FORMER HYGRADE PLATING SITE

QUEENS COUNTY

LONG ISLAND CITY, NEW YORK

2024 PERIODIC REVIEW REPORT

Reporting Period: April 22, 2023 to April 22, 2024

NYSDEC BCP Site No. C241148

Prepared for:

Stalingrad Ventures, LLC

100 Field Street

West Babylon, NY 11704

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April 2024
Revised: July 2024

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2024 Periodic Review Report
Former Hygrade Electroplating Facility
22-07 41st Avenue
Long Island City, New York

BCP Site No. C241148

1.0 EXECUTIVE SUMMARY

The following Periodic Review Report (PRR) for the reporting period of April 22, 2023 to April 22, 2024 has been prepared by Touchstone Environmental, PC (Touchstone) on behalf of Stalingrad Ventures, LLC. This report was prepared in accordance with the NYSDEC's PRR General Guidance document and a NYSDEC Brownfield Cleanup Program (BCP) Agreement Index Number C241148-03-15.

A. Nature and Extent of Contamination

Historically, the contaminated media at the former Hygrade Electroplating Facility (the Site) included soil, soil vapor and groundwater. A location map is included on Figure 1.

- The primary contaminants of concerns (COCs) in soil were the metals Cadmium, Chromium, and to a lesser degree, Nickel which were detected in the soil below the building.

- The primary COCs in the soil vapor and groundwater were the volatile organic compounds (VOCs) tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2 dichloroethene (cis 1,2-DCE), and vinyl chloride. The metals Cadmium and Chromium were also detected in the groundwater. The emerging contaminants Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS), which are included under a larger group of compounds referred to as Per and Polyfluoroalkyl Substances (PFAS) compounds, were also detected in the groundwater.

- The VOC vapors present at the Site were detected in samples collected from below the basement floor.

- The impacted groundwater was detected in groundwater samples collected under the basement of the building and, to a lesser degree, in the groundwater below the sidewalk directly west and downgradient of the basement.

Remedial activities at the Site have included soil excavation and off-site disposal, injections of bioremediation products and the operation of a sub slab depressurization system (SSDS).

B. Effectiveness of Remedial Program

The remedial program has been effective.

- The majority of the soil impacted by these metals was excavated and removed from the property as part of the renovation activities. The entire property is capped with pavement or a concrete slab.

- The active SSD system, shown on Figure 2, is maintaining negative pressure below the slab. Indoor air sample results collected on March 15, 2024 do not exceed the NYSDOH indoor air guidelines for PCE or TCE.

- The Site Management Plan (SMP) (AMEC 2020) indicates that groundwater monitoring should occur semi-annually for two years followed by annually for one additional year. After that frequency of sampling is completed, a request to terminate groundwater sampling can be submitted to the NYSDEC. Based on the laboratory results, a request was submitted to the NYSDEC and NYSDOH as part of the 2023 PRR. In their response letter dated July 26, 2023, the NYSDEC approved a request terminate groundwater sampling at this Site.

C. Compliance

The site is in compliance. A completed Certification Form is included in Appendix A.

D. Recommendations

Annual inspections, monitoring and indoor air sampling during the heating season should continue in accordance with the SMP.

The compounds ethylbenzene (58.2 ug/m^3), m,p-xylene (86.4 ug/m^3), o-xylene (130 ug/m^3), and toluene (220D ug/m^3) were detected in this year's laboratory sample. These compounds, which are constituents of gasoline and/or commercially available cleaning products, are not typically associated with plating shop operations. Concentrations of these compounds in the basement indoor air historically at the Site were typically less than 10 ug/m^3 and often non-detected. As such, we suggest that these detections be noted, and the compounds checked again during the 2025 indoor air sampling event to determine if they reoccur at the 2024 levels or decrease to historically lower concentrations.

2.0 SITE OVERVIEW

A. Site Location, Surrounding Area and Nature & Extent of Contamination Prior to Site Remediation

The Site is located in Long Island City, Queens, NY and currently encompasses an approximately 2,500 square feet (ft^2) property developed with a four-story industrial/commercial building and basement level. The NYC Tax Map designates the Site as Queens County; Block: 409; Lot: 6. The neighborhood surrounding the subject property consists of a highly urbanized area of Long Island City with adjacent properties generally consisting of commercial use and hotels. An indoor air sample was taken inside the building in the basement.

Operations at the former Hygrade facility included chromium, copper, nickel and zinc plating. Analysis of the soil samples collected in the basement revealed that there were no exceedances of the NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective (SCO) for any of the soil samples collected.

Soil vapor samples collected from below the building slab during the Remedial Investigation included detections of PCE, TCE, cis-1,2-DCE and vinyl chloride in the 1 to 200 ug/m^3 range.

Elevated levels of chlorinated VOCs were detected in the shallow monitoring wells located in the southern portion of the basement. Water samples from basement monitoring well BMW-3, located in the basement, contained PCE in the 3,000 ug/L range during the Remedial Investigation. The results of deeper groundwater samples collected within the basement footprint

and off-site groundwater monitoring wells screened below 22nd Street were significantly lower suggesting that the bulk of the VOCs are adhered to the silts in the shallow soils situated below the basement.

Elevated levels of the metals cadmium, chromium and nickel were detected in the shallow monitoring wells located in the northern portion of the basement. During the Remedial Investigation, cadmium was detected in water sampled from monitoring wells BMW-1 and BMW-2 in the range of 7 to 27 ug/L, chromium was detected in the range of 679 to 775 ug/L and Nickel was detected in the range of 117 to 174 ug/L. The results of deeper groundwater samples collected within the basement footprint and off-site groundwater monitoring wells screened below 22nd Street where significantly lower suggesting that the bulk of the metals are also adhered to the silts in the shallow soils situated below the basement.

The analytical data also revealed that PFAS was present in the groundwater below the site during the 2018 monitoring event at concentrations above the NYSDOH PFAS guidance values of 2.7 ng/L for PFOS and 6.7 ng/L for PFOA. Well BMW-3 contained PFOS at 5.97 ug/L and PFOA at 0.138 ug/L. The area, however, is served by a public water supply and groundwater at the site is not used for drinking water purposes.

B. Chronology of Remedial Program

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site.

Facility Decommissioning

Upon taking ownership, IRT was retained by Stalingrad Ventures for a decommissioning effort of the facility. The work was completed under a NYCDEP Commissioner's Order that had been issued to the Site's previous owner, Edward Byers and Double E Plating Corp. in 2012 and under the supervision of NYCDEP representatives and periodic inspection by NYSDEC representatives. The work that was completed, [Final Report for the Limited Remediation of the Former Double E Plating Facility, (IRT 2013)] is as follows:

- The contents of the plating tanks, approximately 30, were pumped into 55-gallon closed head drums. In addition, 111 drums from previous operations were left at the Site when Stalingrad Ventures LLC took title. Each drum was numbered, and a composite sample collected to characterize the contents of the drums. The drums were also inspected for structural integrity. Drums that were in DOT shippable condition were labeled and staged for ultimate disposal. The contents of drums that were not in DOT compliant and shippable containers were transferred into DOT–approved containers prior to staging and ultimate disposal.

- Floor solids were containerized into 55-gallon drums or cubic yard boxes. Once the solids were removed, the floors were pressure washed. The generated wastewater from this process was containerized in DOT-approved 55-gallon drums.

- The effluent storage tanks in the basement were pumped from the basement directly into DOT-approved totes located in a box truck.

- Water found in the elevator pit was sampled and tested. Laboratory analysis indicated the water in the elevator pit contained hazardous waste. This water was removed with a vacuum truck then transferred into DOT-approved totes.

- The concrete floors in the basement and first floors were removed by a separate company. The foundation walls and first floor walls were mechanically cleaned to

remove visible contamination. The concrete was shipped and disposed of at Stablex Canada, Inc. located in Quebec, Canada.

- There were two former #2 fuel oil tanks, 275 gallons each, in the basement encased in cement blocks. The cement blocks were removed to expose the tanks. It was discovered that the two tanks were ¾ full of water with oily sludge in the bottom. The water and sludge was pumped into 7 open-head steel drums. The tanks were cut with a reciprocating saw. The thick sludge and speedi-dry used to clean the tank was placed into the 7 drums. The remaining steel was sent to Gershow Recycling for recycling. The 7 drums were shipped to Republic Environmental Systems, Inc. (PA) located in Hatfield, PA.

- All used poly drums were triple rinsed, cut and removed by Metro Environmental Contracting Corp and shipped to One World Recycling located in Lindenhurst, NY.

The work described above (including copies of the disposal manifests) was documented in Innovative Recycling Technologies, Inc., Final Report for the Limited Remediation of the Former Double E Plating Facility, and is included in the Final Engineering Report (AMEC 2020).

RCRA Closure Activities

The procedures for closing the waste management units at this Site are described in the RCRA Closure Plan (CA Rich 2013) prepared for this Site. However, after the Closure Plan was prepared, this Site was transitioned into the NYSDEC's Brownfield Cleanup Program. Therefore, the closure activities and the results of laboratory analysis generated during the closure activities are included in the Remedial Investigation Report (AMEC 2017).

During 2016 and 2017, a Remedial Investigation was completed. Part of the scope of the investigation included RCRA-type rinsate samples collected from the first, second, third and fourth floors of the building. On September 26, 2016 rinsate tests of the first, second, third, and fourth floors of the building were performed in accordance with the NYSDEC rinsate testing procedures. The results of the rinsate tests indicated that the existing concrete floors were properly decontaminated as part of the Closure of the facility.

Sample location maps and the results of the rinsate tests are included in Final Engineering Report.

Post-RCRA Remedial Activities

- A cover system consisting of eight inches of newly poured concrete slab was placed in the basement preventing exposure to contaminated soils.

- The next portion of the remedy implemented at the Site consisted of the groundwater below the basement floor being treated with a pneumatic fracturing event followed by in-situ injections of bio-remediation products as described in the IRM CCR (Ref. 8). The northern half of the basement was treated with MetaFix® to target the removal of heavy metals, while the southern half of the basement was treated with EHC® to remediate VOCs present. Batches consisting of 500 pounds of remediation product mixed with tap water to the manufacturer's specification were prepared. Using technology develop by Cascade Drilling Technical Services, the product was injected into six boreholes at depth intervals of 6 to 10 feet below the surface of the basement floor.

- The third engineering control for the Site was the installation of a vapor barrier and piping for a SSD system before the new slab was poured in the basement to mitigate the

intrusion of VOC vapors that could seep through the floor. A trench was excavated along the center of the basement to a depth of approximately 1 foot below grade. Next, a section of 4-inch diameter perforated PVC pipe surrounded with filter fabric was installed in the trench. The pipe was surrounded up to grade with ¾-inch diameter screened recycled concrete aggregate. A 20-mil plastic vapor barrier was installed over the soil in the basement in accordance with the manufacturer's recommendations. All penetrations were sealed to the vapor barrier following the manufacturer's installation recommendations. A sheet metal riser was then extended from the basement to the roof. A Fantech model HP2190 fan was connected to the riser on the roof along with a weather tight on/off switch.

- The fourth portion of the remedy included the injection of PlumeStop®. Beginning on March 25, 2020, the product was applied to basement wells BMW-1, BMW-2, BMW-3, BMW-4, IP-1 and IP-2 with a double-diaphragm pump and an air compressor. In total, more than 1,440 gallons was distributed among the six injections points as described in the Final Engineering Report.

- In accordance with the SMP, groundwater monitoring was completed semi-annually for two years followed by annually for one additional year. After that frequency of sampling was completed, a request to terminate groundwater sampling was submitted to the NYSDEC. Based on the laboratory results, a request was submitted was submitted to the NYSDEC and NYSDOH as part of the 2023 PRR. In their response letter dated July 26, 2023, the NYSDEC approved a request to terminate groundwater sampling at this Site.

- During September, 2023, all of the Site groundwater monitoring wells were abandoned in place as requested by the Department. This work was documented in a Field Activities Summary Report dated September 2023.

3.0 REMEDIAL PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

The remedial actions performed at the site have been effective and protective of human health.

PERFORMANCE

The soil excavation activities have been completed. Groundwater monitoring has been completed in accordance with the SMP and is no longer required. A sub-slab depressurization system (SSDS) has been installed and remains in operation. Indoor air monitoring was completed on March 15, 2024 and on an annual basis.

EFFECTIVENESS

The remedy has been effective. The site is completely covered by a pavement or concrete slab cap. An SSDS has been installed and is in operation.

PROTECTIVENESS

The remedy is protective

- The entire property is capped with pavement or a concrete slab.

- The active SSD system is maintaining negative pressure below the slab. Indoor air sample results do not exceed the NYSDOH indoor air guidelines.

4.0 INSTITUTIONAL CONTROL/ENGINEERING CONTROL (IC/ECs) PLAN

A. IC/EC Requirements and Compliance

The following institutional controls for this Site have been implemented by the property owner:

1) The property may only be used for commercial and industrial use;

2) All ECs must be operated and maintained as specified in the SMP;

3) All ECs must be inspected at a frequency and in a manner defined in the SMP;

4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Queens County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

6) Data and information pertinent to site management must be reported at the frequency and in a manner as defined in the SMP;

7) All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;

8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;

10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;

11) The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries and any potential impacts that are identified must be monitored or mitigated; and

12) Vegetable gardens and farming on the Site are prohibited. The property owner has implemented these twelve institutional controls.

