

### Lippes Mathias Wexler Friedman LLP

Richard M. Scherer, Jr. Associate rscherer@lippes.com

KELEIVE

MAY 6 1 2012

April 30, 2012

<u>Via Regular Mail</u>
Martin Doster
Regional Hazardous Waste Engineer
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

RE: 704-744 Foote Avenue, Jamestown, New York (the "Site")

Dear Mr. Doster:

We are writing to inform you that Southside Station Inc. ("Southside Station") has recently completed sub-slab vapor sampling at the Site. In this regard, enclosed please find a report showing the results of this testing. As you will see, this sampling has confirmed that the origin of the dry cleaning solvents in the groundwater is the former offsite drycleaner. Unfortunately, however, the adjacent property owner is no longer cooperating with our efforts at the Site. In this regard, we believe the DEC's involvement will be necessary to move this process forward and request a meeting with your office to discuss Southside Stations' next steps.

Once you have had the opportunity to review the enclosed report, please contact me so that we can a mutually convenient date for a meeting with you office. Thank you.

Very truly yours,

LIPPES MATHIAS WEXLER FRIEDMAN LLP

By:

Richard M. Scherer, Jr.

Enc.

cc:

John M. Bear, Esq. Kevin J. Cross, Esq.



April 17, 2012

Mr. John Bear Southside Station, Inc. 11501 Northlake Drive Cincinnati, OH 45249

Re: Sub-Slab Vapor Assessment

Southside Plaza

704-744 Foote Avenue

Jamestown, New York 14701

Dear Mr. Bear:

Apex Companies, LLC (Apex) is pleased to provide Southside Station, Inc. with the results of sub-slab vapor sampling at Southside Plaza in Jamestown, NY. This sub-slab vapor sampling was conducted to further define the source area of the drycleaning solvent impact detected in past investigations at the Site and to determine the best design for a sub-slab depressurization system (SSDS), if investigation results indicate that installation of such a system is needed. Sub-slab vapor sampling was conducted in accordance with the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006.

#### **BACKGROUND**

The Southside Plaza (Site) is located at 704-744 Foote Avenue in Jamestown, New York (Figure 1). Previous Phase 1 Assessments completed by others identified a dry cleaner on the Site. Subsurface soil gas and sub-slab vapor sampling was conducted in August 2008. The 2008 investigation identified drycleaning solvents, specifically tetrachloroethene (PCE) and trichloroethene (TCE), in subsurface soil-gas and sub-slab vapor samples, and PCE in groundwater. As a result of these findings and new information regarding the suspected location of the former onsite drycleaner and a former offsite drycleaner, further subsurface investigation was conducted in March 2010. The investigation included additional soil and groundwater sampling as well as indoor air and sub-slab vapor sampling. PCE, TCE, and vinyl chloride (VC) were detected in several groundwater samples at concentrations above applicable groundwater standards and 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene (cis-1,2-DCE), PCE, and TCE were detected in indoor air and soil-gas samples. Historical soil-gas, indoor air, and sub-slab vapor sample analytical results are presented in Table 1 and on Figure

2. Historical groundwater analytical results are provided in Table 2 and are shown in conjunction with monitoring well locations in Figure 3.

Apex completed additional sub-slab vapor sampling to further define the source area of the drycleaning solvent impact detected in past investigations at the Site. Apex requested permission to access the adjoining Southside Foote Avenue Plaza (SFAP) property to the south to collect sub-slab vapor samples from within the footprint of the former offsite drycleaner. In an email sent to Apex on March 3, 2012, the SFAP owners denied access to their property for this proposed sub-slab vapor sampling. As such, sampling was limited to the Southside Plaza Property. A copy of the access denial email is provided in Attachment A.

#### SUB-SLAB VAPOR ASSESSMENT

On March 21, 2012, Mr. Eric Wysong, a geologist from Apex, was onsite to conduct sub-slab vapor sampling at the Site. Five sub-slab vapor probes were installed inside the existing Tops Market grocery store. Two of the vapor probes were installed within and just to the west of the footprint of the former onsite drycleaner, two vapor probes were installed just north of the property boundary between Southside Plaza and the adjoining SFAP property, and one vapor probe was installed in the center of the Tops Market between the previously mentioned locations. The locations of these vapor probes, labeled SS-1 through SS-5 are shown with respect to the historical sub-slab vapor probe (SS-01 and SS-02), indoor air, and soil-gas sample locations in Figure 4.

#### Sub-Slab Vapor Probe Installation

The sub-slab vapor probes were installed by drilling a 1 1/2-inch diameter hole approximately 1.75-inches into the concrete floor. Next, a 5/8-inch diameter hole was drilled in the center of the first hole through the concrete slab and up to approximately two inches into the gravel-aggregate layer underlying the concrete slab. A brass vapor probe was inserted and sealed into the 5/8-inch diameter hole through the concrete slab using a self-sealing silicone sleeve. An approximately 3 to 4-foot section of 1/4" OD fluorinated ethylene propylene (FEP) air tubing was attached to the probe and connected to a photoionization detector (PID) equipped with a low-flow air pump. Air in the sample point was purged through the probe while PID detections were recorded.

During the purging of the sample points, purged air was transferred directly through the PID and into a one-liter tedlar bag to confirm volumes purged. The integrity of the vapor probe seal was tested using helium as a tracer gas by introducing the helium into a shroud over the sample point during purging. The tedlar bag containing the purged air from the sample point was tested with a helium detector for the presence of helium as an indication of leaks. No helium was detected in tedlar bags from any of the sample locations, indicating that there was no surface air



leaking into the samples through the sealed sample point penetration. Additionally, all sample points, tubing, and fittings were tested for tightness using a shut-in test, which consists of applying a vacuum of 25 inches mercury (Hg) to all sample tubing connections and fittings from the sample probe through to the sampling canister. The vacuum gauge was observed for a period of at least one minute for any vacuum loss. If any loss was noted, the fittings were tightened and/or reconnected as needed.

#### Sub-Slab Vapor Sampling

Following a purging of a minimum of three (3) tubing and sample probe volumes and leak testing at all sample locations, representative samples of sub-slab vapor were collected for approximately 1.5 hours using batch-certified clean Summa® canisters equipped with appropriate flow controllers. Samples were considered representative when pressure within the Summa® canister dropped from an initial reading of approximately 30 inches Hg to less than 10 inches Hg. The Summa® canisters were shipped to Columbia Analytical Services, part of ALS Group, in Rochester, NY for analysis of volatile organic compounds (VOCs) using USEPA Method TO-15. The sub-slab sample probes were left in place and covered with a plastic cap after the sampling was conducted.

