TRANSMITTAL LETTER

ARCADIS Design & Consultancy for natural and built assets

To:
Jaspal Walia
NYSDEC, Region 9
270 Michigan Avenue
Buffalo, New York 14203

Copies
David Szymanski, NYSDEC
Scarlett McLaughlin, NYSDOH
Michael Goldstein, IR
Ben Girard, Arcadis
Mitch Wacksman, Arcadis

Arcadis of New York, Inc.
855 Route 146
Suite 210
Clifton Park
New York 12065
Tel 518 250 7300
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From:
Todd Carignan

Date:
March 25, 2016

Subject:
Soil Vapor Investigation Report, D.C. Rollforms Site

Arcadis Project No.:
AY000219.0023

We are sending you:

☒ **Attached** ☐ **Under Separate Cover Via _____ the Following Items:**

☐ Shop Drawings ☐ Plans ☐ Specifications ☐ Change Order
☐ Prints ☐ Samples ☐ Copy of Letter ☒ Reports
☐ Other:

Copies	Date	Description	Action*
1	3/25/2016	Soil Vapor Investigation Report, D.C. Rollforms Site, NYSDEC Site No. 907019, DC Rollforms Site, Jamestown, New York (Site No. 907019)	AS

Action*

☐ A Approved
☐ AN Approved As Noted
☒ AS As Requested
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☐ CR Correct and Resubmit
☐ F File
☐ FA For Approval

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☐ Review and Comment

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☒ Other: Email

Comments:

Jaspal Walia
NYSDEC, Region 9
270 Michigan Avenue
Buffalo, New York 14203

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ENVIRONMENT

Subject:
Soil Vapor Investigation Report
D.C. Rollforms Site, NYSDEC Site No. 907019

Date:
March 25, 2016

Contact:
Todd Carignan

Phone:
518-250-7352

Email:
Todd.Carignan@arcadis.com

Our ref:
AY000219.0023

Dear Mr. Walia:

On behalf of Ingersoll Rand Company, Arcadis of New York, Inc. (Arcadis) has prepared this letter report summarizing the results of the Soil Vapor Intrusion (SVI) investigation at the former D.C. Rollforms Site (the Site) in Jamestown, New York. The SVI investigation was completed in accordance with the Soil Vapor Investigation Work Plan (Arcadis 2014) and the Response to Comments of the Soil Vapor Investigation Work Plan (Arcadis 2014) which were approved by the New York State Department of Environmental Conservation (NYSDEC) in an email received August 11, 2015.

BACKGROUND

The Site is located at 583 Allen Street in Jamestown, Chautauqua County, New York (Figure 1). The Site is approximately 2.38 acres in size, and is a vacant parcel owned by Jamestown Allenco, LLC. The Site is bounded by Allen Street to the east, the Weber Knapp and Jamestown Urban Renewal Agency properties to the south, and the Chadakoin River to the west and northwest. The adjacent parcel to the north is owned by Heavy Press and Tool, Inc (Figure 1). The Site is located in a mixed residential and commercial area, which is served by a public water supply and sanitary sewer. The Site is currently classified as Class 4 under the NYSDEC Inactive Hazardous Waste Site Program which indicates the remedial activities are completed but the site requires continued management. The main constituents of concern (COC) in Site groundwater are trichloroethene (TCE), cis-1,2-dichloroethene, and vinyl chloride.

Off-site SVI was raised as a concern by the New York State Department of Health (NYSDOH) citing the possibility of a preferential pathway for vapor movement via the onsite treatment systems discharge pipeline (pipeline) bedding material. This pipeline runs approximately 190-feet east from the onsite treatment building to the east side of Allen Street, at which point it turns north and runs another 65-feet where it ties into a public sanitary sewer manhole riser (Figure 1). The SVI investigation was carried out to assess the potential of vapor migration through the pipe bedding material towards the off-site public sanitary sewer system and eventually residential properties east of Allen Street.

VAPOR INTRUSION INVESTIGATION

In order to determine the possibility of vapor migration via the pipe bedding material, three soil vapor samples were collected within the pipeline corridor as it runs east toward Allen Street. These soil vapor samples were collected at approximately three feet below ground surface (bgs). Samples were collected using temporary soil vapor probes installed using a hand auger. All probes were constructed as detailed in the approved work plan and allowed to equilibrate for at least 24 hours after installation prior to sampling. All sample probes were purged and checked for leaks using a helium tracer gas test prior to sampling. No leaks were noted during this tracer testing procedure.

Soil vapor samples were collected in 6-liter evacuated stainless steel canisters set to collect over 30 minutes (i.e., a rate less than 200 milliliters per minute). Canisters were delivered to Accutest Laboratories in Dayton, New Jersey, an ELAP-certified Laboratory, for analysis of volatile organic compounds (VOCs) via United States Environmental Protection Agency (USEPA) Method TO-15. Sample locations are shown on Figure 1.

DATA VALIDATION

A *Data Usability Summary Report* (included as Attachment 1) was completed in accordance with USEPA Region 2 Standard Operating Procedure (SOP) HW-31. The third party data validator reviewed the usability of the analytical data, including determining if the data were accurate, precise, representative, complete, and comparable. Valid data are data for which all quality assurance/quality control (QA/QC) review criteria have been met and are acceptable.

The correlation for acetone, ethyl acetate, and isopropyl alcohol were outside validation guidelines between the blind field duplicate and its parent sample (SVS#3). As such, the results for these three compounds in the parent sample and blind duplicate have been qualified as estimated in value (i.e., “J” flagged) although the results are still considered usable. All other data reviewed are considered usable as reported based on the validation process described above.

