Matthew M. Carroll, P.E.
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September 23, 2016

Hasan Ahmed, Environmental Engineer
Division of Environmental Remediation
NYS Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101

Re: Pre-design Soil and Groundwater Investigation and Groundwater Treatment System Design
87 Kent Avenue – Brooklyn, NY
Block 2309, Lot 5 – OER #13EHAZ248K

Dear Hasan:

I am the Remedial Engineer for the above-referenced Brownfield Cleanup Program (BCP) Site. On July 13 through 15, 2015, Tenen Environmental, LLC (Tenen), under oversight by me, conducted environmental investigation activities at the above Site. The purpose of the investigation was to conduct a pre-design delineation investigation including shallow and horizontal delineation of soil and groundwater around the "hot-spot" of chlorinated solvent impacts previously detected at the Site. The investigation also included vertical delineation of groundwater to determine if the chlorinated solvents have impacted deeper groundwater intervals and soil sampling to determine if metal impacts in soil extend below development depth. A dewatering investigation to address New York City Department of Environmental Protection (NYCDEP) discharge to sewer requirements were also conducted. This letter report summarizes the findings and recommendations pertaining to the pre-design investigation.

Background

The Site, located at 87 Kent Avenue, Brooklyn, New York, is a rectangular-shaped parcel of approximately 17,000 square feet located on the east side of Kent Avenue, and extending along the south side of North 9th Street. The property has approximately 95 feet of frontage along Kent Avenue and is approximately 175 feet deep. Other addresses associated with the Site are 83-89 Kent Avenue and 44-60 North 9th Street. The tax map designation of the property is Block 2309, Lot 5. The property is currently undergoing construction with demolition of the previously building completed and some soil excavation completed.

The Site was used as farmland since at least the 1780's and was developed with buildings since at least 1868. Several industrial and commercial uses were noted at the Site, consistent with the character of the neighborhood. The following specific uses were noted at the Site in Tenen's March 13, 2014 Phase I Environmental Site Assessment (ESA), with the first recorded date noted in parenthesis: rubber factory, dwellings and shops, rope dealer, "express office", junk yard, auto house/garage, diner/luncheonette, coal yard, scrap metal storage, offices, trucking company, parking, warehouse, clothing wholesale and a restaurant supply company.

Previous Investigations

Previous investigations are detailed in the January 2014 Soil Source Investigation performed by Tenen. The Soil Source Investigation examined the source of previously detected trichloroethene (TCE) contamination. The investigation identified elevated concentrations of TCE detected in soil, soil vapor and groundwater in the

south/southeastern portion of the property. Based on the distribution of TCE impacts, it appeared that the source is on Site. These findings are in conjunction with the documented presence of a scrap yard in the area of highest TCE concentrations.

Phase II Environmental Site Investigation

Site Geology. Historic fill material is present at depths up to ten feet below grade (ft-bg) with underlying glacial deposits of fine- to medium-grain sands, silt and clay. Please note that ft-bg is from the slab of the now-demolished building and was approximately 22 feet mean sea level (ft-msl). During pre-design sampling, varying intervals of compact clay layers were observed. Due to the lithology of the soil, groundwater recharge was observed at a slow rate within the temporary monitoring wells. Groundwater elevation was observed between +8.14 ft-msl and +12.71 ft-msl. Lithologic logs are presented in Attachment 1.

The depth to bedrock is estimated at approximately 100 ft-bg based on Sheet 3 of the *USGS Bedrock and Engineering Geologic Maps of New York County and Parts of Kings and Queens Counties (Baskerville, 1990)*.

Sampling Methodology. The methodology used to collect the soil and groundwater samples is summarized below.

Soil. Two soil borings were installed at the Site (TSB-6 and TSB-3); borings were advanced to a depth of 20 and 30 ft-bg, respectively. The pre-design soil investigation was completed within the footprint of the proposed building. Samples were collected directly below then-proposed development depth (subsequently, the proposed development depth was lowered by approximately 1 foot, 9 inches) and analyzed for total metals to supplement findings of the previous Phase II investigation as well as evaluate expected post-excavation soil conditions. Three soil samples were collected for each of the two soil boring locations.

A track-mounted geoprobe unit was used to advance the soil borings below slab and to install the temporary wells. Drilling was performed by Zebra Environmental of Lynbrook, New York.

All samples were collected using dedicated acetate liners. Soil screening using a PID indicated readings ranging from non-detect to 42.2 parts per million (ppm) in TSB-3 (20-21 feet). Soil samples were collected from the boring locations as follows:

- Three deep soil samples (15-16 feet), (16-18 feet), and (18-20 feet) were collected from boring TSB-6; and,
- Three deep soil samples (20-21 feet), (21-23 feet), and (23-25 feet) were collected from boring TSB-3.

Groundwater. Vertical and horizontal groundwater delineation sampling was attempted with the advancement of three temporary groundwater wells (TGW-2, TGW-3, TGW-4) and two vertical groundwater sampler locations (TGW-1 and TGW-5). Wells were advanced in the immediate and surrounding area of previously identified TCE contamination. Three temporary groundwater wells were advanced to a depth of 20 ft-bg. Two groundwater samplers were advanced to a maximum depth of 45 ft-bg (approximately 25 feet below the depth of excavation) in an effort to gauge vertical delineation below the proposed development depth. Groundwater sampler TGW-5 was advanced; however, the well was dry in each of the three attempted intervals (25, 35 and 45 ft-bg) and therefore unable to be sampled. The remaining groundwater sampler TGW-1, was only sampled at first water (16 to 20 ft-bg) and in the 21 to 25 ft-bg interval; sampling was attempted at depths between 25 and 45 ft-bg but groundwater was not encountered, consistent with the general lithology of the Site. One existing monitoring well MW-1, installed in February 2015 by Zebra with oversight by Tenen was also sampled.

Each sample was collected using a peristaltic pump. In addition to the groundwater samples, one grab sample of non-aqueous phase liquid (NAPL) detected in well MW-1 was collected using a 0.5-inch hand bailer. The thickness of the NAPL was non-measurable using an oil/water interface probe due to the small amount present.

A summary of sample designations, media sampled and locations is shown below. Sampling locations are shown on Figure 2.

Boring Locations, Sample Designations and Media Sampled

Sample Location	Sample Name (Depth in ft-bg)	Sample Type	Description of Location
TSB-3	TSB-3 (20-21)	Soil	South end of Site.
	TSB-3 (21-23)	Soil	
	TSB-3 (23-25)	Soil	
TSB-6	TSB-6 (15-16)	Soil	Southwest corner of Site; adjacent to former UST.
	TSB-6 (16-18)	Soil	
	TSB-6 (18-20)	Soil	
TGW-1	TGW-1 (21-25)	Groundwater	East end of Site.
	TGW-1 (16-20)	Groundwater	
TGW-2	TGW-2	Groundwater	Adjacent to south wall.
TGW-3	TGW-3	Groundwater	Middle, center of Site.
TGW-4	TGW-4	Groundwater	Northeast portion of Site.
MW-1	MW-1	Groundwater	Existing monitoring well located in southeast corner of Site.
	MW-1 GRAB	Sample Fingerprint	

ft-bg – feet below grade

Analytical Results

The samples were preserved on ice and sent under chain-of-custody documentation to Alpha Analytical, Inc. (Alpha). Alpha is certified by the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) as LABIDs 11148 and 11627.

All soil samples were sampled for Target Analyte List (TAL) metals. Groundwater samples were analyzed for VOCs. One groundwater sample MW-1 was analyzed for VOCs, SVOCs, pesticides, PCBs and TAL metals (total and dissolved). The results of the sample analysis are presented below. One grab sample (MW-1 GRAB) was analyzed for sample fingerprint. Summaries of compounds in soil and groundwater are included in Tables 1 through 2. Laboratory deliverables are included in Attachment 2.

Soil

The soil results were compared to the New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use SCOs as listed in 6 NYCRR Part 375-6.8(a) and Restricted-Residential Restricted Use (Restricted-Residential) SCOs as listed in 6 NYCRR Part 375-6.8(b).

One metal, iron, was detected above the Restricted-Residential SCO of 2,000 mg/kg in both soil borings and all sampling intervals, with concentrations ranging between 6,900 mg/kg [TSB-6 (18-20)] to 28,000 mg/kg [TSB-6 (15-16)].

Groundwater
Groundwater concentrations were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA Water Quality Standards and Guidance Values (Class GA Standards).

The results of the groundwater sampling indicate that the chlorinated solvent trichloroethene (TCE) and its degradation products cis-1,2-dichlorothene (DCE) and trans-1,2-DCE, were detected above Class GA Standards. TCE was detected in all four groundwater wells, ranging from the highest concentrations in MW-1 (9,300 ug/L, above the Class GA Standard of 5 ug/L), located in the historic approximate location of the scrap yard, and TGW-4 (5,400 ug/L), which is located downgradient of MW-1. The lowest concentration of TCE was identified in TGW-3 (540 ug/L), located cross-gradient of MW-1.

One groundwater sampler TGW-1 was sampled between the following intervals: 16-20 and 21-25 ft-bg. The results showed continuity between these varying depths, with TCE concentrations ranging between 2,700 ug/l [TGW-1 (16-20)] and 2500 ug/l [TGW-1 (21-25)]. A confining groundwater layer was identified below 25 ft-bg, as no groundwater was encountered to a depth of 45 ft-bg. A second groundwater sampler was attempted (TGW-5); however, the well was dry at all intervals between 25 and 45 ft-bg.

No pesticides or PCBs were detected in groundwater above the Class GA standards.

A NAPL sample was collected from MW-1; the sample fingerprint results identified hydraulic oil.

Findings and Conclusions

The results of the pre-design sampling indicate the following:

- A portion of the Site was historically used as a scrap yard.
- TCE was detected in all groundwater sampling locations ranging from the highest concentration in MW-1 (9,300 ug/L, above the Class GA Standard of 5 ug/L), located in the historic location of the scrap yard; the lowest concentration of TCE was identified in TGW-3 (540 ug/L), located cross-gradient of MW-1.
- The on-Site source of TCE contamination appears to be generally localized within the vicinity of MW-1, consistent with the historical location of the scrap yard.
- Groundwater flow was observed in a northeasterly direction.
- The calculated groundwater flow is to the northeast.
- Vertical delineation of TCE was attempted to depths of 45 ft-bg. Due to the lithologic conditions of the Site, including confining clay layers at approximately 25 ft-bg in the source area. The only vertical delineation sampling was completed at first water (16-20 ft-bg) and 21-25 ft-bg in well TGW-1. The results showed continuity between these varying depths and indicates that dissolved TCE concentrations are present in groundwater to the confining clay layer.
- NAPL was identified in MW-1 during field sampling; the product was sampled and later identified as hydraulic oil. NAPL was not identified in any of the other wells during the time of field activities.
- The proposed depth of excavation ranges between 25 and 29 ft-bg with documented contamination of chlorinated solvents to a depth of 25 ft-bg in the area of TGW-1.
- One metal, iron, was detected above the Restricted-Residential SCO of 2,000 mg/kg in both soil borings and all sampling intervals, up to 25 ft-bg. The sampled intervals were in native soil and are likely attributable to natural soil conditions.

Design Elements

Based on the above findings, the following remedial actions will be completed:

Soil

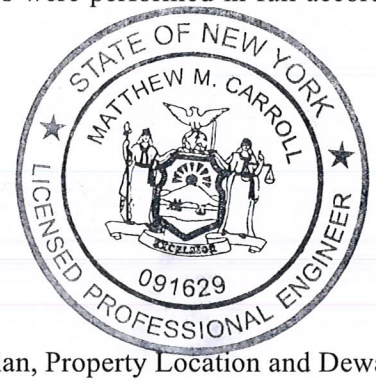
- Excavation of soil to a minimum 25 ft-bg, consistent with the approved April 2015 Remedial Action Work Plan (RAWP) and subsequent June 16, 2016 letter titled "Minor Modification to Proposed Excavation Depths".
- Collection of end-point samples consistent with the approved April 2015 RAWP. All samples will be collected from native material and a determination of whether the iron is naturally occurring will be made. The analysis will be completed in accordance with section 3.5.3 of the NYSDEC DER-10 Technical Guidance for Site Remediation and Investigation, specifically 3.5.3(b).
- Based on the remedial actions completed to-date, the majority of the source of TCE impacts to groundwater has been removed; additional removal will be completed in the northeast corner of the Site, below the existing truck wash pad.

Groundwater

- Installation and operation of a dewatering treatment system. The system includes an engineered well-point system, settling tank, bag filters and granulated activated carbon (GAC) tanks. The system will discharge to the New York City Department of Environmental Protection (NYCDEP) combined sewer system in accordance with their approval letters and a permit issued July 11, 2016, which were previously submitted to NYSDEC. As the capacity of the system is above 45 gallons per minute (GPM), a Long Island Well Permit equivalency has been requested from NYSDEC.
- Testing of the groundwater system effluent is required by NYCDEP on a quarterly basis.
- If small amounts of NAPL are observed in the settling tank, it will be removed using absorbent pads. If NAPL is continuously detected, an oil-water separator or oil adsorption bags.
- The well points will be installed 10 feet below development depth, which will remove the groundwater impacted with TCE. In-situ groundwater treatment is not proposed.
- Post-remedial groundwater sampling will be completed in accordance with the April 2015 RAWP.

I, Matthew Carroll, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Remedial Design was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

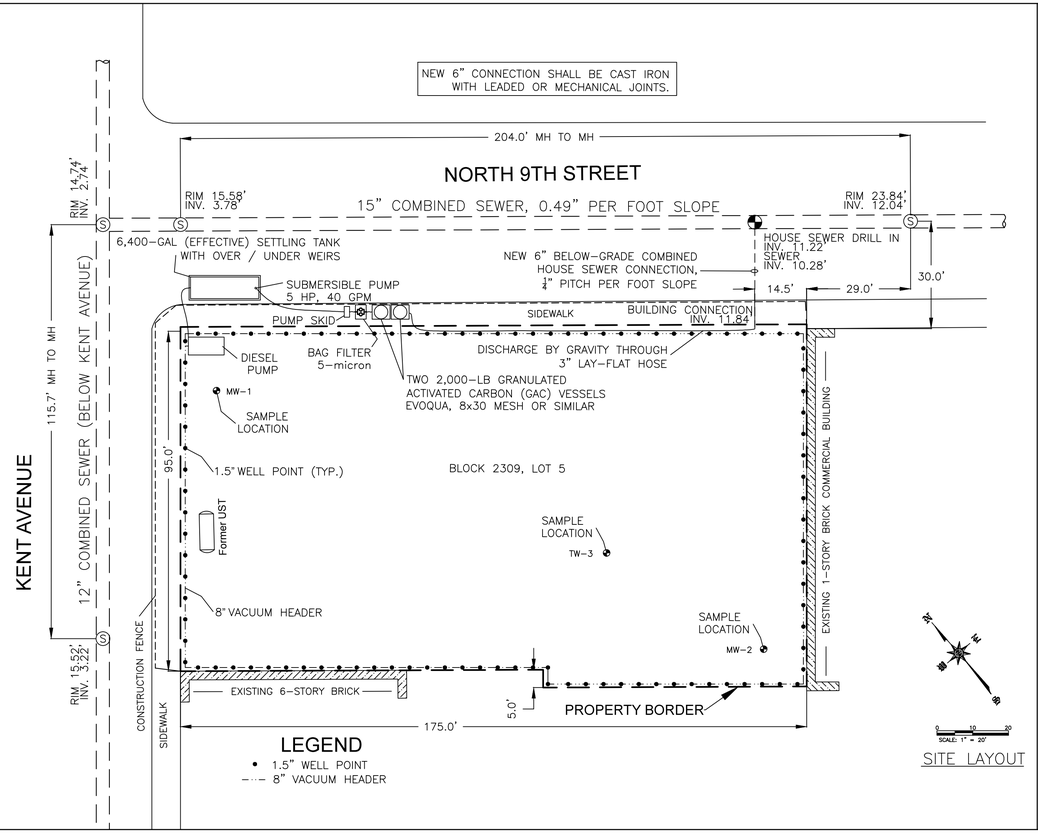
Sincerely,

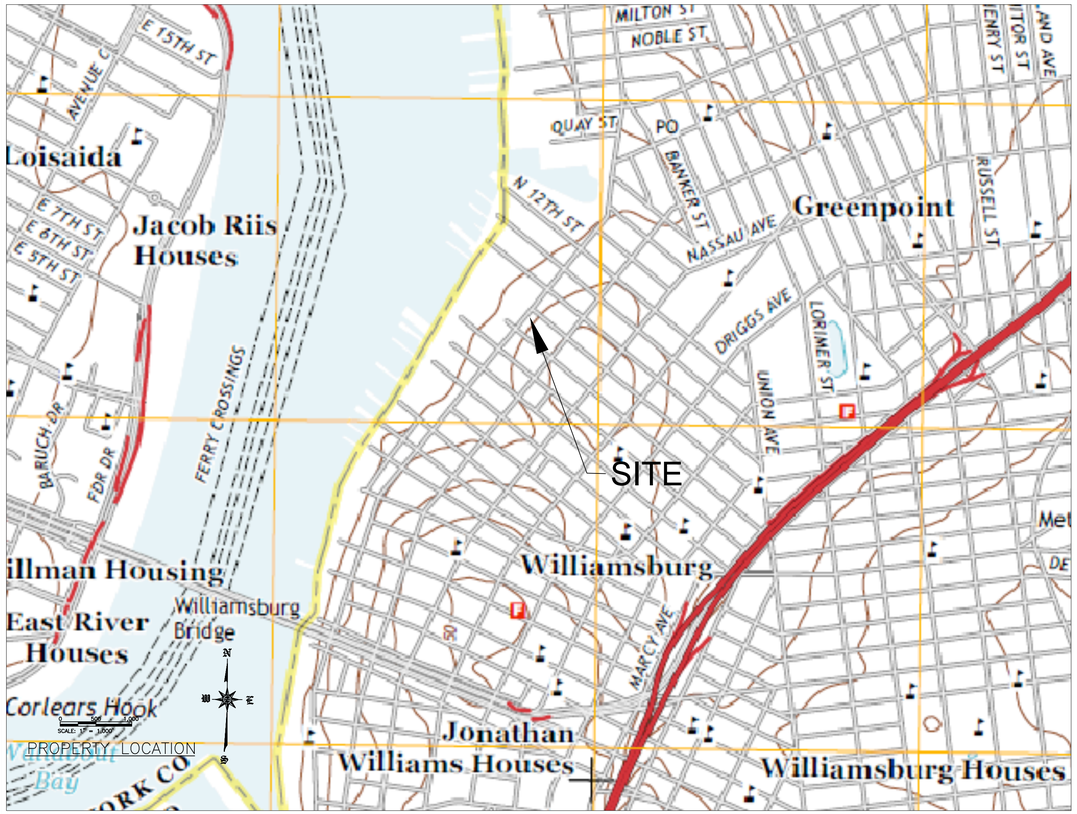


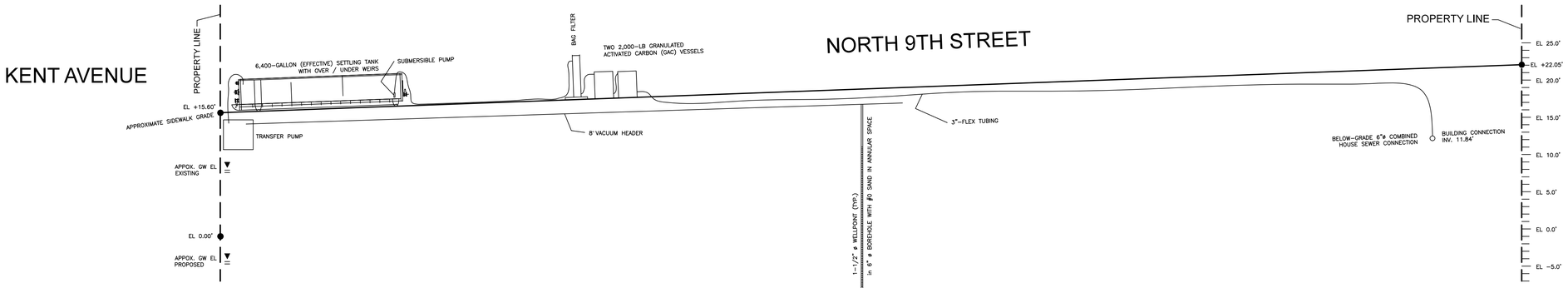
Matthew Carroll, P.E.
Environmental Engineer

Figure 1	Site Plan, Property Location and Dewatering Treatment Schematic
Figure 2	Soil and Groundwater Sample Locations
Tables 1 through 2	Analytical Results
Attachment 1	Lithologic Logs and Purge Logs
Attachment 2	Laboratory Deliverables

Figures



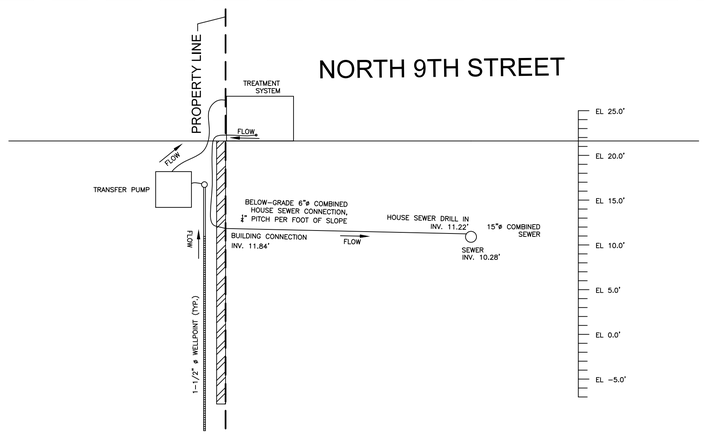




LOOKING NORTHEAST TO NORTH 9TH STREET

ALL ELEVATIONS ARE IN BROOKLYN HIGHWAY DATUM, WHICH IS 2.56 FEET ABOVE MEAN SEA LEVEL (U.S.C.&G.S., SANDY HOOK). BROOKLYN SEWER DATUM IS 1.72 FEET ABOVE MEAN SEA LEVEL (U.S.C.&G.S., SANDY HOOK)