#### Sub-Slab Vapor Results

Sub-slab vapor sample analytical results are presented on Table 3 and are compared with New York State Department of Health (NYSDOH) Soil Vapor/Indoor Air Matrix 1 and Matrix 2 Guidance Action Concentration decision matrices. Sub-slab vapor sample analytical results are also shown on Figure 5. Laboratory analytical results and chain-of-custody documentation for the sub-slab vapor samples are provided in Attachment B. Historical sub-slab vapor, soil-gas, and indoor air analytical results are presented in Table 1.

#### CONCLUSIONS

Based on the results of this sub-slab vapor assessment, Apex concludes the following:

- Concentrations of cis-1,2-DCE, PCE, and TCE were detected at concentrations above corresponding NYSDOH Mitigate Guidance Action concentrations in sub-slab vapor samples collected from sub-slab vapor probes SS-4 and SS-5 installed just north of the property boundary between Southside Plaza and the adjoining SFAP property. The distribution and levels of chlorinated VOCs suggest that the source of drycleaning solvent impact at the Site likely originated from the former offsite drycleaner.
- Concentrations of cis-1,2-DCE, PCE, and TCE were either below laboratory detection limits or below corresponding NYSDOH NFA Guidance Action concentrations in sub-



slab vapor samples collected from sub-slab vapor probes SS-1 and SS-2 installed in and around the historical footprint of the former onsite drycleaner and from SS-3 installed in the center of the Tops Market. These results suggest that the source of impact from drycleaning chemicals at the Site is not the former onsite drycleaner.

- The concentration of PCE from the historical soil-gas sample SV-01, collected immediately downgradient from the former offsite drycleaner, is above the corresponding NYSDOH Mitigate Guidance Action concentration. Apex suggests that the likely source for PCE in soil-gas at SV-01 originated from the former offsite drycleaner.
- The distribution of drycleaning solvents in groundwater, as presented in Table 2 and shown in Figure 3, suggests that the origin for these drycleaning solvents is the former offsite drycleaner. Apex has prepared an approximate PCE groundwater plume map, Figure 6, depicting PCE concentration distribution in groundwater based on the apparent flow of groundwater to the north/northeast and the existing groundwater analytical results.

#### **RECOMMENDATIONS**

Based on the distribution of drycleaning related compounds in sub-slab vapor samples, soil-gas samples, and groundwater samples collected from the Southside Plaza property, it appears that concentrations of these compounds, specifically PCE and it's breakdown products, TCE and cis-1,2-DCE, are concentrated around the former offsite drycleaner. As such, Apex concludes that the likely source of impact is from the former offsite drycleaner on the SFAP property and not from the former onsite drycleaner. This can be verified by collection of sub-slab samples from the beneath the slab of the adjoining SFAP property. Additionally, Apex recommends that the owners of the offsite SFAP property be contacted regarding their responsibility for this environmental impact. Apex also recommends that a complete round of groundwater samples and groundwater elevation data be collected from all onsite and offsite monitoring wells to confirm groundwater flow direction and to obtain updated site-wide groundwater concentrations.

Based on the most recent sub-slab vapor sampling, the area in the vicinity of the former onsite drycleaner does not require any further action with mitigation of vapors. However, sub-slab vapor sampling in the area adjacent to the southern property line indicated that vapor mitigation is needed. Therefore, Apex recommends that, if a vapor mitigation system is to be installed, it be installed on the SFAP property, centered around the source area beneath the former offsite drycleaner property and with a sufficient radius of influence to mitigate the intrusion of vapors onto the Southside Plaza property. As such, Apex requests that the NYSDEC assist Southside Station, Inc. with acquiring access to the adjoining SFAP property to collect sub-slab vapor samples from beneath this former offsite drycleaner in an effort to design an effective vapor mitigation system for both properties.



#### REPORT LIMITATIONS

The findings presented in this report are not specific certainties; rather they are probabilities based upon professional judgment, analytical results and risk-based guidance values published by the NYSDOH and NYSDEC. Apex is not able to represent that the Site presents no environmental conditions other than those described during this investigation.

Implementation or use of the findings in this report does not assure the elimination of present or future liability or the fulfillment of the property owner's obligations under local, state or Federal laws. This report is prepared for the benefit of PECO and may not be relied upon by any other person or entity. The findings set forth in this report are limited in time and scope to the circumstances at the time of the field investigation.

Please feel free to call us with any questions that you may have.

Sincerely,

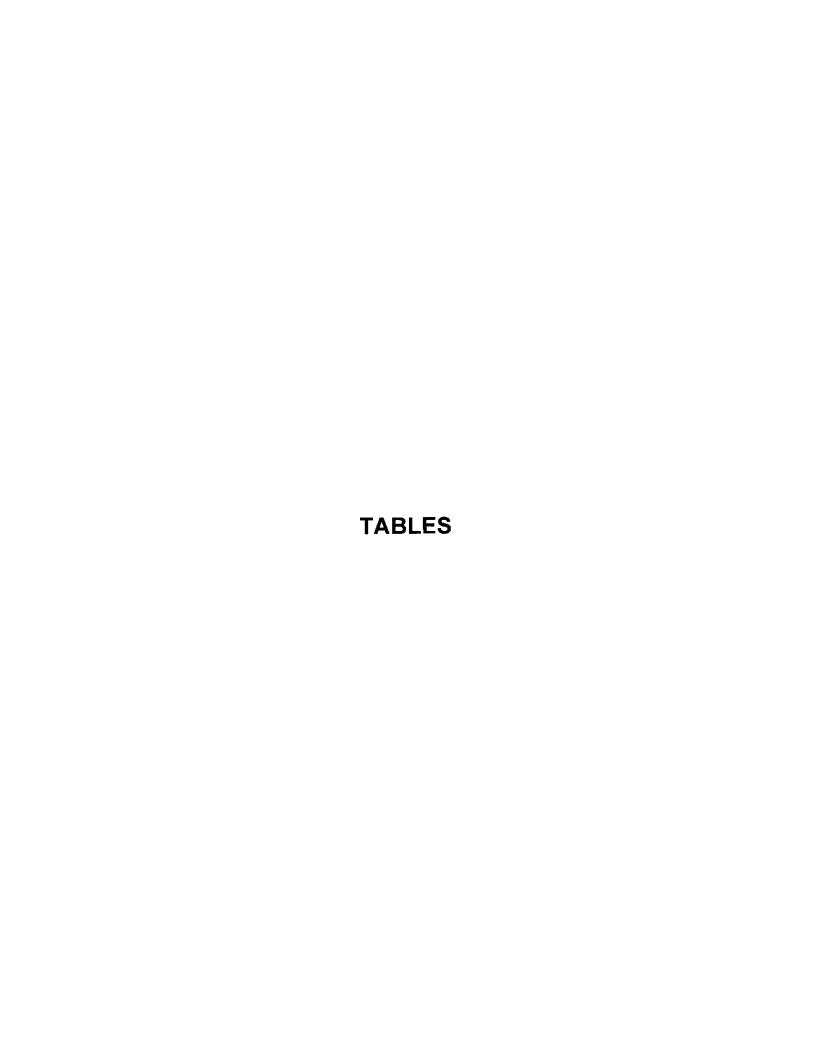
Apex Companies, LLC.