DATA EVALUATION

Soil vapor data collected from the Site are presented on Table 1. Since the NYSDOH vapor intrusion guidance (NYSDOH 2006) does not have soil vapor screening values, data were evaluated through a comparison to soil vapor screening values calculated from typical background concentrations of VOCs in

indoor air using an attenuation factor (AF). An AF of 0.03 was used for the calculation of screening values from indoor air levels which included the NYSDOH Air Guideline Values for methylene chloride, TCE and tetrachloroethene (PCE). Data for the remaining constituents on the TO-15 list were evaluated using 90th percentile background values for both residential and commercial properties found in Appendix C1 and C2, respectively of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion (2006).

The AF of 0.03 was selected from the latest USEPA vapor intrusion guidance document (USEPA 2015) and represents an applicable AF for the movement of constituents from shallow soil vapor to a potential overlying building. The AF was applied to each indoor air screening value as follows:

Soil Vapor Screening Value = Indoor Air Screening Value ÷ AF

Of the three site related chemicals (i.e., cis-1,2-dichloroethene, TCE and vinyl chloride), only TCE was detected in soil vapor. Cis-1,2-dichloroethene and vinyl chloride were not detected in any soil vapor sample. Although TCE was detected in soil vapor samples, all concentrations were below the soil vapor screening values calculated using the NYDOH Air Guideline Value for TCE as a starting point.

Although other non-site related chemicals were detected sporadically in the soil vapor samples, there were no exceedances of any of the screening values calculated for either potential residential or commercial exposure.

The physical construction of the pipeline likely limits the possibility for any vapor migration to occur as the pipeline dips downward from 3.5-feet to approximately 8-feet below ground surface as it approaches Allen Street. Record Drawings, G-1 and G-6, which depict the location and construction details of the system discharge line have been provided as Attachment 2. A plan view showing the location of the pipeline and construction detail callouts is provided on Record Drawing G-1. The pipeline bedding material terminates at the intersection with Allen Street where the 2-inch galvanized steel effluent pipe was installed within an existing 4-inch cast iron sewer pipe that was previously abandoned underneath Allen Street. This 4-inch cast iron pipe was completely silted in with sediment and organic materials when first encountered and the 2-inch galvanized steel pipe had to be mechanically driven through the 4-inch pipe. A profile detail showing how the pipeline was installed underneath Allen Street is shown as Detail 11 on Record Drawing G-6. From the east side of Allen Street the pipeline ties into the riser of public sanitary sewer manhole MH-3T6. The pipe penetration into the manhole riser section was made approximately 3 to 4-feet above the main sewer pipeline and was sealed closed with a non-shrink grout. The manhole sewer tie-in profile is shown as Detail 10 on Record Drawing G-6. It should be noted that the manhole structure is vented to the atmosphere via a perforated cover.

SITE SUMMARY AND RECOMMENDATIONS

Multiple lines of evidence have been considered to evaluate the concerns raised by the NYSDECs original comment on off-site vapor migration "*The bedding of the Treatment System effluent lines connecting to the street sewer on the east side of Allen Street may be a preferential pathway for vapors migration to the homes along Allen Street*" (letter to Mike Goldstein, May 5, 2014). These lines of evidence indicate that vapor migration at any concentration that would be of concern is not occurring and

thus site related vapor migration is not a concern with respect to the public sewer system and residential properties located east of Allen Street.

The multiple lines of evidence summarized above include:

1. The absence of chemicals in soil vapor above calculated screening values, as defined above, along the treatment systems discharge pipe bedding material, and
2. The physical impediment of any vapor movement off-site into the public sanitary sewer by the construction of the pipeline.

Considering the data collected west of Allen Street and the physical limitations to vapor migration moving east of Allen Street no further action regarding off-site vapor migration is recommended at this time.

Sincerely,

Arcadis of New York, Inc.

Todd Carignan
Project Engineer

Ben Girard
Project Manager

Copies:

Mike Goldstein – Ingersoll Rand
Mitch Wacksman – Arcadis
David Szymanski – NYSDEC
Scarlett McLaughlin - NYSDOH

Enclosures:

Tables

1 Summary of Soil Vapor Analytical Data

Figures

1 Site Plan/Soil Vapor Sampling Locations

Attachments

1 Data Usability Summary Report
2 Record Drawing Construction Details

TABLES

Table 1: Summary of Soil Vapor Analytical Data
DC Rollforms Site - Jamestown, NY

Sample ID Date Units	Residential Soil Vapor Screening Values (a) µg/m³	Commercial Soil Vapor Screening Values (b) µg/m³	SVS#1 10/23/2015 µg/m³	SVS#2 10/23/2015 µg/m³	SVS#3 10/23/2015 µg/m³
VOCs (TO-15)					
1,1,1-Trichloroethane	103	687	4.4 U	4.4 U	4.4 U [4.4 U]
1,1,2,2-Tetrachloroethane	8	NA	5.5 U	5.5 U	5.5 U [5.5 U]
1,1,2-Trichloroethane	8	50	4.4 U	4.4 U	4.4 U [4.4 U]
1,1-Dichloroethane	8	23	3.2 U	3.2 U	3.2 U [3.2 U]
1,1-Dichloroethene	8	47	3.2 U	3.2 U	3.2 U [3.2 U]
1,2,4-Trichlorobenzene	113	227	5.9 U	5.9 U	5.9 U [5.9 U]
1,2,4-Trimethylbenzene	317	317	3.9 U	3.9 U	3.9 U [3.9 U]
1,2-Dibromoethane	8	50	6.1 U	6.1 U	6.1 U [6.1 U]
1,2-Dichloroethane	8	30	3.2 U	3.2 U	3.2 U [3.2 U]
1,2-Dichloropropane	8	53	3.7 U	3.7 U	3.7 U [3.7 U]
1,3,5-Trimethylbenzene	120	123	3.9 U	3.9 U	3.9 U [3.9 U]
1,3-Butadiene	NA	100	1.8 U	1.8 U	1.8 U [1.8 U]
1,4-Dioxane	NA	NA	2.9 U	2.9 U	2.9 U [2.9 U]
2,2,4-Trimethylpentane	NA	NA	3.7 U	3.7 U	3.7 U [3.7 U]
2-Chlorotoluene	NA	NA	4.1 U	4.1 U	4.1 U [4.1 U]
2-Hexanone	NA	NA	3.3 U	3.3 U	3.3 U [3.3 U]
3-Chloropropene	NA	NA	2.5 U	2.5 U	2.5 U [2.5 U]
4-Ethyltoluene	NA	120	3.9 U	3.9 U	3.9 U [3.9 U]
Acetone	3667	3297	4	3.6	13 J [4.8 J]
Benzene	500	313	2.6 U	2.6 U	2.6 U [2.6 U]
BenzylChloride	NA	227	4.1 U	4.1 U	4.1 U [4.1 U]
Bromodichloromethane	NA	NA	5.4 U	5.4 U	5.4 U [5.4 U]
Bromoethene	NA	NA	3.5 U	3.5 U	3.5 U [3.5 U]
Bromoform	NA	NA	8.3 U	8.3 U	8.3 U [8.3 U]
Bromomethane	20	57	3.1 U	3.1 U	3.1 U [3.1 U]
Carbondisulfide	NA	140	4.7	2.5 U	8.7 [7.8]
Carbon tetrachloride	27	43	5 U	5 U	5 U [5 U]
Chlorobenzene	8	30	3.7 U	3.7 U	3.7 U [3.7 U]
Chloroethane	8	37	2.1 U	2.1 U	2.1 U [2.1 U]
Chloroform	47	37	3.9 U	3.9 U	3.9 U [3.9 U]
Chloromethane	110	123	1.7 U	1.7 U	1.7 U [1.7 U]
cis-1,2-Dichloroethene	8	63	3.2 U	3.2 U	3.2 U [3.2 U]
cis-1,3-Dichloropropene	8	77	3.6 U	3.6 U	3.6 U [3.6 U]
Cyclohexane	270	NA	2.8 U	2.8 U	2.8 U [2.8 U]
Dibromochloromethane	NA	NA	6.8 U	6.8 U	6.8 U [6.8 U]
Dichlorodifluoromethane	500	550	2.9 J	2.9 J	2.7 J [2.7 J]
Ethanol	NA	7000	7.2	4.3	8.5 [6.2]
Ethyl Acetate	NA	180	4	5	4.3 J [2.9 UJ]
Ethylbenzene	243	190	3.5 U	3.5 U	3.5 U [3.5 U]
Freon 113	60	NA	6.1 U	6.1 U	6.1 U [6.1 U]
Freon 114	NA	227	5.6 U	5.6 U	5.6 U [5.6 U]
Heptane	NA	NA	3.3 U	3.3 U	3.3 U [3.3 U]
Hexachlorobutadiene	153	227	8.5 U	8.5 U	8.5 U [8.5 U]
Hexane	600	340	1.3 J	2.8 U	2.8 U [2.8 U]
Isopropyl Alcohol	NA	8333	2 U	2 U	4.2 J [1.8 J]
m,p-Xylene	400	740	3.5 U	3.5 U	3.5 U [3.5 U]
m-Dichlorobenzene	20	80	4.8 U	4.8 U	4.8 U [4.8 U]
Methyl Ethyl Ketone	533	400	2.4 U	2.4 U	2.4 U [2.4 U]
Methyl Isobutyl Ketone	73	200	3.3 U	3.3 U	3.3 U [3.3 U]
Methyl tertbutyl Ether	867	383	2.9 U	2.9 U	2.9 U [2.9 U]
Methylene Chloride	2000 (c)	2000 (c)	2.9	2.8 U	2.8 U [2.8 U]
Methylmethacrylate	13	NA	3.3 U	3.3 U	3.3 U [3.3 U]
o-Dichlorobenzene	23	40	4.8 U	4.8 U	4.8 U [4.8 U]

Table 1: Summary of Soil Vapor Analytical Data
DC Rollforms Site - Jamestown, NY

Sample ID	Residential Soil Vapor Screening Values (a)	Commercial Soil Vapor Screening Values (b)	SVS#1	SVS#2	SVS#3
Date			10/23/2015	10/23/2015	10/23/2015
Units	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
VOCs (TO-15)					
o-Xylene	253	263	3.5 U	3.5 U	3.5 U [3.5 U]
p-Dichlorobenzene	43	183	4.8 U	4.8 U	4.8 U [4.8 U]
Propene	NA	NA	3.4 U	3.4 U	1.3 J [2.2 J]
Styrene	43	63	3.4 U	3.4 U	3.4 U [3.4 U]
Tertiary butyl alcohol	NA	NA	1.5 J	2.4 U	2.4 U [2.4 U]
Tetrachloroethene	1000 (c)	1000 (c)	28	29	16 [15]
Tetrahydrofuran	110	NA	2.4 U	2.4 U	2.4 U [2.4 U]
Toluene	1933	1433	1.2 J	6	3 U [3 U]
trans-1,2-Dichloroethene	NA	NA	3.2 U	3.2 U	3.2 U [3.2 U]
trans-1,3-Dichloropropene	8	43	3.6 U	3.6 U	3.6 U [3.6 U]
Trichloroethene	67 (c)	67 (c)	12	3.2	1.9 [1.8]
Trichlorofluoromethane	567	603	4.5 U	4.5 U	4.5 U [4.5 U]
Vinyl Acetate	NA	NA	2.8 U	2.8 U	2.8 U [2.8 U]
Vinyl Chloride	8	63	2 U	2 U	2 U [2 U]
Xylenes (total) [d]	253	263	3.5 U	3.5 U	3.5 U [3.5 U]