The following engineering controls for this Site have been implemented by the property owner and are in good condition:

1) SSDS: A sub-slab vent was installed below the basement floor and then a riser was extended to the roof. The vent was then covered with aggregate followed by a 20-mil vapor barrier. A fan was connected to the riser to complete the SSDS.

2) Site Cover System: After the placement of the piping, aggregate, and vapor barriers were completed, a new concrete floor 8-inches thick was poured to serve as a cap between the underlying soil and future occupants of the building.

B. IC/EC Certification

We certify that the ICs and ECs for this project are: in place and effective; are performing as designed; nothing has occurred that would impair the ability of the controls to protect public health and the environment; no violations have occurred and there were no failures to comply with the Site Management Plan; site access is available to maintain the engineering controls; and, there is no groundwater usage at the site.

A PRR Certification Form is included in Appendix A.

5.0 MONITORING PLAN COMPLIANCE REPORT

Indoor Air Monitoring Procedures

In accordance with the SMP, an indoor air sample was collected during the winter heating season, in the basement of the former Hygrade Plating Site. A sample location map is included on Figure 3. A sample was collected using a Summa Canister calibrated to collect air for an 8-hour period. The sample was delivered to Phoenix Environmental Laboratories, Inc., an ELAP-approved Laboratory, and was analyzed for halogenated volatile organic compounds using EPA Method TO-15.

Summary of Results

Indoor Air – During the 2024 sampling event, low levels of several chlorinated solvents (less than 1 ug/m^3) were detected in the indoor air of the basement. PCE and TCE were detected below their NYDSDOH indoor air guidelines. PCE was detected at 1.23 ug/m^3, TCE was detected at 0.84 ug/m^3, cis-1,2 DCE was detected at 0.25 ug/m^3, and carbon tetrachloride was detected at 0.48 ug/m^3. Carbon tetrachloride is a compound not typically used at metal plating shops.

The compounds ethanol (827J ug/m^3), acetone (141J ug/m^3), and isopropylalcohol (170J ug/m^3) were also detected in the laboratory sample at estimated concentrations. Since these are common laboratory agents, the detected concentrations are likely artifacts of the laboratory analytical procedures.

The compounds ethylbenzene (58.2 ug/m^3), m,p-xylene (86.4 ug/m^3), o-xylene (130 ug/m^3), and toluene (220D ug/m^3) were also detected in the laboratory sample. These compounds, which are constituents of gasoline and/or commercially available cleaning products, are not typically associated with plating shop operations. Concentrations of these compounds in the basement indoor air historically at the Site were typically less than 10 ug/m^3 and often non-detected. As such, we suggest that these detections be noted, and the compounds checked again during the 2025 indoor air sampling event to determine if they reoccur at the 2024 levels or decrease to historically lower concentrations.

The data collected from the March 2024 sampling round is included on Table 1.

6.0 OPERATIONS AND MAINTENANCE PLAN

Operations and Maintenance (O&M) procedures that apply to the Fantech® fan includes a physical inspection of the fan to confirm that air is being discharged and that the unit is operating. No other maintenance is recommended in the owner's manual.

The SSD fan and piping were inspected during April 2024 and everything was observed to be in good working order. A map summarizing our observations is included as Figure 4. A copy of the completed Remedial System Monitoring Form is included as Appendix B. A Data Usability Summary Report is included in Appendix C and the Laboratory Report is included in Appendix D.

The interior floor slabs (the capping system) were observed to be in good condition.

7.0 OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS

- Touchstone Environmental Geology, PC conducted an annual physical inspection of SSD system. The fan was operating and the ducts, floor and pavement were in good condition. TCE was detected at 0.84 ug/m^3 and PCE was detected at 1.23 ug/m^3, which are both below the NYSDOH indoor air guidelines.

- We recommend that the SSD system remain in operation and that monitoring continue as outlined in the SMP. The SMP should be updated, if needed.

REFERENCES

1. Innovative Recycling Technologies, Inc., Final Report for the Limited Remediation of the Former Double E Plating Facility, May 2013

2. CA RICH (September 2013) RCRA Closure Plan, Former Hygrade Polishing and Plating Co., 22-07 41st Avenue, Long Island City, NY 11101 (August 2018 addendum)

3. AMEC, Remedial Investigation Report, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, August 2017.

4. AMEC, Site Management Plan, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, October 2020.

5. AMEC, Final Engineering Report, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, November 2020.

6. AMEC, Semi-Annual Monitoring Report, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, November 2020.

7. AMEC, Semi-Annual Monitoring Report, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, May 2021.

8. AMEC, Semi-Annual Monitoring Report, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, November 2021.

9. NYSDEC, Site Management Periodic Review Report Response Letter, 22-07 41st Avenue, Long Island City, Queens County, Site No. C241148, July 26, 2023.

10. EAW, PG, PC, Field Activities Summary Report, Former Hygrade Polishing and Plating Co. Site, Long Island City, New York, September 2023.

FIGURES

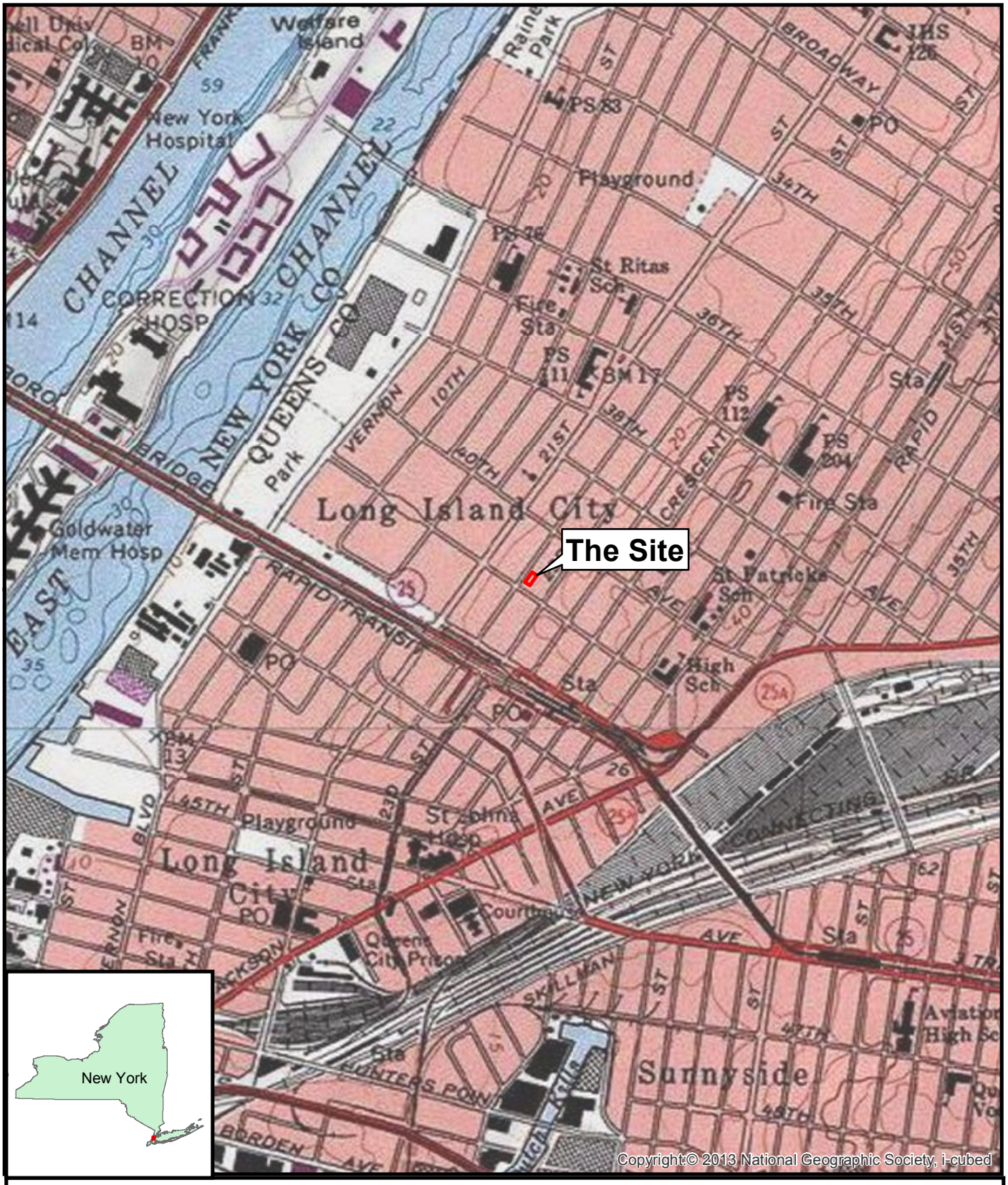


Figure 1
Site Location Map

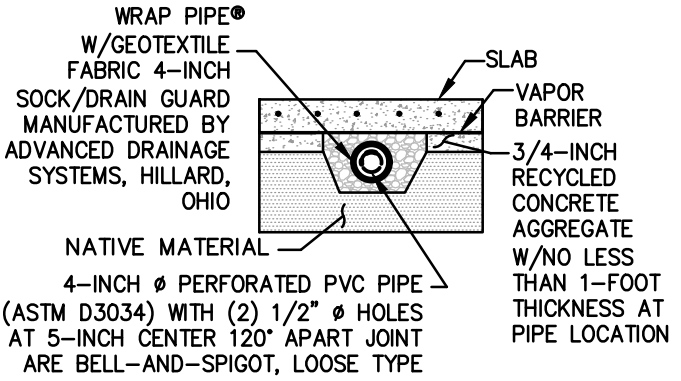
22-07 41st Avenue
Long Island City, New York

N

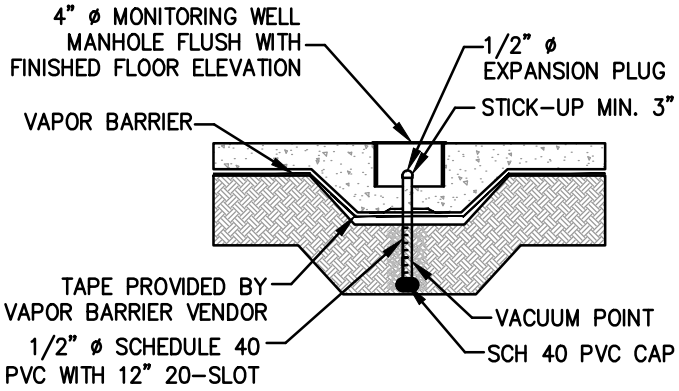
0 500 1,000
Feet

Touchstone Environmental Geology, PC
1919 Middle Country Road, Suite 205
Centereach, NY 11720

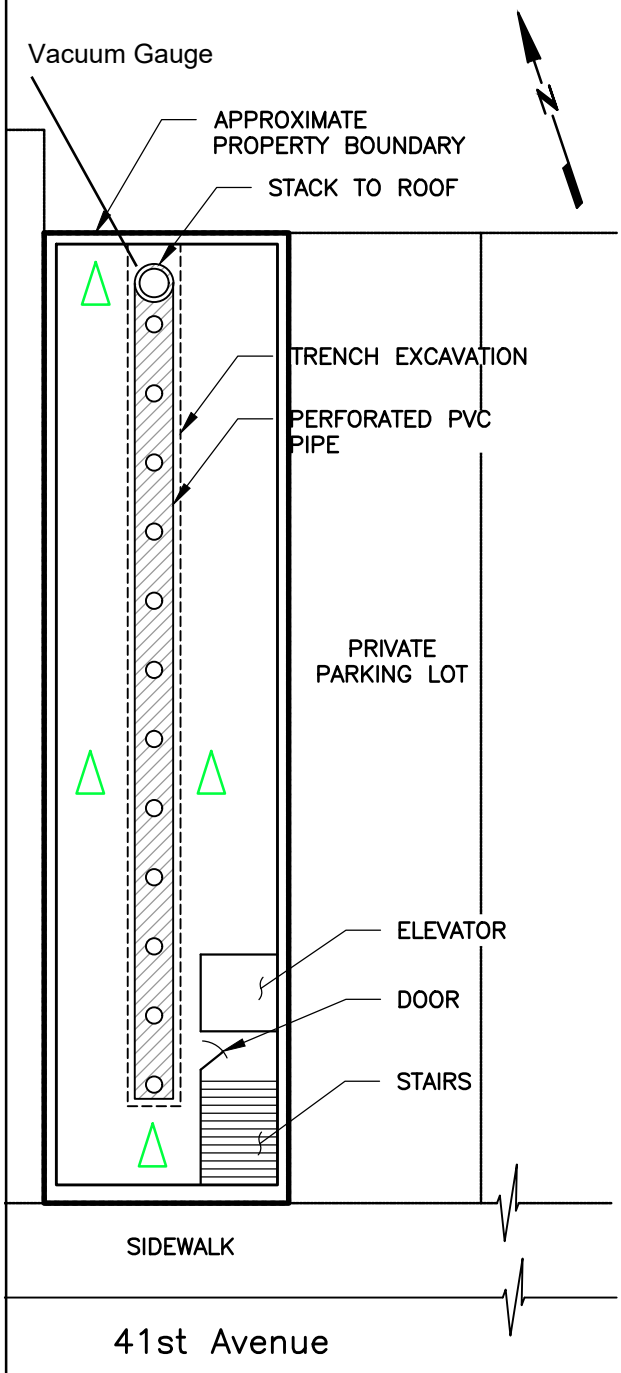
Prepared/Date: 04/02/2024	Checked/Date: 04/02/2024



