Hydro Tech Environmental, Corp.

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August 20, 2013

New York City Office of Environmental Remediation
City Brownfield Cleanup Program
c/o Shaminder Chawla
100 Gold Street, 2nd Floor
New York, NY 10038

Re: 13CVCP145Q
E-Des # 13EH-A359Q
11-28 31st Drive
Remedial Action Work Plan (RAWP) Stipulation List

Dear Mr. Chawla:

Hydro Tech Environmental, Corp. of New York hereby submits a Remedial Action Work Plan (RAWP) Stipulation List for the Site to the New York City Office of Environmental Remediation (OER) on behalf of Mr. George Mann. This letter serves as an addendum to the RAWP to stipulate additional content, requirements, and procedures that will be followed during the site remediation. The contents of this list are added to the RAWP and will supersede the content in the RAWP where there is a conflict in purpose or intent. The additional requirements/procedures include the following Stipulation List below:

1. The criterion attached in **Appendix 1** will be utilized if additional petroleum containing tank or vessel is identified during the remedial action or subsequent redevelopment excavation activities. All petroleum spills will be reported to the NYSDEC hotline as required by applicable laws and regulations. This contingency plan is designed for heating oil tanks and other small or moderately sized storage vessels. If larger tanks, such as gasoline storage tanks are identified, OER will be notified before this criterion is utilized.

2. A pre-construction meeting is required prior to start of remedial excavation work at the site. A pre-construction meeting will be held at the site and will be attended by OER, the developer or developer representative, the consultant, excavation/general contractor, and if applicable, the soil broker.

3. A pre-approval letter from all disposal facilities will be provided to OER prior to any soil/fill material removal from the site. Documentation specified in the RAWP - Appendix 3 - Section 1.6 “Materials Disposal Off-Site” will be provided to OER. If a different disposal facility for the soil/fill material is selected, OER will be notified immediately.

4. A CD containing the final RAWP including this approved Stipulation List will be placed in the library that constitutes the primary public repository for project documents.

5. Signage for the project will include a sturdy placard mounted in a publically accessible right of way to building and other permits signage will consist of the NYC VCP Information Sheet (attached **Appendix 2**) announcing the remedial action. The Information sheet will be laminated and permanently affixed to the placard.

6. In the event that hazardous waste is identified during the remedial action or subsequent redevelopment excavation activities at this NYC VCP project, and removal and transportation of hazardous waste becomes necessary, the project may be subject to the New York State Department of Environmental Conservation’s Special Assessment Tax (ECL 27-0923) and Hazardous Waste Regulatory Fees (ECL 72-00402). See DEC’s website for more information: http://www.dec.ny.gov/chemical/9099.html.

7. Collection and analysis of three (3) end-point samples from the bottom of the excavation will be collected to evaluate the performance of the remedy with respect to attainment of Track 1 SCOs. A map indicating end-point sampling locations is attached in **Appendix 3**. Samples will be analyzed for contaminants of concern VOCs, SVOCs, Metals, PCBs, and Pesticides.

8. **Appendix 4** includes Vapor Barrier Pre-Certification letter from Vapor Barrier manufacturer stating that the proposed vapor barrier system mitigates against the contaminants of concern at the site.

9. If Track 1 SCOs are achieved then no ICs is required.

10. OER requires parties seeking City Brownfield Incentive Grants to carry insurance. For a cleanup grant, both the excavator and the trucking firm(s) that handle removal of soil must carry or be covered under a commercial general liability (CGL) policy that provides $1 million per claim in coverage. The CGL policy, and the CPL policy if obtained, must name the City of New York, the NYC Economic Development Corporation, and Brownfield Redevelopment Solutions as additional insured. For an investigation grant, an environmental consultant must be a qualified vendor in the BIG program and carry $1 million of professional liability (PL) coverage. A fact sheet regarding insurance is attached as **Appendix 5**.

11. Daily report will be provided during active excavation work. If no work is performed for extended time period, daily report frequency will be reduced to weekly basis. Daily report template is attached in **Appendix 6**.

12. As per OER requirements, soil vapor sampling was performed beneath the sidewalk in front of the residential development located across the northwestern boundary of the Site at 11-27 31st Drive. A soil vapor implant designated SV-4 was installed to 5 feet below grade in accordance with the NYSDOH guidance for evaluating soil vapor intrusion dated October 2006. Soil vapor sample was collected utilizing 6 liter pre-cleaned, passivated, evacuated whole air Summa® Canister for the duration of 2 hours. Soil vapor sampling results from SV-4 showed the same range of compounds detected beneath the Site during the remedial investigation (RI). These compounds included BTEX and associated derivatives and chlorinated hydrocarbons. The concentrations of BTEX and associated derivatives ranged between 10 ug/L and 46 ug/L. Chlorinated hydrocarbons included PCE and TCE at concentrations of 1,600 ug/m^3 and 130 ug/m^3, respectively. Other chlorinated hydrocarbons are identified in SV-4 included methylene chloride (23 ug/m^3) and acetone (91 ug/m^3). A spider map showing the detected VOCs in on-site and off-site soil vapors sampling points is shown in **Appendix 7**. A summary table of data for chemical analyses performed on soil vapor sample SV-4 is included in **Appendix 8**. Laboratory data deliverables for SV-4 are provided in **Appendix 9**.

