



Strong Advocates, Effective Solutions, Integrated Implementation

February 12, 2019

Mr. Nicholas Sinatra  
1200 Jefferson Properties, LLC  
617 Main Street, Suite 200  
Buffalo, New York 14203

Re: Supplemental Site Investigation  
1200 Jefferson Avenue Site  
Buffalo, New York

Dear Mr. Sinatra:

As requested, TurnKey Environmental Restoration, LLC (TurnKey) has completed a supplemental investigation at the subject property, addressed at 1200 Jefferson Avenue, Buffalo New York (Site, see Figure 1). A description of the investigation and discussion of the findings is presented below.

### **Site Description and Background**

The 1200 Jefferson Avenue Site, located between Northampton Street and Eaton Street, totaling approximately 1 acre, including one (1) existing building, with vacant land on the north side of the Site, and alleyway on the west side of the Site (see Figure 2).

A Limited Phase II Environmental Investigation was conducted by TurnKey in April 2018 the findings of the Ltd. Phase II Investigation included:

- Grossly contaminated petroleum soils were detected on Site, including visual product on soil cutting sleeve, associated with a historic closed in-place 8,000-gallon fuel oil UST.
- Elevated photoionization detector (PID) readings at four (4) locations.
- Elevated chlorinated VOCs, likely related to the former dry-cleaning operations on Site, were detected in soil samples.
- Elevated petroleum VOCs were detected in soil samples.
- Elevated chlorinated VOCs were detected in groundwater samples exceeding GWQS.
- Shallow fill material, including brick, block, cinders and ash were detected across the site, ranging in depth from 0-10 fbg.
- Elevated metals, including arsenic, barium, chromium, lead and mercury were detected in on-Site soil/fill.

## **Supplemental Site Investigation**

A Supplemental Site Investigation was conducted in December 2018 to further assess the identified VOC and metals impacts on-Site. The supplemental investigation included interior borings to further assess former dry cleaning related impacts beneath the existing building, and completion of additional exterior soil investigation to further assess metals impacted soil-fill in the northern portion of the Site (see Figure 2).

### **Interior Investigation**

#### **Subslab Soils**

Seven (7) interior soils borings, identified as SB-23 through SB-29, were advanced using a direct push drill rig. A core drill was used to bore through the concrete floor at each location, prior to soil boring advancement. Soil samples were retrieved from beneath the existing concrete floor, in clear PVC sleeves to allow for field characterization and sample collection for laboratory analysis. TurnKey personnel scanned each core sample for volatile organics with PID and recorded visual and/or olfactory observations.

Elevated PID readings above background (0.0 ppm) were noted in five (5) of the seven (7) interior boring locations, with highest readings of 26 ppm at SB-25.

In general, the underlying soil-fill beneath the concrete slab can be described as approximately 6-inches of underlying gravel subbase, with fill, sand and clay beneath ranging from 1-12 fbg. A summary of field findings is provided on Table 1.

#### **Groundwater**

Temporary monitoring wells were installed in soil borings, SB-23 (TMW-3) and SB-25 (TMW-4) (see Figure 2) to further assess groundwater beneath the existing building in the vicinity of the former dry cleaning operations. Elevated PID readings and odors were noted at approximately 6-10 fbg for both wells. Groundwater was encountered at approximately 7-8 fbg, with final well depth of 12 fbg. The temporary wells were installed using one-inch diameter Schedule 40 PVC well screen and riser. Groundwater samples were collected from the temporary wells using dedicated and disposable polyethylene bailers.

#### **Exterior Soil-Fill Investigation**

Seven (7) test pits, identified as TP-1 through TP-7, were advanced to further assess petroleum and metals impacts identified during the previous investigation, the test pits were advanced to a depth of approximately nine (9) fbg with the exception of TP-7 which was abandoned due to shallow water encountered at two (2) fbg. All seven (7) test pits identified the presence of urban fill materials, including ash, cinders, brick, block/concrete, wood and glass ranging from 0-8 fbg. Former building foundations were noted within test pits as well as at the surface on the northern portion of the Site. A summary of the field findings is presented on Table 1.