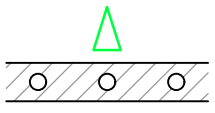
TYPICAL VENT PIPE CROSS-SECTION (NTS)



TYPICAL VACUUM MONITORING POINT (NTS)



LEGEND



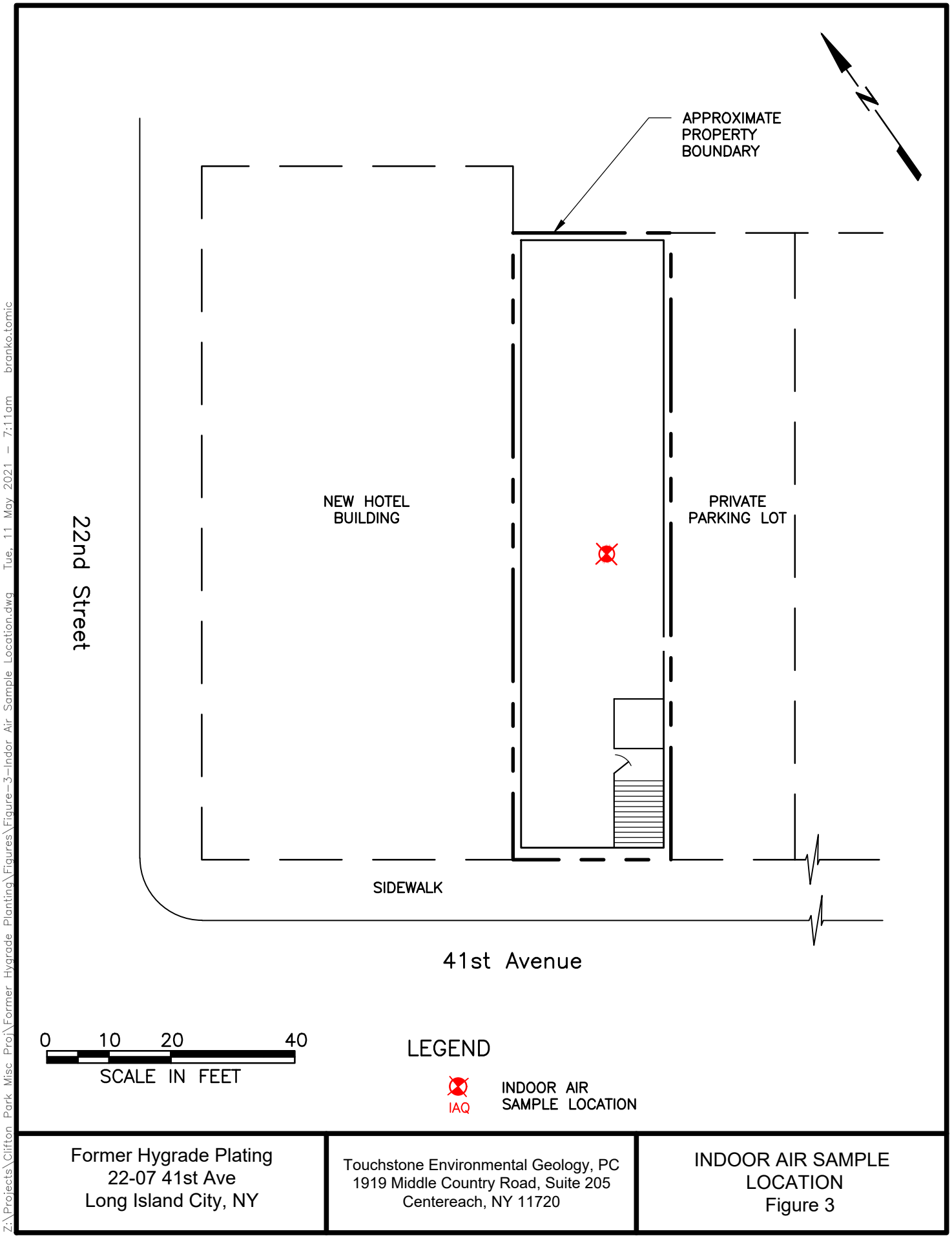
VACUUM MONITORING POINT

4"ø PERFORATED PVC PIPE

0 10 20 40

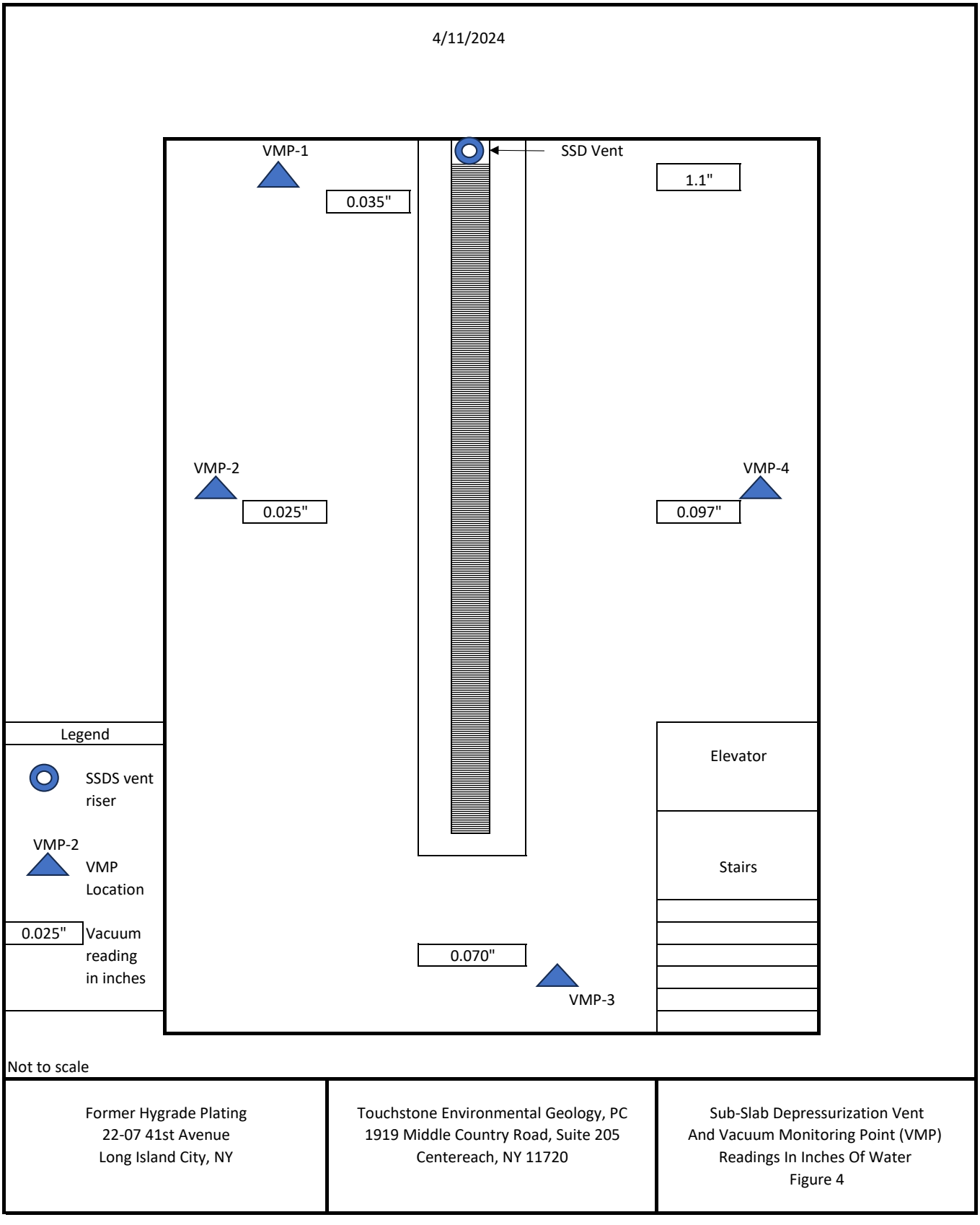
SCALE IN FEET

Former Hygrade Plating 22-07 41st Ave Long Island City, NY	Touchstone Environmental Geology, PG 1919 Middle Country Road, Suite 205 Centereach, NY 11720	SUB-SLAB DEPRESSURIZATION PLAN Figure 2



Former Hygrade Plating 22-07 41st Ave Long Island City, NY	Touchstone Environmental Geology, PC 1919 Middle Country Road, Suite 205 Centereach, NY 11720	INDOOR AIR SAMPLE LOCATION Figure 3

4/11/2024



Not to scale

Former Hygrade Plating 22-07 41st Avenue Long Island City, NY	Touchstone Environmental Geology, PC 1919 Middle Country Road, Suite 205 Centereach, NY 11720	Sub-Slab Depressurization Vent And Vacuum Monitoring Point (VMP) Readings In Inches Of Water Figure 4

TABLES

1. Indoor Air Quality Analytical Results

Table 1 : Former Hygrade Polishing and Plating
Indoor Air Sampling
22-07 41st Avenue, Long Island City, NY

	Lab Sample ID	CQ30382		
	Collection Date	3/15/2024		
	Client ID	IA-1		
	Matrix	Air		
Volatiles (TO15) By TO15	NYSDOH Guidance	Units	Result	RL
1,1,1,2-Tetrachloroethane		ug/m3	< 1.00	1.00
1,1,1-Trichloroethane	**	ug/m3	< 1.00	1.00
1,1,2,2-Tetrachloroethane		ug/m3	< 1.00	1.00
1,1,2-Trichloroethane		ug/m3	< 1.00	1.00
1,1-Dichloroethane		ug/m3	< 1.00	1.00
1,1-Dichloroethene	*	ug/m3	< 0.20	0.20
1,2,4-Trichlorobenzene		ug/m3	< 1.00	1.00
1,2,4-Trimethylbenzene		ug/m3	7.57	1.00
1,2-Dibromoethane(EDB)		ug/m3	< 1.00	1.00
1,2-Dichlorobenzene		ug/m3	< 1.00	1.00
1,2-Dichloroethane		ug/m3	4.17	1.00
1,2-dichloropropane		ug/m3	< 1.00	1.00
1,2-Dichlorotetrafluoroethane		ug/m3	< 1.00	1.00
1,3,5-Trimethylbenzene		ug/m3	2.07	1.00
1,3-Butadiene		ug/m3	1.46	1.00
1,3-Dichlorobenzene		ug/m3	< 1.00	1.00
1,4-Dichlorobenzene		ug/m3	< 1.00	1.00
1,4-Dioxane		ug/m3	< 1.00	1.00
2-Hexanone(MBK)		ug/m3	< 1.00	1.00
4-Ethyltoluene		ug/m3	4.11	1.00
4-Isopropyltoluene		ug/m3	3.56	1.00
4-Methyl-2-pentanone(MIBK)		ug/m3	5.69	1.00
Acetone		ug/m3	141 J	5.01
Acrylonitrile		ug/m3	< 1.00	1.00
Benzene		ug/m3	4.85	1.00
Benzyl chloride		ug/m3	< 1.00	1.00
Bromodichloromethane		ug/m3	< 1.00	1.00
Bromoform		ug/m3	< 1.00	1.00
Bromomethane		ug/m3	< 1.00	1.00
Carbon Disulfide		ug/m3	< 1.00	1.00
Carbon Tetrachloride	*	ug/m3	0.48	0.20
Chlorobenzene		ug/m3	< 1.00	1.00
Chloroethane		ug/m3	< 1.00	1.00
Chloroform		ug/m3	< 1.00	1.00
Chloromethane		ug/m3	3.16	1.00
cis-1,2-Dichloroethene	*	ug/m3	0.25	0.20
cis-1,3-Dichloropropene		ug/m3	< 1.00	1.00
Cyclohexane		ug/m3	< 1.00	1.00
Dibromochloromethane		ug/m3	< 1.00	1.00
Dichlorodifluoromethane		ug/m3	2.21	1.00
Ethanol		ug/m3	827 J	5.01
Ethyl acetate		ug/m3	28.4	1.00
Ethylbenzene		ug/m3	58.2	1.00
Heptane		ug/m3	7.95	1.00
Hexachlorobutadiene		ug/m3	< 1.00	1.00
Hexane		ug/m3	2.33	1.00
Isooctane		ug/m3	0.96	0.93
Isopropylalcohol		ug/m3	170 J	5.01
Isopropylbenzene		ug/m3	< 1.00	1.00
m,p-Xylene		ug/m3	86.4	1.00
Methyl Ethyl Ketone		ug/m3	22.1	1.00
Methyl tert-butyl ether(MTBE)		ug/m3	< 1.00	1.00
Methylene Chloride	60	ug/m3	< 3.00	3.00
Naphthalene		ug/m3	1.9 J	1.05
n-Butylbenzene		ug/m3	1.31	1.00
o-Xylene		ug/m3	130	1.00
Propylene		ug/m3	8.57	1.00
sec-Butylbenzene		ug/m3	< 1.00	1.00
Styrene		ug/m3	4.94	1.00
Tetrachloroethene	30	ug/m3	1.23	0.25
Tetrahydrofuran		ug/m3	3.09	1.00
Toluene		ug/m3	220 D	5.01
Trans-1,2-Dichloroethene		ug/m3	< 1.00	1.00
trans-1,3-Dichloropropene		ug/m3	< 1.00	1.00
Trichloroethene	2	ug/m3	0.84	0.20
Trichlorofluoromethane		ug/m3	1.28	1.00
Trichlorotrifluoroethane		ug/m3	< 1.00	1.00
Vinyl Chloride	*	ug/m3	< 0.20	0.20

Notes:

NYSDOH Indoor Air Guidance
* = No established guidance, but expected to be less than 1 ug/m3
** = No established guidance, but expected to be around 3 ug/m3

RL = Reporting Limit

APENDICES

APPENDIX A – CERTIFICATION FORM

APPENDIX B – FIELD NOTES & REMEDIAL SYSTEM MONITORING FORM

APPENDIX C – DUSR

APPENDIX D – LABORATORY REPORT

APPENDIX A – CERTIFICATION FORM

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C241148**

Site Name Former Hygrade Polishing and Plating Co.