Sincerely,

Paul I. Matli

cc: W. Wong, WiWon@dep.nyc.gov
S. Chawla, ShaminderC@dep.nyc.gov;
G. Mann, Morganconstruction1@verizon.net

Appendix 1
Generic Procedures for Management of Underground Storage Tanks
Identified under the NYC VCP

Prior to Tank removal, the following procedures should be followed:

- Remove all fluid to its lowest draw-off point.
- Drain and flush piping into the tank.
- Vacuum out the “tank bottom” consisting of water product and sludge.
- Dig down to the top of the tank and expose the upper half.
- Remove the fill tube and disconnect the fill, gauge, product, vent lines and pumps. Cap and plug open ends of lines.
- Temporarily plug all tank openings, complete the excavation, remove the tank and place it in a secure location.
- Render the tank safe and check the tank atmosphere to ensure that petroleum vapors have been satisfactorily purged from the tank.
- Clean tank or remove to storage yard for cleaning.
- If the tank is to be moved, it must be transported by licensed waste transporter. Plug and cap all holes prior to transport leaving a 1/8 inch vent hole located at the top of the tank during transport.
- After cleaning, the tank must be made acceptable for disposal at a scrap yard, cleaning the tanks interior with a high pressure rinse and cutting the tank in several pieces.

During the tank and pipe line removal, the following field observations should be made and recorded:

- A description and photographic documentation of the tank and pipe line condition (pitting, holes, staining, leak points, evidence of repairs, etc.).
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with a calibrated photoionization detector (PID).

<u>Impacted Soil Excavation Methods</u>
The excavation of the impacted soil will be performed following the removal of the existing tanks. Soil excavation will be performed in accordance with the procedures described under Section 5.5 of Draft DER-10 as follows:

- A description and photographic documentation of the excavation.
- Examination of the excavation floor and sidewalls for physical evidence of contamination (odor, staining, sheen, etc.).
- Periodic field screening (through bucket return) of the floor and sidewalls of the excavation, with calibrated photoionization detector (PID).

Final excavation depth, length, and width will be determined in the field, and will depend on the horizontal and vertical extent of contaminated soils as indentified through physical examination (PID response, odor, staining, etc.). Collection of verification samples will be performed to evaluate the success of the removal action as specified in this document.

The following procedure will be used for the excavation of impacted soil (as necessary and appropriate):

- Wear appropriate health and safety equipment as outlined in the Health and Safety Plan.
- Prior to excavation, ensure that the area is clear of utility lines or other obstructions. Lay plastic sheeting on the ground next to the area to be excavated.
- Using a rubber-tired backhoe or track mounted excavator, remove overburden soils and stockpile, or dispose of, separate from the impacted soil.
- If additional UST's are discovered, the NYSDEC will be notified and the best course of action to remove the structure should be determined in the field. This may involve the continued trenching around the perimeter to minimize its disturbance.
- If physically contaminated soil is present (e.g., staining, odors, sheen, PID response, etc.) an attempt will be made to remove it, to the extent not limited by the site boundaries or the bedrock surface. If possible, physically impacted soil will be removed using the backhoe or excavator, segregated from clean soils and overburden, and staged on separated dedicated plastic sheeting or live loaded into trucks from the disposal facility. Removal of the impacted soils will continue until visibly clean material is encountered and monitoring instruments indicate that no contaminants are present.
- Excavated soils which are temporarily stockpiled on-site will be covered with tarp material while disposal options are determined. Tarp will be checked on a daily basis and replaced, repaired or adjusted as needed to provide full coverage. The sheeting will be shaped and secured in such a manner as to drain runoff and direct it toward the interior of the property.

Once the site representative and regulatory personnel are satisfied with the removal effort, verification of confirmatory samples will be collected from the excavation in accordance with DER-10.

Appendix 2
NYC VCP Signage

NYC Voluntary Cleanup Program

11-28 31st Drive
Site #: 13CVCP145Q

This property is enrolled in the New York City Voluntary Cleanup Program for environmental remediation. This is a voluntary program administered by the NYC Office of Environmental Remediation.