SCALE: 1" = 8'
SCHEMATIC



LOOKING NORTHWEST TO KENT AVENUE

56 North 9th Street aka 87 Kent Avenue Block 2309, Lot 5 Brooklyn, NY

OWNER/APPLICANT:

Ronit Realty LLC
816 Avenue I
Brooklyn, NY 11230

ENVIRONMENTAL ENGINEER:

Matthew M. Carroll, P.E. & Tenen Environmental, LLC
121 West 27th Street, Suite 303
New York, NY 10001
646-606-2332

No.	Description	Date
7	LI WELL PERMIT	07/26/2016
6	BWSO RESUBMIT	06/02/2016
5	BWSO SUBMITTAL	05/09/2016
4	NYCDEP RESUBMIT	05/02/2016
3	NYCDEP RESUBMIT	04/14/2016
2	EQUIP SPEC	03/22/2016
1	NYCDEP REVIEW	03/11/2016

56 North 9th Street
aka 87 Kent Avenue
Brooklyn, New York

DRAWING TITLE:

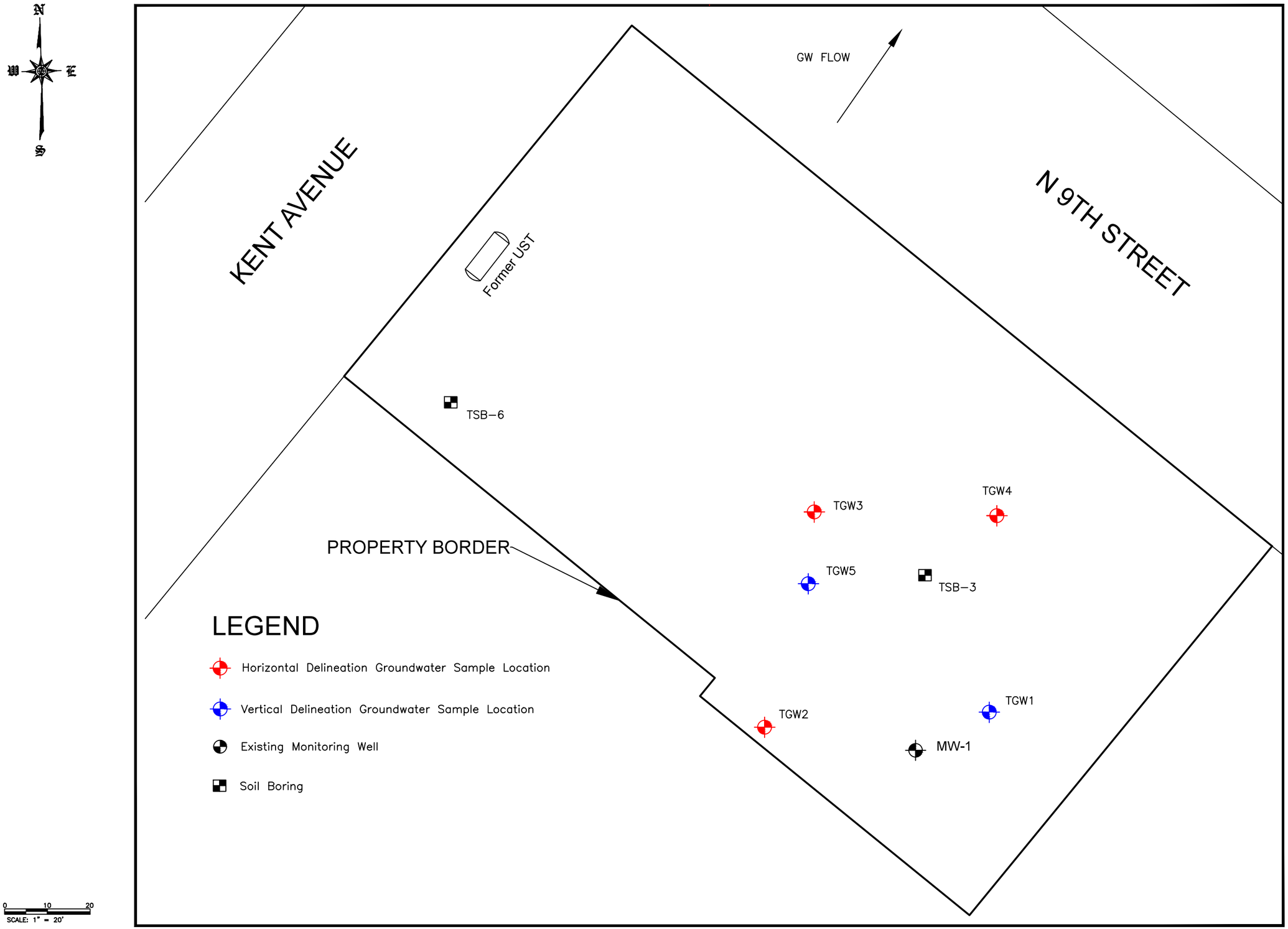
SITE PLAN, PROPERTY LOCATION AND DEWATERING TREATMENT SCHEMATIC

Seal & Signature

STATE OF NEW YORK · MATTHEW M. CARROLL · 091623 · LICENSED PROFESSIONAL ENGINEER

Date	07/26/16
Scale	AS NOTED
Drawn By	MC
Checked By	MM

FIGURE 1



CLIENT

87 KENT AVENUE
(56 N. 9TH STREET)
BROOKLYN, NY

CONSULTANT

TENEN ENVIRONMENTAL

TENEN ENVIRONMENTAL, LLC
121 West 27th Street
Suite 1004
New York, NY 10001
O: 646-606-2332
F: 646-606-2379

DRAWN BY	CHECKED BY	DATE	SCALE:
KM	MC	SEPTEMBER 2015	AS NOTED

DRAWING TITLE.
PRE-DESIGN
SAMPLE LOCATIONS

DRAWING NO.
FIGURE 2

Tables

Table 1: VOCs, Petroleum Hydrocarbons, Dissolved Metals, and Total Metals in Groundwater
87 Kent Avenue, Brooklyn, NY

SAMPLE ID:		TGW-1		TGW-2		TGW-3		TGW-4		TGW-1 (16/20)		MW-1		TRIP BLANK		MW-1 GRAB	
LAB ID:		L1516050-07		L1516153-01		L1516153-02		L1516153-03		L1516245-01		L1516245-02		L1516245-04		L1516248-01	
COLLECTION DATE:		7/13/15		7/14/2015		7/14/2015		7/14/2015		7/13/2015		7/15/2015		7/10/2015		7/15/2015	
Volatile Organics Units: µg/L	**NY-TOGS-GA**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Methylene chloride	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,1-Dichloroethane	5	14	U	7	U	7.5	J	35	U	14	U	70	U	0.7	U	NA	
Chloroform	7	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Carbon tetrachloride	5	2.7	U	1.3	U	0.67	U	6.7	U	2.7	U	13	U	0.13	U	NA	
1,2-Dichloropropane	1	2.7	U	1.3	U	0.66	U	6.6	U	2.7	U	13	U	0.13	U	NA	
Dibromochloromethane	50	3	U	1.5	U	0.74	U	7.4	U	3	U	15	U	0.15	U	NA	
1,1,2-Trichloroethane	1	10	U	5	U	2.5	U	29	J	10	U	50	U	0.5	U	NA	
Tetrachloroethene	5	3.6	U	1.8	U	0.9	U	9	U	3.6	U	18	U	0.18	U	NA	
Chlorobenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Trichlorofluoromethane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2-Dichloroethane	0.6	2.6	U	1.3	U	0.66	U	6.6	U	2.6	U	13	U	0.13	U	NA	
1,1,1-Trichloroethane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Bromodichloromethane	50	3.8	U	1.9	U	0.96	U	9.6	U	3.8	U	19	U	0.19	U	NA	
trans-1,3-Dichloropropene	0.4	3.3	U	1.6	U	0.82	U	8.2	U	3.3	U	16	U	0.16	U	NA	
cis-1,3-Dichloropropene	0.4	2.9	U	1.4	U	0.72	U	7.2	U	2.9	U	14	U	0.14	U	NA	
1,3-Dichloropropene, Total	NA	2.9	U	1.4	U	0.72	U	7.2	U	2.9	U	14	U	0.14	U	NA	
1,1-Dichloropropene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Bromoform	50	13	U	6.5	U	3.2	U	32	U	13	U	65	U	0.65	U	NA	
1,1,2,2-Tetrachloroethane	5	2.9	U	1.4	U	0.72	U	7.2	U	2.9	U	14	U	0.14	U	NA	
Benzene	1	3.2	U	1.6	U	0.8	U	8	U	3.2	U	16	U	0.16	U	NA	
Toluene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Ethylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Chloromethane	NA	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Bromomethane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Vinyl chloride	2	1.4	U	0.7	U	0.35	U	3.5	U	1.4	U	7	U	0.07	U	NA	
Chloroethane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,1-Dichloroethene	5	2.8	U	1.4	U	0.71	U	7.1	U	2.8	U	14	U	0.14	U	NA	
trans-1,2-Dichloroethene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Trichloroethene	5	2500		1600		540		5400		2700		9300		0.18	U	NA	
1,2-Dichlorobenzene	3	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,3-Dichlorobenzene	3	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,4-Dichlorobenzene	3	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Methyl tert butyl ether	10	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
p/m-Xylene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
o-Xylene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Xylenes, Total	NA	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
cis-1,2-Dichloroethene	5	77		350		9.2	J	35	U	61		70	U	0.7	U	NA	
1,2-Dichloroethene, Total	NA	77		350		9.2	J	35	U	61		70	U	0.7	U	NA	
Dibromomethane	5	20	U	10	U	5	U	50	U	20	U	100	U	1	U	NA	
1,2,3-Trichloropropane	0.04	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Acrylonitrile	5	30	U	15	U	7.5	U	75	U	30	U	150	U	1.5	U	NA	
Styrene	930	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Dichlorodifluoromethane	5	20	U	10	U	5	U	50	U	20	U	100	U	1	U	NA	
Acetone	50	42	J	20	J	9.3	J	110	J	56	J	260	J	1.5	U	NA	
Carbon disulfide	60	20	U	10	U	5	U	50	U	20	U	100	U	1	U	NA	
2-Butanone	50	39	U	19	J	9.7	U	140	J	54	J	250	J	1.9	U	NA	
Vinyl acetate	NA	20	U	10	U	5	U	50	U	20	U	100	U	1	U	NA	
4-Methyl-2-pentanone	NA	20	U	10	U	5	U	50	U	20	U	100	U	1	U	NA	
2-Hexanone	50	20	U	10	U	5	U	50	U	20	U	100	U	1	U	NA	
Bromochloromethane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
2,2-Dichloropropane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2-Dibromoethane	0.0006	13	U	6.5	U	3.2	U	32	U	13	U	65	U	0.65	U	NA	
1,3-Dichloropropane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,1,1,2-Tetrachloroethane	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Bromobenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
n-Butylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
sec-Butylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
tert-Butylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
o-Chlorotoluene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
p-Chlorotoluene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2-Dibromo-3-chloropropane	0.04	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Hexachlorobutadiene	0.5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	

Table 1: VOCs, Petroleum Hydrocarbons, Dissolved Metals, and Total Metals in Groundwater
87 Kent Avenue, Brooklyn, NY

SAMPLE ID:		TGW-1		TGW-2		TGW-3		TGW-4		TGW-1 (16/20)		MW-1		TRIP BLANK		MW-1 GRAB	
LAB ID:		L1516050-07		L1516153-01		L1516153-02		L1516153-03		L1516245-01		L1516245-02		L1516245-04		L1516248-01	
COLLECTION DATE:		7/13/15		7/14/2015		7/14/2015		7/14/2015		7/13/2015		7/15/2015		7/10/2015		7/15/2015	
Volatile Organics Units: µg/L	**NY-TOGS-GA**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Isopropylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
p-Isopropyltoluene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Naphthalene	10	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
n-Propylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2,3-Trichlorobenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2,4-Trichlorobenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,3,5-Trimethylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2,4-Trimethylbenzene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,4-Dioxane	NA	820	U	410	U	200	U	2000	U	820	U	4100	U	41	U	NA	
p-Diethylbenzene	NA	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
p-Ethyltoluene	NA	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
1,2,4,5-Tetramethylbenzene	5	13	U	6.5	U	3.2	U	32	U	13	U	65	U	0.65	U	NA	
Ethyl ether	NA	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
trans-1,4-Dichloro-2-butene	5	14	U	7	U	3.5	U	35	U	14	U	70	U	0.7	U	NA	
Total VOCs		2696	-	2339	-	575.2	-	5679	-	2932	-	9810	-	NA		NA	
Petroleum Hydrocarbon Identification Units: µg/L																	
Total Petroleum Hydrocarbons (C9-C44)	NA	NA		NA		NA		NA		NA		NA		NA		4470000	
Dissolved Metals Units: µg/L																	
Manganese, Dissolved	600	NA		NA		NA		NA		NA		3292		NA		NA	
Total Metals Units: µg/L																	
Iron, Total	600	NA		NA		NA		NA		NA		1960		NA		NA	
Manganese, Total	600	NA		NA		NA		NA		NA		5997		NA		NA	
General Chemistry Units: µg/L																	
Nitrogen, Nitrate	20000	NA		NA		NA		NA		NA		817		NA		NA	
Sulfate	500000	NA		NA		NA		NA		NA		320000		NA		NA	
BOD, 5 day	NA	NA		NA		NA		NA		NA		ND	NA	NA		NA	
Total Organic Carbon	NA	NA		NA		NA		NA		NA		25000		NA		NA	
Iron, Ferrous	600	NA		NA		NA		NA		NA		610		NA		NA	

NY-TOGS-GA= New York TOGS 111 Groundwater Effluent Limitations criteria reflects all addendum to criteria through June 2004
Cells highlighted in yellow indicate concentrations above the NY-TOGS-GA
Cells shaded in grey indicate MDL values above the NY-TOGS-GA
DUP = designation for duplicate sample
MDL = Maximum Detection Limit
RL = Reporting Limit
Qual = Laboratory Data Qualifier
For U qualified entries, the MDL is shown
U = not detected at or above the MDL
For J qualified entries, the estimated concentration is shown
J = estimated value, indicating the detected value is below the RL, but above the MDL
-- = No standard
NA = Not analyzed
Results and MDL values are in micrograms per liter (ug/l)

Table 2: Total Metals in Soil
87 Kent Avenue, Brooklyn, NY

SAMPLE ID: LAB ID: COLLECTION DATE:	Soil Cleanup Objectives (SCOs)		TSB-6 (15-16) L1516050-01 7/13/2015		TSB-6 (16-18) L1516050-02 7/13/2015		TSB-6 (18-20) L1516050-03 7/13/2015		TSB-3 (20-21) L1516050-04 7/13/2015		TSB-3 (21-23) L1516050-05 7/13/2015		TSB-3 (23-25) L1516050-06 7/13/2015	
Total Metals Units: mg/kg	**NY-RESR**	**NY-UNRES**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**	**Result**	**Qual**
Aluminum, Total	NA	NA	8600		3600		5800		5000		4200		2200	
Antimony, Total	NA	NA	0.73	U	0.72	U	0.7	U	0.76	U	0.69	U	0.74	U
Arsenic, Total	16	13	0.18	U	0.18	U	0.17	U	0.95	U	0.17	U	0.92	U
Barium, Total	350	350	70		24		31		31		32		29	
Beryllium, Total	14	7.2	0.51		0.19	J	0.22	J	0.44	J	0.38	J	0.18	J
Cadmium, Total	2.5	2.5	0.06	U	0.06	U	0.06	U	0.07	U	0.06	U	0.07	U
Calcium, Total	NA	NA	1400		930		630		840		1000		900	
Chromium, Total	NA	NA	26		16		10		20		15		9.8	
Cobalt, Total	30	NA	10		3.6		3.8		9.1		7		5.4	
Copper, Total	270	50	23		11		5.4		19		16		12	
Iron, Total	2000	NA	28000		10000		6900		21000		16000		18000	
Lead, Total	400	63	20		5		4.3	J	10		10		8.1	
Magnesium, Total	NA	NA	2900		1500		1100		1700		2000		840	
Manganese, Total	2000	1600	510		240		90		380		170		330	
Mercury, Total	0.81	0.18	0.07	J	0.02	U	0.02	U	0.02	U	0.003	U	0.02	U
Nickel, Total	140	30	14		9.1		9.4		17		10		6.1	
Potassium, Total	NA	NA	2400		580		340		1000		870		400	
Selenium, Total	36	3.9	0.28	U	0.27	U	0.26	U	0.28	U	0.26	U	0.28	U
Silver, Total	36	2	0.18	U	0.18	U	0.17	U	0.19	U	0.17	U	0.18	U
Sodium, Total	NA	NA	55	J	64	J	46	J	68	J	85	J	82	J
Thallium, Total	NA	NA	ND	0.37	0.36	U	0.35	U	0.38	U	0.34	U	0.37	U
Vanadium, Total	100	NA	37		22		11		31		33		32	
Zinc, Total	2200	109	72		15		16		31		32		20	
General Chemistry Units: mg/kg														
Solids, Total	NA	NA	82.9	NA	85.1	NA	89	NA	82.8	NA	87.8	NA	83.4	NA

*NY-RESR: Residential Criteria, New York Restricted use current as of 5/2007

*NY-UNRES: New York Unrestricted use Criteria current as of 5/2007

Attachment 1
Lithologic Logs and Purge Logs

TENEN ENVIRONMENTAL

		Boring No.	**TSB-3**
		Sheet 1	**of 1**
Site:	**87 Kent Avenue - Brooklyn, NY**	**Drilling Method:**	Geoprobe
Date:	**7/13/15**	**Soil Sampling Method:**	Acetate liners
Weather:	**Clear, 90 degress F**		
Observer:	**Matthew Carroll, Kristen Meisner**	**Driller :**	Zebra Environmental

Depth (feet)	PID Reading (ppm)	Soil Recovery	Soil Samples	Soil Description
15				
16	13.4			15-17.5: Purple sand and silt
17				
18	10.8	100%		17.5-20: Brown and black sand and silt
19				
20	42.2			
21	6.0		TSB-3 (20-21)	20-25: Brown and red sand and clay with layers of black silt
22				
23	3.0	100%	TSB-3 (21-23)	
24				
25			TSB-3 (23-25)	
26				25-26.5: SAA
27				
28		100%		26.5-30: Black silt.
29				
30				
31				EOB: 30 ft-bg

Notes:

N/A - Not Applicable
SAA - Same as above
EOB - End of Boring
ft-bg - Feet Below Grade
PID - Photoionization Detector
DTW = Depth to Water
GW = Groundwater

TENEN ENVIRONMENTAL

		Boring No.	**TSB-6**
		Sheet 1	**of 1**
Site:	**87 Kent Avenue - Brooklyn, NY**	**Drilling Method:**	Geoprobe
Date:	**7/13/15**	**Soil Sampling Method:**	Acetate liners
Weather:	**Clear, 90 degress F**		
Observer:	**Matthew Carroll, Kristen Meisner**	**Driller :**	Zebra Environmental

Depth (feet)	PID Reading (ppm)	Soil Recovery	Soil Samples	Soil Description
10				
11 – 15	1.1	45%		10-15: Brown and black sand and silt and ash
16		100%	TSB-6 (15-16)	15-19: Brown and black medium & coarse sand and silt
17 – 18			TSB-6 (16-18)	
19 – 20			TSB-6 (18-20)	19-20: Clay
21 – 25				EOB: 20 ft-bg due to refusal.
26 – 30				
31				

Notes:

First attempt hit refusal at 6 ft below

N/A - Not Applicable
SAA - Same as above

EOB - End of Boring
ft-bg - Feet Below Grade

PID - Photoionization Detector

DTW = Depth to Water
GW = Groundwater

GROUNDWATER SAMPLING LOG

Site Name	87 Kent Avenue	Date	7/15/15
Well No.	MW-1	Sample ID	MW-1

Well Diameter	4 inches	Depth to Water	ft-bg
Well Screen Interval	10 ft-bg	TOC Elevation	USGS NGVD 1929 Datum
Headspace PID	0.0 ppm	GW Elevation	USGS NGVD 1929 Datum
Weather	Clear, 90 degrees F		

Pump	Peristaltic
Water Quality Meter	Horiba U52
Total Volume Purged	5 gallons

Time	Temperature deg-C	pH SU	ORP mV	Conductivity mS/cm	Turbidity NTU	Dissolved Oxygen mg/L	Total Dissolved Solids ppm
0840	16.01	4.93	103	1.14	86.9	1.20	0.730
0850	15.78	4.81	105	1.09	102.0	0.84	0.701
0900	15.66	4.86	106	1.09	+	1.97	0.695
0905	15.62	4.87	100	1.06	39.6	2.88	0.679
0915	15.73	4.91	95	1.01	16.7	2.90	0.619

Notes:

NAPL detected- grab sample taken (MW-1 GRAB)
Low recovery
+ = unstabilized
At 0900, tubing was moved up due to clogging at bottom
At 0905, well began to dry up. Waited 10 minutes to recharge

GROUNDWATER SAMPLING LOG

Site Name	87 Kent Avenue	Date	7/14/15
Well No.	TGW-2	Sample ID	TGW-2

Well Diameter	2 inches	Depth to Water	17.24 ft-bg
Well Screen Interval	10 ft-bg	TOC Elevation	20 USGS NGVD 1929 Datum
Headspace PID	0.0 ppm	GW Elevation	2.76 USGS NGVD 1929 Datum
Weather	Clear, 90 degrees F		