Jeff Lower, P.E. Project Manager

Adam Flege, P.G. Senior Geologist

Attachments - Tables
Figures
Attachments





# Table 1 Historical Soil-Gas, Sub-Slab Vapor, and Indoor Air Analytical Results

### Southside Plaza 704-744 Foote Avenue Jamestown, New York

Sample Type	Soil	-Gas	Sı	ıb-Slab Vap	or		Indoor Air		NVCDOL	. Cuidanas Astinu	.t (( 8)
Sample Date	8/18/2008	8/18/2008	8/18/2008	8/18/2008	3/31/2010	3/31/2010	3/31/2010	3/31/2010	NYSDOR	Guidance Action	ı" (µg/m3)
Analyte Concentration (µg/m³)	SV-01	SV-02	SS-01	SS-02	SS-UPS	IA-QM1	IA-QM2	IA-UPS	NFA**	Monitor	Mitigate
1,1-dichloroethene	<7.42	<1.48	<1.43	<14.5	<3.5	<93	<4.1	<760	< 100	100 to < 1,000	≥ 1,000
1,1,1-trichloroethane	<10.2	<2.03	161	< 19.8	<4.9	<130	<5.7	630	< 100	100 to < 1,000	≥ 1,000
carbon tetrachloride	<11.7	<2.34	< 2.25	< 22.9	<5.6	<150	<6.5	<1,200	< 50	50 to < 250	≥ 250
cis-1,2-dichloroethene	137	<1.48	<1.43	<14.5	<3.5	<93	<4.1	<760	< 100	100 to < 1,000	≥ 1,000
tetrachloroethylen <b>e</b>	<u>1,310</u>	34.5	152	104	6.7	<160	<7	<1,300	< 100	100 to < 1,000	≥ 1,000
trichloroethylene	224	7.65	16.9	<19.5	<4.8	<130	<5.6	<1,000	< 50	50 to < 250	≥ 250
vinyl chloride	<4.76	<0.952	<0.915	<9.29	<2.3	<60	<2.7	<490	< 50	50 to < 250	≥ 250

#### Notes:

Bold/Italics - Result above NYSDOH Monitor Guidance Action Concentrations.

Bold/Underlined - Result above NYSDOH Mitigate Guidance Action Concentrations.

<sup>\*</sup> New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006 and June 25, 2007.

<sup>\*\*</sup> NFA = No Further Action

# Table 2 Groundwater Analytical Results

#### Southside Plaza 704-744 Foote Avenue Jamestown, New York

Sampling Date			April 14, 2011	ADVODED ON				
Monitoring Well ID	MW-1	MW-2	MW-3	MW-3 Duplicate	MW-4	MW-5	MW-6	NYSDEC GW Standard *
VOCs (µg/L)								
cis-1,2-Dichloroethylene	3.2 J	2.8 J	1.8 J	1.8 J	<5	<5	63	5
trans-1,2-Dichloroethylene	<5	<5	<5	<5	<5	<5	3.6 J	
Methylene chloride	5.0 J,B	4.2 J,B	3.5 J,B	4.4 J,B	3.0 J,B	2.6 J,B	5.3 J,B	5
Tetrachloroethylene	210	2,300	190	200	<5	110	1,200	5
Trichloroethylene	9.4	39	4.2 J	3.7 J	<5	6.4	28	5
Vinyl Chloride	2.9 J	<5	<5	<5	<5	<5	2.8 J	2

Sampling Date	April '	14, 2011		De	cember 13	3, 2011		111/00550 014/
Monitoring Well ID	MW-7	MW-7 Duplicate	MW-8	MW-8 Duplicate	MW-9	MW-10A	MW-11	NYSDEC GW Standard *
VOCs (μg/L)								
cis-1,2-Dichloroethylene	<5	<5	<1	<1	<1	<1	<1	5
trans-1,2-Dichloroethylene	<5	<5	<4	<4	<4	<4	<4	5
Methylene chloride	4.7 J,B	4.9 J,B	<4	<4	<4	<4	<4	5
Tetrachloroethylene	1.0 J	<5	<u>31.6</u>	31.8	<u>-</u>	<1	11.5	5
Trichloroethylene	<5	<5	<1	<1	<1	<1	<1	5
Vinyl Chloride	<5	<5	<0.4	<0.4	<0.4	<0.4	<0.4	2

Notes:

Bold/Underlined - Values exceed NYSDEC Groundwater Standard.

- J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration.
- B Analyte is found in the associated analysis batch blank.
- \* NYSDEC Class GA Ambient Water Quality Standards and Guidance Values, NYSDEC Division of Water Quality and Operational Guidance Series (1.1.1) Ambient Water Quality and Guidance Values and Effluent Limitations Reissued June 1998.