Site Address: 22-07 41st Avenue Zip Code: 11101
City/Town: Long Island City
County: Queens
Site Acreage: 0.057

Reporting Period: April 22, 2023 to April 22, 2024

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

	YES	NO
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C241148

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
409-6	Stalingrad Ventures LLC	Ground Water Use Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan Soil Management Plan Landuse Restriction

Imposition of an institutional control in the form of environmental easement for the controlled property which will:
-require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- *restrict the use of groundwater as a source of potable or process water, without necessary* water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
409-6	Vapor Mitigation Cover System

A site cover currently exists and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

Continued operation and maintenance of the on-site sub-slab depressurization system, which was installed as an interim remedial measure (IRM), to mitigate the migration of vapors into the building from groundwater. Any future on-site buildings will be required to have a sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil and/or groundwater.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C241148

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robert Birnbaum (print name) at Stalingrad Ventures, LLC 100 Field Street, West Babylon, NY 11704 (print business address)

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

4-19-24
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Rachel Ataman (print name) at 1919 Middle Country Road, Suite 205, Centereach, NY 11720 (print business address)

am certifying as a ~~Professional Engineer~~ QEP* for the Remedial Party (Owner or Remedial Party)

Rachel Ataman

Signature of ~~Professional Engineer~~, for the Owner or Remedial Party, Rendering Certification QEP*

Stamp (Required for PE)

05/17/2024

Date

* Certification form corrected as per direction in email from Wendi Zheng dated Mar. 7, 2024.

APPENDIX B – FIELD NOTES & REMEDIAL SYSTEM MONITORING FORM

Field Measurements Or Observations To Be Collected During Indoor Air Sampling Events

4/11/2024

Remedial System Component	Monitoring Parameter	Measured Or Observed Value	Monitoring Schedule
SSD System Fan	Vacuum during annual inspection	-1.1 In. of water	Annuallly
Vacuum Monitoring Points	VMP-1 VMP-2 VMP-3 VMP-4	-0.035 In. of water -0.025 In. of water -0.070 In. of water -0.097 In. of water	Annuallly
Duct Work	Condition during visit (circle one)	(Excellent,) Good, Needs Repair	Annuallly
Basement Floors	Condition during visit (circle one)	(Excellent,) Good, Needs Repair	Annuallly

Inventory Of Products Stored In Basement
The basement inventory includes: bubble wrap, packing material, gift shop items, dolls, religious gifts, cardboard boxes and metal shelves.

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Eric Weinstock Date/Time Prepared 7/5/24 / 12:30pm

Preparer's Affiliation Consultant Phone No. 516-413-6643

Purpose of Investigation Annual Monitoring

1. OCCUPANT:

Interviewed: Y / N NA - space is not occupied, only used for storage

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: (Y) / N

Last Name: Robert First Name: Birbaum

Address: 100 Field street, West Babylon, NY

County: USA

Home Phone: NA Office Phone: 631-293-1998

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	Other: _____

NA = Not Applicable

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Retail sales of religous items

Does it include residences (i.e., multi-use)? Y (N) If yes, how many? _____

Other characteristics:

Number of floors 4 + basement Building age 1920s

Is the building insulated? Y (N) How air tight? Tight / (Average) / Not Tight

4. AIRFLOW NA

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with paint	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with paint	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: _____(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

None

_____

_____

6. **HEATING, VENTING and AIR CONDITIONING** (Circle all that apply) NA – Basement

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other_____
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y / N NA – basement

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

_____

7. OCCUPANCY – NA basement

Is basement/lowest level occupied? Full-time Occasionally (Seldom) Almost Never – only used for storage

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	storage of religous items
1st Floor	NA
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY NA

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA Please specify_____

d. Has the building ever had a fire? Y / N When?_____

e. Is a kerosene or unvented gas space heater present? Y / N Where? _____

f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____

g. Is there smoking in the building? Y / N How frequently? _____

h. Have cleaning products been used recently? Y / N When & Type? _____

i. Have cosmetic products been used recently? Y / N When & Type? _____

NA

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

SSD

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: There
Is the system active or passive? Active/Passive

is a SSDS

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

NA

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

See Figure 3

First Floor:

NA

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information *on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills,* etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

See Figure 1

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: NA

List specific products found in the residence that have the potential to affect indoor air quality.

See Field Notes in Appendix B

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

APPENDIX C – DUSR

DATA USABILITY SUMMARY REPORT (DUSR)

Hygrade Polishing and Plating
Long Island City, NY 11101
Project # C241148

SDG: GCQ30328 (Phoenix Environmental)
1 Air Sample

Prepared for:

Touchstone Environmental Geology, PC
1919 Middle Country Road
Suite 205
Centereach, NY 11720
Attention: Rachel Ataman

May 2024

EDU *Environmental Data Usability 10028 Deer Park Dr. Dansville, NY 14437 585-991-9156*

Table of Contents

Tables

REVIEWER'S NARRATIVE
Touchstone Environmental SDG GCQ30328 – Hygrade Polishing and Plating

The data associated with this Sample Delivery Group (SDG) GCQ30328, analyzed by Phoenix Environmental Laboratories, Manchester, CT have been reviewed in accordance with assessment criteria provided by the New York State Department of Environmental Conservation following the review procedures provided in the USEPA Functional Guidelines for evaluating organic and inorganic data.

All analytical results reported by the laboratory are considered valid and acceptable except results that have been qualified as rejected, "R". Results qualified as estimated "J", or as non-detects, "U", are considered usable for the purpose of evaluating water and/or soil quality. However, these qualifiers indicate that the accuracy and/or precision of the analytical result is questionable. A summary of all data that have been qualified and the reasons for qualification are provided in the following data usability summary report (DUSR).

Two facts should be noted by all data users. First, the "R" qualifier means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Values qualified with an "R" should not appear on the final data tables because they cannot be relied upon, even as the last resort. Second, no analyte concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

Reviewer's Signature: Michael K. Perry Date: 5/14/2024

Michael K. Perry
Chemist

1.0 EVENT SUMMARY

SITE:	Hygrade Polishing and Plating Long Island City, NY 11101 NYS DEC #: C241148
SAMPLING DATE:	March 15, 2024
SAMPLE TYPE:	1 air sample
LABORATORY:	Phoenix Environmental Laboratories Manchester, CT
SDG No.:	GCQ30328

2.0 INTRODUCTION

This data usability summary report (DUSR) was prepared in accordance with guidance provided by the New York State Department of Environmental Conservation (NYSDEC). The DUSR is based on a review and evaluation of the laboratory analytical data package. Specifically, the NYSDEC guidance recommends review and evaluation of the following elements of the data package:

- Completeness of the data package as defined under the requirements of the NYSDEC Analytical Services Protocols (ASP) Category B or the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) deliverables,
- Compliance with established analyte holding times,
- Adherence to quality control (QC) limits and specifications for blanks, instrument tuning and calibration, surrogate recoveries, spike recoveries, laboratory duplicate analyses, and other QC criteria,
- Adherence to established analytical protocols,
- Conformance of data summary sheets with raw analytical data, and
- Use of correct data qualifiers.

Data deficiencies, analytical protocol deviations, and quality control problems identified using the review criteria above and their effect on the analytical results are discussed in this report.

3.0 SAMPLE AND ANALYSIS SUMMARY

The data package consists of analytical results for 1 air sample collected on March 15, 2024. This sample was analyzed for TO-15 Volatile Organic Compounds.

All laboratory analyses were submitted Phoenix Environmental Laboratories as SDG GCQ30328. The analytical results were provided in NYSDEC ASP Category B format, which includes all raw analytical data and laboratory QC data.

4.0 GUIDANCE DOCUMENTS AND DATA REVIEW CRITERIA

The guidance documents appropriate for reviewing laboratory quality control (QC) data and assigning data qualifiers (flags) to analytical results were selected from those listed in Table 4-1. The QC limits established in the documents applicable to this data review were used to assess the quality of the analytical results. In some cases, however, QC limits established internally by the laboratory were taken into account to determine data quality.

The QC criteria considered for assessing the usability of the reported analytical results provided for each analyte type (i.e. VOCs, SVOCs, metals, etc.) are listed in Table 4-2. These criteria may vary with the analytical method utilized by the laboratory. These criteria comply with the guidance recommended in Section 2.0 above.

5.0 DATA VALIDATION QUALIFIERS

The letter qualifiers (flags) used to define data usability are described briefly below. These letters are assigned by the data validator to analytical results having questionable accuracy and/or precision as determined by reviewing the laboratory QC data associated with the analytical results.

TABLE 4-1

Guidance Used For Validating Laboratory Analytical Data

Analyte Group	Guidance	Date
Metals (ICP-AES)	USEPA SOP HW-3a, Rev. 1	September 2016
Metals (Hg & CN)	USEPA SOP HW-3c, Rev. 1	September 2016
Volatile Organic Compounds (by Methods 8260B & 8260C)	USEPA SOP HW-24, Rev. 4	September 2014
Semi-Volatile Organic Compounds (by Method 8270D)	USEPA SOP HW-22 Rev. 5	December 2010
Pesticides (by Method 8181B)	USEPA SOP HW-44, Rev. 1.1	December 2010
Chlorinated Herbicides (by Method 8151A)	USEPA SOP HW-17, Rev. 3.1	December 2010
Polychlorinated Biphenyls (PCBs)	USEPA SOP HW-37A, Rev. 0	June 2015
Volatile Organic Compounds (Air) (by Method TO-15)	USEPA SOP HW-31, Rev. 6	September 2016
Per- and PolyFluoroAlkyl Substances (PFAS)	* NYSDEC ** US Dept. of Defense	January 2021 November 2022
Radiological Analysis		
Uranium	USEPA Method 908.0	June 1999
Radium-226	USEPA Method 903.1	1980
General Chemistry Parameters	per NYSDEC ASP	July 2005

* Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs, Appendix I

** Data Validation Guidelines Module 6: Data Validatioin Procedures for Per- and Polyfluoroalkyl Substances Analysis by QSM Table B-24

TABLE 4-2

QUALITY CONTROL CRITERIA USED FOR VALIDATING LABORATORY ANALYTICAL DATA

VOCs	SVOCs	Pesticides/PCBs	Metals	Gen Chemistry	PFAS
Completeness of Pkg	Completeness of Pkg	Completeness of Pkg	Completeness of Pkg	Completeness of Pkg	Completeness of Pkg
Sample Preservation	Sample Preservation	Sample Preservation	Sample Preservation	Sample Preservation	Sample Preservation
Holding Time	Holding Time	Holding Time	Holding Time	Holding Times	Holding Time
System Monitoring Compounds	Surrogate Recoveries	Surrogate Recoveries	Initial/Continuing Calibration	Calibration	Instr Performance Check
Lab Control Sample	Lab Control Sample	Matrix Spikes	CRDL Standards	Lab Control Samples	Initial Calibration
Matrix Spikes	Matrix Spikes	Blanks	Blanks	Blanks	Continuing Calibration
Blanks	Blanks	Instrument Calibration & Verification	Interference Check Sample	Spike Recoveries	Blanks
Instrument Tuning	Instrument Tuning	Comparison of duplicate GC column results	Spike Recoveries	Lab Duplicates	Surrogates
Internal Standards	Internal Standards	Analyte ID	Lab Duplicate		Lab Fortified Blank
Initial Calibration	Initial Calibration	Lab Qualifiers	Lab Control Sample		Matrix Spikes
Continuing Calibration	Continuing Calibration	Field Duplicate	ICP Serial Dilutions		Internal Standards
Lab Qualifiers	Lab Qualifiers		Lab Qualifiers		
Field Duplicate	Field Duplicate		Field Duplicate		

Method TO-15 (Air)	Radiological (U and Ra)
Completeness of Pkg	Completeness of Pkg
Sample Preservation	Sample Preservation
Holding Time	Holding Time
Canister Certification	Sample Specific Yield
Instrument Tuning	Required Detection Limit
Initial Calibration and Instrument Performance	Laboratory Control Sample
	Matrix Spikes
Daily Calibration	Method Blank
Blanks	Instrument Calibration
Lab Control Sample	
Field Duplicate	

The laboratory may also use various letters and symbols to flag analytical results generated when QC limits were exceeded. The meanings of these flags may differ from those used by the independent data validator. Those used by the laboratory are provided with the analytical results.