Notes:
a. Residential soil vapor screening values calculated from typical background concentrations of VOCs in indoor air presented on Table C.1 of the NYSDOH Soil Vapor Intrusion Guidance. Indoor air background concentrations adjusted to apply to soil vapor using an attenuation factor per the equation below
b. Commercial soil vapor screening values calculated from typical background concentrations of VOCs in indoor air presented on Table C.2 of the NYSDOH Soil Vapor Intrusion Guidance. Indoor air background concentrations adjusted to apply to soil vapor using an attenuation factor per the equation below

Soil Vapor Screening Value = Background Indoor Air Value (or Air Guideline where applicalbe) ÷ Attenuation Factor
Where the Attenuation Factor is 0.03 per the USEPA Vapor Intrusion Guidance June 2015

c. Air guideline values from NYSDOH Soil Vapor Intrusion Guidance for methylene chloride, tetrachloroethene, and trichloroethene adjusted to apply to soil vapor using an attenuation factor per the equation above.
d. Standards for o-Xylene used as surrogates
NA = Not available
NYSDOH = New York State Department of Health
USEPA = United Stated Environmental Protection Agency
U = Constituent not detected, associated value is laboratory detection limit
J = Estimated concentration
VOC = Volatile organic compound
2 U [2 U] = Duplicate results presented in brackets

FIGURES

LEGEND

- Monitoring Well
- Recovery Well
- Injection Well
- Observation Well
- Vacuum Enhanced Pumping Well
- VEP Valve Box
- Property Line
- High Water Mark
- Bundled Process Line
- Discharge Line
- Recovery Well Piping
- Vacuum Line
- Overhead Electrical/Telecom Line
- Sanitary Sewer Line
- Bollard Pipe
- Effluent Pipe Clean Out
- Electrical Box
- Fire Hydrant
- Manhole
- Utility Pole
- Soil Vapor Sample Location

0 40 80

SCALE IN FEET

PROJECTION: NAD 1983 StatePlane New York West FIPS 3103 Feet

SOURCE: ESRI Online Imagery (June 2010).

INGERSOLL RAND - DC ROLLFORMS SITE
NYSDEC SITE NO. 907019
JAMESTOWN, NEW YORK

SOIL VAPOR INVESTIGATION REPORT

Site Plan/
Soil Vapor Sampling Locations

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

CITY: (KNOXVILLE) DIV/GROUP:(ENVGIS) PIC:() PM:M.SANFORD/M.WACKSMAN) TM:(T.CARIGNAN)
PROJECT: AY000219.0020 PATH: G:\GIS\DC ROLLFORMS\MAPDOCS\2014\SOIL VAPOR INV WP\F2 DCR_INV PROPOSED SG.MXD SAVED: 8/13/2014 BY: BALTOM

ATTACHMENT 1

Data Validation Services

120 Cobble Creek Road P.O. Box 208
North Creek, NY 12853

Phone 518-251-4429
harry@frontiernet.net

March 2, 2016

Todd Carignan
ARCADIS US, Inc
855 Rt 146 Suite 204
Clifton Park, NY 12065

RE: Data Usability Summary Report
Validation of DC Rollforms Vapor Intrusion Analytical Data Package
Accutest SDG No. JC7109

Dear Mr. Carignan:

Review has been completed for the data package generated by Accutest Laboratories that pertains to air samples collected 1023/15 at the DC Rollforms site. Three soil vapor samples and a field duplicate were collected in 6-L summa canisters and analyzed for volatile analytes by USEPA method TO-15.

Data validation was performed with guidance from the USEPA Region 2 SOP HW-31, with consideration for the requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Canister Pressures
* Holding Times
* Internal Standard Recoveries
* Method Blanks
* Laboratory Control Samples (LCSs)
* Blind Field Duplicate Correlations
* Instrumental Tunes
* Calibration Standards
* Method Compliance
* Clean Canister Certification
* Sample Result Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedure, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with project requirements.

In summary, sample processing was conducted in compliance with, and adherence to, protocol requirements. Sample results are usable as reported, with the exception of the minor qualification as estimated of three analyte results in one sample and the field duplicate.

Validation qualifier definitions, sample identifications and qualified laboratory sample results forms are attached to this text.

Volatiles in Air by EPA TO-15

Surrogate standards and Laboratory Control Samples show compliant recoveries.

Holding times and instrument tunes meet requirements. Internal standard recoveries are acceptable. Method and canister blanks show no contamination. The clean canister certification raw data documentation was reviewed during validation.

The blind field duplicate evaluation was performed on SVS #3. Correlations are within validation guidelines, with the exception of those for acetone, ethyl acetate, and isopropyl alcohol. Results for those three compounds in the parent sample and its duplicate have been qualified as estimated in value.

Initial and continuing calibration standard responses were within validation guidelines, with all response factors (RRFs) above 0.05 and linearity within the 30%RSD limit.