# Table 3 Sub-Slab Vapor Analytical Results

#### Southside Plaza 704-744 Foote Avenue Jamestown, New York

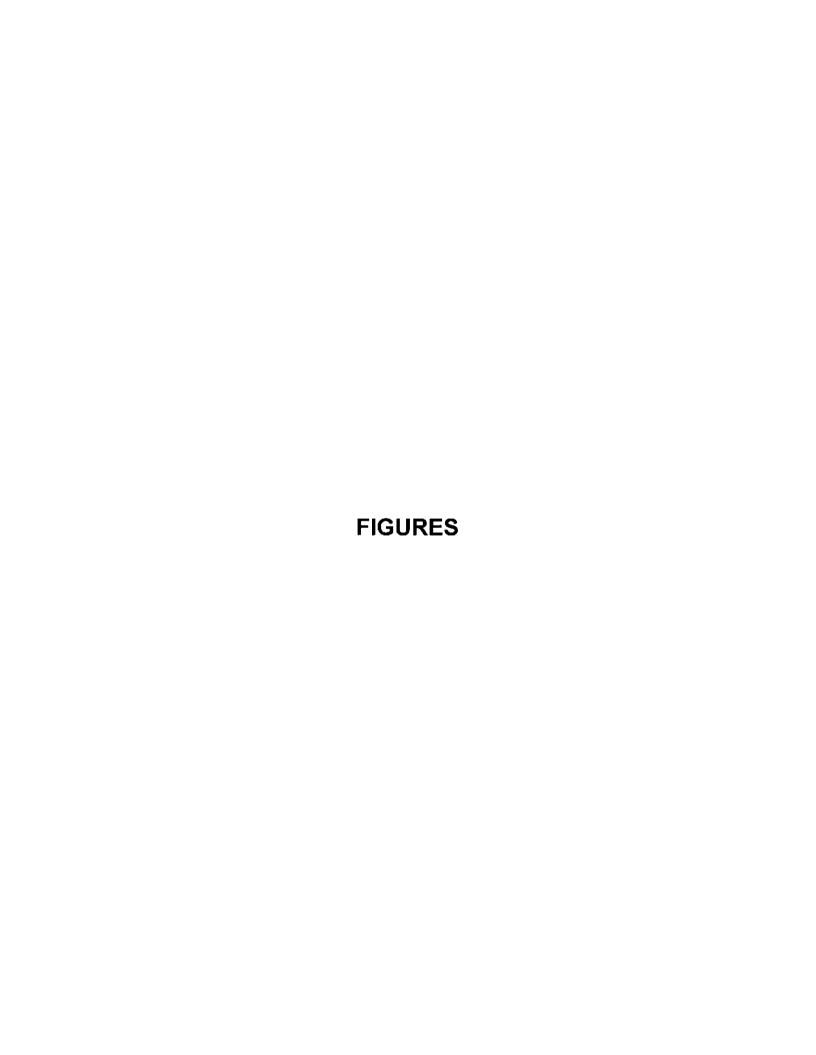
Sample Type		Sı	ıb-Slab Vap	or	NVOPOU 0 11 - 1 4 4 4 4 3			
Sample Date	3/21/2012	3/21/2012	3/21/2012	3/21/2012	3/21/2012	NYSDOH Guidance Action* (µg/m³)		
Analyte Concentration (µg/m³)	SS-1	SS-2	SS-3	SS-4	SS-5	NFA**	Monitor	Mitigate
1,1-dichloroethene	<0.68	<0.65	<0.68	<62	<700	< 100	100 to < 1,000	≥ 1,000
1,1,1-Trichloroethane	<0.93	<0.88	<0.92	<84	<950	< 100	100 to < 1,000	≥ 1,000
carbon tetrachloride	0.42	0.48	0.40	<9.8	<110	< 50	50 to < 250	≥ 250
cis-1,2-dichloroethene	<0.68	<0.65	<0.68	<62	<u>4,300</u>	< 100	100 to < 1,000	≥ 1,000
tetrachloroethylene	2.8	18	22	<u>7,000</u>	<u>65,000</u>	< 100	100 to < 1,000	≥ 1,000
trichloroethylene	<0.093	0.32	0.15	240	<u>1,100</u>	< 50	50 to < 250	≥ 250
vinyl chloride	<0.093	<0.088	0.11	<8.4	<95	< 50	50 to < 250	≥ 250

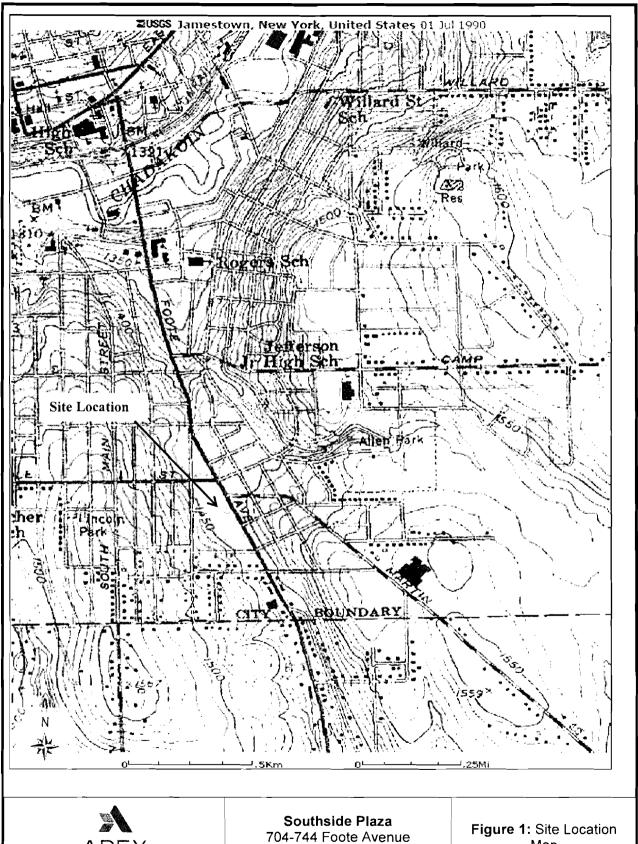
#### Notes:

Bold/Italics - Result above NYSDOH Monitor Guidance Action Concentrations
Bold/Underlined - Result above NYSDOH Mitigate Guidance Action Concentrations