Soil and groundwater samples were collected in laboratory-provided sampling containers, cooled to 4°C in the field, and transported under chain-of-custody command to a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified analytical laboratory.

Representative soil/fill and groundwater samples were collected and selectively analyzed for NYSDEC CP-51 List plus Target Compound List (TCL) volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) metals. Laboratory analytical results are presented below.

### **Analytical Results**

Six (6) soil/fill samples, including two (2) interior and four (4) exterior locations, and two (2) groundwater samples were collected from select investigation locations across the Site.

Soil analytical results indicate elevated tetrachloroethene (PCE) exceeding Restricted Residential Use SCOs (RRSCOs) at SB-25, and exceeding Protection of Groundwater SCOs at SB-29 from beneath the existing building. Elevated metals, including arsenic, barium, chromium, lead and mercury were detected exceeding USCOS and RRSCOs. For summary purposes, Table 2 shows both the initial as well as supplementary phase II soil/ fill analytical results.

Groundwater analytical results indicate elevated chlorinated VOCs, including PCE, trichloroethene (TCE), cis- and trans-1,2-dichloroethene (DCE) and vinyl chloride (VC) exceeding Groundwater Quality Standards (GWQS) in both samples. For summary purposes, Table 3 shows both the initial as well as supplementary phase II groundwater analytical results.

### **Conclusions and Recommendations**

Based on the results of this investigation, TurnKey offers the following summary and recommendations:

- Evidence of chlorinated VOCs (dry-cleaning related chemicals) contamination in soil and groundwater was detected beneath the existing building that will require additional investigation and remediation.
- Evidence of fill materials with elevated metals was identified across the Site.
- Based on the findings of this investigation, additional Site investigation and remediation is required prior to redevelopment. We understand that 1200 Jefferson Properties, LLC is considering redeveloping the property; and based on findings of the investigation, the Site may be eligible for the New York Brownfield Cleanup Program.

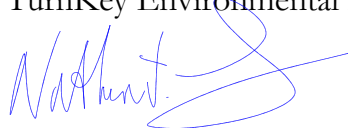
### **Declaration /Limitations**

This report has been prepared for the exclusive use of 1200 Jefferson Properties, LLC. The contents of this report are limited to information available at the time of the site investigation activities and to data referenced herein, and assume all referenced historic information sources to be true and accurate. The findings herein may be relied upon only at the discretion of 1200 Jefferson Properties, LLC. Use of or reliance upon this report or its findings by any other

person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

Please do not hesitate to contact us if you have any questions or wish to discuss this report in greater detail.