Pump	Peristaltic
Water Quality Meter	Horiba U52
Total Volume Purged	4 gallons

Time	Temperature deg-C	pH SU	ORP mV	Conductivity mS/cm	Turbidity NTU	Dissolved Oxygen mg/L	Total Dissolved Solids ppm
0910	19.9	5.73	-25	1.13	+	4.4	0.723
0920	19.49	5.67	-39	1.14	+	3.73	0.729
0925	19.35	5.61	-53	1.14	423.0	4.04	0.726
0930	19.29	5.53	-66	1.13	104.0	3.97	0.726
0935	19.24	5.51	-68	1.13	55.6	3.92	0.726
0940	19.24	5.49	-69	1.13	45.9	3.88	0.724

Notes: No odor, no sheen.
+ = unstabilized

GROUNDWATER SAMPLING LOG

Site Name	87 Kent Avenue	Date	7/14/15
Well No.	TGW-3	Sample ID	TGW-3

Well Diameter	2 inches	Depth to Water	18.46 ft-bg
Well Screen Interval	10 ft-bg	TOC Elevation	20 USGS NGVD 1929 Datum
Headspace PID	0.0 ppm	GW Elevation	1.54 USGS NGVD 1929 Datum
Weather	Clear, 90 degrees F		

Pump	Peristaltic
Water Quality Meter	Horiba U52
Total Volume Purged	2 gallons

Time	Temperature deg-C	pH SU	ORP mV	Conductivity mS/cm	Turbidity NTU	Dissolved Oxygen mg/L	Total Dissolved Solids ppm
1025	18.73	5.74	-73	1.44	237.0	7.80	0.920
1030	18.16	5.70	-76	1.44	132.0	7.78	0.920
1035	17.71	5.64	-80	1.44	53.9	7.82	0.919
1040	17.41	5.59	-80	1.43	28.6	7.99	0.919

Notes: Sheen and odor
Low recovery

GROUNDWATER SAMPLING LOG

Site Name	87 Kent Avenue	Date	7/14/15
Well No.	TGW-4	Sample ID	TGW-4

Well Diameter	2 inches	Depth to Water	19.1 ft-bg
Well Screen Interval	10 ft-bg	TOC Elevation	20 USGS NGVD 1929 Datum
Headspace PID	0.0 ppm	GW Elevation	0.9 USGS NGVD 1929 Datum
Weather	Clear, 90 degrees F		

Pump	Peristaltic
Water Quality Meter	Horiba U52
Total Volume Purged	2 gallons

Time	Temperature deg-C	pH SU	ORP mV	Conductivity mS/cm	Turbidity NTU	Dissolved Oxygen mg/L	Total Dissolved Solids ppm
1105	17.03	5.50	-23	1.11	90.0	6.39	0.707
1110	16.60	5.49	-26	1.10	11.5	6.59	0.704
1115	16.40	5.48	-30	1.09	4.20	7.77	0.699

Notes: No sheen, no odor
Low recovery

Attachment 2
Laboratory Deliverables

ANALYTICAL REPORT

Lab Number:	L1506337
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 1004 New York City, NY
ATTN:	Matt Carroll
Phone:	(646) 606-2332
Project Name:	87 KENT AVENUE
Project Number:	87 KENT
Report Date:	04/07/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1506337-01	MW-1	WATER	BROOKLYN, NY	03/31/15 10:00	03/31/15

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	87 KENT AVENUE	**Lab Number:**	L1506337
Project Number:	87 KENT	**Report Date:**	04/07/15

Case Narrative (continued)

Report Submission

The field pH result (6.42) and temperature (9.7C) were determined by field sampling personnel.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1506337-01 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

The WG774006-1 LCS recovery for benzene (119%), associated with L1506337-01, is outside Alpha's acceptance criteria, but within the acceptance criteria specified in the method.

Metals

The WG772844-4 MS recoveries, performed on L1506337-01, are outside the acceptance criteria for cadmium (126%) and copper (131%). A post digestion spike was performed and yielded unacceptable recoveries for cadmium (124%) and copper (121%). This has been attributed to sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 04/07/15

ORGANICS

VOLATILES

Project Name: 87 KENT AVENUE
Lab Number: L1506337
Project Number: 87 KENT
Report Date: 04/07/15

SAMPLE RESULTS

Lab ID: L1506337-01 D
Client ID: MW-1
Sample Location: BROOKLYN, NY
Matrix: Water
Analytical Method: 5,624
Analytical Date: 04/06/15 14:11
Analyst: GT

Date Collected: 03/31/15 10:00
Date Received: 03/31/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Chloroform	ND		ug/l	60	12.	40
Carbon tetrachloride	ND		ug/l	40	13.	40
Tetrachloroethene	ND		ug/l	60	15.	40
1,1,1-Trichloroethane	ND		ug/l	80	12.	40
Benzene	ND		ug/l	40	12.	40
Toluene	ND		ug/l	40	14.	40
Ethylbenzene	ND		ug/l	40	13.	40
1,4-Dichlorobenzene	ND		ug/l	200	34.	40
p/m-Xylene	ND		ug/l	80	27.	40
o-Xylene	ND		ug/l	40	12.	40
Xylene (Total)	ND		ug/l	40	12.	40
Methyl tert butyl ether	ND		ug/l	400	23.	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		80-120
Fluorobenzene	102		80-120
4-Bromofluorobenzene	102		80-120

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,624
Analytical Date: 04/06/15 11:41
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG774006-2					
Chloroform	ND		ug/l	1.5	0.29
Carbon tetrachloride	ND		ug/l	1.0	0.33
Tetrachloroethene	ND		ug/l	1.5	0.38
1,1,1-Trichloroethane	ND		ug/l	2.0	0.30
Benzene	ND		ug/l	1.0	0.31
Toluene	ND		ug/l	1.0	0.35
Ethylbenzene	ND		ug/l	1.0	0.33
1,4-Dichlorobenzene	ND		ug/l	5.0	0.85
p/m-Xylene	ND		ug/l	2.0	0.66
o-Xylene	ND		ug/l	1.0	0.30
Xylene (Total)	ND		ug/l	1.0	0.30
Methyl tert butyl ether	ND		ug/l	10	0.58

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	104		80-120
Fluorobenzene	103		80-120
4-Bromofluorobenzene	98		80-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG774006-1								
Chloroform	101		-		86-111	-		30
Carbon tetrachloride	106		-		60-112	-		30
Tetrachloroethene	100		-		80-126	-		30
1,1,1-Trichloroethane	105		-		72-109	-		30
Benzene	**119**	Q	-		84-116	-		30
Toluene	103		-		83-121	-		30
Ethylbenzene	106		-		84-123	-		30
1,4-Dichlorobenzene	102		-		77-125	-		30
p/m-Xylene	106		-		81-121	-		30
o-Xylene	103		-		81-124	-		30
Methyl tert butyl ether	97		-		57-126	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	107				80-120
Fluorobenzene	120				80-120
4-Bromofluorobenzene	101				80-120

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG774006-4 QC Sample: L1506337-01 Client ID: MW-1												
Chloroform	ND	800	830	103		-	-		86-111	-		30
Carbon tetrachloride	ND	800	850	106		-	-		60-112	-		30
Tetrachloroethene	ND	800	780	98		-	-		80-126	-		30
1,1,1-Trichloroethane	ND	800	800	100		-	-		72-109	-		30
Benzene	ND	800	850	107		-	-		84-116	-		30
Toluene	ND	800	800	100		-	-		83-121	-		30
Ethylbenzene	ND	800	850	106		-	-		84-123	-		30
1,4-Dichlorobenzene	ND	800	810	102		-	-		77-125	-		30
p/m-Xylene	ND	1600	1600	104		-	-		81-121	-		30
o-Xylene	ND	800	790	99		-	-		81-124	-		30
Methyl tert butyl ether	ND	800	760	95		-	-		57-126	-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	99				80-120
Fluorobenzene	105				80-120
Pentafluorobenzene	98				80-120

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG774006-3 QC Sample: L1506337-01 Client ID: MW-1						
Chloroform	ND	ND	ug/l	NC		30
Carbon tetrachloride	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
1,1,1-Trichloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30
Toluene	ND	ND	ug/l	NC		30
Ethylbenzene	ND	ND	ug/l	NC		30
1,4-Dichlorobenzene	ND	ND	ug/l	NC		30
p/m-Xylene	ND	ND	ug/l	NC		30
o-Xylene	ND	ND	ug/l	NC		30
Xylene (Total)	ND	ND	ug/l	NC		30
Methyl tert butyl ether	ND	ND	ug/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		101		80-120
Fluorobenzene	102		103		80-120
4-Bromofluorobenzene	102		103		80-120

SEMIVOLATILES

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

SAMPLE RESULTS

Lab ID:	L1506337-01	Date Collected:	03/31/15 10:00
Client ID:	MW-1	Date Received:	03/31/15
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 625
Analytical Method:	5,625	Extraction Date:	04/03/15 02:25
Analytical Date:	04/05/15 22:04		
Analyst:	JB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.21	1
Naphthalene	ND		ug/l	5.0	0.33	1
Phenol	ND		ug/l	7.0	0.27	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	26		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	99		43-120
2,4,6-Tribromophenol	117		10-120
4-Terphenyl-d14	**122**	Q	33-120

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,625
Analytical Date: 04/05/15 19:45
Analyst: JB

Extraction Method: EPA 625
Extraction Date: 04/03/15 02:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG773146-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.21
Naphthalene	ND		ug/l	5.0	0.33
Phenol	ND		ug/l	7.0	0.27

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		21-120
Phenol-d6	22		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	88		43-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	98		33-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT

Lab Number: L1506337

Report Date: 04/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG773146-2								
1,2,4-Trichlorobenzene	68		-		39-98	-		30
Naphthalene	74		-		40-140	-		30
Phenol	26		-		12-110	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	34				21-120
Phenol-d6	24				10-120
Nitrobenzene-d5	78				23-120
2-Fluorobiphenyl	88				43-120
2,4,6-Tribromophenol	97				10-120
4-Terphenyl-d14	106				33-120

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG773146-3 QC Sample: L1506338-01 Client ID: MS Sample												
1,2,4-Trichlorobenzene	ND	40	33	83		-	-		39-98	-		30
Naphthalene	ND	40	34	85		-	-		40-140	-		30
Phenol	ND	40	12	30		-	-		12-110	-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	113				10-120
2-Fluorobiphenyl	96				43-120
2-Fluorophenol	37				21-120
4-Terphenyl-d14	106				33-120
Nitrobenzene-d5	83				23-120
Phenol-d6	27				10-120

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG773146-4		QC Sample: L1506337-01		Client ID: MW-1
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC		30
Naphthalene	ND	ND	ug/l	NC		30
Phenol	ND	ND	ug/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		42		21-120
Phenol-d6	26		28		10-120
Nitrobenzene-d5	82		95		23-120
2-Fluorobiphenyl	99		107		43-120
2,4,6-Tribromophenol	**117**		**125**	Q	10-120
4-Terphenyl-d14	**122**	Q	**123**	Q	33-120

PCBS

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

SAMPLE RESULTS

Lab ID:	L1506337-01	Date Collected:	03/31/15 10:00
Client ID:	MW-1	Date Received:	03/31/15
Sample Location:	BROOKLYN, NY	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 608
Analytical Method:	5,608	Extraction Date:	04/02/15 08:22
Analytical Date:	04/06/15 14:17	Cleanup Method:	EPA 3665A
Analyst:	JT	Cleanup Date:	04/02/15
		Cleanup Method:	EPA 3660B
		Cleanup Date:	04/02/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.050	0.021	1	B
Aroclor 1221	ND		ug/l	0.050	0.028	1	B
Aroclor 1232	ND		ug/l	0.050	0.012	1	B
Aroclor 1242	ND		ug/l	0.050	0.014	1	B
Aroclor 1248	ND		ug/l	0.050	0.014	1	B
Aroclor 1254	ND		ug/l	0.050	0.022	1	B
Aroclor 1260	ND		ug/l	0.050	0.023	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	41		30-150	B

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 04/03/15 14:45
Analyst: JT

Extraction Method: EPA 608
Extraction Date: 04/02/15 08:22
Cleanup Method: EPA 3665A
Cleanup Date: 04/02/15
Cleanup Method: EPA 3660B
Cleanup Date: 04/02/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG772854-1						
Aroclor 1016	ND		ug/l	0.050	0.021	B
Aroclor 1221	ND		ug/l	0.050	0.028	B
Aroclor 1232	ND		ug/l	0.050	0.012	B
Aroclor 1242	ND		ug/l	0.050	0.014	B
Aroclor 1248	ND		ug/l	0.050	0.014	B
Aroclor 1254	ND		ug/l	0.050	0.022	B
Aroclor 1260	ND		ug/l	0.050	0.023	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	97		30-150	B

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772854-3 QC Sample: L1506203-01 Client ID: MS Sample													
Aroclor 1016	ND	0.529	0.117	**22**	Q	-	-		40-126	-		30	B
Aroclor 1260	ND	0.529	0.090	**17**	Q	-	-		40-127	-		30	B

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	**26**	Q			30-150	B
Decachlorobiphenyl	**21**	Q			30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT

Lab Number: L1506337

Report Date: 04/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG772854-2									
Aroclor 1016	58		-		40-126	-		30	B
Aroclor 1260	70		-		40-127	-		30	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51				30-150	B
Decachlorobiphenyl	79				30-150	B

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772854-4 QC Sample: L1506325-01 Client ID: DUP Sample							
Aroclor 1016	ND	ND	ug/l	NC		30	B
Aroclor 1221	ND	ND	ug/l	NC		30	B
Aroclor 1232	ND	ND	ug/l	NC		30	B
Aroclor 1242	ND	ND	ug/l	NC		30	B
Aroclor 1248	ND	ND	ug/l	NC		30	B
Aroclor 1254	ND	ND	ug/l	NC		30	B
Aroclor 1260	ND	ND	ug/l	NC		30	B
PCBs, Total	ND	ND	ug/l	NC		30	B

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		65		30-150	B
Decachlorobiphenyl	34		44		30-150	B

METALS

Project Name: 87 KENT AVENUE
Lab Number: L1506337
Project Number: 87 KENT
Report Date: 04/07/15

SAMPLE RESULTS

Lab ID: L1506337-01
Client ID: MW-1
Sample Location: BROOKLYN, NY
Matrix: Water
Date Collected: 03/31/15 10:00
Date Received: 03/31/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/02/15 10:07	04/07/15 09:49	EPA 3005A	19,200.7	JH
Copper, Total	0.007	J	mg/l	0.010	0.002	1	04/02/15 10:07	04/07/15 09:49	EPA 3005A	19,200.7	JH
Lead, Total	0.005	J	mg/l	0.010	0.002	1	04/02/15 10:07	04/07/15 09:49	EPA 3005A	19,200.7	JH
Mercury, Total	0.00013	J	mg/l	0.00020	0.00006	1	04/01/15 13:40	04/01/15 15:38	EPA 245.1	3,245.1	MC
Nickel, Total	0.0090	J	mg/l	0.025	0.004	1	04/02/15 10:07	04/07/15 09:49	EPA 3005A	19,200.7	JH
Zinc, Total	0.019	J	mg/l	0.050	0.007	1	04/02/15 10:07	04/07/15 09:49	EPA 3005A	19,200.7	JH

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG772630-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	04/01/15 13:40	04/01/15 16:43	3,245.1	MC

Prep Information

Digestion Method: EPA 245.1

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG772844-1										
Cadmium, Total	ND		mg/l	0.005	0.001	1	04/02/15 10:07	04/07/15 09:42	19,200.7	JH
Copper, Total	ND		mg/l	0.010	0.002	1	04/02/15 10:07	04/07/15 09:42	19,200.7	JH
Lead, Total	ND		mg/l	0.010	0.002	1	04/02/15 10:07	04/07/15 09:42	19,200.7	JH
Nickel, Total	ND		mg/l	0.025	0.004	1	04/02/15 10:07	04/07/15 09:42	19,200.7	JH
Zinc, Total	ND		mg/l	0.050	0.007	1	04/02/15 10:07	04/07/15 09:42	19,200.7	JH

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT

Lab Number: L1506337

Report Date: 04/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG772630-2								
Mercury, Total	91		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG772844-2								
Cadmium, Total	114		-		85-115	-		
Copper, Total	103		-		85-115	-		
Lead, Total	113		-		85-115	-		
Nickel, Total	103		-		85-115	-		
Zinc, Total	106		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772630-4 QC Sample: L1506288-01 Client ID: MS Sample												
Mercury, Total	0.00007J	0.005	0.00555	111		-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772844-4 QC Sample: L1506337-01 Client ID: MW-1												
Cadmium, Total	ND	0.051	0.064	**126**	Q	-	-		75-125	-		20
Copper, Total	0.007J	0.25	0.327	**131**	Q	-	-		75-125	-		20
Lead, Total	0.005J	0.51	0.635	124		-	-		75-125	-		20
Nickel, Total	0.0090J	0.5	0.571	114		-	-		75-125	-		20
Zinc, Total	0.019J	0.5	0.612	122		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772630-3 QC Sample: L1506288-01 Client ID: DUP Sample						
Mercury, Total	0.00007J	0.00007J	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772844-3 QC Sample: L1506337-01 Client ID: MW-1						
Cadmium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.007J	0.008J	mg/l	NC		20
Lead, Total	0.005J	0.005J	mg/l	NC		20
Nickel, Total	0.0090J	0.009J	mg/l	NC		20
Zinc, Total	0.019J	0.021J	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

SAMPLE RESULTS

Lab ID: L1506337-01
Client ID: MW-1
Sample Location: BROOKLYN, NY
Matrix: Water

Date Collected: 03/31/15 10:00
Date Received: 03/31/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	710		mg/l	10	NA	1	-	04/01/15 11:40	30,2540B	DW
Solids, Total Suspended	61.		mg/l	5.0	NA	1	-	04/01/15 08:45	30,2540D	DW
Chloride	41.		mg/l	1.0	0.20	1	-	04/01/15 09:43	30,4500CL-E	LA
pH (H)	6.4		SU	-	NA	1	-	04/01/15 03:00	30,4500H+-B	LH
Nitrogen, Nitrate/Nitrite	1.3		mg/l	0.10	0.019	1	-	04/02/15 00:52	44,353.2	DE
Total Nitrogen	1.9		mg/l	0.30	0.30	1	-	04/06/15 10:41	41,-	JO
Nitrogen, Total Kjeldahl	0.628		mg/l	0.300	0.093	1	04/02/15 20:00	04/03/15 21:40	30,4500N-C	AT
CBOD, 5 day	ND		mg/l	2.0	NA	1	04/01/15 22:30	04/06/15 16:45	30,5210B	RP
Non-Polar Material by EPA 1664	ND		mg/l	4.00	1.24	1	04/01/15 18:30	04/02/15 00:30	74,1664A	KE
Flash Point	>150		deg F	70	NA	1	-	04/06/15 09:40	1,1010A	MP
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/01/15 01:35	04/01/15 01:54	30,3500CR-B	LH

Project Name: 87 KENT AVENUE
Project Number: 87 KENT
Lab Number: L1506337
Report Date: 04/07/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772448-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	04/01/15 01:35	04/01/15 01:54	30,3500CR-B	LH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772503-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	04/01/15 08:45	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772504-1										
Solids, Total	ND		mg/l	10	NA	1	-	04/01/15 11:40	30,2540B	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772524-1										
Chloride	ND		mg/l	1.0	0.20	1	-	04/01/15 09:34	30,4500CL-E	LA
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772716-1										
Non-Polar Material by EPA 1664	ND		mg/l	4.00	1.24	1	04/01/15 18:30	04/02/15 00:30	74,1664A	KE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772741-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.019	1	-	04/01/15 23:34	44,353.2	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG772745-1										
CBOD, 5 day	ND		mg/l	2.0	NA	1	04/01/15 22:30	04/06/15 16:45	30,5210B	RP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG773107-1										
Nitrogen, Total Kjeldahl	0.148	J	mg/l	0.300	0.031	1	04/02/15 20:00	04/03/15 21:25	30,4500N-C	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772448-2								
Chromium, Hexavalent	98		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772459-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772504-2								
Solids, Total	95		-		81-113	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772524-2								
Chloride	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772716-2								
Non-Polar Material by EPA 1664	75		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772741-2								
Nitrogen, Nitrate/Nitrite	103		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG772745-2								
CBOD, 5 day	76		-		47-104	-		49

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT

Lab Number: L1506337

Report Date: 04/07/15

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG773107-2					
Nitrogen, Total Kjeldahl	95	-	78-122	-	
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG773705-1					
Flash Point	100	-		-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772448-4 QC Sample: L1506337-01 Client ID: MW-1												
Chromium, Hexavalent	ND	0.1	0.101	101		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772524-4 QC Sample: L1506282-02 Client ID: MS Sample												
Chloride	40.	20	58	90		-	-		58-140	-		7
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772716-4 QC Sample: L1506337-01 Client ID: MW-1												
Non-Polar Material by EPA 1664	ND	20.4	15.8	77		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772741-4 QC Sample: L1506379-01 Client ID: MS Sample												
Nitrogen, Nitrate/Nitrite	1.2	4	5.4	103		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772745-4 QC Sample: L1506337-01 Client ID: MW-1												
CBOD, 5 day	ND	100	75	75		-	-		36-125	-		49
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG773107-4 QC Sample: L1506304-02 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	0.639	8	8.66	100		-	-		77-111	-		24

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772448-3 QC Sample: L1506337-01 Client ID: MW-1						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772459-2 QC Sample: L1506337-01 Client ID: MW-1						
pH (H)	6.4	6.4	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772503-2 QC Sample: L1506282-01 Client ID: DUP Sample						
Solids, Total Suspended	190	190	mg/l	0		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772504-3 QC Sample: L1506282-01 Client ID: DUP Sample						
Solids, Total	1200	820	mg/l	**38**	Q	16
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772524-3 QC Sample: L1506282-02 Client ID: DUP Sample						
Chloride	40.	40	mg/l	0		7
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772716-3 QC Sample: L1506338-01 Client ID: DUP Sample						
Non-Polar Material by EPA 1664	2.14J	2.04J	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772741-3 QC Sample: L1506379-01 Client ID: DUP Sample						
Nitrogen, Nitrate/Nitrite	1.2	1.3	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG772745-3 QC Sample: L1506414-02 Client ID: DUP Sample						
CBOD, 5 day	150	140	mg/l	7		49
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG773107-3 QC Sample: L1506304-02 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	0.639	0.708	mg/l	10		24