<sup>\*</sup> New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October

<sup>\*\*</sup> NFA = No Further Action

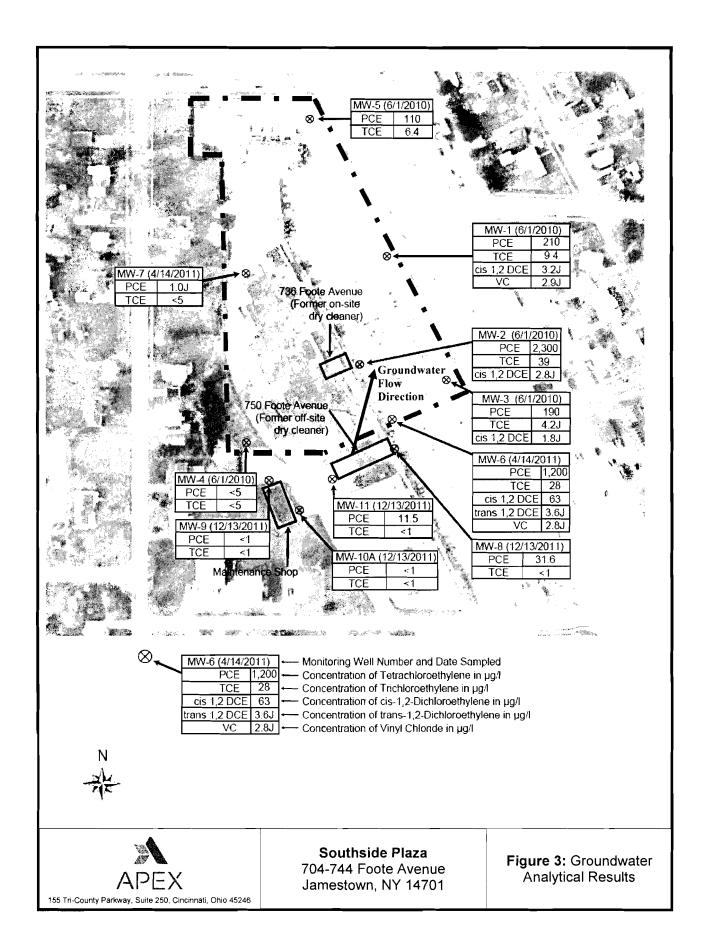


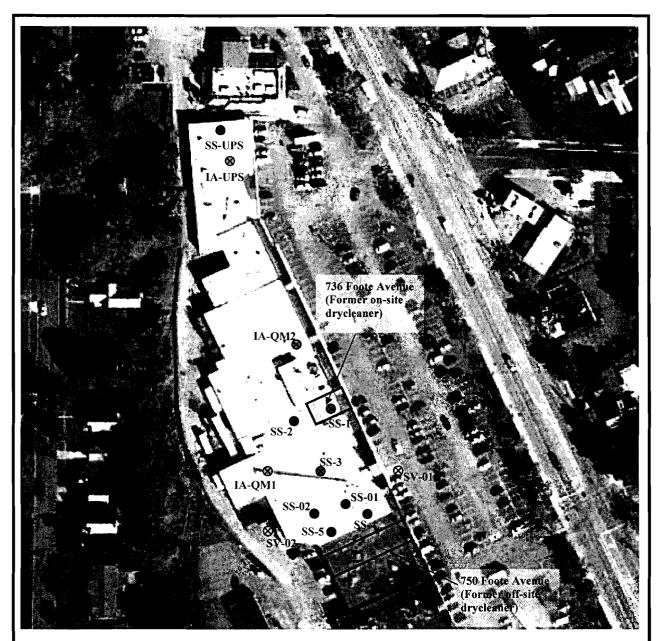




Jamestown, NY 14701

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- Sub-Slab Vapor Sample Location = Historical Sub-Slab Vapor Sample Location
  - **⊗** = Historical Soil Gas Sample Location
  - S = Historical Indoor Air Sample Location

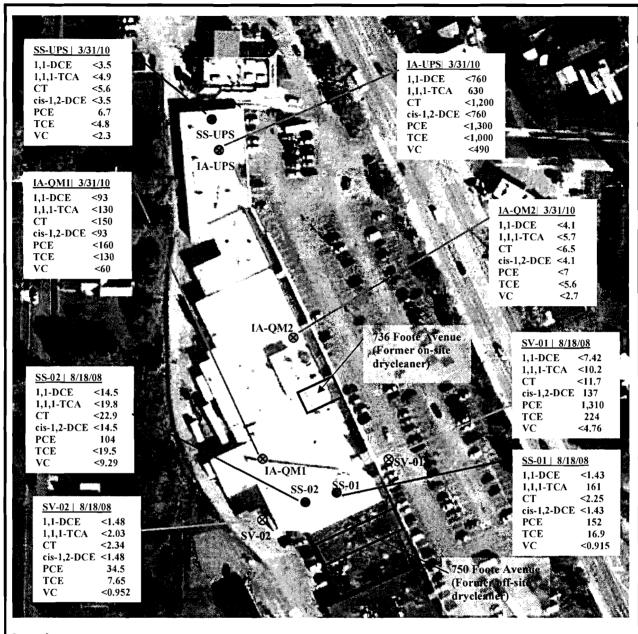




155 Tri-County Parkway, Suite 250, Cincinnati, Ohio 45246

Southside Plaza 704-744 Foote Avenue Jamestown, NY 14701

Figure 4: Sample Location Мар



#### Legend

- = Historical Sub-Slab Vapor Sample Location
- **⊗** = Historical Soil Gas Sample Location
- = Historical Indoor Air Sample Location



SV-02   8/18	<u>3/08</u>
1,1-DCE	<1.48
1,1,1-TCA	< 2.03
CT	<2.34
cis-1,2-DCE	<1.48
PCE	34.5
TCE	7.65
VC	<0.952

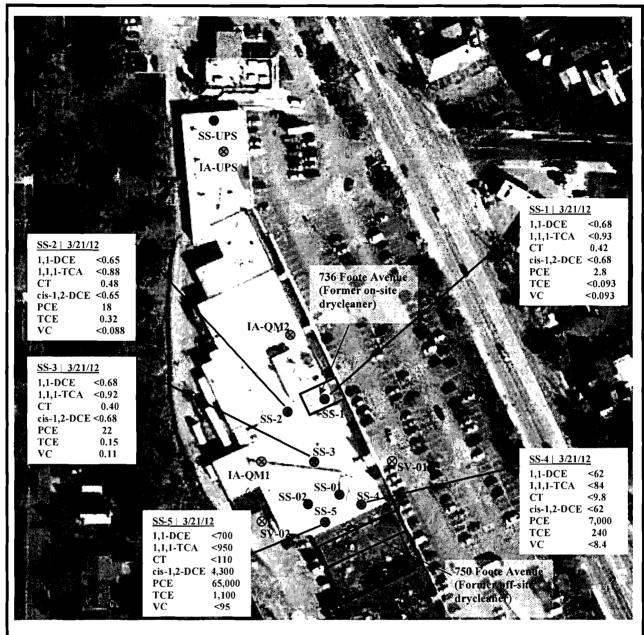
- ← Sample ID and Date Sampled
- ← 1,1-dichIoroethene in ug/m³
- ← 1,1,1-trichloroethane in ug/m³
- ← carbon tetrachloride in ug/m³
- ← cis-1,2-dichloroethene in ug/m3
- tetrachloroethene in ug/m3
- ← trichloroethene in ug/m³
- ← vinyl chloride in ug/m³



155 Tri-County Parkway, Suite 250, Cincinnati, Ohio 45246

Southside Plaza 704-744 Foote Avenue Jamestown, NY 14701

Figure 2: Historical Air Sample Analytical Results



#### <u>Legend</u>

- = Sub-Slab Vapor Sample Location
- = Historical Sub-Slab Vapor Sample Location
- **⊗** = Historical Soil Gas Sample Location
- = Historical Indoor Air Sample Location

SS-1   3/21/	<u>12</u>
1,1-DCE	< 0.68
1,1,1-TCA	< 0.93
CT	0.42
cis-1,2-DCE	<0.68
PCE	2.8
TCE	< 0.093
VC	<0.093

- ← Sub-Slab Vapor Sample and Date Sampled
- $\leftarrow$  1,1-dichloroethene in ug/m $^3$
- ← 1,1,1-trichloroethane in ug/m³
- ← carbon tetrachloride in ug/m³
- ← cis-1,2-dichloroethene in ug/m³
- ← tetrachloroethene in ug/m³
   ← trichloroethene in ug/m³
- ← vinyl chloride in ug/m³



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Southside Plaza 704-744 Foote Avenue Jamestown, NY 14701

Figure 5: Sub-Slab Vapor Sample Analytical Results



#### Legend

• <5 = Monitoring Well Location with corresponding PCE concentration in ug/L

- 100 - PCE Concentration Contours in ug/L

= Sub-Slab Vapor Sample Location

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155 Tri-County Parkway, Suite 250, Cincinnati, Ohio 45246