Or scan with smart phone:

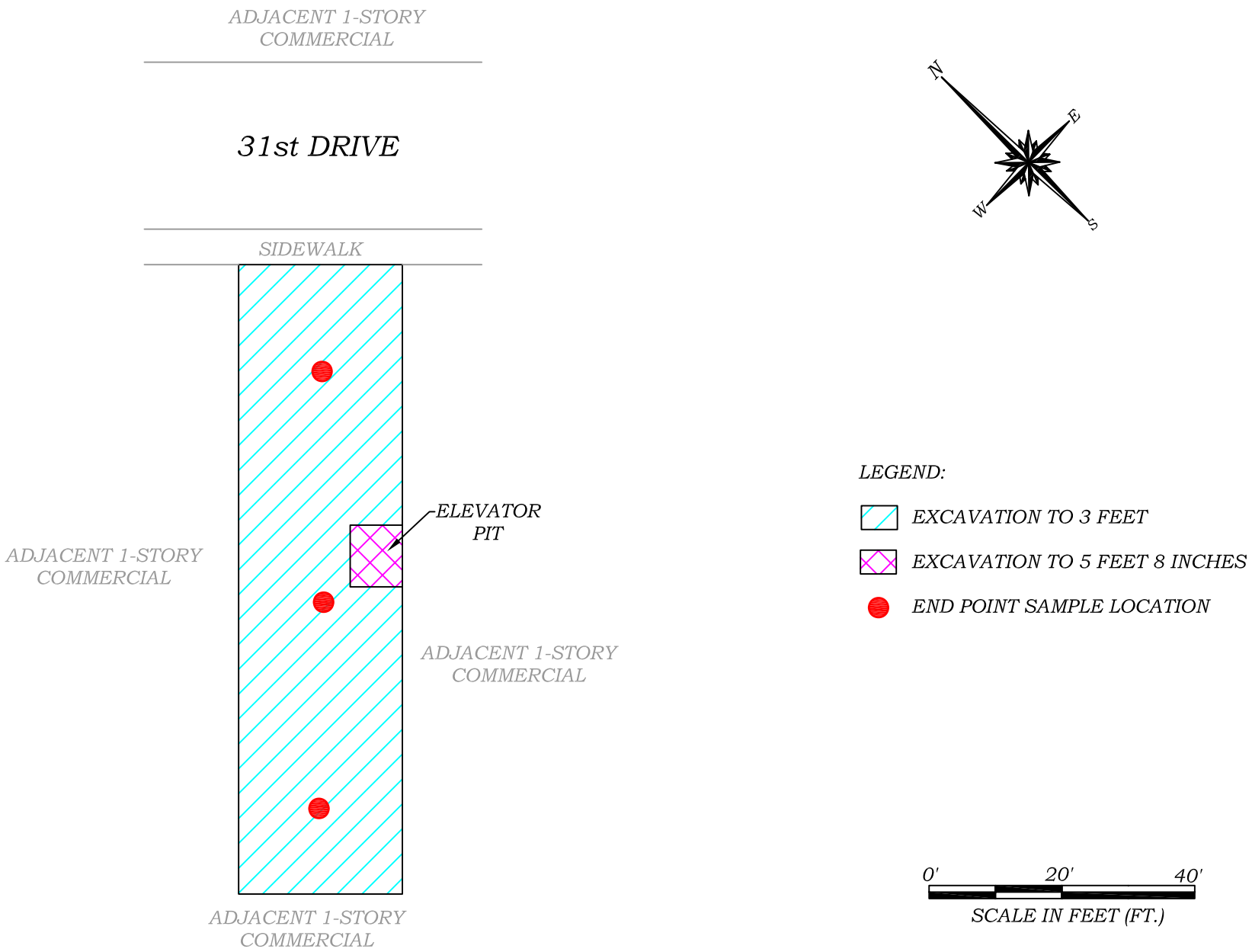
For more information,
log on to: www.nyc.gov/oer

If you have questions or would like more information,

please contact:

Shaminder Chawla at (212) 442-3007
or email us at brownfields@cityhall.nyc.gov

Appendix 3
End-Point Sampling Map



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11-28 31st Drive
Long Island City, NY
HTE Job# 130030

Drawn By: C.Q.
Reviewed By: M.R
Approved By: M.S
Date: 08/20/13
Scale: AS NOTED

TITLE:

END POINT SAMPLING LOCATIONS

Appendix 4

Vapor Barrier Pre-Certification letter

19103 Gundle Road
Houston, TX 77073
800 435 2008 • 281 443 8564
281 230 8650 Fax
www.gseworld.com

Vapor Barrier Pre-Certification letter

August 14, 2013

Paul I. Matli
15 Ocean Avenue,
Brooklyn, NY 11225

Re: 11-28 31st Drive
11-28 31st Drive, Queens NY
Block 502, Lot 22,
OER Project #13CVCP145Q

Dear Mr. Matli:

I have reviewed the following documents for the above referenced project:

- Table 2, from RIR – Soil Analytical Results prepared by Mark Robbins, dated July 5th, 2013
- Table 3, from RIR - Groundwater Analytical Results prepared by Mark Robbins, dated July 5th, 2013
- Table 4, from RIR - Soil Vapor Analytical Results prepared by Mark Robbins, dated July 5th, 2013
- Figures 1 and 2 of the vapor barrier design and details from RAWP prepared by Mark Robbins, dated July 2013

The identified contaminants at the levels reported will not have an adverse effect on the waterproofing or vapor barrier properties of 30 mil GSE HDPE membrane systems, provided standard design and installation procedures are followed.