Project Name: 87 KENT AVENUE
Project Number: 87 KENT

Lab Number: L1506337
Report Date: 04/07/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1506337-01A	Vial Na2S2O3 preserved	A	N/A	3.7	Y	Absent	624-NYDEP(3)
L1506337-01B	Vial Na2S2O3 preserved	A	N/A	3.7	Y	Absent	624-NYDEP(3)
L1506337-01C	Vial Na2S2O3 preserved	A	N/A	3.7	Y	Absent	624-NYDEP(3)
L1506337-01D	Plastic 250ml HNO3 preserved	A	<2	3.7	Y	Absent	NI-UI(180),ZN-UI(180),HG-U(28),CD-UI(180),CU-UI(180),PB-UI(180)
L1506337-01E	Plastic 250ml H2SO4 preserved	A	<2	3.7	Y	Absent	TKN-4500(28),NO3/NO2-353(28),TNITROGEN(28)
L1506337-01F	Plastic 950ml unpreserved	A	7	3.7	Y	Absent	TSC-2540(7),CL-4500(28),CBOD5(2)
L1506337-01G	Plastic 950ml unpreserved	A	7	3.7	Y	Absent	TSS-2540(7)
L1506337-01H	Plastic 950ml unpreserved	A	7	3.7	Y	Absent	HEXCR-3500(1),PH-4500(.01)
L1506337-01I	Amber 1000ml Na2S2O3	A	7	3.7	Y	Absent	NYPCB-608-2L(7)
L1506337-01J	Amber 1000ml Na2S2O3	A	7	3.7	Y	Absent	NYPCB-608-2L(7)
L1506337-01K	Amber 1000ml Na2S2O3	A	7	3.7	Y	Absent	625-NYDEP(7)
L1506337-01L	Amber 1000ml Na2S2O3	A	7	3.7	Y	Absent	625-NYDEP(7)
L1506337-01M	Amber 1000ml HCl preserved	A	N/A	3.7	Y	Absent	NYTPH-1664(28)
L1506337-01N	Amber 1000ml HCl preserved	A	N/A	3.7	Y	Absent	NYTPH-1664(28)
L1506337-01O	Amber 500ml unpreserved	A	7	3.7	Y	Absent	FLASH()

*Values in parentheses indicate holding time in days

Project Name:	87 KENT AVENUE	**Lab Number:**	L1506337
Project Number:	87 KENT	**Report Date:**	04/07/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1506337
Project Number:	87 KENT	**Report Date:**	04/07/15

Data Qualifiers

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1506337
Project Number:	87 KENT	**Report Date:**	04/07/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

41 Alpha Analytical Labs Internally-developed Performance-based Method.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4-1-15

ALPHA Job #: L1506337

Client Information

Client: Tenen Environmental
Address: 121 West 27th Street Suite 1004, NY, NY 10001
Phone: 646-606-2332
Fax:
Email: mcarroll@tenen-env.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: 87 Kent Avenue
Project Location: Brooklyn, NY
Project #: 87 Kent
Project Manager: Matt Carroll
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: 4-7-15 Time:

Report Information Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
NYC Sanitary and Combined Sewer Discharge	NYC-SEWER

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
Please see attached list.
PCB reporting limit must be 65ppt. See attached list.
Final pH and temp readings are 6.42 and 9.736 please incorporate these readings in the Lab report.

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC 624 (See Attached List)	Total Metals (See Attached List)	Chloride, CBOD, Total Solids	Total Suspended Solids	pH, HexChrom	Non Polar Material - 1664	TKN, NO3/NO2	ABN 625 (See Attached List)	PCB 608 - Must acheve 65ppt RL	Flash Point			Sample Specific Comments	TOTAL # BOTTLES
06337-01	MW-1	3-31	10:00	Water	MA	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐		16
	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
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						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	V	P	P	P	P	A	P	A	A	A	-	-		
					Preservative	H	C	A	A	A	B	D	H	H	-	-	-		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

FORM NO: 01-01(I) (rev. 30-JUL-07)

Relinquished By:	Date/Time	Received By:	Date/Time
Mohamed Ahmed	3/31/15 1700	[illegible] (AAL)	3/31/15 1700
[illegible]	3/31/15 1900	Tom [illegible]	3-31-15 1900
Tom [illegible]	~~3-31-15~~ 4-1-15 0015	[illegible]	4-1-15 0015

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

TABLE A

LIMITATIONS FOR EFFLUENT TO ***SANITARY OR COMBINED*** SEWERS

Parameter[1]	Daily Limit	Units	Sample Type	Monthly Limit
Non-polar material[2]	50	mg/l	Instantaneous	---
pH	5-11	SU's	Instantaneous	---
Temperature	< 150	Degree F	Instantaneous	---
Flash Point	> 140	Degree F	Instantaneous	---
Cadmium	2 0.69	mg/l mg/l	Instantaneous Composite	--- ---
Chromium (VI)	5	mg/l	Instantaneous	---
Copper	5	mg/l	Instantaneous	---
Lead	2	mg/l	Instantaneous	---
Mercury	0.05	mg/l	Instantaneous	---
Nickel	3	mg/l	Instantaneous	---
Zinc	5	mg/l	Instantaneous	---
Benzene	134	ppb	Instantaneous	57
Carbontetrachloride	---	---	Composite	---
Chloroform	---	---	Composite	---
1,4 Dichlorobenzene	---	---	Composite	---
Ethylbenzene	380	ppb	Instantaneous	142
MTBE (Methyl-Tert-Butyl-Ether)	50	ppb	Instantaneous	---
Naphthalene	47	ppb	Composite	19
Phenol	---	---	Composite	---
Tetrachloroethylene (Perc)	20	ppb	Instantaneous	---
Toluene	74	ppb	Instantaneous	28
1,2,4 Trichlorobenzene	---	---	Composite	---
1,1,1 Trichloroethane	---	---	Composite	---
Xylenes (Total)	74	ppb	Instantaneous	28
PCB's (Total)[3]	1	ppb	Composite	---
Total Suspended Solids (TSS)	350[4]	mg/l	Instantaneous	---
CBOD[5]	---	---	Composite	---
Chloride[5]	---	---	Instantaneous	---
Total Nitrogen[5]	---	---	Composite	---
Total Solids[5]	---	---	Instantaneous	---
Other				

1 All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with 40 C.F.R. pt. 136. If 40 C.F.R. pt. 136 does not cover the pollutant in question, the handling, preservation, and analysis must be performed in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater." All analyses shall be performed using a detection level less than the lowest applicable regulatory discharge limit. If a parameter does not have a limit, then the detection level is defined as the least of the Practical Quantitation Limits identified in NYSDEC's Analytical Detectability and Quantitation Guidelines for Selected Environmental Parameters, December 1988

2 Analysis for ***non-polar materials*** must be done by EPA method 1664 Rev. A. Non-Polar Material shall mean that portion of the oil and grease that is not eliminated from a solution containing N–Hexane, or any other extraction solvent the EPA shall prescribe, by silica gel absorption.

3 Analysis for PCB=s is required if ***both*** conditions listed below are met:
1) if proposed discharge ≥ 10,000 gpd;
2) if duration of a discharge > 10 days.
Analysis for PCB=s must be done by EPA method 608 with MDL=<65 ppt. PCB's (total) is the sum of PCB-1242 (Arochlor 1242), PCB-1254 (Arochlor 1254), PCB-1221 (Arochlor 1221), PCB-1232 (Arochlor 1232), PCB-1248 (Arochlor 1248), PCB-1260 (Arochlor 1260) and PCB-1016 (Arochlor 1016).

4 For discharge ≥ 10,000 gpd, the TSS limit is 350 mg/l. For discharge < 10,000gpd, the limit is determined on a case by case basis.

5 Analysis for Carbonaceous Biochemical Oxygen Demand (CBOD), Chloride, Total Solids and Total Nitrogen are required if proposed discharge ≥ 10,000 gpd. Total Nitrogen = Total Kjeldahl Nitrogen (TKN) + Nitrite (NO_2) + Nitrate (NO_3).

ANALYTICAL REPORT

Lab Number:	L1516050
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 303 New York City, NY 10001
ATTN:	Matt Carroll
Phone:	(646) 606-2332
Project Name:	87 KENT AVENUE
Project Number:	87 KENT AVENUE
Report Date:	07/20/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1516050-01	TSB-6 (15-16)	SOIL	87 KENT AVENUE	07/13/15 10:30	07/13/15
L1516050-02	TSB-6 (16-18)	SOIL	87 KENT AVENUE	07/13/15 10:30	07/13/15
L1516050-03	TSB-6 (18-20)	SOIL	87 KENT AVENUE	07/13/15 10:30	07/13/15
L1516050-04	TSB-3 (20-21)	SOIL	87 KENT AVENUE	07/13/15 11:45	07/13/15
L1516050-05	TSB-3 (21-23)	SOIL	87 KENT AVENUE	07/13/15 11:45	07/13/15
L1516050-06	TSB-3 (23-25)	SOIL	87 KENT AVENUE	07/13/15 11:45	07/13/15
L1516050-07	TGW-1	WATER	87 KENT AVENUE	07/13/15 15:05	07/13/15

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516050
Project Number:	87 KENT AVENUE	**Report Date:**	07/20/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516050
Project Number:	87 KENT AVENUE	**Report Date:**	07/20/15

Case Narrative (continued)

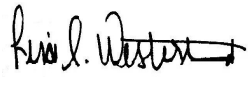
Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Metals

L1516050-01 through -06 have elevated detection limits for all elements, with the exception of mercury, due to the dilutions required by matrix interferences encountered during analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Lisa Westerlind

Title: Technical Director/Representative Date: 07/20/15

ORGANICS

VOLATILES

Project Name: 87 KENT AVENUE
Lab Number: L1516050
Project Number: 87 KENT AVENUE
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-07 D
Client ID: TGW-1
Sample Location: 87 KENT AVENUE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/15/15 22:55
Analyst: PD

Date Collected: 07/13/15 15:05
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	ND		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	2.9	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	2.8	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20
Trichloroethene	2500		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20

Project Name: 87 KENT AVENUE **Lab Number:** L1516050

Project Number: 87 KENT AVENUE **Report Date:** 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-07 D Date Collected: 07/13/15 15:05
Client ID: TGW-1 Date Received: 07/13/15
Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	77		ug/l	50	14.	20
1,2-Dichloroethene, Total	77		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	42	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20

Project Name: 87 KENT AVENUE **Lab Number:** L1516050

Project Number: 87 KENT AVENUE **Report Date:** 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-07 D Date Collected: 07/13/15 15:05

Client ID: TGW-1 Date Received: 07/13/15

Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	820	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	13.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	102		70-130

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516050
Report Date: 07/20/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/15/15 13:17
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG803260-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516050
Report Date: 07/20/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/15/15 13:17
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG803260-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylene (Total)	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene (total)	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516050
Report Date: 07/20/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/15/15 13:17
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG803260-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
1,4-Diethylbenzene	ND		ug/l	2.0	0.70
4-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516050

Report Date: 07/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG803260-1 WG803260-2								
Methylene chloride	105		94		70-130	11		20
1,1-Dichloroethane	99		93		70-130	6		20
Chloroform	97		91		70-130	6		20
Carbon tetrachloride	105		98		63-132	7		20
1,2-Dichloropropane	104		96		70-130	8		20
Dibromochloromethane	112		103		63-130	8		20
1,1,2-Trichloroethane	110		101		70-130	9		20
Tetrachloroethene	112		106		70-130	6		20
Chlorobenzene	105		96		75-130	9		20
Trichlorofluoromethane	93		92		62-150	1		20
1,2-Dichloroethane	98		91		70-130	7		20
1,1,1-Trichloroethane	96		91		67-130	5		20
Bromodichloromethane	99		90		67-130	10		20
trans-1,3-Dichloropropene	108		99		70-130	9		20
cis-1,3-Dichloropropene	104		94		70-130	10		20
1,1-Dichloropropene	93		87		70-130	7		20
Bromoform	110		100		54-136	10		20
1,1,2,2-Tetrachloroethane	99		92		67-130	7		20
Benzene	109		100		70-130	9		20
Toluene	102		96		70-130	6		20
Ethylbenzene	100		91		70-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516050

Report Date: 07/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG803260-1 WG803260-2								
Chloromethane	70		**62**	Q	64-130	12		20
Bromomethane	55		49		39-139	12		20
Vinyl chloride	77		71		55-140	8		20
Chloroethane	108		99		55-138	9		20
1,1-Dichloroethene	100		96		61-145	4		20
trans-1,2-Dichloroethene	107		99		70-130	8		20
Trichloroethene	98		91		70-130	7		20
1,2-Dichlorobenzene	99		90		70-130	10		20
1,3-Dichlorobenzene	98		89		70-130	10		20
1,4-Dichlorobenzene	97		89		70-130	9		20
Methyl tert butyl ether	106		101		63-130	5		20
p/m-Xylene	104		94		70-130	10		20
o-Xylene	104		94		70-130	10		20
cis-1,2-Dichloroethene	104		96		70-130	8		20
Dibromomethane	109		101		70-130	8		20
1,2,3-Trichloropropane	97		91		64-130	6		20
Acrylonitrile	106		96		70-130	10		20
Styrene	109		98		70-130	11		20
Dichlorodifluoromethane	146		137		36-147	6		20
Acetone	101		92		58-148	9		20
Carbon disulfide	92		84		51-130	9		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG803260-1 WG803260-2								
2-Butanone	115		101		63-138	13		20
Vinyl acetate	76		72		70-130	5		20
4-Methyl-2-pentanone	99		93		59-130	6		20
2-Hexanone	76		72		57-130	5		20
Bromochloromethane	115		107		70-130	7		20
2,2-Dichloropropane	100		95		63-133	5		20
1,2-Dibromoethane	108		99		70-130	9		20
1,3-Dichloropropane	107		100		70-130	7		20
1,1,1,2-Tetrachloroethane	111		102		64-130	8		20
Bromobenzene	102		94		70-130	8		20
n-Butylbenzene	83		76		53-136	9		20
sec-Butylbenzene	87		81		70-130	7		20
tert-Butylbenzene	88		82		70-130	7		20
o-Chlorotoluene	88		80		70-130	10		20
p-Chlorotoluene	90		82		70-130	9		20
1,2-Dibromo-3-chloropropane	86		78		41-144	10		20
Hexachlorobutadiene	89		82		63-130	8		20
Isopropylbenzene	89		83		70-130	7		20
p-Isopropyltoluene	91		83		70-130	9		20
Naphthalene	84		83		70-130	1		20
n-Propylbenzene	90		83		69-130	8		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG803260-1 WG803260-2								
1,2,3-Trichlorobenzene	89		85		70-130	5		20
1,2,4-Trichlorobenzene	90		84		70-130	7		20
1,3,5-Trimethylbenzene	93		85		64-130	9		20
1,2,4-Trimethylbenzene	92		86		70-130	7		20
1,4-Dioxane	146		111		56-162	**27**	Q	20
p-Diethylbenzene	90		83		70-130	8		20
p-Ethyltoluene	93		86		70-130	8		20
1,2,4,5-Tetramethylbenzene	91		83		70-130	9		20
Ethyl ether	122		115		59-134	6		20
trans-1,4-Dichloro-2-butene	93		83		70-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		95		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	89		90		70-130
Dibromofluoromethane	100		101		70-130

METALS

Project Name: 87 KENT AVENUE
Lab Number: L1516050
Project Number: 87 KENT AVENUE
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-01
Client ID: TSB-6 (15-16)
Sample Location: 87 KENT AVENUE
Matrix: Soil
Percent Solids: 83%

Date Collected: 07/13/15 10:30
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	8600		mg/kg	9.2	1.8	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.6	0.73	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Arsenic, Total	ND		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Barium, Total	70		mg/kg	0.92	0.28	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Beryllium, Total	0.51		mg/kg	0.46	0.09	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.92	0.06	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Calcium, Total	1400		mg/kg	9.2	2.8	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Chromium, Total	26		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Cobalt, Total	10		mg/kg	1.8	0.46	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Copper, Total	23		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Iron, Total	28000		mg/kg	4.6	1.8	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Lead, Total	20		mg/kg	4.6	0.18	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Magnesium, Total	2900		mg/kg	9.2	0.92	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Manganese, Total	510		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Mercury, Total	0.07	J	mg/kg	0.08	0.02	1	07/17/15 06:23	07/17/15 13:27	EPA 7471B	1,7471B	DB
Nickel, Total	14		mg/kg	2.3	0.37	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Potassium, Total	2400		mg/kg	230	37.	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.8	0.28	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Sodium, Total	55	J	mg/kg	180	28.	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.8	0.37	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Vanadium, Total	37		mg/kg	0.92	0.09	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT
Zinc, Total	72		mg/kg	4.6	0.64	2	07/14/15 12:12	07/17/15 19:53	EPA 3050B	1,6010C	TT

Project Name: 87 KENT AVENUE
Lab Number: L1516050
Project Number: 87 KENT AVENUE
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-02
Client ID: TSB-6 (16-18)
Sample Location: 87 KENT AVENUE
Matrix: Soil
Percent Solids: 85%

Date Collected: 07/13/15 10:30
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	3600		mg/kg	9.0	1.8	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.5	0.72	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Arsenic, Total	ND		mg/kg	0.90	0.18	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Barium, Total	24		mg/kg	0.90	0.27	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Beryllium, Total	0.19	J	mg/kg	0.45	0.09	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.90	0.06	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Calcium, Total	930		mg/kg	9.0	2.7	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Chromium, Total	16		mg/kg	0.90	0.18	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Cobalt, Total	3.6		mg/kg	1.8	0.45	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Copper, Total	11		mg/kg	0.90	0.18	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Iron, Total	10000		mg/kg	4.5	1.8	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Lead, Total	5.0		mg/kg	4.5	0.18	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Magnesium, Total	1500		mg/kg	9.0	0.90	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Manganese, Total	240		mg/kg	0.90	0.18	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.08	0.02	1	07/17/15 06:23	07/17/15 13:29	EPA 7471B	1,7471B	DB
Nickel, Total	9.1		mg/kg	2.2	0.36	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Potassium, Total	580		mg/kg	220	36.	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.8	0.27	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.90	0.18	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Sodium, Total	64	J	mg/kg	180	27.	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.8	0.36	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Vanadium, Total	22		mg/kg	0.90	0.09	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT
Zinc, Total	15		mg/kg	4.5	0.63	2	07/14/15 12:12	07/17/15 19:56	EPA 3050B	1,6010C	TT

Project Name: 87 KENT AVENUE
Lab Number: L1516050
Project Number: 87 KENT AVENUE
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-03
Client ID: TSB-6 (18-20)
Sample Location: 87 KENT AVENUE
Matrix: Soil
Percent Solids: 89%

Date Collected: 07/13/15 10:30
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	5800		mg/kg	8.7	1.7	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.4	0.70	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Arsenic, Total	ND		mg/kg	0.87	0.17	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Barium, Total	31		mg/kg	0.87	0.26	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Beryllium, Total	0.22	J	mg/kg	0.44	0.09	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.87	0.06	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Calcium, Total	630		mg/kg	8.7	2.6	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Chromium, Total	10		mg/kg	0.87	0.17	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Cobalt, Total	3.8		mg/kg	1.7	0.44	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Copper, Total	5.4		mg/kg	0.87	0.17	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Iron, Total	6900		mg/kg	4.4	1.7	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Lead, Total	4.3	J	mg/kg	4.4	0.17	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Magnesium, Total	1100		mg/kg	8.7	0.87	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Manganese, Total	90		mg/kg	0.87	0.17	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.07	0.02	1	07/17/15 06:23	07/17/15 13:31	EPA 7471B	1,7471B	DB
Nickel, Total	9.4		mg/kg	2.2	0.35	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Potassium, Total	340		mg/kg	220	35.	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.7	0.26	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.87	0.17	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Sodium, Total	46	J	mg/kg	170	26.	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.7	0.35	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Vanadium, Total	11		mg/kg	0.87	0.09	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT
Zinc, Total	16		mg/kg	4.4	0.61	2	07/14/15 12:12	07/17/15 20:00	EPA 3050B	1,6010C	TT

Project Name: 87 KENT AVENUE
Lab Number: L1516050
Project Number: 87 KENT AVENUE
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-04
Client ID: TSB-3 (20-21)
Sample Location: 87 KENT AVENUE
Matrix: Soil
Percent Solids: 83%

Date Collected: 07/13/15 11:45
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	5000		mg/kg	9.5	1.9	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.8	0.76	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Arsenic, Total	ND		mg/kg	4.8	0.95	10	07/14/15 12:12	07/20/15 15:25	EPA 3050B	1,6010C	MC
Barium, Total	31		mg/kg	0.95	0.28	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Beryllium, Total	0.44	J	mg/kg	0.48	0.10	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.95	0.07	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Calcium, Total	840		mg/kg	9.5	2.8	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Chromium, Total	20		mg/kg	0.95	0.19	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Cobalt, Total	9.1		mg/kg	1.9	0.48	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Copper, Total	19		mg/kg	0.95	0.19	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Iron, Total	21000		mg/kg	4.8	1.9	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Lead, Total	10		mg/kg	4.8	0.19	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Magnesium, Total	1700		mg/kg	9.5	0.95	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Manganese, Total	380		mg/kg	0.95	0.19	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.08	0.02	1	07/17/15 06:23	07/17/15 13:33	EPA 7471B	1,7471B	DB
Nickel, Total	17		mg/kg	2.4	0.38	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Potassium, Total	1000		mg/kg	240	38.	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.9	0.28	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.95	0.19	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Sodium, Total	68	J	mg/kg	190	28.	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.9	0.38	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Vanadium, Total	31		mg/kg	0.95	0.10	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT
Zinc, Total	31		mg/kg	4.8	0.66	2	07/14/15 12:12	07/17/15 20:04	EPA 3050B	1,6010C	TT