Sample results are substantiated by the raw data.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Judy Harry

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Client and Laboratory Sample IDs

Sample Summary

Arcadis

Job No: JC7109

DC Rollforms, Allen Street, Jamestown
Project No: AY000219.0020

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC7109-1	10/23/15	13:15	JB	10/27/15	AIR	Soil Vapor Comp.	SVS #1
JC7109-2	10/23/15	16:15	JB	10/27/15	AIR	Soil Vapor Comp.	SVS #2
JC7109-3	10/23/15	18:00	JB	10/27/15	AIR	Soil Vapor Comp.	SVS #3
JC7109-4	10/23/15	00:00	JB	10/27/15	AIR	Soil Vapor Comp.	DUPLICATE 20151023

Qualified Report of Analysis Results Forms

SGS Accutest LabLink@897007 13:38 23-Feb-2016

Report of Analysis

Client Sample ID:	SVS #1		
Lab Sample ID:	JC7109-1	**Date Sampled:**	10/23/15
Matrix:	AIR - Soil Vapor Comp. Summa ID: A457	**Date Received:**	10/27/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	DC Rollforms, Allen Street, Jamestown, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52225.D	1	10/29/15	YMH	n/a	n/a	VW2086
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	1.7	0.80	0.13	ppbv		4.0	1.9	0.31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.12	ppbv		ND	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	1.5	0.80	0.11	ppbv		4.7	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.13	ppbv		ND	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.58	0.80	0.15	ppbv	J	2.9	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SVS #1
Lab Sample ID: JC7109-1
Matrix: AIR - Soil Vapor Comp. Summa ID: A457
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	3.8	2.0	0.66	ppbv		7.2	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.19	ppbv		ND	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	1.1	0.80	0.25	ppbv		4.0	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.088	ppbv		ND	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	0.38	0.80	0.11	ppbv	J	1.3	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.48	ppbv		ND	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	0.83	0.80	0.54	ppbv		2.9	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.19	ppbv		ND	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	ND	2.0	0.32	ppbv		ND	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.092	ppbv		ND	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.085	ppbv		ND	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.49	0.80	0.20	ppbv	J	1.5	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	4.1	0.16	0.095	ppbv		28	1.1	0.64	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	0.32	0.80	0.081	ppbv	J	1.2	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	2.2	0.16	0.10	ppbv		12	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.17	ppbv		ND	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@897007 13:38 23-Feb-2016

Report of Analysis

Client Sample ID: SVS #2
Lab Sample ID: JC7109-2
Matrix: AIR - Soil Vapor Comp. Summa ID: A845
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52226.D	1	10/29/15	YMH	n/a	n/a	VW2086
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	1.5	0.80	0.13	ppbv		3.6	1.9	0.31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.12	ppbv		ND	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.13	ppbv		ND	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.59	0.80	0.15	ppbv	J	2.9	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SVS #2
Lab Sample ID: JC7109-2
Matrix: AIR - Soil Vapor Comp. Summa ID: A845
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	2.3	2.0	0.66	ppbv		4.3	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.19	ppbv		ND	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	1.4	0.80	0.25	ppbv		5.0	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.088	ppbv		ND	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	ND	0.80	0.11	ppbv		ND	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.48	ppbv		ND	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.19	ppbv		ND	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	ND	2.0	0.32	ppbv		ND	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.092	ppbv		ND	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.085	ppbv		ND	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.20	ppbv		ND	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	4.3	0.16	0.095	ppbv		29	1.1	0.64	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	1.6	0.80	0.081	ppbv		6.0	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	0.60	0.16	0.10	ppbv		3.2	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.17	ppbv		ND	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@897007 13:38 23-Feb-2016

Report of Analysis

Client Sample ID: SVS #3
Lab Sample ID: JC7109-3
Matrix: AIR - Soil Vapor Comp. Summa ID: A851
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52227.D	1	10/30/15	YMH	n/a	n/a	VW2086
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	5.4	0.80	0.13	ppbv	J	13	1.9	0.31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.12	ppbv		ND	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	2.8	0.80	0.11	ppbv		8.7	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.13	ppbv		ND	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.54	0.80	0.15	ppbv	J	2.7	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SVS #3
Lab Sample ID: JC7109-3
Matrix: AIR - Soil Vapor Comp. Summa ID: A851
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	4.5	2.0	0.66	ppbv		8.5	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.19	ppbv		ND	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	1.2	0.80	0.25	ppbv	J	4.3	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.088	ppbv		ND	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	ND	0.80	0.11	ppbv		ND	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.7	0.80	0.48	ppbv	J	4.2	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.19	ppbv		ND	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	0.76	2.0	0.32	ppbv	J	1.3	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.092	ppbv		ND	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.085	ppbv		ND	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.20	ppbv		ND	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.4	0.16	0.095	ppbv		16	1.1	0.64	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	ND	0.80	0.081	ppbv		ND	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	0.36	0.16	0.10	ppbv		1.9	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.17	ppbv		ND	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@897007 13:38 23-Feb-2016

Report of Analysis

Client Sample ID: DUPLICATE 20151023
Lab Sample ID: JC7109-4
Matrix: AIR - Soil Vapor Comp. Summa ID: A753
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52228.D	1	10/30/15	YMH	n/a	n/a	VW2086
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	2.0	0.80	0.13	ppbv	J	4.8	1.9	0.31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	ND	0.80	0.12	ppbv		ND	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	2.5	0.80	0.11	ppbv		7.8	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.13	ppbv		ND	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.54	0.80	0.15	ppbv	J	2.7	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DUPLICATE 20151023
Lab Sample ID: JC7109-4
Matrix: AIR - Soil Vapor Comp. Summa ID: A753
Method: TO-15
Project: DC Rollforms, Allen Street, Jamestown, NY