Upon receipt of "proof of installation" by the qualified vendor/installer, GSE would issue a warranty of five (5) years for the product.

Daniel E. Semanisin
Technical Support Specialist
GSE Environmental, LLC

Appendix 5
BIG Program Insurance Fact Sheet

FACT SHEET – BIG PROGRAM INSURANCE REQUIREMENTS

Investigation Grants – for a developer or site owner to be eligible for a BIG investigation grant, its environmental consultant(s) must be:

- a Qualified Vendor in the BIG Program; and
- maintain Professional Liability (PL) insurance of $1M per claim and annual aggregate.

Cleanup Grants – for a developer or site owner to be eligible for a BIG cleanup grant:

- Its general contractor or excavation/foundation contractor hired to perform remedial work must maintain Commercial General Liability (CGL) insurance of at least $1M per occurrence and $2M in the general aggregate. It is recommended that the general contractor or excavation/foundation contractor also maintain a Contractors Pollution Liability policy (CPL) of at least $1M per occurrence.

- Its subcontractors who are hired by the general contractor etc. to perform remedial work at a site, including soil brokers and truckers, must also maintain a CGL policy in the amount and with the terms set forth above. It is recommended that subcontractors also maintain a CPL policy in the amount and with the terms set forth above.

  The CGL policy, and the CPL policy if in force, must list the city, EDC and BRS as additional insureds, include completed operations coverage and be primary and non-contributory to any other insurance the additional insureds may have.

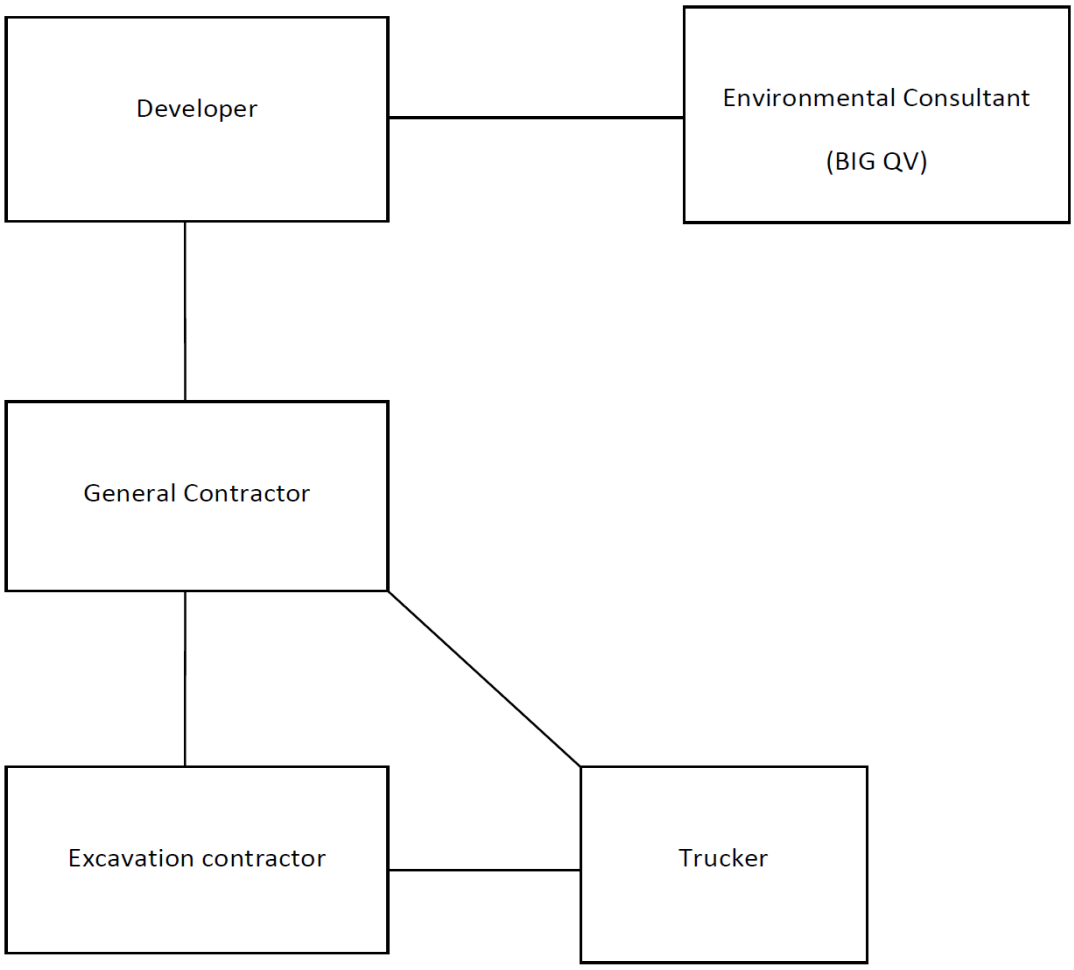
- Its environmental consultant(s) hired to oversee the cleanup must be:
  a. a BIG Qualifed Vendor; and
  b. maintain Professional Liability (PL) insurance of $1M per claim and annual aggregate.