Project Name: 87 KENT AVENUE
Lab Number: L1516050
Project Number: 87 KENT AVENUE
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-05
Client ID: TSB-3 (21-23)
Sample Location: 87 KENT AVENUE
Matrix: Soil
Percent Solids: 88%

Date Collected: 07/13/15 11:45
Date Received: 07/13/15
Field Prep: Not Specified

Total Metals - Westborough Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Aluminum, Total	4200		mg/kg	8.6	1.7	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.3	0.69	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Arsenic, Total	ND		mg/kg	0.86	0.17	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Barium, Total	32		mg/kg	0.86	0.26	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Beryllium, Total	0.38	J	mg/kg	0.43	0.09	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.86	0.06	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Calcium, Total	1000		mg/kg	8.6	2.6	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Chromium, Total	15		mg/kg	0.86	0.17	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Cobalt, Total	7.0		mg/kg	1.7	0.43	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Copper, Total	16		mg/kg	0.86	0.17	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Iron, Total	16000		mg/kg	4.3	1.7	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Lead, Total	10		mg/kg	4.3	0.17	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Magnesium, Total	2000		mg/kg	8.6	0.86	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Manganese, Total	170		mg/kg	0.86	0.17	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.01	0.003	1	07/17/15 06:23	07/17/15 13:34	EPA 7471B	1,7471B	DB
Nickel, Total	10		mg/kg	2.2	0.34	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Potassium, Total	870		mg/kg	220	34.	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.7	0.26	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.86	0.17	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Sodium, Total	85	J	mg/kg	170	26.	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.7	0.34	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Vanadium, Total	33		mg/kg	0.86	0.09	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT
Zinc, Total	32		mg/kg	4.3	0.60	2	07/14/15 12:12	07/17/15 20:08	EPA 3050B	1,6010C	TT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-06
Client ID: TSB-3 (23-25)
Sample Location: 87 KENT AVENUE
Matrix: Soil
Percent Solids: 83%

Date Collected: 07/13/15 11:45
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Aluminum, Total	2200		mg/kg	9.2	1.8	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Antimony, Total	ND		mg/kg	4.6	0.74	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Arsenic, Total	ND		mg/kg	4.6	0.92	10	07/14/15 12:12	07/20/15 15:29	EPA 3050B	1,6010C	MC
Barium, Total	29		mg/kg	0.92	0.28	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Beryllium, Total	0.18	J	mg/kg	0.46	0.09	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.92	0.07	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Calcium, Total	900		mg/kg	9.2	2.8	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Chromium, Total	9.8		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Cobalt, Total	5.4		mg/kg	1.8	0.46	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Copper, Total	12		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Iron, Total	18000		mg/kg	4.6	1.8	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Lead, Total	8.1		mg/kg	4.6	0.18	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Magnesium, Total	840		mg/kg	9.2	0.92	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Manganese, Total	330		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.08	0.02	1	07/17/15 06:23	07/17/15 13:40	EPA 7471B	1,7471B	DB
Nickel, Total	6.1		mg/kg	2.3	0.37	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Potassium, Total	400		mg/kg	230	37.	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.8	0.28	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.92	0.18	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Sodium, Total	82	J	mg/kg	180	28.	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.8	0.37	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Vanadium, Total	32		mg/kg	0.92	0.09	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT
Zinc, Total	20		mg/kg	4.6	0.65	2	07/14/15 12:12	07/17/15 20:30	EPA 3050B	1,6010C	TT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516050
Report Date: 07/20/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG802503-1										
Aluminum, Total	ND		mg/kg	4.0	0.80	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Antimony, Total	ND		mg/kg	2.0	0.32	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Arsenic, Total	ND		mg/kg	0.40	0.08	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Barium, Total	ND		mg/kg	0.40	0.12	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Beryllium, Total	ND		mg/kg	0.20	0.04	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.40	0.03	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Calcium, Total	ND		mg/kg	4.0	1.2	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Chromium, Total	ND		mg/kg	0.40	0.08	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Cobalt, Total	ND		mg/kg	0.80	0.20	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Copper, Total	0.09	J	mg/kg	0.40	0.08	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Iron, Total	ND		mg/kg	2.0	0.80	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Lead, Total	ND		mg/kg	2.0	0.08	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Magnesium, Total	ND		mg/kg	4.0	0.40	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Manganese, Total	ND		mg/kg	0.40	0.08	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Nickel, Total	ND		mg/kg	1.0	0.16	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Potassium, Total	ND		mg/kg	100	16.	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Selenium, Total	ND		mg/kg	0.80	0.12	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Silver, Total	ND		mg/kg	0.40	0.08	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Sodium, Total	ND		mg/kg	80	12.	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Thallium, Total	ND		mg/kg	0.80	0.16	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Vanadium, Total	ND		mg/kg	0.40	0.04	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT
Zinc, Total	ND		mg/kg	2.0	0.28	1	07/14/15 12:12	07/17/15 18:11	1,6010C	TT

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-06 Batch: WG803553-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	07/17/15 06:23	07/17/15 12:57	1,7471B	DB

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516050
Report Date: 07/20/15

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516050

Report Date: 07/20/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG802503-2 SRM Lot Number: D088-540								
Aluminum, Total	75		-		48-151	-		
Antimony, Total	150		-		1-208	-		
Arsenic, Total	96		-		79-121	-		
Barium, Total	94		-		83-117	-		
Beryllium, Total	94		-		83-117	-		
Cadmium, Total	92		-		83-117	-		
Calcium, Total	90		-		81-119	-		
Chromium, Total	92		-		80-120	-		
Cobalt, Total	92		-		84-115	-		
Copper, Total	98		-		81-118	-		
Iron, Total	89		-		45-155	-		
Lead, Total	94		-		81-117	-		
Magnesium, Total	88		-		76-124	-		
Manganese, Total	91		-		81-118	-		
Nickel, Total	94		-		83-117	-		
Potassium, Total	89		-		71-129	-		
Selenium, Total	97		-		78-122	-		
Silver, Total	100		-		75-124	-		
Sodium, Total	95		-		72-127	-		
Thallium, Total	95		-		80-120	-		
Vanadium, Total	95		-		78-122	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516050

Report Date: 07/20/15

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG802503-2 SRM Lot Number: D088-540					
Zinc, Total	92	-	82-118	-	
Total Metals - Westborough Lab Associated sample(s): 01-06 Batch: WG803553-2 SRM Lot Number: D088-540					
Mercury, Total	95	-	72-128	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG802503-4 QC Sample: L1516031-01 Client ID: MS Sample												
Aluminum, Total	5000	178	4700	**0**	Q	-	-		75-125	-		20
Antimony, Total	ND	44.6	33	**74**	Q	-	-		75-125	-		20
Arsenic, Total	ND	10.7	9.3	87		-	-		75-125	-		20
Barium, Total	16.	178	180	92		-	-		75-125	-		20
Beryllium, Total	0.58	4.46	4.6	90		-	-		75-125	-		20
Cadmium, Total	ND	4.55	4.4	97		-	-		75-125	-		20
Calcium, Total	1100	893	1800	78		-	-		75-125	-		20
Chromium, Total	7.4	17.8	23	87		-	-		75-125	-		20
Cobalt, Total	2.1	44.6	44	94		-	-		75-125	-		20
Copper, Total	14.	22.3	33	85		-	-		75-125	-		20
Iron, Total	15000	89.3	13000	**0**	Q	-	-		75-125	-		20
Lead, Total	5.2	45.5	47	92		-	-		75-125	-		20
Magnesium, Total	1200	893	1900	78		-	-		75-125	-		20
Manganese, Total	28.	44.6	69	92		-	-		75-125	-		20
Nickel, Total	10.	44.6	49	87		-	-		75-125	-		20
Potassium, Total	980	893	1700	81		-	-		75-125	-		20
Selenium, Total	ND	10.7	9.8	91		-	-		75-125	-		20
Silver, Total	ND	26.8	27	101		-	-		75-125	-		20
Sodium, Total	47.J	893	900	101		-	-		75-125	-		20
Thallium, Total	ND	10.7	9.6	90		-	-		75-125	-		20
Vanadium, Total	9.7	44.6	52	95		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG802503-4 QC Sample: L1516031-01 Client ID: MS Sample									
Zinc, Total	20.	44.6	59	87	-	-	75-125	-	20
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG803553-4 QC Sample: L1515815-02 Client ID: MS Sample									
Mercury, Total	ND	0.156	0.18	116	-	-	80-120	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG802503-3 QC Sample: L1516031-01 Client ID: DUP Sample						
Aluminum, Total	5000	4000	mg/kg	**22**	Q	20
Antimony, Total	ND	ND	mg/kg	NC		20
Arsenic, Total	ND	0.20J	mg/kg	NC		20
Barium, Total	16.	12	mg/kg	**29**	Q	20
Beryllium, Total	0.58	0.46	mg/kg	**23**	Q	20
Cadmium, Total	ND	ND	mg/kg	NC		20
Calcium, Total	1100	1000	mg/kg	10		20
Chromium, Total	7.4	5.5	mg/kg	**29**	Q	20
Cobalt, Total	2.1	2.5	mg/kg	17		20
Copper, Total	14.	11	mg/kg	**24**	Q	20
Iron, Total	15000	10000	mg/kg	**40**	Q	20
Lead, Total	5.2	4.1J	mg/kg	NC		20
Magnesium, Total	1200	1000	mg/kg	18		20
Manganese, Total	28.	26	mg/kg	7		20
Nickel, Total	10.	9.4	mg/kg	6		20
Potassium, Total	980	730	mg/kg	**29**	Q	20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	47.J	40J	mg/kg	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	Native Sample	Duplicate Sample	Units	RPD		RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG802503-3 QC Sample: L1516031-01 Client ID: DUP Sample						
Thallium, Total	ND	ND	mg/kg	NC		20
Vanadium, Total	9.7	7.9	mg/kg	20		20
Zinc, Total	20.	16	mg/kg	**22**	Q	20
Total Metals - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG803553-3 QC Sample: L1515815-02 Client ID: DUP Sample						
Mercury, Total	ND	0.02J	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-01
Client ID: TSB-6 (15-16)
Sample Location: 87 KENT AVENUE
Matrix: Soil

Date Collected: 07/13/15 10:30
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.9		%	0.100	NA	1	-	07/14/15 21:28	30,2540G	RT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-02
Client ID: TSB-6 (16-18)
Sample Location: 87 KENT AVENUE
Matrix: Soil

Date Collected: 07/13/15 10:30
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.1		%	0.100	NA	1	-	07/14/15 21:28	30,2540G	RT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-03
Client ID: TSB-6 (18-20)
Sample Location: 87 KENT AVENUE
Matrix: Soil

Date Collected: 07/13/15 10:30
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	07/14/15 21:28	30,2540G	RT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-04
Client ID: TSB-3 (20-21)
Sample Location: 87 KENT AVENUE
Matrix: Soil

Date Collected: 07/13/15 11:45
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.8		%	0.100	NA	1	-	07/14/15 21:28	30,2540G	RT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-05
Client ID: TSB-3 (21-23)
Sample Location: 87 KENT AVENUE
Matrix: Soil

Date Collected: 07/13/15 11:45
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.8		%	0.100	NA	1	-	07/14/15 21:28	30,2540G	RT

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

SAMPLE RESULTS

Lab ID: L1516050-06
Client ID: TSB-3 (23-25)
Sample Location: 87 KENT AVENUE
Matrix: Soil

Date Collected: 07/13/15 11:45
Date Received: 07/13/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.4		%	0.100	NA	1	-	07/14/15 21:28	30,2540G	RT

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG802672-1 QC Sample: L1516025-03 Client ID: DUP Sample						
Solids, Total	88.4	87.0	%	2		20

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1516050-01A	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1516050-02A	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1516050-03A	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1516050-04A	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

*Values in parentheses indicate holding time in days

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516050
Report Date: 07/20/15

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1516050-05A	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1516050-06A	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1516050-07A	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1516050-07B	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1516050-07C	Vial HCl preserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516050
Project Number:	87 KENT AVENUE	**Report Date:**	07/20/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516050
Project Number:	87 KENT AVENUE	**Report Date:**	07/20/15

Data Qualifiers

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516050
Project Number:	87 KENT AVENUE	**Report Date:**	07/20/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 7/14/15

ALPHA Job #: L1516050

Client Information
Client: Tenen Environmental
Address: 121 W 27th St. #303
Phone: 6468062332
Fax:
Email: MCarroll@tenen-env.com

Project Information
Project Name: 89 Kent Avenue
Project Location: "
Project #: 71
(Use Project name as Project #) ☑
Project Manager: Matt Carroll
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Metals	TCL VOCs	Total Bottle	Sample Specific Comments
L1516050-01	TSB-6 (15-16)	7/13/15	1030	Soil	KMA	✓			
-02	TSB-6 (16-18)	"	"	"	"	✓			
-03	TSB-6 (18-20)	"	"	"	"	✓			
-04	TSB-3 (20-21)	"	1145	"	"	✓			
-05	TSB-3 (21-23)	"	"	"	"	✓			
-06	TSB-3 (23-25)	"	"	"	"	✓			
-07	TB-W-1	7/13/15	1505	GW	KMA		✓		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A	V						
Preservative	A	B						

Relinquished By:	Date/Time	Received By:	Date/Time
	7/13/15 1530		7/13/15 1530
AAC	7/13/15 1831	Tom Tobin	7-13-15 1831
Tom Tobin	7/14/15 0010		7/14/15 0010

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1516153
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 303 New York City, NY 10001
ATTN:	Matt Carroll
Phone:	(646) 606-2332
Project Name:	87 KENT AVE
Project Number:	87 KENT AVENUE
Report Date:	07/21/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1516153-01	TGW-2	WATER	87 KENT AVE	07/14/15 09:40	07/14/15
L1516153-02	TGW-3	WATER	87 KENT AVE	07/14/15 10:40	07/14/15
L1516153-03	TGW-4	WATER	87 KENT AVE	07/14/15 11:15	07/14/15

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	87 KENT AVE	**Lab Number:**	L1516153
Project Number:	87 KENT AVENUE	**Report Date:**	07/21/15

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 07/21/15

ORGANICS

VOLATILES

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-01 D
Client ID: TGW-2
Sample Location: 87 KENT AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/16/15 15:06
Analyst: PD

Date Collected: 07/14/15 09:40
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.3	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.4	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.70	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.4	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10
Trichloroethene	1600		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-01 D
Client ID: TGW-2
Sample Location: 87 KENT AVE
Date Collected: 07/14/15 09:40
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	350		ug/l	25	7.0	10
1,2-Dichloroethene, Total	350		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	20	J	ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	19	J	ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10

Project Name: 87 KENT AVE
Lab Number: L1516153
Project Number: 87 KENT AVENUE
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-01 D
Client ID: TGW-2
Sample Location: 87 KENT AVE
Date Collected: 07/14/15 09:40
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	410	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	6.5	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	105		70-130

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-02 D
Client ID: TGW-3
Sample Location: 87 KENT AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/16/15 15:43
Analyst: PD

Date Collected: 07/14/15 10:40
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	7.5	J	ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.66	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
1,1-Dichloropropene	ND		ug/l	12	3.5	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.72	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.35	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.71	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Trichloroethene	540		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-02 D
Client ID: TGW-3
Sample Location: 87 KENT AVE
Date Collected: 07/14/15 10:40
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	9.2	J	ug/l	12	3.5	5
1,2-Dichloroethene, Total	9.2	J	ug/l	12	3.5	5
Dibromomethane	ND		ug/l	25	5.0	5
1,2,3-Trichloropropane	ND		ug/l	12	3.5	5
Acrylonitrile	ND		ug/l	25	7.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	9.3	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
Vinyl acetate	ND		ug/l	25	5.0	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
2,2-Dichloropropane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,3-Dichloropropane	ND		ug/l	12	3.5	5
1,1,1,2-Tetrachloroethane	ND		ug/l	12	3.5	5
Bromobenzene	ND		ug/l	12	3.5	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
o-Chlorotoluene	ND		ug/l	12	3.5	5
p-Chlorotoluene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Hexachlorobutadiene	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5

Project Name: 87 KENT AVE
Lab Number: L1516153
Project Number: 87 KENT AVENUE
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-02 D
Client ID: TGW-3
Sample Location: 87 KENT AVE
Date Collected: 07/14/15 10:40
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
1,4-Dioxane	ND		ug/l	1200	200	5
p-Diethylbenzene	ND		ug/l	10	3.5	5
p-Ethyltoluene	ND		ug/l	10	3.5	5
1,2,4,5-Tetramethylbenzene	ND		ug/l	10	3.2	5
Ethyl ether	ND		ug/l	12	3.5	5
trans-1,4-Dichloro-2-butene	ND		ug/l	12	3.5	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	104		70-130

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-03 D
Client ID: TGW-4
Sample Location: 87 KENT AVE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/17/15 12:08
Analyst: PD

Date Collected: 07/14/15 11:15
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.6	50
Dibromochloromethane	ND		ug/l	25	7.4	50
1,1,2-Trichloroethane	29	J	ug/l	75	25.	50
Tetrachloroethene	ND		ug/l	25	9.0	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
1,3-Dichloropropene, Total	ND		ug/l	25	7.2	50
1,1-Dichloropropene	ND		ug/l	120	35.	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	7.2	50
Benzene	ND		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	ND		ug/l	50	3.5	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	7.1	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50
Trichloroethene	5400		ug/l	25	8.8	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50

Project Name: 87 KENT AVE **Lab Number:** L1516153

Project Number: 87 KENT AVENUE **Report Date:** 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-03 D Date Collected: 07/14/15 11:15
Client ID: TGW-4 Date Received: 07/14/15
Sample Location: 87 KENT AVE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
Methyl tert butyl ether	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	ND		ug/l	120	35.	50
1,2-Dichloroethene, Total	ND		ug/l	120	35.	50
Dibromomethane	ND		ug/l	250	50.	50
1,2,3-Trichloropropane	ND		ug/l	120	35.	50
Acrylonitrile	ND		ug/l	250	75.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	110	J	ug/l	250	73.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	140	J	ug/l	250	97.	50
Vinyl acetate	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
2,2-Dichloropropane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,3-Dichloropropane	ND		ug/l	120	35.	50
1,1,1,2-Tetrachloroethane	ND		ug/l	120	35.	50
Bromobenzene	ND		ug/l	120	35.	50
n-Butylbenzene	ND		ug/l	120	35.	50
sec-Butylbenzene	ND		ug/l	120	35.	50
tert-Butylbenzene	ND		ug/l	120	35.	50
o-Chlorotoluene	ND		ug/l	120	35.	50
p-Chlorotoluene	ND		ug/l	120	35.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Hexachlorobutadiene	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
p-Isopropyltoluene	ND		ug/l	120	35.	50
Naphthalene	ND		ug/l	120	35.	50
n-Propylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
1,3,5-Trimethylbenzene	ND		ug/l	120	35.	50

Project Name: 87 KENT AVE
Lab Number: L1516153
Project Number: 87 KENT AVENUE
Report Date: 07/21/15

SAMPLE RESULTS

Lab ID: L1516153-03 D
Client ID: TGW-4
Sample Location: 87 KENT AVE
Date Collected: 07/14/15 11:15
Date Received: 07/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	120	35.	50
1,4-Dioxane	ND		ug/l	12000	2000	50
p-Diethylbenzene	ND		ug/l	100	35.	50
p-Ethyltoluene	ND		ug/l	100	35.	50
1,2,4,5-Tetramethylbenzene	ND		ug/l	100	32.	50
Ethyl ether	ND		ug/l	120	35.	50
trans-1,4-Dichloro-2-butene	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	98		70-130

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/16/15 11:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803370-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/16/15 11:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803370-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylene (Total)	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene (total)	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/16/15 11:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803370-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
1,4-Diethylbenzene	ND		ug/l	2.0	0.70
4-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	104		70-130

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG803746-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
2-Chloroethylvinyl ether	ND		ug/l	10	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG803746-3					
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylene (Total)	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene (total)	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Isopropyl Ether	ND		ug/l	2.0	0.65
tert-Butyl Alcohol	ND		ug/l	10	0.90
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG803746-3					
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Ethyl Acetate	ND		ug/l	10	0.70
Cyclohexane	ND		ug/l	10	0.27
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.5	0.70
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.28
1,4-Dioxane	ND		ug/l	250	41.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.70
1,4-Diethylbenzene	ND		ug/l	2.0	0.70
4-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Tetrahydrofuran	ND		ug/l	5.0	1.5
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70
Iodomethane	ND		ug/l	5.0	5.0

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE
Lab Number: L1516153
Report Date: 07/21/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG803746-3					
Methyl cyclohexane	ND		ug/l	10	0.40