NOTE: The assignment of data qualifiers by the data reviewer (validator) to laboratory analytical results should not necessarily be interpreted by the data user as a measure of laboratory ability or proficiency. Rather, the qualifiers are intended to provide a measure of data accuracy and precision to the data user, which, for example, may provide a level of confidence in determining whether or not standards or cleanup objectives have been met.

U The analyte was analyzed for but was not detected at or above the sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the *approximate* concentration of the analyte in the sample. (The magnitude of any ± value associated with the result is not determined by data validation).

J+ The result is an estimated quantity and may be biased high.

J- The result is an estimated quantity and may be biased low.

UJ The analyte was analyzed for but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R The sample result is rejected (i.e., is unusable) due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

The validated analytical results are attached to this report. Validation qualifiers (flags) are indicated in red print. Data sheets having qualified data are signed and dated by the data reviewer.

6.0 RESULTS OF THE DATA REVIEW

The results of the analytical data review are summarized in Table 6-1. The table lists the samples where QC criteria were found to exceed acceptable limits and the actions taken to qualify the associated analytical results.

7.0 TOTAL USABLE DATA

For SDG GCQ30328, one sample was analyzed and results were reported for 69 analytes. Even though some results were flagged with a "J" as estimated, all results (100 %) are considered usable. See the summary table for the analyses that have been rejected and qualified and the associated QC reasons.

Table 6-1 TO-15

SAMPLES AFFECTED	ANALYTES	ACTION	QC VIOLATION	COMMENTS
IA-1	Ethanol 1,2,3-Trichlorobenzene	UJ non-detects J detects	ICV % D > QC limit and/or LCS rec < QC limits	Data are estimated
IA-1	Naphthalene	J detects	LCS rec > QC limit	Data are estimated

ACRONYMS

BSP	Blank Spike
CCAL	Continuing Calibration
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
%D	Percent Difference
ICAL	Initial Calibration
ICB	Initial Calibration Blank
IS	Internal Standard
LCS	Laboratory Control Sample
MS/MSD	Matrix Spike/Matrix Spike Duplicate
QA	Quality Assurance
QC	Quality Control
%R	Percent recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
%RSD	Percent Relative Standard Deviation
TAL	Target Analyte List (metals)
TCL	Target Compound List (organics)

Appendix A

Validated Analytical Results

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

NY ANALYTICAL SERVICES PROTOCOL DATA PACKAGE

HYGRADE PLATING

GCQ30382

Ver 1

Thursday, May 09, 2024

Attn: Rachel Ataman
Touchstone Environmental Geology, PC
1919 Middle Country Road
Centereach, NY 11720

Project ID: **HYGRADE PLATING**
SDG ID: **GCQ30382**
Sample ID#s: **CQ30382**

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

PHOENIX
Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

NY ANALYTICAL SERVICES PROTOCOL
DATA PACKAGE

Client:

HYGRADE PLATING

Laboratory Project: GCQ30382

Volatile TO15
Ver 1

1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-1

Client: TOUCHSTONE Lab: Phoenix Env. Labs

SDG No.: GCQ30382 Lab Sample ID: CQ30382

Canister: 21333 Lab File ID: 0319_17.D

Instrument: CHEM39 Column: ΓX-1 ; #10157 Date Received: 03/19/24

Purge Volume 200 (cc) Date Analyzed: 03/20/24

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R	
115-07-1	Propylene	4.98		0.581	0.581	r	
75-71-8	Dichlorodifluoromethane	0.447		0.202	0.202	r	
74-87-3	Chloromethane	1.53		0.485	0.485	r	
106-99-0	1,3-Butadiene	0.662		0.452	0.452	r	
75-00-3	Chloroethane	0.379	U	0.379	0.379	r	
64-17-5	Ethanol	408	ES	0.531	0.531		J
67-64-1	Acetone	59.9	ES	0.421	0.421		J
75-69-4	Trichlorofluoromethane	0.228		0.178	0.178	r	
67-63-0	Isopropylalcohol	70.2	ES	0.407	0.407		J
107-13-1	Acrylonitrile	0.461	U	0.461	0.461	r	
75-09-2	Methylene Chloride	0.863	U	0.863	0.863	r	
75-15-0	Carbon Disulfide	0.321	U	0.321	0.321	r	
1634-04-4	Methyl tert-butyl ether(MTBE)	0.278	U	0.278	0.278	r	
78-93-3	Methyl Ethyl Ketone	7.49		0.339	0.339	r	
110-54-3	Hexane	0.661	S	0.284	0.284	r	
141-78-6	Ethyl acetate	7.90		0.278	0.278	r	
109-99-9	Tetrahydrofuran	1.05		0.339	0.339	r	
107-06-2	1,2-Dichloroethane	1.03		0.247	0.247	r	
71-43-2	Benzene	1.52		0.313	0.313	r	
110-82-7	Cyclohexane	0.291	U	0.291	0.291	r	
540-84-1	2,2,4-trimethylpentane	0.205		0.200	0.200	r	
142-82-5	Heptane	1.94		0.244	0.244	r	
108-10-1	4-Methyl-2-pentanone(MIBK)	1.39		0.244	0.244	r	
10061-02-6	trans-1,3-Dichloropropene	0.221	U	0.221	0.221	r	
108-88-3	Toluene	66.2	E	0.266	0.266		J
591-78-6	2-Hexanone(MBK)	0.244	U	0.244	0.244	r	
630-20-6	1,1,1,2-Tetrachloroethane	0.146	U	0.146	0.146	r	
108-90-7	Chlorobenzene	0.217	U	0.217	0.217	r	
100-41-4	Ethylbenzene	13.4		0.230	0.230	r	
179601-23-1	m,p-Xylene	19.9		0.230	0.230	r	
100-42-5	Styrene	1.16		0.235	0.235	r	
95-47-6	o-Xylene	29.9		0.230	0.230	r	
98-82-8	Isopropylbenzene	0.204	U	0.204	0.204	r	
622-96-8	4-Ethyltoluene	0.836		0.204	0.204	r	
108-67-8	1,3,5-Trimethylbenzene	0.421		0.204	0.204	r	
95-63-6	1,2,4-Trimethylbenzene	1.54		0.204	0.204	r	

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

MKP 5/14/2024

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AIR ANALYSIS DATA SHEET

CLIENT ID: IA-1

Client: TOUCHSTONE Lab: Phoenix Env. Labs

SDG No.: GCQ30382 Lab Sample ID: CQ30382

Canister: 21333 Lab File ID: 0319_17.D

Instrument: CHEM39 Column: ΓX-1 ; #10157 Date Received: 03/19/24

Purge Volume 200 (cc) Date Analyzed: 03/20/24

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R	
99-87-6	4-Isopropyltoluene	0.649		0.182	0.182	r	
104-51-8	n-Butylbenzene	0.238		0.182	0.182	r	
91-20-3	Naphthalene	0.363		0.200	0.200	r	J
76-14-2	1,2-Dichlorotetrafluoroethane(sim)	0.143	U	0.143	0.143	r	
75-01-4	Vinyl Chloride(sim)	0.078	U	0.078	0.078	r	
74-83-9	Bromomethane(sim)	0.258	U	0.258	0.258	r	
71-55-6	1,1,1-Trichloroethane(sim)	0.183	U	0.183	0.183	r	
56-23-5	Carbon Tetrachloride(sim)	0.076		0.032	0.032	r	
75-35-4	1,1-Dichloroethene(sim)	0.051	U	0.051	0.051	r	
76-13-1	Trichlorotrifluoroethane(sim)	0.131	U	0.131	0.131	r	
156-60-5	Trans-1,2-Dichloroethene(sim)	0.252	U	0.252	0.252	r	
75-34-3	1,1-Dichloroethane(sim)	0.247	U	0.247	0.247	r	
156-59-2	Cis-1,2-Dichloroethene(sim)	0.063		0.051	0.051	r	
67-66-3	Chloroform(sim)	0.205	U	0.205	0.205	r	
78-87-5	1,2-dichloropropane(sim)	0.217	U	0.217	0.217	r	
75-27-4	Bromodichloromethane(sim)	0.149	U	0.149	0.149	r	
79-01-6	Trichloroethene(sim)	0.156		0.037	0.037	r	
123-91-1	1,4-Dioxane(sim)	0.278	U	0.278	0.278	r	
10061-01-5	cis-1,3-Dichloropropene(sim)	0.221	U	0.221	0.221	r	
79-00-5	1,1,2-Trichloroethane(sim)	0.183	U	0.183	0.183	r	
124-48-1	Dibromochloromethane(sim)	0.118	U	0.118	0.118	r	
106-93-4	1,2-Dibromoethane(EDB)(sim)	0.130	U	0.130	0.130	r	
127-18-4	Tetrachloroethene(sim)	0.182		0.037	0.037	r	
75-25-2	Bromoform(sim)	0.097	U	0.097	0.097	r	
79-34-5	1,1,2,2-Tetrachloroethane(sim)	0.146	U	0.146	0.146	r	
100-44-7	Benzyl chloride(sim)	0.193	U	0.193	0.193	r	
541-73-1	1,3-Dichlorobenzene(sim)	0.166	U	0.166	0.166	r	
106-46-7	1,4-Dichlorobenzene(sim)	0.166	U	0.166	0.166	r	
135-98-8	sec-Butylbenzene(sim)	0.182	U	0.182	0.182	r	
95-50-1	1,2-Dichlorobenzene(sim)	0.166	U	0.166	0.166	r	
120-82-1	1,2,4-Trichlorobenzene(sim)	0.135	U	0.135	0.135	r	UJ
87-68-3	Hexachlorobutadiene(sim)	0.094	U	0.094	0.094	r	

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

MKP 5/14/2024

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AIR ANALYSIS DATA SHEET

CLIENT ID: IA-1 5X

Client: TOUCHSTONE Lab: Phoenix Env. Labs

SDG No.: GCQ30382 Lab Sample ID: CQ30382 5X

Canister: 21333 Lab File ID: 0319_26.D

Instrument: CHEM39 Column: ΓX-1 ; #10157 Date Received: 03/19/24

Purge Volume: 200 (cc) Date Analyzed: 03/20/24

Matrix: AIR Dilution Factor: 5

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R	
64-17-5	Ethanol	439	EDS	2.66	2.66	r	J
67-64-1	Acetone	59.2	DS	2.11	2.11	r	
67-63-0	Isopropylalcohol	69.2	DS	2.04	2.04	r	
108-88-3	Toluene	58.5	D	1.33	1.33	r	

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

This form 1 and the associated quantitation report are filtered for detected compounds in the undiluted analysis.

MKP 5/14/2024

Appendix B

Laboratory QC Documentation

AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: TOUCHSTONE

Lab Code: Phoenix Case No: SAS No: SDG No GCQ30382

LCS - Client Id: CQ30411 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Propylene	10		10.88	109	70	130
Dichlorodifluoromethane	10		10.33	103	70	130
Chloromethane	10		10.40	104	70	130
1,2-Dichlorotetrafluoroethane	10		10.23	102	70	130
Vinyl Chloride	10		10.46	105	70	130
1,3-Butadiene	10		10.55	106	70	130
Bromomethane	10		9.989	100	70	130
Chloroethane	10		10.01	100	70	130
Ethanol	10		5.623	56 *	70	130
Acetone	10		10.40	104	70	130
Trichlorofluoromethane	10		9.865	99	70	130
Isopropylalcohol	10		7.689	77	70	130
Acrylonitrile	10		10.04	100	70	130
1,1-Dichloroethene	10		9.670	97	70	130
Methylene Chloride	10		10.09	101	70	130
Carbon Disulfide	10		10.13	101	70	130
Trichlorotrifluoroethane	10		9.954	100	70	130
Trans-1,2-Dichloroethene	10		10.52	105	70	130
1,1-Dichloroethane	10		10.41	104	70	130
Methyl tert-butyl ether(MTBE)	10		11.34	113	70	130
Methyl Ethyl Ketone	10		11.18	112	70	130
Cis-1,2-Dichloroethene	10		10.87	109	70	130
Hexane	10		11.52	115	70	130
Chloroform	10		10.13	101	70	130
Ethyl acetate	10		10.99	110	70	130
Tetrahydrofuran	10		11.97	120	70	130
1,2-Dichloroethane	10		10.30	103	70	130
1,1,1-Trichloroethane	10		10.12	101	70	130
Benzene	10		10.61	106	70	130
Carbon Tetrachloride	10		10.27	103	70	130
Cyclohexane	10		9.676	97	70	130
1,2-dichloropropane	10		10.19	102	70	130
Bromodichloromethane	10		10.10	101	70	130
Trichloroethene	10		10.11	101	70	130
2,2,4-trimethylpentane	10		10.87	109	70	130
1,4-Dioxane	10		9.587	96	70	130
Heptane	10		11.44	114	70	130
cis-1,3-Dichloropropene	10		11.02	110	70	130
4-Methyl-2-pentanone(MIBK)	10		12.20	122	70	130
trans-1,3-Dichloropropene	10		10.97	110	70	130
1,1,2-Trichloroethane	10		10.25	103	70	130
Toluene	10		10.93	109	70	130
Dibromochloromethane	10		10.21	102	70	130
2-Hexanone(MBK)	10		13.44	134 *	70	130