If, in the alternative, the developer hires its environmental consultant to perform the cleanup, the environmental consultant must maintain CGL insurance in the amount and with the terms set forth above. It is recommended that the environmental consultant also maintain CPL coverage in the amount and with the terms set forth in the first two bulleted items listed above.

A schematic presenting the contractual relationships described above appears on page 2. Parties who must be named as Additional Insureds on Cleanup Grant insurance policies (CGL and CPL) are presented on page 3.

Example of Contractual Relationships for Cleanup Work

The Office of Environmental Remediation's Voluntary Cleanup Plan program requires applicants to identify the parties who are engaged in active remediation of their sites including: the General Contractor hired to remediate and/or the excavation contractor hired to excavate soil from the site and the trucking firm(s) that remove soil from the site for disposal at approved facilit(ies).



The chart above shows contractual relationships that typically exist for projects that are enrolled in the Voluntary Cleanup Program.

BIG Program Additional Insureds

The full names and addresses of the additional insureds required under the Required CGL Policy and recommended CPL Policy are as follows:

"City and its officials and employees"
New York City Mayor's Office of Environmental Remediation
253 Broadway, 14th Floor
New York, NY 10007

"NYC EDC and its officials and employees"
New York City Economic Development Corporation
110 William Street
New York, NY 10038

"BIG Grant Administrator and its officials and employees"
Brownfield Redevelopment Solutions, Inc.
739 Stokes Road, Units A & B
Medford, NJ 08055

Appendix 6
Daily Report Template

Generic Template for Daily Status Report

Instructions

The Daily Status Report submitted to OER should adhere to the following conventions:

- Remove this cover sheet prior to editing.
- Remove all the red text and replace with site-specific information.
- Submit the final version as a Word or PDF file.

Daily Status Reports

Daily status reports providing a general summary of activities for each day of *active remedial work* will be emailed to the OER Project Manager by the end of the following day. Those reports will include:

- Project number and statement of the activities and an update of progress made and locations of work performed;
- Quantities of material imported and exported from the Site;
- Status of on-Site soil/fill stockpiles;
- A summary of all citizen complaints, with relevant details (basis of complaint; actions taken; etc.);
- A summary of CAMP excursions, if any;
- Photograph of notable Site conditions and activities.

The frequency of the reporting period may be revised in consultation with OER project manager based on planned project tasks.Daily email reports are not intended to be the primary mode of communication for notification to OER of emergencies (accidents, spills), requests for changes to the RAWP or other sensitive or time critical information. However, such information will be included in the daily reports. Emergency conditions and changes to the RAWP will be communicated directly to the OER project manager by personal communication. Daily reports will be included as an Appendix in the Remedial Action Report.

DAILY STATUS REPORT

Prepared By: Enter Your Name Here

WEATHER	Snow		Rain		Overcast		Partly Cloudy	x	Bright Sun	
TEMP.	< 32		32-50		50-70	x	70-85		>85	

VCP Project No.:	13CVCP000M	E-Number:	13EHAN000M	Date:	01/01/2013
Project Name:	Name or Address				

Consultant: Person(s) Name and Company Name	Safety Officer: Person(s) Name and Company Name
General Contractor: Person(s) Name and Company Name	Site Manager/ Supervisor: Person(s) Name and Company Name

Work Activities Performed (Since Last Report):
Provide details about the work activities performed.

Working In Grid #: A1, B1, C1

Samples Collected (Since Last Report):
No samples collected or provide details

Air Monitoring (Since Last Report):
No air monitoring performed or provide details

Problems Encountered:
No problems encountered or provide details

Planned Activities for the Next Day/ Week:
Provide details about the work activities planned for the next day/ week.

Example:

Facility # **Name/ Location** **Type of Waste** **Solid Or Liquid**	Facility # Name Location Type of Waste Solid *Or* Liquid		Facility # Name Location Type of Waste Solid *Or* Liquid		Facility # Name Location Type of Waste Solid *Or* Liquid		Facility # Name Location Type of Waste Solid *Or* Liquid		# # # # # # # Clean Earth Carteret, NJ petroleum soils Solid	
(Trucks, Cu.Yds. Or Gallons)	Trucks	Cu. Yds. *Or* Gallons	Trucks	Cu. Yds. *Or* Gallons	Trucks	Cu. Yds. *Or* Gallons	Trucks	Cu. Yds. *Or* Gallons	Trucks	Cu. Yds.
Today									5	120
Total									25	600

NYC Clean Soil Bank		Receiving Facility: Name/ Address (Approved by OER)			
Tracking No.:	13CCSB000				
Today	Trucks 5	Cu. Yds. 25	Total	Trucks 120	Cu. Yds. 600