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803370-1 WG803370-2								
Methylene chloride	105		98		70-130	7		20
1,1-Dichloroethane	102		98		70-130	4		20
Chloroform	100		96		70-130	4		20
Carbon tetrachloride	111		106		63-132	5		20
1,2-Dichloropropane	108		101		70-130	7		20
Dibromochloromethane	109		104		63-130	5		20
1,1,2-Trichloroethane	106		104		70-130	2		20
Tetrachloroethene	117		113		70-130	3		20
Chlorobenzene	105		99		75-130	6		20
Trichlorofluoromethane	98		96		62-150	2		20
1,2-Dichloroethane	98		93		70-130	5		20
1,1,1-Trichloroethane	102		97		67-130	5		20
Bromodichloromethane	100		94		67-130	6		20
trans-1,3-Dichloropropene	105		102		70-130	3		20
cis-1,3-Dichloropropene	105		98		70-130	7		20
1,1-Dichloropropene	96		93		70-130	3		20
Bromoform	108		99		54-136	9		20
1,1,2,2-Tetrachloroethane	95		92		67-130	3		20
Benzene	112		106		70-130	6		20
Toluene	102		98		70-130	4		20
Ethylbenzene	101		96		70-130	5		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803370-1 WG803370-2								
Chloromethane	79		71		64-130	11		20
Bromomethane	66		62		39-139	6		20
Vinyl chloride	88		80		55-140	10		20
Chloroethane	114		106		55-138	7		20
1,1-Dichloroethene	105		103		61-145	2		20
trans-1,2-Dichloroethene	109		105		70-130	4		20
Trichloroethene	102		97		70-130	5		20
1,2-Dichlorobenzene	98		92		70-130	6		20
1,3-Dichlorobenzene	98		91		70-130	7		20
1,4-Dichlorobenzene	97		91		70-130	6		20
Methyl tert butyl ether	107		103		63-130	4		20
p/m-Xylene	106		100		70-130	6		20
o-Xylene	105		98		70-130	7		20
cis-1,2-Dichloroethene	108		100		70-130	8		20
Dibromomethane	113		104		70-130	8		20
1,2,3-Trichloropropane	91		90		64-130	1		20
Acrylonitrile	105		102		70-130	3		20
Styrene	111		102		70-130	8		20
Dichlorodifluoromethane	**163**	Q	**150**	Q	36-147	8		20
Acetone	100		100		58-148	0		20
Carbon disulfide	98		91		51-130	7		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803370-1 WG803370-2								
2-Butanone	113		112		63-138	1		20
Vinyl acetate	80		74		70-130	8		20
4-Methyl-2-pentanone	94		94		59-130	0		20
2-Hexanone	68		72		57-130	6		20
Bromochloromethane	117		111		70-130	5		20
2,2-Dichloropropane	112		107		63-133	5		20
1,2-Dibromoethane	104		102		70-130	2		20
1,3-Dichloropropane	103		101		70-130	2		20
1,1,1,2-Tetrachloroethane	111		105		64-130	6		20
Bromobenzene	100		94		70-130	6		20
n-Butylbenzene	86		80		53-136	7		20
sec-Butylbenzene	90		85		70-130	6		20
tert-Butylbenzene	89		84		70-130	6		20
o-Chlorotoluene	90		82		70-130	9		20
p-Chlorotoluene	91		86		70-130	6		20
1,2-Dibromo-3-chloropropane	79		77		41-144	3		20
Hexachlorobutadiene	89		87		63-130	2		20
Isopropylbenzene	91		86		70-130	6		20
p-Isopropyltoluene	93		87		70-130	7		20
Naphthalene	83		81		70-130	2		20
n-Propylbenzene	92		87		69-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803370-1 WG803370-2								
1,2,3-Trichlorobenzene	86		84		70-130	2		20
1,2,4-Trichlorobenzene	89		84		70-130	6		20
1,3,5-Trimethylbenzene	94		88		64-130	7		20
1,2,4-Trimethylbenzene	94		87		70-130	8		20
1,4-Dioxane	115		111		56-162	4		20
p-Diethylbenzene	93		87		70-130	7		20
p-Ethyltoluene	95		89		70-130	7		20
1,2,4,5-Tetramethylbenzene	94		86		70-130	9		20
Ethyl ether	122		118		59-134	3		20
trans-1,4-Dichloro-2-butene	88		87		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		93		70-130
Toluene-d8	98		101		70-130
4-Bromofluorobenzene	88		89		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG803746-1 WG803746-2								
Methylene chloride	103		102		70-130	1		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	99		98		70-130	1		20
2-Chloroethylvinyl ether	89		92		70-130	3		20
Carbon tetrachloride	109		110		63-132	1		20
1,2-Dichloropropane	102		103		70-130	1		20
Dibromochloromethane	102		102		63-130	0		20
1,1,2-Trichloroethane	102		102		70-130	0		20
Tetrachloroethene	111		112		70-130	1		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	98		99		62-150	1		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	98		100		67-130	2		20
Bromodichloromethane	96		95		67-130	1		20
trans-1,3-Dichloropropene	98		99		70-130	1		20
cis-1,3-Dichloropropene	102		99		70-130	3		20
1,1-Dichloropropene	95		95		70-130	0		20
Bromoform	95		97		54-136	2		20
1,1,2,2-Tetrachloroethane	86		88		67-130	2		20
Benzene	110		108		70-130	2		20
Toluene	99		99		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG803746-1 WG803746-2								
Ethylbenzene	98		98		70-130	0		20
Chloromethane	86		82		64-130	5		20
Bromomethane	70		70		39-139	0		20
Vinyl chloride	90		89		55-140	1		20
Chloroethane	112		111		55-138	1		20
1,1-Dichloroethene	102		106		61-145	4		20
trans-1,2-Dichloroethene	106		108		70-130	2		20
Trichloroethene	98		98		70-130	0		20
1,2-Dichlorobenzene	92		92		70-130	0		20
1,3-Dichlorobenzene	92		91		70-130	1		20
1,4-Dichlorobenzene	92		91		70-130	1		20
Methyl tert butyl ether	97		100		63-130	3		20
p/m-Xylene	102		101		70-130	1		20
o-Xylene	102		100		70-130	2		20
cis-1,2-Dichloroethene	106		105		70-130	1		20
Dibromomethane	105		104		70-130	1		20
1,2,3-Trichloropropane	84		86		64-130	2		20
Acrylonitrile	97		99		70-130	2		20
Isopropyl Ether	86		87		70-130	1		20
tert-Butyl Alcohol	91		105		70-130	14		20
Styrene	106		104		70-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG803746-1 WG803746-2								
Dichlorodifluoromethane	**162**	Q	**159**	Q	36-147	2		20
Acetone	96		94		58-148	2		20
Carbon disulfide	94		93		51-130	1		20
2-Butanone	105		112		63-138	6		20
Vinyl acetate	72		72		70-130	0		20
4-Methyl-2-pentanone	81		91		59-130	12		20
2-Hexanone	61		64		57-130	5		20
Bromochloromethane	111		112		70-130	1		20
2,2-Dichloropropane	110		111		63-133	1		20
1,2-Dibromoethane	97		98		70-130	1		20
1,3-Dichloropropane	97		99		70-130	2		20
1,1,1,2-Tetrachloroethane	106		106		64-130	0		20
Bromobenzene	94		93		70-130	1		20
n-Butylbenzene	81		80		53-136	1		20
sec-Butylbenzene	85		84		70-130	1		20
tert-Butylbenzene	84		84		70-130	0		20
o-Chlorotoluene	86		82		70-130	5		20
p-Chlorotoluene	86		85		70-130	1		20
1,2-Dibromo-3-chloropropane	72		72		41-144	0		20
Hexachlorobutadiene	84		84		63-130	0		20
Isopropylbenzene	86		86		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG803746-1 WG803746-2								
p-Isopropyltoluene	88		87		70-130	1		20
Naphthalene	70		74		70-130	6		20
n-Propylbenzene	88		87		69-130	1		20
1,2,3-Trichlorobenzene	74		77		70-130	4		20
1,2,4-Trichlorobenzene	80		80		70-130	0		20
1,3,5-Trimethylbenzene	90		88		64-130	2		20
1,2,4-Trimethylbenzene	89		87		70-130	2		20
Methyl Acetate	91		92		70-130	1		20
Ethyl Acetate	86		88		70-130	2		20
Cyclohexane	99		101		70-130	2		20
Ethyl-Tert-Butyl-Ether	94		95		70-130	1		20
Tertiary-Amyl Methyl Ether	92		94		66-130	2		20
1,4-Dioxane	89		105		56-162	16		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	108		112		70-130	4		20
1,4-Diethylbenzene	88		87		70-130	1		20
4-Ethyltoluene	91		89		70-130	2		20
1,2,4,5-Tetramethylbenzene	86		84		70-130	2		20
Ethyl ether	111		115		59-134	4		20
trans-1,4-Dichloro-2-butene	81		83		70-130	2		20
Iodomethane	**40**	Q	**58**	Q	70-130	**37**	Q	20
Methyl cyclohexane	103		103		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG803746-1 WG803746-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		93		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	89		90		70-130
Dibromofluoromethane	101		102		70-130

Project Name: 87 KENT AVE
Project Number: 87 KENT AVENUE

Lab Number: L1516153
Report Date: 07/21/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1516153-01A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-01B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-01C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-02A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-02B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-02C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-03A	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-03B	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)
L1516153-03C	Vial HCl preserved	A	N/A	2.3	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	87 KENT AVE	**Lab Number:**	L1516153
Project Number:	87 KENT AVENUE	**Report Date:**	07/21/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVE	**Lab Number:**	L1516153
Project Number:	87 KENT AVENUE	**Report Date:**	07/21/15

Data Qualifiers

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVE	**Lab Number:**	L1516153
Project Number:	87 KENT AVENUE	**Report Date:**	07/21/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 7/15/15

ALPHA Job #: L1516153

Client Information
Client: Tetra Environmental
Address: 121 W 24th St. #6R
Phone: 6466062332
Fax:
Email: mcarroll@tetraenv.com

Project Information
Project Name: 87 Kent Ave
Project Location: //
Project #: //
(Use Project name as Project #) ☑
Project Manager: Matt Carroll
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Total Bottle	Sample Specific Comments
L1516153-01	TGW-2	7/14/15	~~0945~~	GW	KM	✓		
-02	TGW-3	1	1040 [0440]	GW	KM	✓		
-03	TGW-4	↓	1115	GW	KM	✓		

Container Type: V
Preservative: B

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	7/14/15		7/14/15 15:30
	7/14/15 1900	Tom Tabler	7-14-15 1900
Tom Tabler	7/15/15 0100	Graham Phillips	7/15/15 0100

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1516245
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 303 New York City, NY 10001
ATTN:	Matt Carroll
Phone:	(646) 606-2332
Project Name:	87 KENT AVENUE
Project Number:	87 KENT AVENUE
Report Date:	07/22/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1516245-01	TGW-1 (16/20)	WATER	87 KENT AVENUE	07/13/15 15:30	07/15/15
L1516245-02	MW-1	WATER	87 KENT AVENUE	07/15/15 09:15	07/15/15
L1516245-04	TRIP BLANK	WATER	87 KENT AVENUE	07/10/15 00:00	07/15/15
L1516245-05	N/A	WATER	87 KENT AVENUE		07/15/15

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516245
Project Number:	87 KENT AVENUE	**Report Date:**	07/22/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516245
Project Number:	87 KENT AVENUE	**Report Date:**	07/22/15

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

A Trip Blank was received in the laboratory but not listed on the Chain of Custody. At the client's request, the Trip Blank was analyzed.

Containers were received for sample "N/A" (L1516245-05), but were not listed on the chain of custody. The analyses were canceled at the client's request.

Sample "MW-1" (L1516245-02) was received without the container for Total Organic Carbon analysis. An aliquot was taken from an unpreserved container and preserved appropriately.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 07/22/15

ORGANICS

VOLATILES

Project Name: 87 KENT AVENUE
Lab Number: L1516245
Project Number: 87 KENT AVENUE
Report Date: 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-01 D
Client ID: TGW-1 (16/20)
Sample Location: 87 KENT AVENUE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/17/15 14:31
Analyst: PD

Date Collected: 07/13/15 15:30
Date Received: 07/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	ND		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	2.9	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	2.8	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20
Trichloroethene	2700		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20

Project Name: 87 KENT AVENUE **Lab Number:** L1516245

Project Number: 87 KENT AVENUE **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-01 D Date Collected: 07/13/15 15:30
Client ID: TGW-1 (16/20) Date Received: 07/15/15
Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	61		ug/l	50	14.	20
1,2-Dichloroethene, Total	61		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	56	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	54	J	ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20

Project Name: 87 KENT AVENUE **Lab Number:** L1516245

Project Number: 87 KENT AVENUE **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-01 D Date Collected: 07/13/15 15:30

Client ID: TGW-1 (16/20) Date Received: 07/15/15

Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	820	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	13.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	99		70-130

Project Name: 87 KENT AVENUE
Lab Number: L1516245
Project Number: 87 KENT AVENUE
Report Date: 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-02 D
Client ID: MW-1
Sample Location: 87 KENT AVENUE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/17/15 15:07
Analyst: PD

Date Collected: 07/15/15 09:15
Date Received: 07/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	ND		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	13.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	ND		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	ND		ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	14.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	ND		ug/l	100	7.0	100
Chloroethane	ND		ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	14.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100
Trichloroethene	9300		ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100

Project Name: 87 KENT AVENUE **Lab Number:** L1516245

Project Number: 87 KENT AVENUE **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-02 D Date Collected: 07/15/15 09:15

Client ID: MW-1 Date Received: 07/15/15

Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	70.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	ND		ug/l	250	70.	100
1,2-Dichloroethene, Total	ND		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	260	J	ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	250	J	ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100

Project Name: 87 KENT AVENUE **Lab Number:** L1516245

Project Number: 87 KENT AVENUE **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-02 D Date Collected: 07/15/15 09:15

Client ID: MW-1 Date Received: 07/15/15

Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	4100	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	65.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	101		70-130

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-04
Client ID: TRIP BLANK
Sample Location: 87 KENT AVENUE
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/16/15 18:08
Analyst: PD

Date Collected: 07/10/15 00:00
Date Received: 07/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 87 KENT AVENUE **Lab Number:** L1516245

Project Number: 87 KENT AVENUE **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-04 Date Collected: 07/10/15 00:00

Client ID: TRIP BLANK Date Received: 07/15/15

Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1

Project Name: 87 KENT AVENUE **Lab Number:** L1516245

Project Number: 87 KENT AVENUE **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-04 Date Collected: 07/10/15 00:00

Client ID: TRIP BLANK Date Received: 07/15/15

Sample Location: 87 KENT AVENUE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	41.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	106		70-130

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/16/15 11:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG803370-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/16/15 11:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG803370-3					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylene (Total)	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene (total)	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/16/15 11:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG803370-3					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	41.
1,4-Diethylbenzene	ND		ug/l	2.0	0.70
4-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	104		70-130

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803746-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
2-Chloroethylvinyl ether	ND		ug/l	10	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803746-3					
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylene (Total)	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene (total)	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Isopropyl Ether	ND		ug/l	2.0	0.65
tert-Butyl Alcohol	ND		ug/l	10	0.90
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803746-3					
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Ethyl Acetate	ND		ug/l	10	0.70
Cyclohexane	ND		ug/l	10	0.27
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.5	0.70
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.28
1,4-Dioxane	ND		ug/l	250	41.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.70
1,4-Diethylbenzene	ND		ug/l	2.0	0.70
4-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.65
Tetrahydrofuran	ND		ug/l	5.0	1.5
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70
Iodomethane	ND		ug/l	5.0	5.0

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/17/15 09:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG803746-3					
Methyl cyclohexane	ND		ug/l	10	0.40

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG803370-1 WG803370-2								
Methylene chloride	105		98		70-130	7		20
1,1-Dichloroethane	102		98		70-130	4		20
Chloroform	100		96		70-130	4		20
Carbon tetrachloride	111		106		63-132	5		20
1,2-Dichloropropane	108		101		70-130	7		20
Dibromochloromethane	109		104		63-130	5		20
1,1,2-Trichloroethane	106		104		70-130	2		20
Tetrachloroethene	117		113		70-130	3		20
Chlorobenzene	105		99		75-130	6		20
Trichlorofluoromethane	98		96		62-150	2		20
1,2-Dichloroethane	98		93		70-130	5		20
1,1,1-Trichloroethane	102		97		67-130	5		20
Bromodichloromethane	100		94		67-130	6		20
trans-1,3-Dichloropropene	105		102		70-130	3		20
cis-1,3-Dichloropropene	105		98		70-130	7		20
1,1-Dichloropropene	96		93		70-130	3		20
Bromoform	108		99		54-136	9		20
1,1,2,2-Tetrachloroethane	95		92		67-130	3		20
Benzene	112		106		70-130	6		20
Toluene	102		98		70-130	4		20
Ethylbenzene	101		96		70-130	5		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG803370-1 WG803370-2								
Chloromethane	79		71		64-130	11		20
Bromomethane	66		62		39-139	6		20
Vinyl chloride	88		80		55-140	10		20
Chloroethane	114		106		55-138	7		20
1,1-Dichloroethene	105		103		61-145	2		20
trans-1,2-Dichloroethene	109		105		70-130	4		20
Trichloroethene	102		97		70-130	5		20
1,2-Dichlorobenzene	98		92		70-130	6		20
1,3-Dichlorobenzene	98		91		70-130	7		20
1,4-Dichlorobenzene	97		91		70-130	6		20
Methyl tert butyl ether	107		103		63-130	4		20
p/m-Xylene	106		100		70-130	6		20
o-Xylene	105		98		70-130	7		20
cis-1,2-Dichloroethene	108		100		70-130	8		20
Dibromomethane	113		104		70-130	8		20
1,2,3-Trichloropropane	91		90		64-130	1		20
Acrylonitrile	105		102		70-130	3		20
Styrene	111		102		70-130	8		20
Dichlorodifluoromethane	**163**	Q	**150**	Q	36-147	8		20
Acetone	100		100		58-148	0		20
Carbon disulfide	98		91		51-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516245

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG803370-1 WG803370-2								
2-Butanone	113		112		63-138	1		20
Vinyl acetate	80		74		70-130	8		20
4-Methyl-2-pentanone	94		94		59-130	0		20
2-Hexanone	68		72		57-130	6		20
Bromochloromethane	117		111		70-130	5		20
2,2-Dichloropropane	112		107		63-133	5		20
1,2-Dibromoethane	104		102		70-130	2		20
1,3-Dichloropropane	103		101		70-130	2		20
1,1,1,2-Tetrachloroethane	111		105		64-130	6		20
Bromobenzene	100		94		70-130	6		20
n-Butylbenzene	86		80		53-136	7		20
sec-Butylbenzene	90		85		70-130	6		20
tert-Butylbenzene	89		84		70-130	6		20
o-Chlorotoluene	90		82		70-130	9		20
p-Chlorotoluene	91		86		70-130	6		20
1,2-Dibromo-3-chloropropane	79		77		41-144	3		20
Hexachlorobutadiene	89		87		63-130	2		20
Isopropylbenzene	91		86		70-130	6		20
p-Isopropyltoluene	93		87		70-130	7		20
Naphthalene	83		81		70-130	2		20
n-Propylbenzene	92		87		69-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG803370-1 WG803370-2								
1,2,3-Trichlorobenzene	86		84		70-130	2		20
1,2,4-Trichlorobenzene	89		84		70-130	6		20
1,3,5-Trimethylbenzene	94		88		64-130	7		20
1,2,4-Trimethylbenzene	94		87		70-130	8		20
1,4-Dioxane	115		111		56-162	4		20
p-Diethylbenzene	93		87		70-130	7		20
p-Ethyltoluene	95		89		70-130	7		20
1,2,4,5-Tetramethylbenzene	94		86		70-130	9		20
Ethyl ether	122		118		59-134	3		20
trans-1,4-Dichloro-2-butene	88		87		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		93		70-130
Toluene-d8	98		101		70-130
4-Bromofluorobenzene	88		89		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803746-1 WG803746-2								
Methylene chloride	103		102		70-130	1		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	99		98		70-130	1		20
2-Chloroethylvinyl ether	89		92		70-130	3		20
Carbon tetrachloride	109		110		63-132	1		20
1,2-Dichloropropane	102		103		70-130	1		20
Dibromochloromethane	102		102		63-130	0		20
1,1,2-Trichloroethane	102		102		70-130	0		20
Tetrachloroethene	111		112		70-130	1		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	98		99		62-150	1		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	98		100		67-130	2		20
Bromodichloromethane	96		95		67-130	1		20
trans-1,3-Dichloropropene	98		99		70-130	1		20
cis-1,3-Dichloropropene	102		99		70-130	3		20
1,1-Dichloropropene	95		95		70-130	0		20
Bromoform	95		97		54-136	2		20
1,1,2,2-Tetrachloroethane	86		88		67-130	2		20
Benzene	110		108		70-130	2		20
Toluene	99		99		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803746-1 WG803746-2								
Ethylbenzene	98		98		70-130	0		20
Chloromethane	86		82		64-130	5		20
Bromomethane	70		70		39-139	0		20
Vinyl chloride	90		89		55-140	1		20
Chloroethane	112		111		55-138	1		20
1,1-Dichloroethene	102		106		61-145	4		20
trans-1,2-Dichloroethene	106		108		70-130	2		20
Trichloroethene	98		98		70-130	0		20
1,2-Dichlorobenzene	92		92		70-130	0		20
1,3-Dichlorobenzene	92		91		70-130	1		20
1,4-Dichlorobenzene	92		91		70-130	1		20
Methyl tert butyl ether	97		100		63-130	3		20
p/m-Xylene	102		101		70-130	1		20
o-Xylene	102		100		70-130	2		20
cis-1,2-Dichloroethene	106		105		70-130	1		20
Dibromomethane	105		104		70-130	1		20
1,2,3-Trichloropropane	84		86		64-130	2		20
Acrylonitrile	97		99		70-130	2		20
Isopropyl Ether	86		87		70-130	1		20
tert-Butyl Alcohol	91		105		70-130	14		20
Styrene	106		104		70-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803746-1 WG803746-2								
Dichlorodifluoromethane	**162**	Q	**159**	Q	36-147	2		20
Acetone	96		94		58-148	2		20
Carbon disulfide	94		93		51-130	1		20
2-Butanone	105		112		63-138	6		20
Vinyl acetate	72		72		70-130	0		20
4-Methyl-2-pentanone	81		91		59-130	12		20
2-Hexanone	61		64		57-130	5		20
Bromochloromethane	111		112		70-130	1		20
2,2-Dichloropropane	110		111		63-133	1		20
1,2-Dibromoethane	97		98		70-130	1		20
1,3-Dichloropropane	97		99		70-130	2		20
1,1,1,2-Tetrachloroethane	106		106		64-130	0		20
Bromobenzene	94		93		70-130	1		20
n-Butylbenzene	81		80		53-136	1		20
sec-Butylbenzene	85		84		70-130	1		20
tert-Butylbenzene	84		84		70-130	0		20
o-Chlorotoluene	86		82		70-130	5		20
p-Chlorotoluene	86		85		70-130	1		20
1,2-Dibromo-3-chloropropane	72		72		41-144	0		20
Hexachlorobutadiene	84		84		63-130	0		20
Isopropylbenzene	86		86		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803746-1 WG803746-2								
p-Isopropyltoluene	88		87		70-130	1		20
Naphthalene	70		74		70-130	6		20
n-Propylbenzene	88		87		69-130	1		20
1,2,3-Trichlorobenzene	74		77		70-130	4		20
1,2,4-Trichlorobenzene	80		80		70-130	0		20
1,3,5-Trimethylbenzene	90		88		64-130	2		20
1,2,4-Trimethylbenzene	89		87		70-130	2		20
Methyl Acetate	91		92		70-130	1		20
Ethyl Acetate	86		88		70-130	2		20
Cyclohexane	99		101		70-130	2		20
Ethyl-Tert-Butyl-Ether	94		95		70-130	1		20
Tertiary-Amyl Methyl Ether	92		94		66-130	2		20
1,4-Dioxane	89		105		56-162	16		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	108		112		70-130	4		20
1,4-Diethylbenzene	88		87		70-130	1		20
4-Ethyltoluene	91		89		70-130	2		20
1,2,4,5-Tetramethylbenzene	86		84		70-130	2		20
Ethyl ether	111		115		59-134	4		20
trans-1,4-Dichloro-2-butene	81		83		70-130	2		20
Iodomethane	**40**	Q	**58**	Q	70-130	**37**	Q	20
Methyl cyclohexane	103		103		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516245