**Southside Plaza** 704-744 Foote Avenue Jamestown, NY 14701

**Figure 6:** PCE Groundwater Contour Map

# **ATTACHMENT A**

Offsite Access Denial Email Documentation

#### **Adam Flege**

F	
From:	

southside plaza <southsidefooteavenueplazallc@hotmail.com>

**Sent:** Tuesday, March 06, 2012 12:29 PM

To: Adam Flege

**Subject:** FW: Copy of: vapor probes

> Date: Sat, 3 Mar 2012 14:38:20 +0000

> To: southsidefooteavenueplazallc@hotmail.com

> From: info@apexcos.com
> Subject: Copy of: vapor probes

> This is a copy of the following message you sent to Apex Companies, LLC via Apex Companies, LLC

>

> This is an enquiry email via <a href="http://www.apexcos.com/">http://www.apexcos.com/</a> from:

> southside plaza jamestown,ny < southsidefooteavenueplazallc@hotmail.com >

> To Jeff Lower and Adam Flege

> The former drycleaners were never tenants in our portion of the plaza. It was in our neighbor's plaza. The old unit, Anderson Cleaners (<a href="www.andersoncleanersny.com">www.andersoncleanersny.com</a>), was on the right side of the grocery store. The old landlords, DDR or Benderson, should have more information about the history of the cleaners. As you know, Phillips Edison has owned their property since the summer of 2007. We will not grant access approval for the sub-slab vapor probes.

> Salim S and Bill G

> Members

> Southside Foote Avenue Plaza LLC

> > >

>

## **ATTACHMENT B**

Sub-Slab Vapor Sample Laboratory Analytical Report and Chain-of-Custody Documentation



April 06, 2012

Service Request No: R1201853

Mr. Adam Flege Apex Companies, LLC 155 Tri County Parkway, Suite 250 Cincinnati, OH 45246

Laboratory Results for: Southside/1200202.003

Dear Mr. Flege:

Enclosed are the results of the sample(s) submitted to our laboratory on March 23, 2012. For your reference, these analyses have been assigned our service request number **R1201853**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at JJaeger@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Janice Jaeger

Client Services Manager

Page 1 of 4



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group | A Campbell Brothers Limited Company

www.caslab.com \* www.alsglobal.com

#### **CASE NARRATIVE**

This report contains analytical results for the following samples: Service Request Number: R1201853

<u>Lab ID</u>	Client ID
R1201853-001	SS-1
R1201853-002	SS-2
R1201853-003	SS-3
R1201853-004	SS-4
R1201853-005	SS-5

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.





#### REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- \* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
- X See Case Narrative for discussion.



#### CAS/Rochester Lab ID # for State Certifications1

NELAP Accredited Connecticut ID # PH0556 Delaware Accredited DoD ELAP #65817 Florida ID # E87674 Illinois ID #200047 Maine ID #NY0032 Nebraska Accredited Nevada ID # NY-00032 New Jersey ID # NY004 New York ID # 10145 New Hampshire ID # 294100 A/B Pennsylvania ID# 68-786 Rhode Island ID # 158

<sup>&</sup>lt;sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at <a href="https://www.caslab.com">www.caslab.com</a>.



Now part of the ALS Group

Analytical Report

Client: Project: Apex Companies, LLC

Southside/1200202.003

Sample Matrix:

Air

Sample Name: Lab Code:

SS-1

R1201853-001

Analytical Method: TO-15

Date Analyzed: 3/28/12 1602

Service Request: R1201853

Date Received: 3/23/12

Date Collected: 3/21/12 1428

Canister Dilution Factor: 1.55

Initial Pressure (psig):

-2.95

Final Pressure (psig):

CAS#	Analyte Name	Sample Amount mL	Result μg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.093	0.093	0.036	0.036	Ŭ
75-35-4	1,1-Dichloroethene	1000	0.68	0.68	0.17	0.17	U
156-59-2	cis-1,2-Dichloroethene	1000	0.68	0.68	0.17	0.17	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.93	0.93	0.17	0.17	U
56-23-5	Carbon Tetrachloride	1000	0.42	0.11	0.067	0.017	
79-01-6	Trichloroethene (TCE)	1000	0.093	0.093	0.017	0.017	Ŭ
127-18-4	Tetrachloroethene (PCE)	1000	2.8	0.12	0.41	0.018	

Now part of the ALS Group

Analytical Report

Client:

Apex Companies, LLC

Project:

Southside/1200202.003

Service Request: R1201853 **Date Collected: 3/21/12 1440** 

Sample Matrix:

Air

Sample Name:

Date Received: 3/23/12

SS-2

Lab Code:

R1201853-002

Analytical Method: TO-15

Date Analyzed: 3/28/12 1748

Canister Dilution Factor: 1.47

Initial Pressure (psig):

-2.31

Final Pressure (psig):

3.50

CAS#	Analyte Name	Sample Amount mL	Result µg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.088	0.088	0.035	0.035	U
75-35-4	1,1-Dichloroethene	1000	0.65	0.65	0.16	0.16	U
156-59-2	cis-1,2-Dichloroethene	1000	0.65	0.65	0.16	0.16	Ŭ
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.88	0.88	0.16	0.16	Ŭ
56-23-5	Carbon Tetrachloride	1000	0,48	0.10	0.076	0.016	
79-01-6	Trichloroethene (TCE)	1000	0.32	0.088	0.060	0.016	
127-18-4	Tetrachloroethene (PCE)	1000	18	0.12	2.7	0.017	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	110	70-130	3/28/12 1748	

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Analytical Report

Client:

Apex Companies, LLC

Project: Sample Matrix: Southside/1200202.003

ix: Air

SS-3

Sample Name: Lab Code:

R1201853-003

Analytical Method: TO-15

Date Analyzed: 3/28/12 1839

Service Request: R1201853

Date Received: 3/23/12

Date Collected: 3/21/12 1441

Canister Dilution Factor: 1.54

Initial Pressure (psig):

-2.90

Final Pressure (psig):

CAS#	Analyte Name	Sample Amount mL	Result µg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.11	0.092	0.041	0.036	
75-35-4	1,1-Dichloroethene	1000	0.68	0.68	0.17	0.17	U
156-59-2	cis-1,2-Dichloroethene	1000	0.68	0.68	0.17	0.17	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.92	0.92	0.17	0.17	U
56-23-5	Carbon Tetrachloride	1000	0.40	0.11	0,063	0.017	
79-01-6	Trichloroethene (TCE)	1000	0.15	0.092	0.029	0.017	
127-18-4	Tetrachloroethene (PCE)	1000	22	0.12	3.2	0.018	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
4-Bromoflyorobenzene	111	70-130	3/28/12 1839		,

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Analytical Report

Client:

Apex Companies, LLC

Project:

Southside/1200202.003

Sample Matrix: Sample Name:

SS-4

Air

Lab Code:

R1201853-004

Analytical Method: TO-15

**Date Analyzed:** 3/30/12 1129

Service Request: R1201853

Date Received: 3/23/12

**Date Collected: 3/21/12 1442** 

Canister Dilution Factor: 1.54

Initial Pressure (psig):

-2.90

Final Pressure (psig):

