the associated Method Blank	<b>E</b>	Value above quantitation range
	<b>H</b> Holding times for preparation or analysis exceeded	<b>J</b>	Analyte detected at or below quantitation limits
	<b>JN</b> Non-routine analyte. Quantitation estimated.	<b>ND</b>	Not Detected at the Reporting Limit
	<b>S</b> Spike Recovery outside accepted recovery limits		

Lab Order: C1110008  
 Client: Paradigm Environmental Services, Inc.  
 Project: 100 Ridge Rd

**DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C1110008-001A	SS-1	10/4/2011	Air	1ug/M3 by Method TO15			10/12/2011
C1110008-002A	SS-2			1ug/M3 by Method TO15			10/12/2011
C1110008-003A	SS-3			1ug/M3 by Method TO15			10/12/2011
C1110008-004A	SS-4			1ug/M3 by Method TO15			10/12/2011
C1110008-005A	IA-1			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			10/7/2011
C1110008-006A	IA-2			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			10/13/2011
C1110008-007A	IA-3			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			10/7/2011
C1110008-008A	IA-4			1ug/m3 w/ 0.25ug/M3 CT-TCE-VC			10/13/2011

**CENTEK LABORATORIES, LLC**

Date: 18-Oct-11

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**CLIENT:** Paradigm Environmental Services, Inc.  
**Project:** 100 Ridge Rd  
**Lab Order:** C1110008

**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
C1110008-001A	SS-1	133,276	10/4/2011	10/6/2011
C1110008-002A	SS-2	85,567	10/4/2011	10/6/2011
C1110008-003A	SS-3	158,403	10/4/2011	10/6/2011
C1110008-004A	SS-4	139,281	10/4/2011	10/6/2011
C1110008-005A	IA-1	139,281	10/4/2011	10/6/2011
C1110008-006A	IA-2	422,265	10/4/2011	10/6/2011
C1110008-007A	IA-3	360,125	10/4/2011	10/6/2011

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**CLIENT:** Paradigm Environmental Services, Inc.  
**Project:** 100 Ridge Rd  
**Lab Order:** C1110008

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**Work Order Sample Summary**

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Tag Number</b>	<b>Collection Date</b>	<b>Date Received</b>
C1110008-008A	1A-4	561,441	10/4/2011	10/6/2011

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Centek Laboratories, LLC

Sample Receipt Checklist

Client Name: PARADIGM

Date and Time Received: 10/6/2011

Work Order Number C1110008

Received by: JDS

Checklist completed by:

*[Handwritten Signature]* 10/4/11  
Signature Date

Reviewed by:

ASD 10/6/11  
Initials Date

Matrix:

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No
- Water - VOA vials have zero headspace? Yes  No
- No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section below.

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Client contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted: \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Corrective Action: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_