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG803746-1 WG803746-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		93		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	89		90		70-130
Dibromofluoromethane	101		102		70-130

METALS

Project Name: 87 KENT AVENUE
Lab Number: L1516245
Project Number: 87 KENT AVENUE
Report Date: 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-02
Client ID: MW-1
Sample Location: 87 KENT AVENUE
Matrix: Water
Date Collected: 07/15/15 09:15
Date Received: 07/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Iron, Total	1.96		mg/l	0.050	0.012	1	07/16/15 10:05	07/17/15 20:21	EPA 3005A	1,6020A	BM
Manganese, Total	5.997		mg/l	0.0200	0.0060	20	07/16/15 10:05	07/18/15 12:06	EPA 3005A	1,6020A	KL
Dissolved Metals - Westborough Lab											
Manganese, Dissolved	3.292		mg/l	0.0200	0.0060	20	07/16/15 12:28	07/18/15 14:33	EPA 3005A	1,6020A	KL

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 02 Batch: WG803193-1										
Iron, Total	ND		mg/l	0.050	0.012	1	07/16/15 10:05	07/17/15 19:41	1,6020A	BM
Manganese, Total	0.0003	J	mg/l	0.0010	0.0003	1	07/16/15 10:05	07/17/15 19:41	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 02 Batch: WG803231-1										
Manganese, Dissolved	ND		mg/l	0.0010	0.0003	1	07/16/15 12:28	07/18/15 13:32	1,6020A	KL

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516245

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 02 Batch: WG803193-2								
Iron, Total	117		-		80-120	-		
Manganese, Total	110		-		80-120	-		
Dissolved Metals - Westborough Lab Associated sample(s): 02 Batch: WG803231-2								
Manganese, Dissolved	100		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803193-4 QC Sample: L1516265-01 Client ID: MS Sample												
Iron, Total	7.48	1	4.76	**0**	Q	-	-		75-125	-		20
Manganese, Total	1.346	0.5	1.236	**0**	Q	-	-		75-125	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803231-4 QC Sample: L1516287-01 Client ID: MS Sample												
Manganese, Dissolved	1.787	0.5	2.449	**132**	Q	-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803231-3 QC Sample: L1516287-01 Client ID: DUP Sample						
Manganese, Dissolved	1.787	1.936	mg/l	8		20

INORGANICS
&
MISCELLANEOUS

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

SAMPLE RESULTS

Lab ID: L1516245-02
Client ID: MW-1
Sample Location: 87 KENT AVENUE
Matrix: Water
Date Collected: 07/15/15 09:15
Date Received: 07/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Nitrogen, Nitrate	0.817		mg/l	0.100	0.018	1	-	07/16/15 00:59	30,4500NO3-F	MR
Sulfate	320		mg/l	250	78.	25	07/16/15 12:15	07/16/15 12:15	1,9038	MP
BOD, 5 day	ND		mg/l	2.0	NA	1	07/16/15 03:30	07/20/15 22:00	30,5210B	SE
Total Organic Carbon	25.0		mg/l	10.0	2.28	20	-	07/17/15 09:20	30,5310C	DW
Iron, Ferrous	0.61		mg/l	0.50	0.071	1	-	07/16/15 01:52	30,3500Fe-D	LH

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516245
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG803141-1										
Nitrogen, Nitrate	ND		mg/l	0.100	0.018	1	-	07/16/15 00:34	30,4500NO3-F	MR
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG803148-1										
BOD, 5 day	ND		mg/l	2.0	NA	1	07/16/15 03:30	07/20/15 22:00	30,5210B	SE
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG803161-1										
Iron, Ferrous	ND		mg/l	0.50	0.071	1	-	07/16/15 01:51	30,3500Fe-D	LH
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG803213-1										
Sulfate	ND		mg/l	10	3.1	1	07/16/15 12:15	07/16/15 12:15	1,9038	MP
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG803593-1										
Total Organic Carbon	ND		mg/l	0.500	0.114	1	-	07/17/15 09:20	30,5310C	DW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG803141-2								
Nitrogen, Nitrate	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG803148-2								
BOD, 5 day	89		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG803161-2								
Iron, Ferrous	108		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG803213-2								
Sulfate	90		-		84-119	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG803593-2								
Total Organic Carbon	98		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803141-4 QC Sample: L1516260-07 Client ID: MS Sample												
Nitrogen, Nitrate	ND	4	3.90	98		-	-		83-113	-		17
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803148-4 QC Sample: L1516257-01 Client ID: MS Sample												
BOD, 5 day	ND	100	91	91		-	-		50-145	-		35
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803161-4 QC Sample: L1516245-02 Client ID: MW-1												
Iron, Ferrous	0.61	1	1.7	105		-	-			-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803213-4 QC Sample: L1516245-02 Client ID: MW-1												
Sulfate	320	1000	1300	94		-	-		55-147	-		14
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803593-4 QC Sample: L1516492-05 Client ID: MS Sample												
Total Organic Carbon	7.30	8	16.2	111		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803141-3 QC Sample: L1516260-07 Client ID: DUP Sample						
Nitrogen, Nitrate	ND	ND	mg/l	NC		17
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803148-3 QC Sample: L1516245-02 Client ID: MW-1						
BOD, 5 day	ND	ND	mg/l	NC		35
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803161-3 QC Sample: L1516245-02 Client ID: MW-1						
Iron, Ferrous	0.61	0.57	mg/l	7		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803213-3 QC Sample: L1516245-02 Client ID: MW-1						
Sulfate	320	340	mg/l	6		14
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG803593-3 QC Sample: L1516492-05 Client ID: DUP Sample						
Total Organic Carbon	7.30	7.77	mg/l	6		20

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516245
Report Date: 07/22/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1516245-01A	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-01B	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-01C	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-02A	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-02B	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-02C	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-02F	Plastic 250ml HNO3 preserved	A	<2	2.0	Y	Absent	FE-6020T(180),MN-6020T(180)
L1516245-02G	Plastic 500ml unpreserved	A	7	2.0	Y	Absent	-
L1516245-02H	Plastic 950ml unpreserved	A	7	2.0	Y	Absent	SO4-9038(28),NO3-4500(2),BOD-5210(2),FERROUS(1)
L1516245-02X	Plastic 120ml HNO3 preserved spl	A	<2	2.0	Y	Absent	MN-6020S(180)
L1516245-02Y	Vial H2SO4 preserved split	A	N/A	2.0	Y	Absent	TOC-5310(28)
L1516245-02Z	Vial H2SO4 preserved split	A	N/A	2.0	Y	Absent	TOC-5310(28)
L1516245-04A	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-04B	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-04C	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-04D	Vial HCl preserved	A	N/A	2.0	Y	Absent	NYTCL-8260(14)
L1516245-05A	Vial HCl preserved	A	N/A	2.0	Y	Absent	HOLD-8260(14)
L1516245-05B	Vial HCl preserved	A	N/A	2.0	Y	Absent	HOLD-8260(14)
L1516245-05C	Vial HCl preserved	A	N/A	2.0	Y	Absent	HOLD-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516245
Project Number:	87 KENT AVENUE	**Report Date:**	07/22/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516245
Project Number:	87 KENT AVENUE	**Report Date:**	07/22/15

Data Qualifiers

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516245
Project Number:	87 KENT AVENUE	**Report Date:**	07/22/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 7/15/15

ALPHA Job #: L1516245 ~~L1516248~~ RJ 7/15/15

Project Information

Project Name: 87 Kent Ave
Project Location: "
Project #: "
(Use Project name as Project #) ☑
Project Manager: Matt Carroll
ALPHAQuote #:

Client Information

Client: Tenen Environmental
Address: 121 W 27th #303 NY
Phone: 646 606 2332
Fax:
Email: mcarroll@tenen-environ...

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ **Done**
☐ **Lab to do**
Preservation
☐ **Lab to do**
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Dissolved Metals	Total Metals	Semi VOCs, SVOCs	Product Fingerprint				Sample Specific Comments	Total Bottles
16245.01	TGW-1 (16-20)	7/13/15	1530	GW	KM	✓									
.02	MW-1	7/15/15	0915	GW	KM	✓	✓	✓	✓						
16248	MW-1 GRAB	7/15/15	2100		KM					✓				NAPL on GW	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type									
Preservative			C						

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/15/15 1300	[signature]	7/15/15 1300
[signature]	7/15/15 1830	Tom Tabor	7-15-15 1830
Tom Tabor	7-15-15 2300	[signature]	7/15/15 2300

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L1516248
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 303 New York City, NY 10001
ATTN:	Matt Carroll
Phone:	(646) 606-2332
Project Name:	87 KENT AVENUE
Project Number:	87 KENT AVENUE
Report Date:	07/27/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516248
Report Date: 07/27/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1516248-01	MW-1 GRAB	WATER	87 KENT AVENUE	07/15/15 09:00	07/15/15

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516248
Project Number:	87 KENT AVENUE	**Report Date:**	07/27/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 87 KENT AVENUE **Lab Number:** L1516248
Project Number: 87 KENT AVENUE **Report Date:** 07/27/15

Case Narrative (continued)

Report Submission
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Petroleum Hydrocarbon Quantitation
Total Petroleum Hydrocarbons (TPH) by GC/FID
Sample L1516248-01 was extracted and then analyzed using a gas chromatograph equipped with a flame ionization detector (GC/FID). The temperature program and associated experimental conditions were optimized to obtain maximum resolution in an eighty minute chromatographic run representative of hydrocarbons in the n-Octane (C8) to n-Tetracontane (C40) range. Qualitative evaluation of the sample is conducted by reviewing the sample chromatogram in conjunction with a chromatogram of a normal alkane series generated with the same chromatographic conditions. Chromatograms of hydrocarbon reference materials obtained from our library of 74 reference standards are also utilized to provide the best possible sample match. Quantitative determination of the sample hydrocarbon concentration is performed in accordance with EPA Method 8015M. The sample total hydrocarbon concentration and all associated quality control data are included in the report.

All quality control parameters met the specified criteria.

The following qualitative information is based on a tentative interpretation of chromatographic pattern recognition and boiling point ranges:

Total Petroleum Hydrocarbon Identification
Sample L1516248-01 contains material eluting in the range prior to the elution of n-Tridecane (C13) to after the elution of n-Heptatriacontane (C37).

Based on the data generated sample, L1516248-01 contains material eluting in the mid to high molecular weight ranges of the chromatogram. The material present appears to be petroleum in nature and is similar to

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516248
Project Number:	87 KENT AVENUE	**Report Date:**	07/27/15

Case Narrative (continued)

hydraulic fluid.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 07/27/15

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: 87 KENT AVENUE
Lab Number: L1516248
Project Number: 87 KENT AVENUE
Report Date: 07/27/15

SAMPLE RESULTS

Lab ID: L1516248-01
Client ID: MW-1 GRAB
Sample Location: 87 KENT AVENUE
Matrix: Water
Analytical Method: 1,8015D(M)
Analytical Date: 07/19/15 15:20
Analyst: NL

Date Collected: 07/15/15 09:00
Date Received: 07/15/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 07/17/15 14:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab						
Total Petroleum Hydrocarbons (C9-C44)	4470		mg/l	17.7	8.87	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	114		50-130
d50-Tetracosane	118		50-130

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE
Lab Number: L1516248
Report Date: 07/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 07/19/15 10:44
Analyst: NL

Extraction Method: EPA 3510C
Extraction Date: 07/17/15 14:53

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab for sample(s): 01 Batch: WG803775-1					
Total Petroleum Hydrocarbons (C9-C44)	ND		mg/l	0.330	0.165

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	94		50-130
d50-Tetracosane	97		50-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 87 KENT AVENUE

Project Number: 87 KENT AVENUE

Lab Number: L1516248

Report Date: 07/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Identification by GC-FID - Mansfield Lab Associated sample(s): 01 Batch: WG803775-2 WG803775-3								
Nonane (C9)	65		76		50-130	16		30
Decane (C10)	72		85		50-130	17		30
Dodecane (C12)	80		94		50-130	16		30
Tetradecane (C14)	81		95		50-130	16		30
Hexadecane (C16)	88		101		50-130	14		30
Octadecane (C18)	91		103		50-130	12		30
Nonadecane (C19)	85		96		50-130	12		30
Eicosane (C20)	87		98		50-130	12		30
Docosane (C22)	88		99		50-130	12		30
Tetracosane (C24)	88		98		50-130	11		30
Hexacosane (C26)	87		97		50-130	11		30
Octacosane (C28)	89		99		50-130	11		30
Triacontane (C30)	89		99		50-130	11		30
Hexatriacontane (C36)	86		95		50-130	10		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	92		96		50-130
d50-Tetracosane	95		98		50-130

Project Name: 87 KENT AVENUE
Project Number: 87 KENT AVENUE

Lab Number: L1516248
Report Date: 07/27/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1516248-01A	Glass 250ml/8oz unpreserved	A	N/A	2.0	Y	Absent	A2-PHI(7)

*Values in parentheses indicate holding time in days

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516248
Project Number:	87 KENT AVENUE	**Report Date:**	07/27/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516248
Project Number:	87 KENT AVENUE	**Report Date:**	07/27/15

Data Qualifiers

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	87 KENT AVENUE	**Lab Number:**	L1516248
Project Number:	87 KENT AVENUE	**Report Date:**	07/27/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab 7/15/15

ALPHA Job # L1516248

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Tenen Environmental
Address: 121 W 27th #303 NY
Phone: 646 606 2332
Fax:
Email: mcarroll@tenen-env...

Project Information

Project Name: 87 Kent Ave
Project Location: "
Project # "
(Use Project name as Project #) ☑
Project Manager: Matt Carroll
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Dissolved Metals	Total Metals	SVOC NOS	Product Fingerprint				Sample Specific Comments	Total Bottles
16245	TGW-1 (16/20)	7/13/15	1530	GW	KM	✓									
	MW-1	7/15/15	0915	GW	KM	✓	✓	✓	✓						
16248-01	MW-1 GRAB	7/15/15	0800		BL					✓				NAPL on GW	

Preservative Code:	Container Code
A = None	P = Plastic
B = HCl	A = Amber Glass
C = HNO_3	V = Vial
D = H_2SO_4	G = Glass
E = NaOH	B = Bacteria Cup
F = MeOH	C = Cube
G = $NaHSO_4$	O = Other
H = $Na_2S_2O_3$	E = Encore
K/E = Zn Ac/NaOH	D = BOD Bottle
O = Other	

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type								
Preservative			C					

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/15/15 1300	[signature]	7/15/15 1300
[signature]	7/15/15 1830	Tom Tabor	7-15-15 1830
Tom Tabor	7-15-15 2300	7/15/15 2300 [signature]	
[signature]	7/16/15 04:00	Mansfield lab	7/16/15 04:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 7/15/15

ALPHA Job #: L1516248

Project Information

Project Name: 87 Kent Ave
Project Location: "
Project #: "
(Use Project name as Project #) ☑
Project Manager: Matt Carroll
ALPHAQuote #:

Client Information

Client: Tenen Environmental
Address: 121 W 27th #303 NY
Phone: 646 606 2332
Fax:
Email: mcarroll@tenen-environ...

Turn-Around Time

Standard ☑
Rush (only if pre approved) ☐
Due Date:
# of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS: VOCs; Dissolved Metals; Total Metals; 8260 SIM / 8270 SIM NOS (?); Product Fingerprint

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	Dissolved Metals	Total Metals	8260 SIM / 8270 SIM	Product Fingerprint				Sample Specific Comments	Total Bottles
Hers	TGW-1(16/20)	7/13/15	1530	GW	KM	✓									
	MW-1	7/15/15	0915	GW	KM	✓	✓	✓	✓						
1624801	MW-1 GRAB	7/15/15	0900		KM					✓				NAPL on gw	

Preservative Code	Container Code
A = None	P = Plastic
B = HCl	A = Amber Glass
C = HNO_3	V = Vial
D = H_2SO_4	G = Glass
E = NaOH	B = Bacteria Cup
F = MeOH	C = Cube
G = $NaHSO_4$	O = Other
H = $Na_2S_2O_3$	E = Encore
K/E = Zn Ac/NaOH	D = BOD Bottle
O = Other	

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type								
Preservative			C					

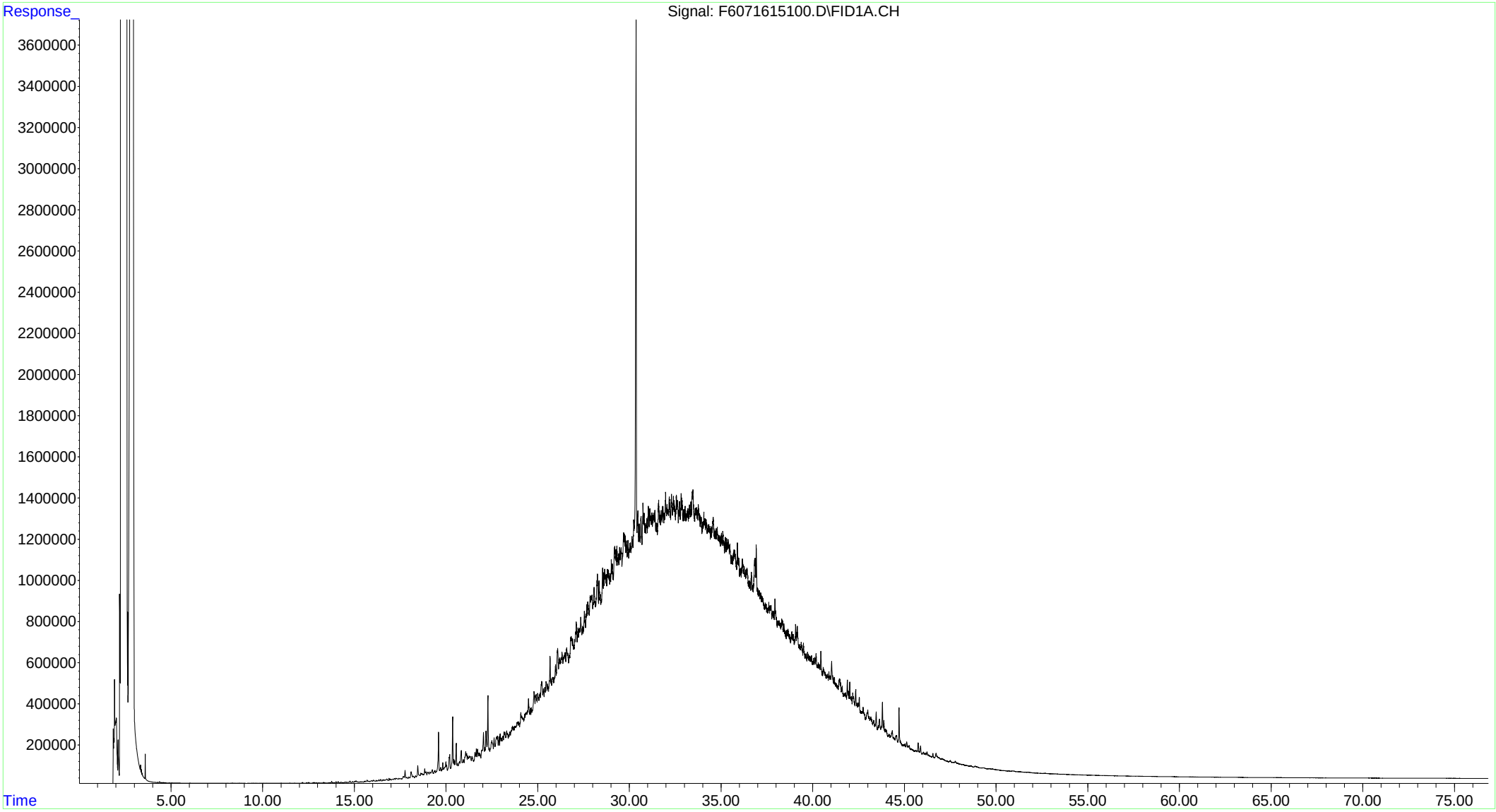
Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/15/15 1300	[signature]	7/15/15 1300
[signature]	7/15/15 1830	Tom Tobin	7-15-15 1830
Tom Tobin	7-15-15 2300	7/15/15 2300 [signature]	