Site Grid Map

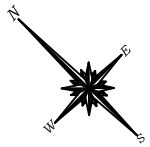
Insert the site grid map here

Photo Log

Photo 1 – provide a caption	Insert Photo Here – Photo of the entire site
Photo 2 – provide a caption	Insert Photo Here – Photo of the work activities performed
Photo 3 – provide a caption	Insert Photo Here – Photo of the work activities performed

APPENDIX 7

SPIDER MAP SHOWING THE DETECTED VOCS IN ON-SITE AND OFF-SITE SOIL VAPORS SAMPLING POINTS



ADJACENT RESIDENTIAL BUILDING (11-27 31st DRIVE)

△ SV-4 SIDEWALK

31st DRIVE

SIDEWALK

SV-3

THE SITE

SV-2

SV-1

SV-4	
VOCs	µg/m³
1,2,4-Trimethylbenzene	18
Ethyl Benzene	10
Benzene	14
n-Heptane	8.1
n-Hexane	30
o-Xylene	13
p- & m- Xylenes	45
Toluene	46
Isopropanol	20
2-Butanone	17
Carbon disulfide	41
Acetone	91
Methylene chloride	23
Tetrachloroethylene	1,600
Trichloroethylene	130

SV-3	
VOCs	µg/m³
1,2,4-Trimethylbenzene	29
Toluene	22
Ethyl Benzene	9.8
n-Heptane	32
o-Xylene	12
p- & m- Xylenes	41
Cyclohexane	44
Carbon disulfide	7.0
Isopropanol	79
Tetrahydrofuran	20
Acetone	82
Chloroform	18
Methylene chloride	9.4
Tetrachloroethylene	1,400
Trichloroethylene	15

SV-2	
VOCs	µg/m³
1,2,4-Trimethylbenzene	35
Toluene	33
Ethyl Benzene	12
n-Heptane	55
o-Xylene	15
p- & m- Xylenes	50
2-Butanone	15
Carbon disulfide	8.4
Isopropanol	210
Tetrahydrofuran	25
Acetone	520
Methylene chloride	29
Tetrachloroethylene	1,600
Trichloroethylene	9.3

SV-1	
VOCs	µg/m³
Toluene	48
Ethyl Benzene	10
n-Heptane	820
n-Hexane	9.0
o-Xylene	14
p- & m- Xylenes	43
2-Butanone	40
Ethyl acetate	230
Isopropanol	2,200
Tetrahydrofuran	23
Acetone	90
Methylene chloride	17
Tetrachloroethylene	140

LEGEND:

▲ SOIL VAPOR SAMPLE (SV) - COLLECTED ON APRIL 25, 2013

△ SOIL VAPOR SAMPLE (SV) - COLLECTED ON AUGUST 8, 2013

µg/m³ MICROGRAMS PER CUBIC METER

VOC VOLATILE ORGANIC COMPOUNDS

0' 20' 40'

SCALE IN FEET (FT.)

HYDRO TECH ENVIRONMENTAL CORP.

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Long Island City, NY
HTE Job# 120029

Drawn By: C.Q.
Reviewed By: M.R
Approved By: M.S
Date: 08/14/13
Scale: AS NOTED

TITLE:

APPENDIX 8

SUMMARY TABLE OF DATA FOR CHEMICAL ANALYSES PERFORMED ON SOIL VAPOR SAMPLE SV-4

Soil Vapor Sample Analytical Results

11-27 31St Drive, Queens NY

SampleID	SV-4	
Sampling Date	7/8/2013	
Matrix	Soil Vapor	
Units	ug/m³	
Volatile Organics, EPA TO15 Full List		
1,1,1-Trichloroethane	<9.9	
1,1,2,2-Tetrachloroethane	<12	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<14	
1,1,2-Trichloroethane	<9.9	
1,1-Dichloroethane	<7.3	
1,1-Dichloroethylene	<7.2	
1,2,4-Trichlorobenzene	<13	
1,2,4-Trimethylbenzene	**18**	**D**
1,2-Dibromoethane	<14	
1,2-Dichlorobenzene	<11	
1,2-Dichloroethane	<7.3	
1,2-Dichloropropane	<8.3	
1,2-Dichlorotetrafluoroethane	<13	
1,3,5-Trimethylbenzene	<8.9	
1,3-Butadiene	<7.8	
1,3-Dichlorobenzene	<11	
1,4-Dichlorobenzene	<11	
1,4-Dioxane	<6.5	
2-Butanone	**17**	**D**
2-Hexanone	<7.4	
4-Methyl-2-pentanone	<7.4	
Acetone	**91**	**D**
Benzene	**14**	**D**
Benzyl chloride	<9.3	
Bromodichloromethane	<11	
Bromoform	<19	
Bromomethane	<7.0	
Carbon disulfide	**41**	**D**
Carbon tetrachloride	<5.7	
Chlorobenzene	<8.3	
Chloroethane	<4.8	
Chloroform	<8.8	
Chloromethane	<3.7	
cis-1,2-Dichloroethylene	<7.2	
cis-1,3-Dichloropropylene	<8.2	
Cyclohexane	<6.2	
Dibromochloromethane	<14	
Dichlorodifluoromethane	<8.9	
Ethyl acetate	<6.5	
Ethyl Benzene	**10**	**D**
Hexachlorobutadiene	<19	
Isopropanol	**20**	**D**
Methyl Methacrylate	<7.4	
Methyl tert-butyl ether (MTBE)	<6.5	
Methylene chloride	**23**	**D**
n-Heptane	**8.1**	**D**
n-Hexane	**30**	**D**
o-Xylene	**13**	**D**
p- & m- Xylenes	**45**	**D**
p-Ethyltoluene	<44	
Propylene	<3.1	
Styrene	<7.7	
Tetrachloroethylene	**1600**	**D**
Tetrahydrofuran	<5.3	
Toluene	**46**	**D**
trans-1,2-Dichloroethylene	<7.2	
trans-1,3-Dichloropropylene	<8.2	
Trichloroethylene	**130**	**D**
Trichlorofluoromethane (Freon 11)	<10	
Vinyl acetate	<6.4	
Vinyl Chloride	<4.6	