FORM III AIR

AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: TOUCHSTONE

Lab Code: Phoenix Case No: SAS No: SDG No GCQ30382

LCS - Client Id: CQ30411 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
1,2-Dibromoethane(EDB)	10		10.44	104	70	130
Tetrachloroethene	10		10.19	102	70	130
1,1,1,2-Tetrachloroethane	10		10.13	101	70	130
Chlorobenzene	10		10.42	104	70	130
Ethylbenzene	10		11.75	118	70	130
m,p-Xylene	20		24.15	121	70	130
Bromoform	10		11.18	112	70	130
Styrene	10		12.45	125	70	130
1,1,2,2-Tetrachloroethane	10		11.13	111	70	130
o-Xylene	10		12.12	121	70	130
Isopropylbenzene	10		10.71	107	70	130
4-Ethyltoluene	10		12.08	121	70	130
1,3,5-Trimethylbenzene	10		12.18	122	70	130
1,2,4-Trimethylbenzene	10		12.64	126	70	130
Benzyl chloride	10		12.82	128	70	130
1,3-Dichlorobenzene	10		11.61	116	70	130
1,4-Dichlorobenzene	10		11.91	119	70	130
sec-Butylbenzene	10		11.51	115	70	130
4-Isopropyltoluene	10		11.63	116	70	130
1,2-Dichlorobenzene	10		11.83	118	70	130
n-Butylbenzene	10		11.71	117	70	130
1,2,4-Trichlorobenzene	10		14.55	146 *	70	130
Naphthalene	10		14.93	149 *	70	130
Hexachlorobutadiene	10		12.62	126	70	130

FORM III AIR

AIR ICV RECOVERY

Lab Name: Phoenix Environmental Labs Client: TOUCHSTONE

Lab Code: Phoenix Case No: SAS No: SDG No GCQ30382

ICV - Client Id: ICV_CHEM39_0312

COMPOUND	SPIKE ADDED (ppbv)		ICV CONCENTRATION (ppbv)	ICV % REC #	QC. LIMITS REC.	
Propylene	10		9.984	100	70	130
Dichlorodifluoromethane	10		10.19	102	70	130
Chloromethane	10		9.729	97	70	130
1,2-Dichlorotetrafluoroethane	10		10.09	101	70	130
Vinyl Chloride	10		10.08	101	70	130
1,3-Butadiene	10		10.13	101	70	130
Bromomethane	10		9.883	99	70	130
Chloroethane	10		9.751	98	70	130
Ethanol	10		6.623	66 *	70	130
Acetone	10		9.680	97	70	130
Trichlorofluoromethane	10		9.806	98	70	130
Isopropylalcohol	10		9.269	93	70	130
Acrylonitrile	10		9.697	97	70	130
1,1-Dichloroethene	10		10.24	102	70	130
Methylene Chloride	10		10.22	102	70	130
Carbon Disulfide	10		10.07	101	70	130
Trichlorotrifluoroethane	10		9.961	100	70	130
Trans-1,2-Dichloroethene	10		10.33	103	70	130
1,1-Dichloroethane	10		10.05	101	70	130
Methyl tert-butyl ether(MTBE)	10		11.07	111	70	130
Methyl Ethyl Ketone	10		10.26	103	70	130
Cis-1,2-Dichloroethene	10		10.66	107	70	130
Hexane	10		11.20	112	70	130
Chloroform	10		9.935	99	70	130
Ethyl acetate	10		10.38	104	70	130
Tetrahydrofuran	10		10.99	110	70	130
1,2-Dichloroethane	10		10.14	101	70	130
1,1,1-Trichloroethane	10		10.11	101	70	130
Benzene	10		10.45	105	70	130
Carbon Tetrachloride	10		10.06	101	70	130
Cyclohexane	10		9.487	95	70	130
1,2-dichloropropane	10		9.912	99	70	130
Bromodichloromethane	10		9.833	98	70	130
Trichloroethene	10		10.10	101	70	130
2,2,4-trimethylpentane	10		10.47	105	70	130
1,4-Dioxane	10		10.06	101	70	130
Heptane	10		10.75	108	70	130
cis-1,3-Dichloropropene	10		10.63	106	70	130
4-Methyl-2-pentanone(MIBK)	10		10.02	100	70	130
trans-1,3-Dichloropropene	10		10.85	109	70	130
1,1,2-Trichloroethane	10		9.986	100	70	130
Toluene	10		10.82	108	70	130
Dibromochloromethane	10		10.07	101	70	130
2-Hexanone(MBK)	10		10.10	101	70	130

FORM III AIR

AIR ICV RECOVERY

Lab Name: Phoenix Environmental Labs Client: TOUCHSTONE

Lab Code: Phoenix Case No: SAS No: SDG No GCQ30382

ICV - Client Id: ICV_CHEM39_0312

COMPOUND	SPIKE ADDED (ppbv)		ICV CONCENTRATION (ppbv)	ICV % REC #	QC. LIMITS REC.	
1,2-Dibromoethane(EDB)	10		10.29	103	70	130
Tetrachloroethene	10		10.16	102	70	130
1,1,1,2-Tetrachloroethane	10		9.606	96	70	130
Chlorobenzene	10		9.963	100	70	130
Ethylbenzene	10		11.16	112	70	130
m,p-Xylene	20		23.04	115	70	130
Bromoform	10		10.49	105	70	130
Styrene	10		11.85	119	70	130
1,1,2,2-Tetrachloroethane	10		10.27	103	70	130
o-Xylene	10		11.53	115	70	130
Isopropylbenzene	10		10.14	101	70	130
4-Ethyltoluene	10		11.50	115	70	130
1,3,5-Trimethylbenzene	10		11.57	116	70	130
1,2,4-Trimethylbenzene	10		11.87	119	70	130
Benzyl chloride	10		11.57	116	70	130
1,3-Dichlorobenzene	10		10.87	109	70	130
1,4-Dichlorobenzene	10		11.26	113	70	130
sec-Butylbenzene	10		10.73	107	70	130
4-Isopropyltoluene	10		10.70	107	70	130
1,2-Dichlorobenzene	10		10.96	110	70	130
n-Butylbenzene	10		10.50	105	70	130
1,2,4-Trichlorobenzene	10		13.28	133 *	70	130
Naphthalene	10		12.52	125	70	130
Hexachlorobutadiene	10		12.09	121	70	130

FORM III AIR

Appendix C

Validator Qualifications

KENNETH R. APPLIN
Geochemist/Data Validator

Ph.D., Geochemistry and Mineralogy, The Pennsylvania State University

M.S., Geochemistry and Mineralogy, The Pennsylvania State University

B.A., Geological Sciences, SUNY at Geneseo, NY

Dr. Applin has over 35 years of experience working with the geochemistry of natural waters. His prior experience includes working as an Assistant Professor of Geology at the University of Missouri-Columbia and as Chief Hydrogeologist and Geochemist with a leading engineering firm in Rochester, NY. In 1993, he established KR Applin and Associates, a small consulting business that focuses on the geochemistry of natural waters, especially as applied to problems involving the contamination of groundwater and surface water.

Dr. Applin is also an experienced analytical data validator and has provided data validation services since 1994 to a variety of clients performing brownfield cleanup projects, hazardous waste remediation, groundwater monitoring at solid waste facilities, and other projects requiring third-party data validation. Dr. Applin has several years of hands-on experience with the laboratory analysis of natural waters and has successfully completed the USEPA Region II certification courses for performing inorganic and organic analytical data validation.

MICHAEL K. PERRY
Chemist/Data Validator

B.S. Chemistry, Georgia State University, Atlanta, GA

A.A.S., Chemical Technology, Alfred State College, Alfred, NY

Mr. Perry has over 30 years of experience in the analytical laboratory business. During his early career, he spent several years as a laboratory analyst performing the analysis of soil, water, and air samples for inorganic and organic chemical parameters. During his last 20 years in the environmental laboratory business, he managed and directed two major analytical laboratories in Rochester, NY. His management responsibilities included oversight of the daily operations of the lab, staff training and supervision, the selection, purchase, and maintenance of analytical instruments, the introduction of new laboratory methods, analytical quality assurance and quality control, data acquisition and management, and other business-related activities.

Mr. Perry has an extensive working knowledge of the methods and procedures used for sampling and analyzing both inorganic and organic analytes in soil, water, and air. He is an accomplished laboratory chemist and is familiar with the analytical methods and procedures established under the USEPA Contract Laboratory Protocols (CLP), the NYSDEC Analytical Services Protocols (ASP), and the NYSDOH Environmental Laboratory Approval Program (ELAP).

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY ANALYTICAL SERVICES PROTOCOL
DATA PACKAGE

Client:

Project: HYGRADE PLATING

Laboratory Project: GCQ30382

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

NY Analytical Services Protocol Format

May 09, 2024

SDG I.D.: GCQ30382

HYGRADE PLATING

Methodology Summary

Volatiles in Air

Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15, Second Edition, U. S. Environmental Protection Agency, January 1999.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Analytical Services Protocol Format

May 09, 2024

SDG I.D.: GCQ30382

HYGRADE PLATING

Laboratory Chronicle

Sample	Analysis	Collection Date	Prep Date	Analysis Date	Analyst	Hold Time Met
CQ30382	Volatiles (TO15)	03/15/24	03/20/24	03/20/24	KCA	Y

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

May 09, 2024

SDG I.D.: GCQ30382

Project ID: HYGRADE PLATING

Client Id	Lab Id	Matrix
IA-1	CQ30382	AIR

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Report

May 09, 2024

FOR: Attn: Rachel Ataman
Touchstone Environmental Geology, PC
1919 Middle Country Road
Centereach, NY 11720

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	FA	03/15/24	17:00
Location Code:	TOUCHSTONE	Received by:	B	03/19/24	17:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	21333				

Laboratory Data

SDG ID: GCQ30382
Phoenix ID: CQ30382

Project ID: HYGRADE PLATING
Client ID: IA-1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution	
Volatiles (TO15)										
1,1,1,2-Tetrachloroethane	ND	*0.146*	0.146	ND	*1.00*	1.00	03/20/24	KCA	1	1
1,1,1-Trichloroethane	ND	*0.183*	0.183	ND	*1.00*	1.00	03/20/24	KCA	1	
1,1,2,2-Tetrachloroethane	ND	*0.146*	0.146	ND	*1.00*	1.00	03/20/24	KCA	1	
1,1,2-Trichloroethane	ND	*0.183*	0.183	ND	*1.00*	1.00	03/20/24	KCA	1	
1,1-Dichloroethane	ND	*0.247*	0.247	ND	*1.00*	1.00	03/20/24	KCA	1	
1,1-Dichloroethene	ND	*0.051*	0.051	ND	*0.20*	0.20	03/20/24	KCA	1	
1,2,4-Trichlorobenzene	ND	*0.135*	0.135	ND	*1.00*	1.00	03/20/24	KCA	1	
1,2,4-Trimethylbenzene	1.54	*0.204*	0.204	7.57	*1.00*	1.00	03/20/24	KCA	1	
1,2-Dibromoethane(EDB)	ND	*0.130*	0.130	ND	*1.00*	1.00	03/20/24	KCA	1	
1,2-Dichlorobenzene	ND	*0.166*	0.166	ND	*1.00*	1.00	03/20/24	KCA	1	
1,2-Dichloroethane	1.03	*0.247*	0.247	4.17	*1.00*	1.00	03/20/24	KCA	1	
1,2-dichloropropane	ND	*0.217*	0.217	ND	*1.00*	1.00	03/20/24	KCA	1	
1,2-Dichlorotetrafluoroethane	ND	*0.143*	0.143	ND	*1.00*	1.00	03/20/24	KCA	1	
1,3,5-Trimethylbenzene	0.421	*0.204*	0.204	2.07	*1.00*	1.00	03/20/24	KCA	1	
1,3-Butadiene	0.662	*0.452*	0.452	1.46	*1.00*	1.00	03/20/24	KCA	1	
1,3-Dichlorobenzene	ND	*0.166*	0.166	ND	*1.00*	1.00	03/20/24	KCA	1	
1,4-Dichlorobenzene	ND	*0.166*	0.166	ND	*1.00*	1.00	03/20/24	KCA	1	
1,4-Dioxane	ND	*0.278*	0.278	ND	*1.00*	1.00	03/20/24	KCA	1	
2-Hexanone(MBK)	ND	*0.244*	0.244	ND	*1.00*	1.00	03/20/24	KCA	1	1
4-Ethyltoluene	0.836	*0.204*	0.204	4.11	*1.00*	1.00	03/20/24	KCA	1	1
4-Isopropyltoluene	0.649	*0.182*	0.182	3.56	*1.00*	1.00	03/20/24	KCA	1	1
4-Methyl-2-pentanone(MIBK)	1.39	*0.244*	0.244	5.69	*1.00*	1.00	03/20/24	KCA	1	
Acetone	59.2	*2.11*	2.11	141	*5.01*	5.01	03/20/24	KCA	5	
Acrylonitrile	ND	*0.461*	0.461	ND	*1.00*	1.00	03/20/24	KCA	1	
Benzene	1.52	*0.313*	0.313	4.85	*1.00*	1.00	03/20/24	KCA	1	
Benzyl chloride	ND	*0.193*	0.193	ND	*1.00*	1.00	03/20/24	KCA	1	