Date Sampled: 10/23/15
Date Received: 10/27/15
Percent Solids: n/a

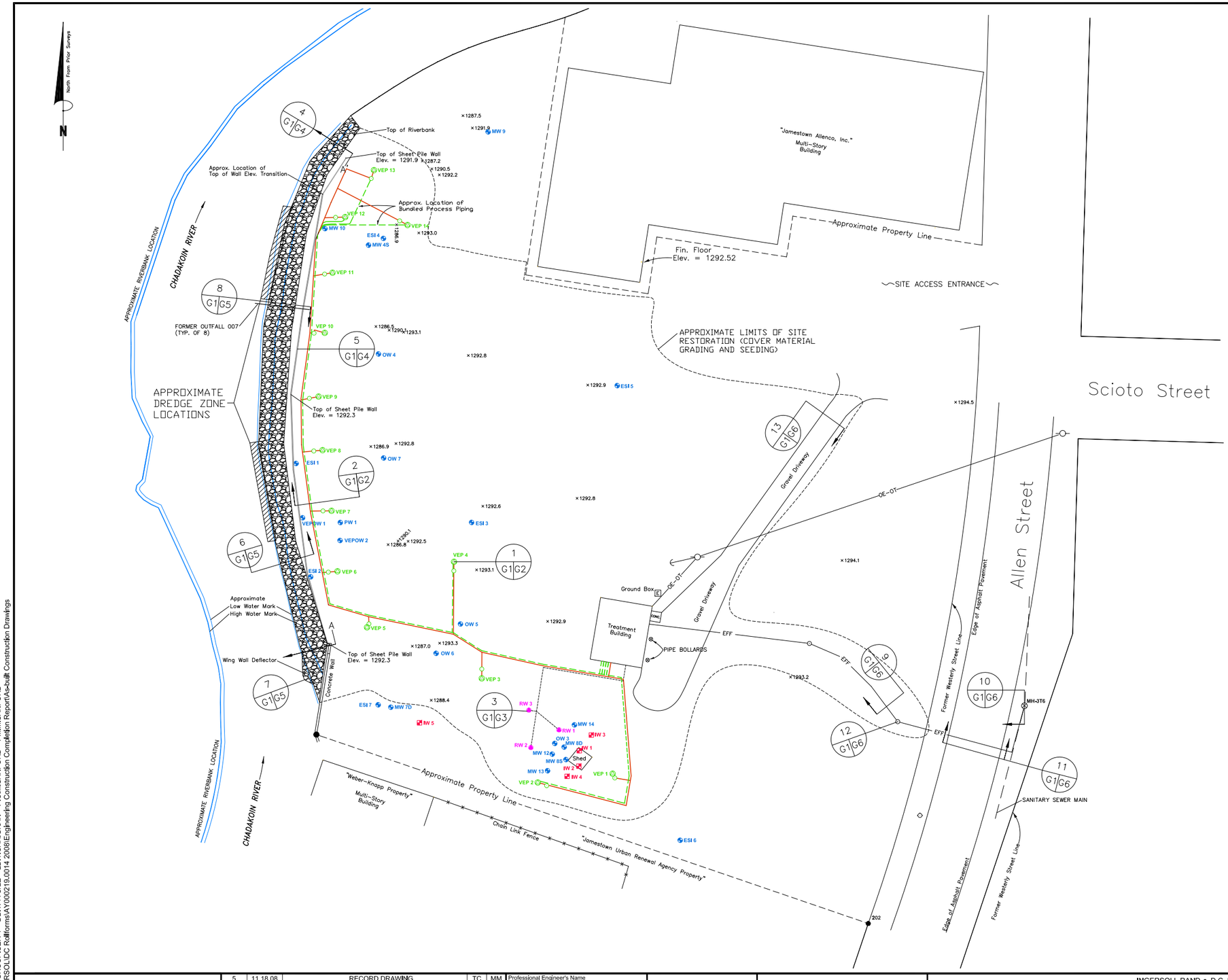
VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	3.3	2.0	0.66	ppbv		6.2	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.19	ppbv		ND	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.80	0.25	ppbv	J	ND	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.088	ppbv		ND	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	ND	0.80	0.11	ppbv		ND	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.73	0.80	0.48	ppbv	J	J 1.8	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.19	ppbv		ND	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	1.3	2.0	0.32	ppbv	J	2.2	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.092	ppbv		ND	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.085	ppbv		ND	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.20	ppbv		ND	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.2	0.16	0.095	ppbv		15	1.1	0.64	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	ND	0.80	0.081	ppbv		ND	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	0.34	0.16	0.10	ppbv		1.8	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	ND	0.80	0.17	ppbv		ND	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.80	0.10	ppbv		ND	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ATTACHMENT 2



LEGEND

- ESI / OW / PW / VEPOW – MONITORING WELL
- RW – RECOVERY WELL (PASSIVE)
- IW – INJECTION WELL (INACTIVE)
- VEP – VACUUM ENHANCED PUMPING WELL (ACTIVE)
- MH – SANITARY MANHOLE
- VACUUM VALVE VAULT
- IRON STAKE/MONUMENT
- FIRE HYDRANT
- –OE/OT– – OVERHEAD ELECTRIC/TELEPHONE
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER MAIN
- ×1294.5 – SURVEY GRADE ELEVATION SHOT
- BUNDLED PROCESS LINE (AIR/WATER)
- RW RECOVERY PIPING (INACTIVE)
- VEP VACUUM RECOVERY PIPING
- –EFF– – TREATMENT SYSTEM EFFLUENT PIPE (TREATED GROUNDWATER)
- SHEET PILE WALL
- HIGH/LOW RIVER WATER MARK
- APPROXIMATE PROPERTY LINE
- RIP RAP
- LIMITS OF SITE RESTORATION (GRADING AND SEEDING)