NOTES:

D=result is from an analysis that required a dilution

APPENDIX 9
LABORATORY DATA DELIVERABLES FOR SV-4

Technical Report

prepared for:

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue
Brooklyn NY, 11225
Attention: Paul Matli

Report Date: 07/15/2013
Client Project ID: 11-27 31 Drive Queens NY
York Project (SDG) No.: 13G0313

Report Date: 07/15/2013
Client Project ID: 11-27 31 Drive Queens NY
York Project (SDG) No.: 13G0313

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue
Brooklyn NY, 11225
Attention: Paul Matli

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 09, 2013 and listed below. The project was identified as your project: **11-27 31 Drive Queens NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

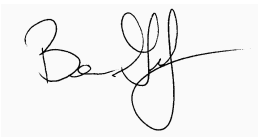
The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
13G0313-01	SV-4	Soil Vapor	07/08/2013	07/09/2013

General Notes for York Project (SDG) No.: 13G0313

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By: 

Date: 07/15/2013

Benjamin Gulizia
Laboratory Director

YORK

Sample Information

Client Sample ID: SV-4 **York Sample ID:** 13G0313-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
13G0313	11-27 31 Drive Queens NY	Soil Vapor	July 8, 2013 3:00 pm	07/09/2013

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.9	9.9	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	12	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	14	14	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.9	9.9	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-34-3	1,1-Dichloroethane	ND		ug/m³	7.3	7.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-35-4	1,1-Dichloroethylene	ND		ug/m³	7.2	7.2	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	13	13	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
95-63-6	**1,2,4-Trimethylbenzene**	**18**		ug/m³	8.9	8.9	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
106-93-4	1,2-Dibromoethane	ND		ug/m³	14	14	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	11	11	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
107-06-2	1,2-Dichloroethane	ND		ug/m³	7.3	7.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
78-87-5	1,2-Dichloropropane	ND		ug/m³	8.3	8.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	13	13	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.9	8.9	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
106-99-0	1,3-Butadiene	ND		ug/m³	7.8	7.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	11	11	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	11	11	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
123-91-1	1,4-Dioxane	ND		ug/m³	6.5	6.5	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
78-93-3	**2-Butanone**	**17**		ug/m³	5.3	5.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
591-78-6	2-Hexanone	ND		ug/m³	7.4	7.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	7.4	7.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
67-64-1	**Acetone**	**91**		ug/m³	4.3	4.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
71-43-2	**Benzene**	**14**		ug/m³	5.8	5.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
100-44-7	Benzyl chloride	ND		ug/m³	9.3	9.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-27-4	Bromodichloromethane	ND		ug/m³	11	11	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-25-2	Bromoform	ND		ug/m³	19	19	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
74-83-9	Bromomethane	ND		ug/m³	7.0	7.0	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-15-0	**Carbon disulfide**	**41**		ug/m³	5.6	5.6	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
56-23-5	Carbon tetrachloride	ND		ug/m³	5.7	5.7	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
108-90-7	Chlorobenzene	ND		ug/m³	8.3	8.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-00-3	Chloroethane	ND		ug/m³	4.8	4.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
67-66-3	Chloroform	ND		ug/m³	8.8	8.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD

Sample Information

Client Sample ID: SV-4 **York Sample ID:** 13G0313-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
13G0313	11-27 31 Drive Queens NY	Soil Vapor	July 8, 2013 3:00 pm	07/09/2013