Project ID: HYGRADE PLATING
Client ID: IA-1

Phoenix I.D.: CQ30382

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution	
Bromodichloromethane	ND	*0.149*	0.149	ND	*1.00*	1.00	03/20/24	KCA	1	
Bromoform	ND	*0.097*	0.097	ND	*1.00*	1.00	03/20/24	KCA	1	
Bromomethane	ND	*0.258*	0.258	ND	*1.00*	1.00	03/20/24	KCA	1	
Carbon Disulfide	ND	*0.321*	0.321	ND	*1.00*	1.00	03/20/24	KCA	1	
Carbon Tetrachloride	0.076	*0.032*	0.032	0.48	*0.20*	0.20	03/20/24	KCA	1	
Chlorobenzene	ND	*0.217*	0.217	ND	*1.00*	1.00	03/20/24	KCA	1	
Chloroethane	ND	*0.379*	0.379	ND	*1.00*	1.00	03/20/24	KCA	1	
Chloroform	ND	*0.205*	0.205	ND	*1.00*	1.00	03/20/24	KCA	1	
Chloromethane	1.53	*0.485*	0.485	3.16	*1.00*	1.00	03/20/24	KCA	1	
Cis-1,2-Dichloroethene	0.063	*0.051*	0.051	0.25	*0.20*	0.20	03/20/24	KCA	1	
cis-1,3-Dichloropropene	ND	*0.221*	0.221	ND	*1.00*	1.00	03/20/24	KCA	1	
Cyclohexane	ND	*0.291*	0.291	ND	*1.00*	1.00	03/20/24	KCA	1	
Dibromochloromethane	ND	*0.118*	0.118	ND	*1.00*	1.00	03/20/24	KCA	1	
Dichlorodifluoromethane	0.447	*0.202*	0.202	2.21	*1.00*	1.00	03/20/24	KCA	1	
Ethanol	439	E *2.66*	2.66	827	*5.01*	5.01	03/20/24	KCA	5	1
Ethyl acetate	7.90	*0.278*	0.278	28.4	*1.00*	1.00	03/20/24	KCA	1	1
Ethylbenzene	13.4	*0.230*	0.230	58.2	*1.00*	1.00	03/20/24	KCA	1	
Heptane	1.94	*0.244*	0.244	7.95	*1.00*	1.00	03/20/24	KCA	1	
Hexachlorobutadiene	ND	*0.094*	0.094	ND	*1.00*	1.00	03/20/24	KCA	1	
Hexane	0.661	*0.284*	0.284	2.33	*1.00*	1.00	03/20/24	KCA	1	
Isooctane	0.205	*0.200*	0.200	0.96	*0.93*	0.93	03/20/24	KCA	1	
Isopropylalcohol	69.2	*2.04*	2.04	170	*5.01*	5.01	03/20/24	KCA	5	
Isopropylbenzene	ND	*0.204*	0.204	ND	*1.00*	1.00	03/20/24	KCA	1	
m,p-Xylene	19.9	*0.230*	0.230	86.4	*1.00*	1.00	03/20/24	KCA	1	
Methyl Ethyl Ketone	7.49	*0.339*	0.339	22.1	*1.00*	1.00	03/20/24	KCA	1	
Methyl tert-butyl ether(MTBE)	ND	*0.278*	0.278	ND	*1.00*	1.00	03/20/24	KCA	1	
Methylene Chloride	ND	*0.863*	0.863	ND	*3.00*	3.00	03/20/24	KCA	1	
Naphthalene	0.363	*0.200*	0.200	1.90	*1.05*	1.05	03/20/24	KCA	1	
n-Butylbenzene	0.238	*0.182*	0.182	1.31	*1.00*	1.00	03/20/24	KCA	1	1
o-Xylene	29.9	*0.230*	0.230	130	*1.00*	1.00	03/20/24	KCA	1	
Propylene	4.98	*0.581*	0.581	8.57	*1.00*	1.00	03/20/24	KCA	1	1
sec-Butylbenzene	ND	*0.182*	0.182	ND	*1.00*	1.00	03/20/24	KCA	1	1
Styrene	1.16	*0.235*	0.235	4.94	*1.00*	1.00	03/20/24	KCA	1	
Tetrachloroethene	0.182	*0.037*	0.037	1.23	*0.25*	0.25	03/20/24	KCA	1	
Tetrahydrofuran	1.05	*0.339*	0.339	3.09	*1.00*	1.00	03/20/24	KCA	1	1
Toluene	58.5	*1.33*	1.33	220	*5.01*	5.01	03/20/24	KCA	5	
Trans-1,2-Dichloroethene	ND	*0.252*	0.252	ND	*1.00*	1.00	03/20/24	KCA	1	
trans-1,3-Dichloropropene	ND	*0.221*	0.221	ND	*1.00*	1.00	03/20/24	KCA	1	
Trichloroethene	0.156	*0.037*	0.037	0.84	*0.20*	0.20	03/20/24	KCA	1	
Trichlorofluoromethane	0.228	*0.178*	0.178	1.28	*1.00*	1.00	03/20/24	KCA	1	
Trichlorotrifluoroethane	ND	*0.131*	0.131	ND	*1.00*	1.00	03/20/24	KCA	1	
Vinyl Chloride	ND	*0.078*	0.078	ND	*0.20*	0.20	03/20/24	KCA	1	
QA/QC Surrogates/Internals										
% Bromofluorobenzene	100	%	%	100	%	%	03/20/24	KCA	1	
% IS-1,4-Difluorobenzene	94	%	%	94	%	%	03/20/24	KCA	1	
% IS-Bromochloromethane	94	%	%	94	%	%	03/20/24	KCA	1	
% IS-Chlorobenzene-d5	93	%	%	93	%	%	03/20/24	KCA	1	
% Bromofluorobenzene (5x)	103	%	%	103	%	%	03/20/24	KCA	5	
% IS-1,4-Difluorobenzene (5x)	93	%	%	93	%	%	03/20/24	KCA	5	

Project ID: HYGRADE PLATING
Client ID: IA-1

Phoenix I.D.: CQ30382

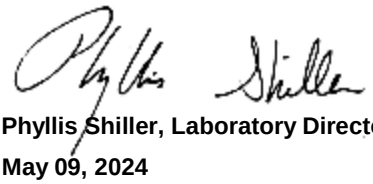
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
% IS-Bromochloromethane (5x)	92	%	%	92	%	%	03/20/24	KCA	5
% IS-Chlorobenzene-d5 (5x)	91	%	%	91	%	%	03/20/24	KCA	5

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

May 09, 2024

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Canister Sampling Information

May 09, 2024

FOR: Attn: Rachel Ataman
Touchstone Environmental Geology, PC
1919 Middle Country Road
Centereach, NY 11720

Location Code: TOUCHSTONE

SDG I.D.: GCQ30382

Project ID: HYGRADE PLATING

						Laboratory					Field			
Client Id	Lab Id	Canister Id	Canister Type	Reg. Id	Chk Out Date	Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
IA-1	CQ30382	21333	6.0L	5622	03/12/24	-30	-4	10.7	10.8	0.9	-30	-6	03/15/24 09:00	03/15/24 17:00

PHOENIX
Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823
TOUCHSTONE

CHAIN OF CUSTODY RECORD
AIR ANALYSES
860-645-1102
email: greg@phoenixlabs.com

P.O. #

Data Delivery:
☐ Fax #:
☐ Email:
☐ Phone #:

Report to:	rachel Ataman	Project Name: Hyprade Plating	Data Format: (Circle) Equis Excel Other:
Customer:	Touchstone Environmental Geology, PC	Invoice to:	Requested Deliverable: RCP ASP CAT B
Address:	1919 Middle Country Road		MCP NJ Deliverables
15618	Centereach, NY 11720	Sampled by: F. Ataman	Quote Number:

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-15	APH
		THIS SECTION FOR LAB USE ONLY											MATRIX			ANALYSES	
30382	IA-1	21333	6.0L	-30	-4	5622	10.7	9:00	17:00	3/15/24	-30	-6				✓	

Relinquished by:	Accepted by:	Date:	Time:
		3/19/24	13:4
		3/19/24	17:30

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: _____ Date: _____

State Where Samples Collected: _____

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:

(1) - 6.0L 8 hr

Turnaround Time:
- 1 Day* ☐
- 2 Day* ☐
- 3 Day* ☐
- 4 Day* ☐
- 5 Day* ☐
- Standard ☐

*SURCHARGES MAY APPLY

Requested Criteria: (Please Circle)

CT:	MA:	NJ:	NY:	PA:	VT:
TAC I/C TAC RES SVVC I/C SVVC RES GWV I/C GWV CES	Indoor Air: Residential Ind/Commercial Soil Gas: Residential Ind/Commercial	Indoor Air: Residential Ind/Commercial Soil Gas: Residential Ind/Commercial	Vapor Intrusion	Indoor Air Residential Non-residential	Indoor Air Residential Industrial Sub-slab Residential Industrial

APPENDIX D – LABORATORY REPORT

Wednesday, March 20, 2024

Attn: Rachel Ataman
Touchstone Environmental Geology, PC
1919 Middle Country Road
Centereach, NY 11720

Project ID: HYGRADE PLATING
SDG ID: GCQ30382
Sample ID#s: CQ30382

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

March 20, 2024

SDG I.D.: GCQ30382

Project ID: HYGRADE PLATING

Client Id	Lab Id	Matrix
IA-1	CQ30382	AIR

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

March 20, 2024

FOR: Attn: Rachel Ataman
Touchstone Environmental Geology, PC
1919 Middle Country Road
Centereach, NY 11720

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	FA	03/15/24	17:00
Location Code:	TOUCHSTONE	Received by:	B	03/19/24	17:30
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	21333				

Laboratory Data

SDG ID: GCQ30382
Phoenix ID: CQ30382

Project ID: HYGRADE PLATING
Client ID: IA-1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)								
1,1,1,2-Tetrachloroethane	ND	*0.146*	ND	*1.00*	03/20/24	KCA	1	1
1,1,1-Trichloroethane	ND	*0.183*	ND	*1.00*	03/20/24	KCA	1	
1,1,2,2-Tetrachloroethane	ND	*0.146*	ND	*1.00*	03/20/24	KCA	1	
1,1,2-Trichloroethane	ND	*0.183*	ND	*1.00*	03/20/24	KCA	1	
1,1-Dichloroethane	ND	*0.247*	ND	*1.00*	03/20/24	KCA	1	
1,1-Dichloroethene	ND	*0.051*	ND	*0.20*	03/20/24	KCA	1	
1,2,4-Trichlorobenzene	ND	*0.135*	ND	*1.00*	03/20/24	KCA	1	
1,2,4-Trimethylbenzene	1.54	*0.204*	7.57	*1.00*	03/20/24	KCA	1	
1,2-Dibromoethane(EDB)	ND	*0.130*	ND	*1.00*	03/20/24	KCA	1	
1,2-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/20/24	KCA	1	
1,2-Dichloroethane	1.03	*0.247*	4.17	*1.00*	03/20/24	KCA	1	
1,2-dichloropropane	ND	*0.217*	ND	*1.00*	03/20/24	KCA	1	
1,2-Dichlorotetrafluoroethane	ND	*0.143*	ND	*1.00*	03/20/24	KCA	1	
1,3,5-Trimethylbenzene	0.421	*0.204*	2.07	*1.00*	03/20/24	KCA	1	
1,3-Butadiene	0.662	*0.452*	1.46	*1.00*	03/20/24	KCA	1	
1,3-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/20/24	KCA	1	
1,4-Dichlorobenzene	ND	*0.166*	ND	*1.00*	03/20/24	KCA	1	
1,4-Dioxane	ND	*0.278*	ND	*1.00*	03/20/24	KCA	1	
2-Hexanone(MBK)	ND	*0.244*	ND	*1.00*	03/20/24	KCA	1	1
4-Ethyltoluene	0.836	*0.204*	4.11	*1.00*	03/20/24	KCA	1	1
4-Isopropyltoluene	0.649	*0.182*	3.56	*1.00*	03/20/24	KCA	1	1
4-Methyl-2-pentanone(MIBK)	1.39	*0.244*	5.69	*1.00*	03/20/24	KCA	1	
Acetone	59.2	*2.11*	141	*5.01*	03/20/24	KCA	5	
Acrylonitrile	ND	*0.461*	ND	*1.00*	03/20/24	KCA	1	
Benzene	1.52	*0.313*	4.85	*1.00*	03/20/24	KCA	1	
Benzyl chloride	ND	*0.193*	ND	*1.00*	03/20/24	KCA	1	