Elevations at Top of PVC Casings in Monitoring and Recovery Wells

Well ID	Elev. Top of PVC Pipe	Well ID	Elev. Top of PVC Pipe
VEP 1	1293.03	OW 1	1292.59
VEP 2	1293.05	OW 2	1293.96
VEP 3	1293.06	OW 3	1292.01
VEP 4	1293.04	OW 4	–
VEP 5	1292.66	OW 5	1295.59
VEP 6	1293.06	OW 6	1295.67
VEP 7	1293.06	OW 7	–
VEP 8	1293.06	VEPOW-1	–
VEP 9	1292.95	IW 1	1295.32
VEP 10	1293.06	IW 2	1295.32
VEP 11	1293.06	IW 3	1294.93
VEP 12	1292.88	IW 4	1294.90
VEP 13	1293.03	IW 5	1294.81
VEP 14	1292.94	PW 1	1296.93
ESI 1	1296.37	MW 4S	1295.75
ESI 2	1295.08	MW 7D	1295.37
ESI 3	1295.75	MW 8D	1295.21
ESI 4	1294.96	MW 9	1291.95
ESI 5	1293.08	MW 10	1295.11
ESI 6	1295.24	MW 12	1294.91
ESI 7	1295.12	MW 13	1294.20
RW 1	1292.06	MW 14	1294.59
RW 2	1292.52	MW 8S	1295.48
RW 3	1292.46		

REFERENCE

1. MAP SHOWING BOUNDARY & TOPOGRAPHIC SURVEY AT ALLEN STREET "DOWCRAFT CORPORATION PROPERTY" BY PAUL W. SCHRECKENGOST, LS DATED NOV. 23, 1996 AND LAST REVISED DEC. 21, 1998

NOTES

1. AS-BUILT SURVEY PERFORMED BY MICHAEL J. RODGERS LAND SURVEYOR, PC. DATE OF SURVEY IS OCTOBER 10, 2007.
2. ALL UNDERGROUND UTILITY LOCATIONS ARE PER INFORMATION PROVIDED BY ARCADIS AND SHOULD BE CONSIDERED APPROXIMATE. UNDERGROUND UTILITIES ARE NOT DRAWN ON PLAN BASED ON DIRECT LOCATION OF PIPELINES, CONDUITS, ETC.
3. ELEVATIONS BASED ON DATUM FROM SCHRECKENGOST SURVEY, WITH A FINISH FLOOR ELEV. OF 1292.52 ON THE THRESHOLD OF OVERHEAD DOOR AT LOADING DOCK ON SOUTH SIDE OF BUILDING
4. RECOVERY WELLS (RW) WERE RENAMED FROM "VER" WELLS REFERENCED IN THE 100% REMEDIAL DESIGN (ARCADIS 2006)
5. MONITORING WELLS OW-3 AND OW-7 INSTALLED AFTER THE AS-BUILT SURVEY WAS COMPLETE, THEREFORE THE LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE.
6. MONITORING WELL VEPOW-1 WAS REPAIRED AFTER THE AS-BUILT SURVEY WAS COMPLETED, THEREFORE THE TOC ELEVATION IS AVAILABLE.

CITY:ALBANY DIV/GROUP:SER-1 DB:TP/TC/LE LD:T.CARIGNAN PIC:M.SANFORD PM:M.SANFORD
G:\APRO.IECT\INGERSOLL\DC Rollforms\AY000219.0014.2008\Engineering Construction Completion Report\As-built Construction Drawings

Scale: 1" = 25'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING. USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
5	11.18.08	RECORD DRAWING	TC	MM
4	6.12.08	DRAFT RECORD DRAWING SUBMITTAL TO NYSDEC	CD	TC
3	5.30.06	100 % REMEDIAL DESIGN SUBMITTAL TO NYSDEC	TC	KL
2	4.17.06	BID SUBMISSION TO CONTRACTORS	TC	KL
1	2.9.06	90% SUBMITTAL TO NYSDEC	TC	KL
0	1.13.06	DRAFT	TC	KL

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name: MOH MOHIUDDIN
Professional Engineer's No.: 074527
State: NY | Date Signed: 11/18/08 | Project Mgr.: S.SANFORD
Designed by: T.CARIGNAN | Drawn by: TP/TC/LE | Checked by: C.DAVERN

ARCADIS OF NEW YORK, INC.

INGERSOLL RAND • D.C. ROLLFORMS
JAMESTOWN, NEW YORK

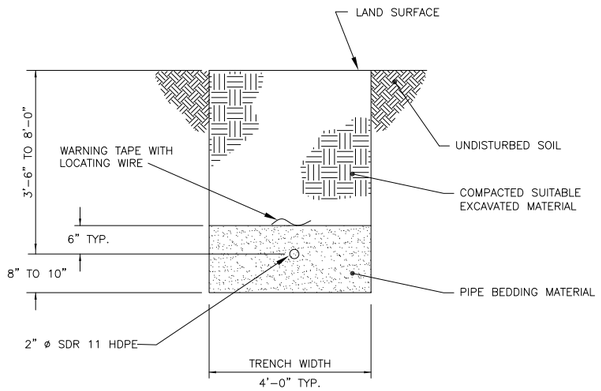
SITE PLAN AND REMEDIAL LAYOUT

GENERAL

ARCADIS Project No. AY000219.0014.00006
Date 11.18.08

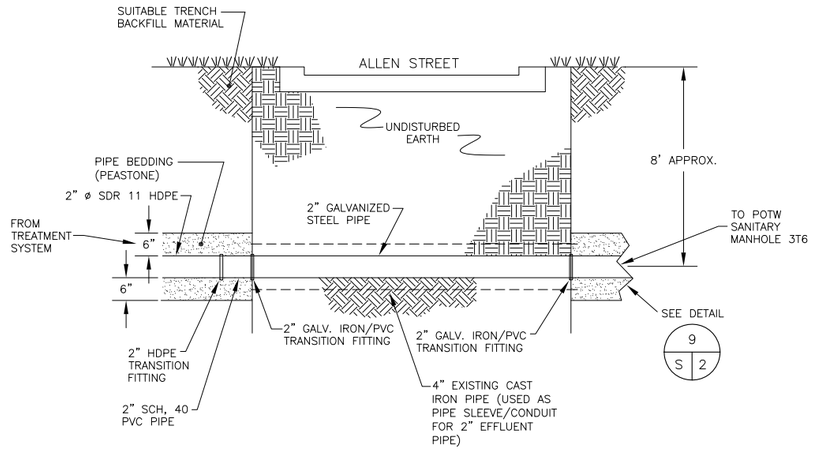
ARCADIS OF NEW YORK, INC.
465 NEW KARNER ROAD
FIRST FLOOR
ALBANY, NEW YORK
TEL. 518.452.7826