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-87-3	Chloromethane	ND		ug/m³	3.7	3.7	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	7.2	7.2	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	8.2	8.2	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
110-82-7	Cyclohexane	ND		ug/m³	6.2	6.2	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
124-48-1	Dibromochloromethane	ND		ug/m³	14	14	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.9	8.9	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
141-78-6	Ethyl acetate	ND		ug/m³	6.5	6.5	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
100-41-4	**Ethyl Benzene**	**10**		ug/m³	7.8	7.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
87-68-3	Hexachlorobutadiene	ND		ug/m³	19	19	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
67-63-0	**Isopropanol**	**20**		ug/m³	4.4	4.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
80-62-6	Methyl Methacrylate	ND		ug/m³	7.4	7.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.5	6.5	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-09-2	**Methylene chloride**	**23**		ug/m³	6.3	6.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
142-82-5	**n-Heptane**	**8.1**		ug/m³	7.4	7.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
110-54-3	**n-Hexane**	**30**		ug/m³	6.4	6.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
95-47-6	**o-Xylene**	**13**		ug/m³	7.8	7.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
179601-23-1	**p- & m- Xylenes**	**45**		ug/m³	16	16	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
622-96-8	p-Ethyltoluene	ND		ug/m³	44	44	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
115-07-01	Propylene	ND		ug/m³	3.1	3.1	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
100-42-5	Styrene	ND		ug/m³	7.7	7.7	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
127-18-4	**Tetrachloroethylene**	**1600**		ug/m³	61	61	88.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 13:52	TD
109-99-9	Tetrahydrofuran	ND		ug/m³	5.3	5.3	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
108-88-3	**Toluene**	**46**		ug/m³	6.8	6.8	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	7.2	7.2	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	8.2	8.2	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
79-01-6	**Trichloroethylene**	**130**		ug/m³	4.9	4.9	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	10	10	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
108-05-4	Vinyl acetate	ND		ug/m³	6.4	6.4	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD
75-01-4	Vinyl Chloride	ND		ug/m³	4.6	4.6	17.75	EPA Compendium TO-15	07/12/2013 09:00	07/13/2013 12:58	TD

Notes and Definitions

QL-02 This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.

ND Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

MDL METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.
For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the MDL, with values between the MDL and the RL being "J" flagged as estimated results.

YORK
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DR. STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record - AIR

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

York Project No. 13G0313

YOUR Information	Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type/Deliverables
Company: Hydro Tech Env. Corp	Company: SAME	Company: SAME	[redacted] 11-27 31 Drive Queens NY	RUSH - Same Day ☐	Summary Report ✓
Address: 15 Ocean Ave Bklyn NY	Address: SAME	Address:	Purchase Order No. 5954	RUSH - Next Day ☐	Summary w/ QA Summary ✓
Phone No. 718 636 0800	Phone No.	Phone No.	Samples from: CT__ NY ✓ NJ__	RUSH - Two Day ☐	CT RCP Package ☐
Contact Person: Paul I. Mathi	Attention:	Attention: Muslim		RUSH - Three Day ☐	NY ASP A Package ☐
E-Mail Address: phydrotechenvironmental@yahoo.com	E-Mail Address:	E-Mail Address:		RUSH - Four Day ☐	NY ASP B/CLP Pkg ☐
				Standard(5-7 Days) ✓	NJDEP Reduced ☐
					Electronic Deliverables:
					EDD (Specify Type) ☐
					Standard Excel ✓
					Regulatory Comparison Excel ☐

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Paul I. Mathi
Samples Collected/Authorized By (Signature)

Paul I Mathi
Name (printed)

Air Matrix Codes

AI -	INDOOR Ambient Air
AO-	OUTDOOR Amb. Air
AE-	Vapor Extraction Well/ Process Gas/Effluent
AS-	SOIL Vapor/Sub-Slab

TO15 Volatiles and Other Gas Analyses

EPA TO-15 List	EPA TO-14A List
NYSDEC VI list	Tentatively Identified Compounds
NYSDEC STARS List	Air VPH
Project Specific List by TO-15	Helium
NJDEP Target List	Methane
CTDEP RCP Target List	OTHER

Detection Limits Required

≤ 1 ug/m³
NYSDEC VI Limits (VI = vapor intrusion)
NJDEP low level
Routine Survey
Other 0.5 ug/m³

Special Instructions

Sample Identification	Date Sampled	AIR Matrix	Canister Vacuum Before Sampling (in. Hg)	Canister Vacuum Afer Sampling (in. Hg)	Choose Analyses Needed from the Menu Above and Enter Below	Sampling Media
SV-4	7/8/13	AS	-17	-0	EPA TO-15	6 Liter Summa canister 24hr / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag
						6 Liter Summa canister / Tedlar Bag

Comments
Site address is 11-27 31st Drive.
investigation conducted for site
11-28 31st Drive enrolled in NYC VCP.

Samples Relinquished By	Date/Time 7-9-13 1030 AM	Samples Received By K Baker	Date/Time 7-9-13 1039 AM
Samples Relinquished By	Date/Time	Samples Received in LAB by J. Gale	Date/Time 7/9/13 - 1700