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

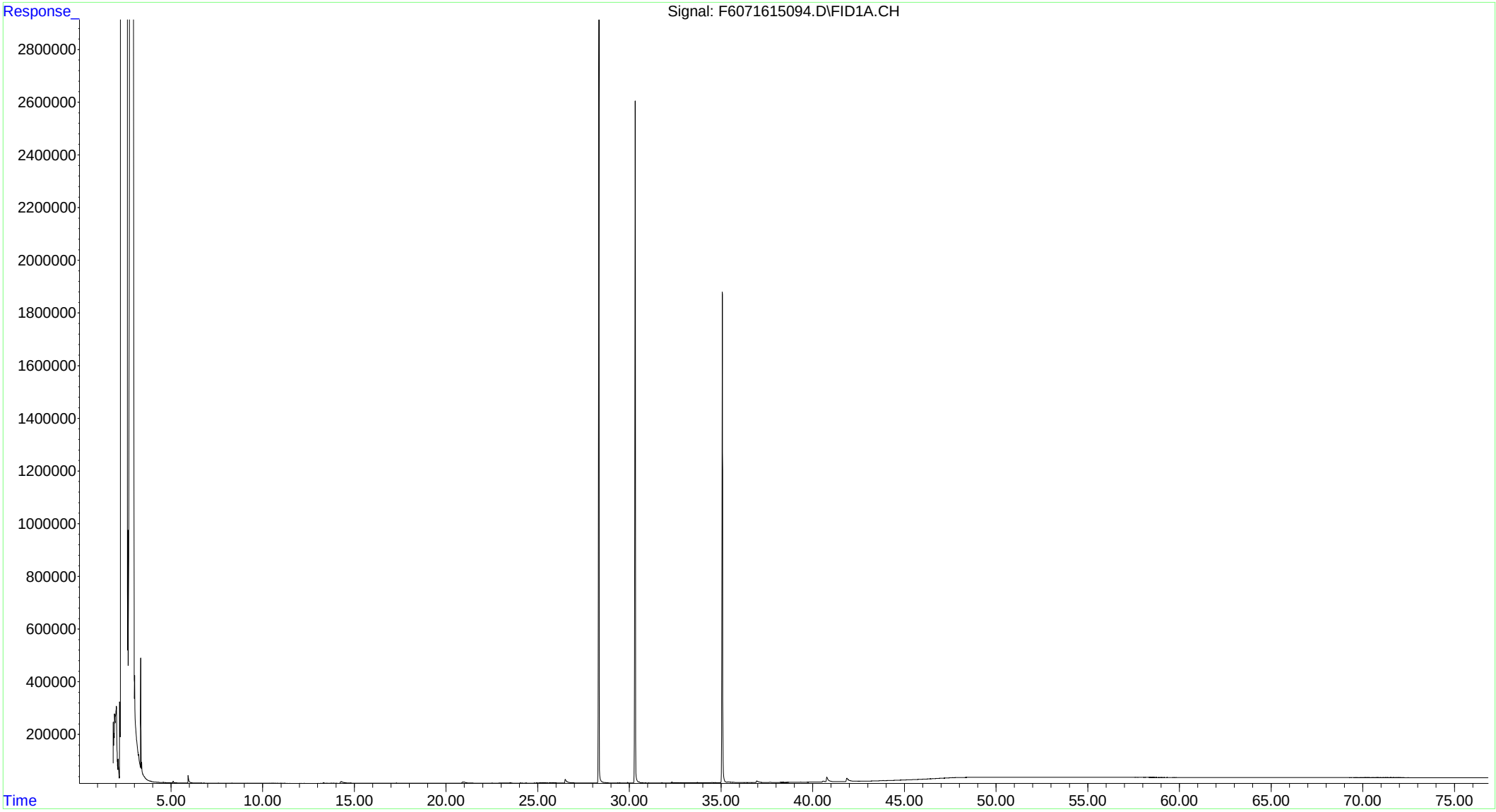
Form No: 01-25 HC (rev. 30-Sept-2013)

GC-FID Chromatogram

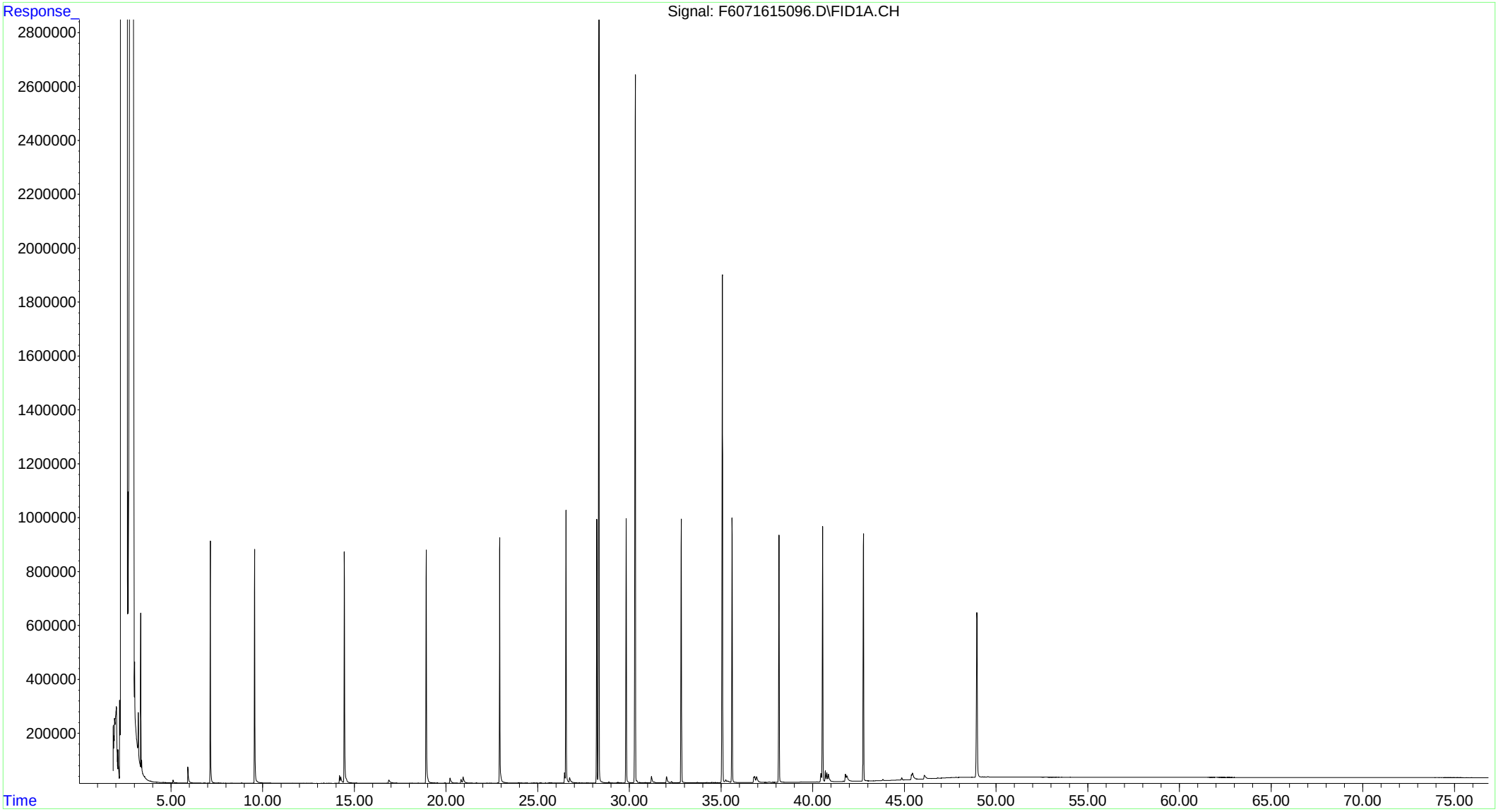
File :O:\Forensics\Data\FID6\2015\Jul\Jul16\F6071615100.D
Operator : FID6:NL
Acquired : 19 Jul 2015 3:20 pm using AcqMethod FID6A.M
Instrument : FID6
Sample : L1516248-01,42
Misc Info : WG804251,WG803775,ICAL10513
ALS Vial : 50



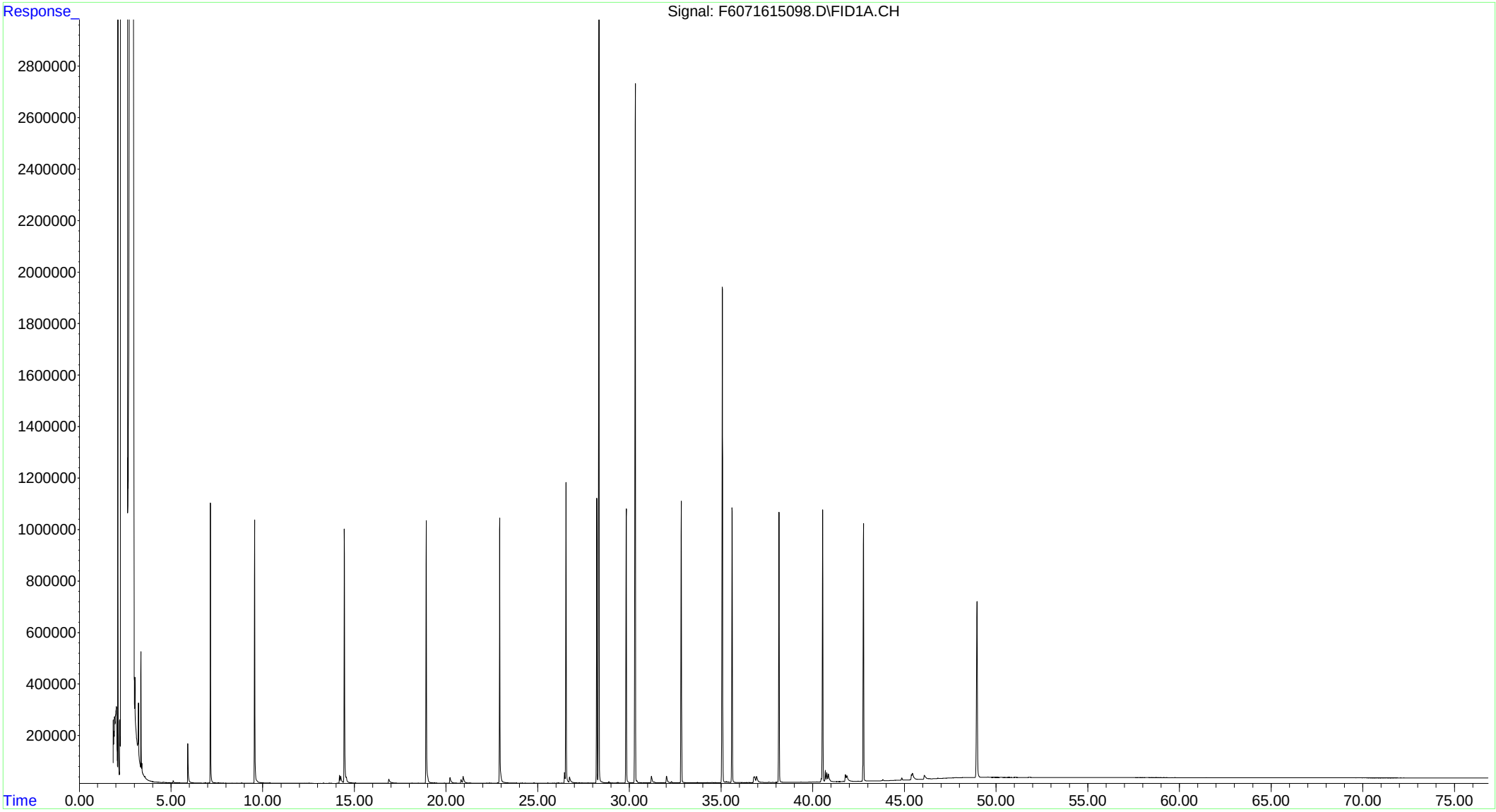
File :O:\Forensics\Data\FID6\2015\Jul\Jul16\F6071615094.D
Operator : FID6:NL
Acquired : 19 Jul 2015 10:44 am using AcqMethod FID6A.M
Instrument : FID6
Sample : WG803775-1,42
Misc Info : WG804251,WG803775,ICAL10513
ALS Vial : 47



File :O:\Forensics\Data\FID6\2015\Jul\Jul16\F6071615096.D
Operator : FID6:NL
Acquired : 19 Jul 2015 12:16 pm using AcqMethod FID6A.M
Instrument : FID6
Sample : WG803775-2,42
Misc Info : WG804251,WG803775,ICAL10513
ALS Vial : 48



File :O:\Forensics\Data\FID6\2015\Jul\Jul16\F6071615098.D
Operator : FID6:NL
Acquired : 19 Jul 2015 1:48 pm using AcqMethod FID6A.M
Instrument : FID6
Sample : WG803775-3,42
Misc Info : WG804251,WG803775,ICAL10513
ALS Vial : 49



Petroleum Reference Standards

Data Path : O:\Forensics\Data\FID6\2015\Jul\Jul16\
Data File : F6071615102.D
Signal(s) : FID1A.CH
Acq On : 19 Jul 2015 4:52 pm
Operator : FID6:NL
Sample : Alkane Reference Standard (C8 - C40)
Misc : WG804251, FRAV83 50ug/mL
ALS Vial : 1 Sample Multiplier: 1

Integration File: SHCINT2.E
Quant Time: Jul 20 14:04:36 2015
Quant Method : O:\Forensics\Data\FID6\2015\Jul\Jul16\HC6120314F.M
Quant Title : FID Forensics
QLast Update : Mon Jul 20 10:18:25 2015
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1.0
Signal Phase : Rtx-5MS
Signal Info : 0.25mm

Sub List : CCAL - CCAL

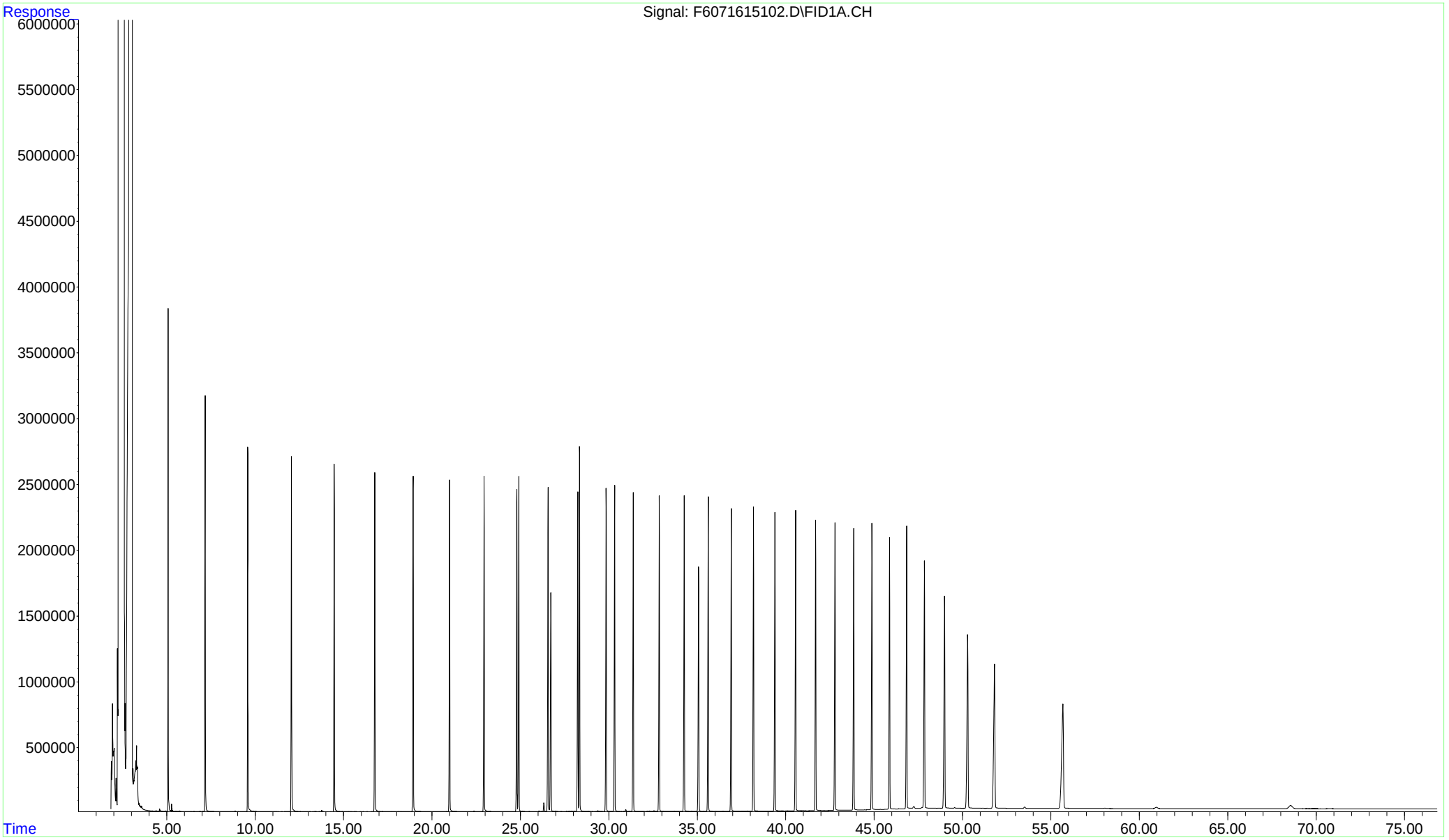
	Compound	R.T.	Response	Conc Units
	Internal Standards			
1) I	5-alpha-androstane	30.328	58305358	50.000 ug/mL M4
	System Monitoring Compounds			
19) s	ortho-terphenyl	28.343	62351536	48.298 ug/mL M4
Spiked Amount	50.000	Range 50 - 130	Recovery =	96.60%
24) s	d50-Tetracosane	35.074	49385032	48.579 ug/mL M4
Spiked Amount	50.000	Range 50 - 130	Recovery =	97.16%
	Target Compounds			
2) t	n-Octane (C8)	5.080	44956652	46.697 ug/mL M4
3) t	n-Nonane (C9)	7.166	46798668	46.514 ug/mL M4
4) t	n-Decane (C10)	9.577	48708980	46.680 ug/mL M4
5) t	n-Undecane (C11)	12.056	50074176	47.476 ug/mL M4
6) t	n-Dodecane (C12)	14.465	51197568	47.836 ug/mL M4
7) t	n-Tridecane (C13)	16.759	51706190	48.062 ug/mL M4
9) t	n-Tetradecane (C14)	18.933	52311815	48.002 ug/mL M4
11) t	n-Pentadecane (C15)	20.992	53414786	48.168 ug/mL M4
12) t	n-Hexadecane (C16)	22.942	53434982	48.357 ug/mL M4
14) t	n-Heptadecane (C17)	24.797	53350637	47.915 ug/mL M4
15) t	Pristane	24.907	54594131	48.698 ug/mL M4
16) t	n-Octadecane (C18)	26.560	54736863	48.431 ug/mL M4
17) t	Phytane	26.721	47947114	48.456 ug/mL M4
18) t	n-Nonadecane (C19)	28.242	54112943	48.227 ug/mL M4
20) t	n-Eicosane (C20)	29.845	54374555	48.595 ug/mL M4
21) t	n-Heneicosane (C21)	31.381	54728232	48.429 ug/mL M4
22) t	n-Docosane (C22)	32.852	55073082	48.435 ug/mL M4
23) t	n-Tricosane (C23)	34.263	55454608	48.382 ug/mL M4
25) t	n-Tetracosane (C24)	35.620	55614890	48.227 ug/mL M4
26) t	n-Pentacosane (C25)	36.924	55148013	48.420 ug/mL M4
27) t	n-Hexacosane (C26)	38.181	56372178	48.467 ug/mL M4
28) t	n-Heptacosane (C27)	39.393	55798547	48.404 ug/mL M4
29) t	n-Octacosane (C28)	40.566	55566795	48.439 ug/mL M4
30) t	n-Nonacosane (C29)	41.695	55870164	48.499 ug/mL M4
31) t	n-Triacontane (C30)	42.789	55876003	48.439 ug/mL M4
32) t	n-Hentriacontane (C31)	43.851	56011674	48.555 ug/mL M4
33) t	n-Dotriacontane (C32)	44.878	56400268	48.555 ug/mL M4
34) t	n-Tritriacontane (C33)	45.876	53194363	48.553 ug/mL M4
35) t	n-tetratriacontane (C34)	46.843	55499015	48.527 ug/mL M4
36) t	n-Pentatriacontane (C35)	47.849	55846093	48.747 ug/mL M4
37) t	n-Hexatriacontane (C36)	48.988	57444242	48.872 ug/mL M4
38) t	n-Heptatriacontane (C37)	50.290	55999031	48.944 ug/mL M4
39) t	n-Octatriacontane (C38)	51.810	54758130	48.984 ug/mL M4
41) t	n-Tetracontane (C40)	55.678	56651031	49.243 ug/mL M4

SemiQuant Compounds - Not Calibrated on this Instrument

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\FID6\2015\Jul\Jul16\
Data File : F6071615102.D
Operator : FID6:NL
Acquired : 19 Jul 2015 4:52 pm using AcqMethod FID6A.M
Instrument: FID6
Sample : Alkane Reference Standard (C8 - C40)
Misc Info : WG804251, FRAV83 50ug/mL
ALS Vial : 1



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File       :O:\FORENSICS\LIBRARY\Hydrocarbon Reference Standards\Hydraul
...         ic Fluid.D
Operator  : PAH2:AC
Instrument :   PAH 2
Acquired  : 21 Nov 2011   4:03 am using AcqMethod FRNC2AF.M
Sample    : HYDRAULIC FLUID
Misc Info : F042710T
```