G-1



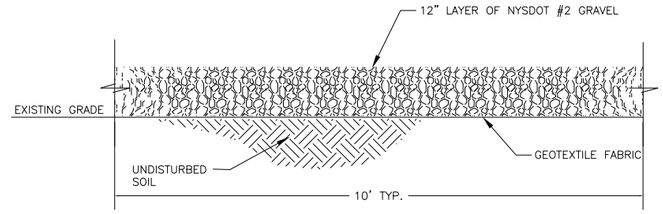
9 / G1 G6 **TYPICAL EFFLUENT LINE TRENCH DETAIL**

NOT TO SCALE



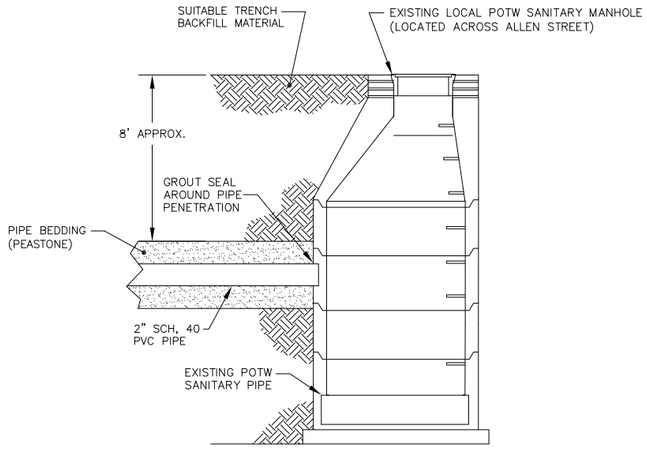
11 / G1 G6 **NORTH PROFILE SEWER TIE-IN DETAIL**

NOT TO SCALE



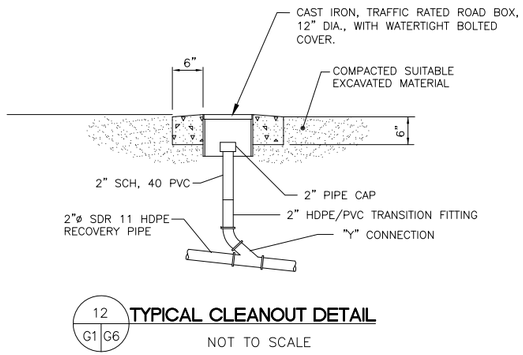
13 / G1 G6 **ACCESS ROAD CROSS SECTION**

NOT TO SCALE



10 / G1 G6 **WEST PROFILE SEWER TIE-IN DETAIL**

NOT TO SCALE



12 / G1 G6 **TYPICAL CLEANOUT DETAIL**

NOT TO SCALE

AS-BUILT NOTES

1. REFER TO DRAWING M-2 FOR THE SIZE AND MATERIAL USED FOR PROCESS PIPING.
2. A SINGLE STRIP OF UTILITY WARNING TAPE WAS PLACED IN ALL TRENCHED AREAS. THIS TAPE SHALL CONTAIN A WIRE FOR METAL DETECTION OR HAVE AN ALUMINUM CORE.
3. THE CONTRACTOR ACQUIRED APPROPRIATE LINE BREAK PERMITS AND APPROVAL FROM THE LOCAL POTW PRIOR TO STARTING WORK.
4. A STUB OR KNOCKOUT BULKHEAD WAS NOT PROVIDED AT THE LOCAL POTW MANHOLE, THE CONNECTION WAS MADE WITH A CORING MACHINE AND A SEAL WAS MADE BETWEEN THE OPENING BETWEEN THE PIPE AND THE MANHOLE USING NON-SHRINK GROUT.

CITY:ALBANY DIV/GROUP:SER-1 DB:TP/TC/LE LD:T.CARIGNAN PIC:M.SANFORD PM:M.SANFORD
G:\APROJECT\INGERSOLL\DC Rollforms\AY000219.0014.2008\Engineering Construction Completion Report\As-built Construction Drawings

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING. USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
5	11.18.08	RECORD DRAWING	TC	MM
4	6.12.08	DRAFT RECORD DRAWING TO NYSDEC	CD	TC
3	5.30.06	100 % REMEDIAL DESIGN SUBMITTAL TO NYSDEC	TC	KL
2	4.17.06	BID SUBMISSION TO CONTRACTORS	TC	KL
1	2.9.06	90% SUBMITTAL TO NYSDEC	TC	KL
0	1.13.06	DRAFT	TC	KL

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Professional Engineer's Name: **MOH MOHIUDDIN**
Professional Engineer's No.: 074527

State	Date Signed	Project Mgr.
NY	11/18/08	M.SANFORD
Designed by: T.CARIGNAN	Drawn by: TP/TC/LE	Checked by: C.DAVERN

ARCADIS OF NEW YORK, INC.

INGERSOLL RAND • D.C. ROLLFORMS
JAMESTOWN, NEW YORK

MISCELLANEOUS CONSTRUCTION DETAILS

GENERAL

ARCADIS Project No.
AY000219.0014.00006

Date
11.18.08

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G-6