CAS#	Analyte Name	Sample Amount mL	Result μg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	11	8.4	8.4	3.3	3.3	Ŭ
75-35-4	1,1-Dichloroethene	11	62	62	16	16	Ŭ
156-59-2	cis-1,2-Dichloroethene	11	62	62	16	16	Ŭ
71-55-6	1, 1, 1-Trichloroethane (TCA)	11	84	84	15	15	Ŭ
56-23-5	Carbon Tetrachloride	11	9.8	9.8	1.6	1.6	U
79-01-6	Trichloroethene (TCE)	11	240	8.4	44	1.6	
127-18-4	Tetrachloroethene (PCE)	11	7000	11	1000	1.7	

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Analytical Report

Client: Project: Apex Companies, LLC

Sample Matrix:

Southside/1200202.003

Air

**Date Collected: 3/21/12 1453** 

Date Received: 3/23/12

Service Request: R1201853

Sample Name:

SS-5

Lab Code:

R1201853-005

Analytical Method: TO-15

Date Analyzed: 3/30/12 1216

Canister Dilution Factor: 1.59

Initial Pressure (psig):

-3.24

Final Pressure (psig):

CAS#	Analyte Name	Sample Amount mL	Result µg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1.0	95	95	37	37	U
75-35-4	1,1-Dichloroethene	1.0	700	700	180	180	U
156-59-2	cis-1,2-Dichloroethene	1.0	4300	700	1100	180	
71-55-6	1,1,1-Trichloroethane (TCA)	1.0	950	950	170	170	Ų
56-23-5	Carbon Tetrachloride	1.0	110	110	18	18	U
79-01-6	Trichloroethene (TCE)	1.0	1100	95	200	18	
127-18-4	Tetrachloroethene (PCE)	1.0	65000	130	9500	19	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
4-Bromofluorobenzene	100	70-130	3/30/12 1216		

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Analytical Report

Client: Project: Apex Companies, LLC Southside/1200202,003

Sample Matrix:

Air

Sample Name: Lab Code:

Method Blank RQ1202974-01

Analytical Method: TO-15

Service Request: R1201853 Date Collected: NA Date Received: NA

**Date Analyzed: 3/28/12 0930** 

CAS#	Analyte Name	Sample Amount mL	Result µg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	Ŭ
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	Ŭ
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	Ŭ
71-55-6	1, I, 1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
79-01-6	Trichloroethene (TCE)	1000	0,060	0.060	0.011	0.011	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U

		Control	Date	
Surrogate Name	%Rec	Limits	Analyzed	Note
4-Bromofluorobenzene	96	70-130	3/28/12 0930	

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Analytical Report

Client:

Apex Companies, LLC

Project:

Southside/1200202.003

Sample Matrix:

Air

Sample Name: Lab Code:

Method Blank RQ1203128-01

Analytical Method: TO-15

Service Request: R1201853

Date Collected: NA Date Received: NA

Date Analyzed: 3/30/12 0955

CAS#	Analyte Name	Sample Amount mL	Result μg/m³	MRL μg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-01-4	Vínyl Chloride	1000	0.060	0.060	0.023	0.023	
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note		
4-Bromofluorobenzene	99	70-130	3/30/12 0955			_

Now part of the ALS Group QA/QC Report

Client: Project:

Apex Companies, LLC Southside/1200202.003

Sample Matrix:

Air

Service Request: R1201853 Date Analyzed: 3/28/12

Lab Control Sample Summary

Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m3

Basis: NA

Analysis Lot: 285228

Lab Control Sample RQ1202974-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	6.54	6.33	103	70 - 130
1,1-Dichloroethene	10.3	10.0	103	70 - 130
cis-I,2-Dichloroethene	9.99	10.2	98	70 - 130
1,1,1-Trichloroethane (TCA)	14.3	13.8	104	70 - 130
Carbon Tetrachloride	16.7	16.2	103	70 - 130
Trichloroethene (TCE)	13.8	13.8	100	70 - 130
Tetrachloroethene (PCE)	18.7	17.5	107	70 - 130

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C

Now part of the ALS Group

QA/QC Report

Client:

Apex Companies, LLC Southside/1200202.003

Project: Sample Matrix:

Air

Service Request: R1201853

Date Analyzed: 3/30/12

Lab Control Sample Summary

Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³

Basis: NA

Analysis Lot: 285883

Lab Control Sample RO1203128-02

	-	· 6	-	
		Spike		% Rec
Analyte Name	Result	Amount	% Rec	Limits
Vinyl Chloride	6,25	6.33	99	70 - 130
1,1-Dichloroethene	10.2	10.0	102	70 - 130
cis-1,2-Dichloroethene	9.93	10.2	97	70 - 130
1,1,1-Trichloroethane (TCA)	14.3	13.8	104	70 - 130
Carbon Tetrachloride	16.7	16.2	103	70 - 130
Trichloroethene (TCE)	14.0	13,8	101	70 - 130
Tetrachloroethene (PCE)	19.1	17.5	109	70 - 130

Results flagged with an asterisk (\*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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四	<b>Analytic</b>	ia al Services*

#### **CHAIN OF CUSTODY - AIR**

	- 1		1
PAGE	_\	OF	

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com Requested Turnaround Time in Business Days from Receipt, please circle: CAS Project #: 2 Day 3 Day 4 Day 5 Day 10 Day-Standard Project Name: Southside Company Name: CAS Contact: Company Name:

A PEX Companies, LL C

Address:

155 TRI-COUNTY PRWY, STE 250

City, State, Zip:

CINCINNATI, OH 45246

Project Manager: Project Number: 1200202, 003 **Analysis Method and/or Analytes** P.O. #/Billing Information: FLEGE ADAM Comments Specific Instructions 573-771-3723 513-771-3617 Email (for result reporting): aflege @apexcos. com Sampler (Print & Sign): ERIC J- WYSONG Laboratory ID Time Flow Client Sample ID Date Collected Canister ID Controller ID Number Collected FC-129 660827 SLC00067 SS-1 02171 14:28 55-2 997 14:40 FC00839 55-3 SIC 000 87 14:41 02011 FC00842 14:42 3LC 00 108 62185  $\mathbf{a}$ FC00753 SLC 00078 02197 14:53 FC 00722 Project Requirements (MRLs, QAPP, etc.) What State were samples collected in: Beport Tier Levels - please select: EDD required: YES / NO Ber I (Results/Default, if not specified) \_\_\_\_ Tier III (CLP Forms Only) EDD Units: 四er II (Results + QC) Tier IV (Data Validation) Balinquished by: (Signature) Received by: (Signature) Time: Date: 17:15 Received by: (Signature) Relinquished by: (Signature) Time Relinquished by: (Signature) Date: Time Received by: (Signature) Date: Time:



### Cooler Receipt and Preservation Check Form

Cooler  1. 2. 3. 4. 5. 6. 7.	Were custo Were custo Did all bot Did VOA Were Ice of Where did	ody s ody p tles a vials, or Ice the b	eals caper arrive Alk pace	on outside of cools properly filled of in good conditionalinity, or Sulfide ks present? es originate?	er? ut (ink, n (unbro have si	signed, etc.)?	· (	YES YES YES	6) 00 (2) 00 00 (2) 00 00 (3) 00	CITY CLIENT  No COC rec'd ?  N/A  IENT
	Is the temp	eratu	ıre w	rithin 0° - 6° C?:	Y	es Yes	S	Yes	Yes	Yes
	If No, Exp	lain	Belo	)W	N	o No		No	No	No
	Date/Time	Tem	pera	tures Taken:						
5035 s PC Sec	amples pla ondary Rev	ced i	n sto	e location trage location	<u>Sma</u>	Dby_火 by	01 01		_ at	0927
1.	Were all bo	ttle l	abel	3/23/12 s complete (i.e. ar	-	preservation,	etc.)?	by: Ah	NO	
1. 2. 3. 4. Explain	Were all both Did all both Were corre Air Sample any discre	ottle late late ct co	abels bels a ntain Casso	s complete (i.e. ar and tags agree with ters used for the to ettes / Tubes Intac	nalysis, th custo ests indi	preservation, dy papers? icated? anisters Press		VES VES	NO NO NO	
1. 2. 3. 4. Explain	Were all botto Did all botto Were corre Air Sample any discre	ottle late late ct co	abels bels a ntain Casso	s complete (i.e. ar and tags agree with ters used for the to	nalysis, th custo ests indi	preservation, dy papers? icated?	surized	YES YES Tedlar®	NO NO NO Bags Ir	nflated N/A  Yes = All samples OK
1. 2. 3. 4. Explain pH ≥12	Were all both Did all both Were corre Air Sample any discre	ottle late tale ct co	abels antain Casse es: _	s complete (i.e. ar and tags agree with ters used for the to ettes / Tubes Intac	nalysis, th custo ests indi	preservation, dy papers? icated? anisters Press	surized Vol.	YES YES Tedlar®	NO NO NO Bags In	Yes = All
1. 2. 3. 4. Explain	Were all botto Did all botto Were corre Air Sample any discre	ottle late tale ct co	abels antain Casse es: _	s complete (i.e. ar and tags agree with ters used for the to ettes / Tubes Intac	nalysis, th custo ests indi	preservation, dy papers? icated? anisters Press	surized Vol.	YES YES Tedlar®	NO NO NO Bags In	Yes = All samples OK No = Samples
1. 2. 3. 4. Explain pH ≥12 ≤2	Were all both Did all both Were corre Air Sample any discrep Reagent NaOH HNO3 H <sub>2</sub> SO <sub>4</sub> NaHSO <sub>4</sub>	ottle late tale ct co	abels antain Casse es: _	s complete (i.e. ar and tags agree with ters used for the to ettes / Tubes Intac	nalysis, th custo ests indi	preservation, dy papers? icated? anisters Press	surized Vol.	YES YES Tedlar®	NO NO NO Bags In	Yes = All samples OK  No = Samples were
1. 2. 3. 4. Explain  pH  ≥12  ≤2  ≤4  Residual Chlorine	Were all both Did all both Were correduced Air Sample any discrete Reagent NaOH HNO3 H <sub>2</sub> SO <sub>4</sub> NaHSO <sub>4</sub> For TCN Phenol	ottle late tale ct co	abels antain Casse es: _	s complete (i.e. ar and tags agree with ters used for the to ettes / Tubes Intac	Exp	preservation, dy papers? icated? anisters Press	surized Vol.	YES YES Tedlar®	NO NO NO Bags In	Yes = All samples OK  No = Samples were preserved at lab as listed
1. 2. 3. 4. Explain pH ≥12 ≤2 ≤2 <4 ResiduaI	Were all both Did all both Were correding Sample any discretion Reagent NaOH HNO3 H <sub>2</sub> SO <sub>4</sub> NaHSO <sub>4</sub> For TCN	ottle late tale ct co	abels antain Casse es: _	s complete (i.e. ar and tags agree with the series used for the testes / Tubes Intace Lot Received  If present, contact add ascorbic acid	Exp	preservation, dy papers? icated? anisters Press Sample ID *Not to be te	Vol. Added	YES YES Tedlar® !  Lot Added	NO NO NO Bags Ir	Yes = All samples OK  No = Samples were preserved at
1. 2. 3. 4. Explain  pH  ≥12  ≤2  ≤4  Residual Chlorine	Were all both Did all both Were corre Air Sample any discrepany di	ottle I tle lal et co es: ( panci	abels abels antain Casse es:	s complete (i.e. ar and tags agree with the series used for the testes / Tubes Intace Lot Received  If present, contact add ascorbic acid	Exp	preservation, dy papers? icated? anisters Press  Sample ID  *Not to be te tested and rec	Vol. Added  sted beforecorded by	VES VES Tedlar®  Lot Added  e analysis – p. VOAs or Ger	NO NO NO Bags Ir	Yes = All samples OK  No = Samples were preserved at lab as listed  PM OK to
1. 2. 3. 4. Explain  pH  ≥12  ≤2  ≤2  <4  Residual Chlorine	Were all both Did all both Were correduced Air Sample any discretion Reagent NaOH HNO3 H2SO4 For TCN Phenol and 522 Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	ottle I tle lal ct co es: ( panci	abels abels antain Casse es:	s complete (i.e. ar and tags agree with the series used for the testes / Tubes Intace Lot Received  If present, contact add ascorbic acid	Exp	preservation, dy papers? icated? anisters Press Sample ID *Not to be te	Vol. Added  sted beforecorded by	VES VES Tedlar®  Lot Added  e analysis – p. VOAs or Ger	NO NO NO Bags Ir	Yes = All samples OK  No = Samples were preserved at lab as listed  PM OK to
1. 2. 3. 4. Explain pH ≥12 ≤2 ≤4 Residual Chlorine (-)	Were all both Did all both Did all both Did all both Were correduced Air Sample any discrete Reagent NaOH HNO3 H2SO4 NaHSO4 For TCN Phenol and 522 Na2S2O3. Zn Aceta HCl	ottle I tile lal ct co es; (panci	abels abels antain Casse es:	s complete (i.e. ar and tags agree with the sused for the testes / Tubes Intace Lot Received  If present, contact add ascorbic acid Or sodium sulfite	Exp  PM to  (522)	preservation, dy papers? icated? anisters Press  Sample ID  *Not to be te tested and reon a separate	Vol. Added  sted before corded by workshee	Tedlar® Lot Added  Lot Added  re analysis – p.  VOAs or Ceret	NO NO NO Bags In Final pH	Yes = All samples OK  No = Samples were preserved at lab as listed  PM OK to