Project ID: HYGRADE PLATING
Client ID: IA-1

Phoenix I.D.: CQ30382

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	*0.149*	ND	*1.00*	03/20/24	KCA	1	
Bromoform	ND	*0.097*	ND	*1.00*	03/20/24	KCA	1	
Bromomethane	ND	*0.258*	ND	*1.00*	03/20/24	KCA	1	
Carbon Disulfide	ND	*0.321*	ND	*1.00*	03/20/24	KCA	1	
Carbon Tetrachloride	0.076	*0.032*	0.48	*0.20*	03/20/24	KCA	1	
Chlorobenzene	ND	*0.217*	ND	*1.00*	03/20/24	KCA	1	
Chloroethane	ND	*0.379*	ND	*1.00*	03/20/24	KCA	1	
Chloroform	ND	*0.205*	ND	*1.00*	03/20/24	KCA	1	
Chloromethane	1.53	*0.485*	3.16	*1.00*	03/20/24	KCA	1	
Cis-1,2-Dichloroethene	0.063	*0.051*	0.25	*0.20*	03/20/24	KCA	1	
cis-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	03/20/24	KCA	1	
Cyclohexane	ND	*0.291*	ND	*1.00*	03/20/24	KCA	1	
Dibromochloromethane	ND	*0.118*	ND	*1.00*	03/20/24	KCA	1	
Dichlorodifluoromethane	0.447	*0.202*	2.21	*1.00*	03/20/24	KCA	1	
Ethanol	439	E *2.66*	827	*5.01*	03/20/24	KCA	5	1
Ethyl acetate	7.90	*0.278*	28.4	*1.00*	03/20/24	KCA	1	1
Ethylbenzene	13.4	*0.230*	58.2	*1.00*	03/20/24	KCA	1	
Heptane	1.94	*0.244*	7.95	*1.00*	03/20/24	KCA	1	
Hexachlorobutadiene	ND	*0.094*	ND	*1.00*	03/20/24	KCA	1	
Hexane	0.661	*0.284*	2.33	*1.00*	03/20/24	KCA	1	
Isooctane	0.205	*0.200*	0.96	*0.93*	03/20/24	KCA	1	
Isopropylalcohol	69.2	*2.04*	170	*5.01*	03/20/24	KCA	5	
Isopropylbenzene	ND	*0.204*	ND	*1.00*	03/20/24	KCA	1	
m,p-Xylene	19.9	*0.230*	86.4	*1.00*	03/20/24	KCA	1	
Methyl Ethyl Ketone	7.49	*0.339*	22.1	*1.00*	03/20/24	KCA	1	
Methyl tert-butyl ether(MTBE)	ND	*0.278*	ND	*1.00*	03/20/24	KCA	1	
Methylene Chloride	ND	*0.863*	ND	*3.00*	03/20/24	KCA	1	
Naphthalene	0.363	*0.200*	1.90	*1.05*	03/20/24	KCA	1	
n-Butylbenzene	0.238	*0.182*	1.31	*1.00*	03/20/24	KCA	1	1
o-Xylene	29.9	*0.230*	130	*1.00*	03/20/24	KCA	1	
Propylene	4.98	*0.581*	8.57	*1.00*	03/20/24	KCA	1	1
sec-Butylbenzene	ND	*0.182*	ND	*1.00*	03/20/24	KCA	1	1
Styrene	1.16	*0.235*	4.94	*1.00*	03/20/24	KCA	1	
Tetrachloroethene	0.182	*0.037*	1.23	*0.25*	03/20/24	KCA	1	
Tetrahydrofuran	1.05	*0.339*	3.09	*1.00*	03/20/24	KCA	1	1
Toluene	58.5	*1.33*	220	*5.01*	03/20/24	KCA	5	
Trans-1,2-Dichloroethene	ND	*0.252*	ND	*1.00*	03/20/24	KCA	1	
trans-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	03/20/24	KCA	1	
Trichloroethene	0.156	*0.037*	0.84	*0.20*	03/20/24	KCA	1	
Trichlorofluoromethane	0.228	*0.178*	1.28	*1.00*	03/20/24	KCA	1	
Trichlorotrifluoroethane	ND	*0.131*	ND	*1.00*	03/20/24	KCA	1	
Vinyl Chloride	ND	*0.078*	ND	*0.20*	03/20/24	KCA	1	
QA/QC Surrogates/Internals								
% Bromofluorobenzene	100	*%*	100	*%*	03/20/24	KCA	1	
% IS-1,4-Difluorobenzene	94	*%*	94	*%*	03/20/24	KCA	1	
% IS-Bromochloromethane	94	*%*	94	*%*	03/20/24	KCA	1	
% IS-Chlorobenzene-d5	93	*%*	93	*%*	03/20/24	KCA	1	
% Bromofluorobenzene (5x)	103	*%*	103	*%*	03/20/24	KCA	5	
% IS-1,4-Difluorobenzene (5x)	93	*%*	93	*%*	03/20/24	KCA	5	

Ver 1

Project ID: HYGRADE PLATING
Client ID: IA-1

Phoenix I.D.: CQ30382

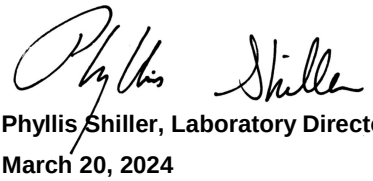
Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
% IS-Bromochloromethane (5x)	92	%	92	%	03/20/24	KCA	5
% IS-Chlorobenzene-d5 (5x)	91	%	91	%	03/20/24	KCA	5

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
March 20, 2024
Reviewed and Released by: Anil Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Canister Sampling Information

March 20, 2024

FOR: Attn: Rachel Ataman
Touchstone Environmental Geology, PC
1919 Middle Country Road
Centereach, NY 11720

Location Code: TOUCHSTONE

SDG I.D.: GCQ30382

Project ID: HYGRADE PLATING

						Laboratory					Field			
Client Id	Lab Id	Canister Id	Canister Type	Reg. Id	Chk Out Date	Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
IA-1	CQ30382	21333	6.0L	5622	03/12/24	-30	-4	10.7	10.8	0.9	-30	-6	03/15/24 09:00	03/15/24 17:00

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 20, 2024

QA/QC Data

SDG I.D.: GCQ30382

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 723004 (ppbv), QC Sample No: CQ30411 (CQ30382 (1X, 5X))												
Volatiles												
1,1,1,2-Tetrachloroethane	ND	0.150	ND	1.03	101	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.180	ND	0.98	101	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.150	ND	1.03	111	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.180	ND	0.98	102	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.250	ND	1.01	104	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.050	ND	0.20	97	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.130	ND	0.96	145	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.200	ND	0.98	126	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	104	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.170	ND	1.02	118	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.250	ND	1.01	103	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.220	ND	1.02	102	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.140	ND	0.98	102	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.200	ND	0.98	122	ND	ND	ND	ND	NC	70 - 130	25
1,3-Butadiene	ND	0.450	ND	0.99	105	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.170	ND	1.02	116	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.170	ND	1.02	119	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.280	ND	1.01	96	ND	ND	ND	ND	NC	70 - 130	25
2,2,4-Trimethylpentane	ND	0.200	ND	0.93	109	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.240	ND	0.98	134	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.200	ND	0.98	121	ND	ND	ND	ND	NC	70 - 130	25
4-Isopropyltoluene	ND	0.180	ND	0.99	116	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.240	ND	0.98	122	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	0.420	ND	1.00	104	3.77	3.77	1.59	1.59	NC	70 - 130	25
Acrylonitrile	ND	0.460	ND	1.00	100	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.310	ND	0.99	106	ND	ND	ND	ND	NC	70 - 130	25
Benzyl chloride	ND	0.190	ND	0.98	128	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.150	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.097	ND	1.00	112	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.260	ND	1.01	100	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.320	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.032	ND	0.20	103	0.48	0.50	0.076	0.079	NC	70 - 130	25
Chlorobenzene	ND	0.220	ND	1.01	104	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.380	ND	1.00	100	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	101	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.480	ND	0.99	104	1.24	1.29	0.602	0.626	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.050	ND	0.20	109	ND	ND	ND	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.290	ND	1.00	97	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.120	ND	1.02	102	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	103	2.30	2.29	0.465	0.464	NC	70 - 130	25

QA/QC Data

SDG I.D.: GCQ30382

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits	
Ethanol	ND	0.530	ND	1.00	56	6.53	6.70	3.47	3.56	2.6	70 - 130	25	I
Ethyl acetate	ND	0.280	ND	1.01	110	ND	ND	ND	ND	NC	70 - 130	25	
Ethylbenzene	ND	0.230	ND	1.00	117	ND	ND	ND	ND	NC	70 - 130	25	
Heptane	ND	0.240	ND	0.98	114	ND	ND	ND	ND	NC	70 - 130	25	
Hexachlorobutadiene	ND	0.094	ND	1.00	126	ND	ND	ND	ND	NC	70 - 130	25	
Hexane	ND	0.280	ND	0.99	115	ND	ND	ND	ND	NC	70 - 130	25	
Isopropylalcohol	ND	0.410	ND	1.01	77	ND	ND	ND	ND	NC	70 - 130	25	
Isopropylbenzene	ND	0.200	ND	0.98	107	ND	ND	ND	ND	NC	70 - 130	25	
m,p-Xylene	ND	0.230	ND	1.00	121	ND	ND	ND	ND	NC	70 - 130	25	
Methyl Ethyl Ketone	ND	0.340	ND	1.00	112	ND	ND	ND	ND	NC	70 - 130	25	
Methyl tert-butyl ether(MTBE)	ND	0.280	ND	1.01	113	ND	ND	ND	ND	NC	70 - 130	25	
Methylene Chloride	ND	0.860	ND	2.99	101	ND	ND	ND	ND	NC	70 - 130	25	
Naphthalene	ND	0.200	ND	1.05	149	ND	ND	ND	ND	NC	70 - 130	25	I
n-Butylbenzene	ND	0.180	ND	0.99	117	ND	ND	ND	ND	NC	70 - 130	25	
o-Xylene	ND	0.230	ND	1.00	121	ND	ND	ND	ND	NC	70 - 130	25	
Propylene	ND	0.580	ND	1.00	109	ND	ND	ND	ND	NC	70 - 130	25	
sec-Butylbenzene	ND	0.180	ND	0.99	115	ND	ND	ND	ND	NC	70 - 130	25	
Styrene	ND	0.230	ND	0.98	124	ND	ND	ND	ND	NC	70 - 130	25	
Tetrachloroethene	ND	0.037	ND	0.25	102	ND	ND	ND	ND	NC	70 - 130	25	
Tetrahydrofuran	ND	0.340	ND	1.00	120	ND	ND	ND	ND	NC	70 - 130	25	
Toluene	ND	0.270	ND	1.02	109	ND	ND	ND	ND	NC	70 - 130	25	
Trans-1,2-Dichloroethene	ND	0.250	ND	0.99	105	ND	ND	ND	ND	NC	70 - 130	25	
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25	
Trichloroethene	ND	0.037	ND	0.20	101	ND	ND	ND	ND	NC	70 - 130	25	
Trichlorofluoromethane	ND	0.180	ND	1.01	99	1.31	1.25	0.234	0.223	NC	70 - 130	25	
Trichlorotrifluoroethane	ND	0.130	ND	1.00	100	ND	ND	ND	ND	NC	70 - 130	25	
Vinyl Chloride	ND	0.078	ND	0.20	105	ND	ND	ND	ND	NC	70 - 130	25	
% Bromofluorobenzene	89	%	89	%	94	97	97	97	97	NC	70 - 130	25	
% IS-1,4-Difluorobenzene	98	%	98	%	107	85	84	85	84	NC	60 - 140	25	
% IS-Bromochloromethane	98	%	98	%	101	89	87	89	87	NC	60 - 140	25	
% IS-Chlorobenzene-d5	93	%	93	%	106	83	81	83	81	NC	60 - 140	25	

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
March 20, 2024

Wednesday, March 20, 2024

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCQ30382 - TOUCHSTONE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

March 20, 2024 SDG I.D.: GCQ30382

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

CHAIN OF CUSTODY RECORD
AIR ANALYSES

PHOENIX Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823
860-645-1102
email: greg@phoenixlabs.com

TOUCHSTONE

P.O. # Page 1 of 1

Data Delivery:
☐ Fax #:
☐ Email:
☐ Phone #:

Report to:	rachel Ataman	Project Name: Hyprade Plating	Data Format: (Circle) Equis Excel Other:
Customer:	Touchstone Environmental Geology, PC	Invoice to:	Requested Deliverable: RCP ASP CAT B
Address:	1919 Middle Country Road		MCP NJ Deliverables
15618	Centereach, NY 11720	Sampled by: F. Ataman	Quote Number:

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-15	APH
		THIS SECTION FOR LAB USE ONLY											MATRIX			ANALYSES	
30382	IA-1	21333	6.0L	-30	-4	5622	10.7	9:00	17:00	3/15/24	-30	-6				✓	

Relinquished by:	Accepted by:	Date:	Time:
		3/19/24	13:4
		3/19/24	17:30

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: _____ Date: _____

State Where Samples Collected: _____

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:

(1) - 6.0L 8 hr

Turnaround Time:
- 1 Day* ☐
- 2 Day* ☐
- 3 Day* ☐
- 4 Day* ☐
- 5 Day* ☐
- Standard ☐

*SURCHARGES MAY APPLY

Requested Criteria: (Please Circle)

CT:	MA:	NJ:	NY:	PA:	VT:
TAC I/C	Indoor Air: Residential Ind/Commercial	Indoor Air: Residential Ind/Commercial	Vapor Intrusion	Indoor Air Residential	Indoor Air Residential Industrial
TAC RES	Soil Gas: Residential Ind/Commercial	Soil Gas: Residential Ind/Commercial		Non-residential	Sub-slab Residential Industrial
SVVC I/C					
SVVC RES					
GWV I/C					
GWV CES					