Sincerely,  
TurnKey Environmental Restoration, LLC



Nathan T. Munley  
Project Manager



Thomas H Forbes  
Principal

0239-017-002

# TABLES



**TABLE 1  
SUMMARY OF FIELD FINDINGS  
1200 JEFFERSON AVENUE SITE  
BUFFALO, NEW YORK**

Location	Date	Fill Present	Depth of Fill	Visually Impacted Soil/Fill?	Olfactory Odor	Maximum PID Depth (fbgs) Reading (ppm)	Soil Description and Depth (fbgs)
<b>Soil Boring Locations</b>							
SB-23	12/18/18	No	N/a			10'- 1.4	0-.33' Concrete .33-.66' Gravel subbase: Grey, moist mostly subangular gravel, little fine sand, no odors .66 - 1.5' Silty sand: Dark brown, moist, mostly silt, little fine sand, few sub rounded gravel, no odors 1.5-12.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8'), mostly medium plasticity fines, some fine sand, stiff, no odors
SB-24	12/18/18	No	N/a		Yes	10'-5.2	0-.33' Concrete .33 - .66' Silty sand: Dark brown, moist, mostly silt, little fine sand, few sub rounded gravel, no odors .66-12.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (7'), mostly medium plasticity fines, some fine sand, stiff, slight odors
SB-25	12/18/18	No	N/a		Yes	6'- 26.7	0-.33' Concrete .33-.50' Gravel subbase: Grey, moist mostly subangular gravel little fine sand, no odors .50 - 1.0' Silty sand: Dark brown, moist, mostly silt, little fine sand, few sub rounded gravel, no odors 1.5-12.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (7'), mostly medium plasticity fines, some fines sand, stiff, slight odors
SB-26	12/18/18	No	N/a				0-.33' Concrete .33-12.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8'), mostly medium plasticity fines, some fine sand, stiff, no odors
SB-27	12/18/18	Yes	1'			5'- 1.5	0.0-0.25' Concrete .25-1.0' Fill: Tan, moist, mostly fine sand with urban fill <sup>1</sup> , no odors 1.0-10.0' Sandy Lean Clay: Reddish brown, moist to wet (7.5'), mostly medium plasticity fines, some fines sand, stiff, no odors.
SB-28	12/18/18	No	N/a				0-.33' Concrete .33 - 1.5' Silty sand: Dark brown, moist, mostly silt, little fine sand, few sub rounded gravel, no odors 1.5-12.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8'), mostly medium plasticity fines, some fine sand, stiff, no odors
SB-29	12/18/18	No	N/a		Yes	6'-8	0-.50' Concrete .50 - 2.0' Silty sand: Dark brown, moist, mostly silt, little fine sand, few sub rounded gravel, no odors 2-10.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8') , mostly medium plasticity fines, some fine sand, stiff, sweet odor, Refusal at 10'
<b>Test Pit Locations</b>							
TP-1	12/14/18	Yes	7'	Black Staining		6'-1.2	0 - 2.0' Fill: Brown, moist, mostly silty sand with urban fill <sup>1</sup> , no odors 2.0 - 6.0' Fill: Black, moist to wet (6') mostly well graded sand with urban fill <sup>1</sup> , no odors 6.0 - 7.0' Concrete (foundation) 7.0 - 9.0' Sandy Lean Clay: Reddish brown / tan, wet , mostly medium plasticity fines, some fine sand, stiff, no odors
TP-2	12/14/18	Yes	7'				0 - 2.0' Fill: Black, moist, mostly well graded sand, with urban fill <sup>1</sup> , no odors 2.0 - 5.0' Fill: Black, moist, mostly former building materials (wood, metal, brick, concrete, plastic, metal pipes), urban fill <sup>1</sup> , organic odors 5.0 - 6.0' Ash: greyish black, moist to wet (6'), mostly ash with urban fill, no odors 6.0 - 7.0' Fill: Black, wet (6') mostly well graded sand with urban fill <sup>1</sup> , no odors 7.0 - 9.0' Sandy Lean Clay: Reddish brown / tan, wet, mostly medium plasticity fines, some fine sand, stiff, no odors
TP-3	12/14/18	Yes	2'				0 - 2.0' Fill: Brown, moist, mostly silty sand with urban fill <sup>1</sup> , no odors 2.0 - 3.0' Ash: grey, moist, mostly ash with urban fill <sup>1</sup> , no odors 3.0 - 9.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8') , mostly medium plasticity fines, some fine sand, stiff, no odors
TP-4	12/14/18	Yes	4'				0 - 2.0' Fill: Brown, moist, mostly silty sand with urban fill <sup>1</sup> , building materials, no odors 2.0 - 5.0' Silty sand: Tan, moist, mostly fine sand, little silt, no odors 5.0 - 9.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8') , mostly medium plasticity fines, some fine sand, stiff, no odors
TP-5	12/14/18	Yes	3'				0 - 2.0' Fill: Brown, moist, mostly silty sand with urban fill <sup>1</sup> , building materials, no odors 2.0 - 5.0' Silty sand: Tan, moist, mostly fine sand, little silt, no odors 5.0 - 9.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8') , mostly medium plasticity fines, some fine sand, stiff, no odors
TP-6	12/14/18	Yes	8.5				0 - 8.0' Fill: Brown, moist, mostly silty sand with urban fill <sup>1</sup> , building materials, little ash, no odors 8.0 - 8.5' Subangular Gravel: Grey, moist, mostly subangular gravel, some fine sand, no odors 8.5 - 9.0' Sandy Lean Clay: Reddish brown / tan, moist to wet (8') , mostly medium plasticity fines, some fine sand, stiff, no odors
TP-7	12/14/18	Yes	5'		Yes	3'-.8	0 - 0.25' Asphalt 0.25 - 5.0' Fill: Brown/black, Wet ( 2'), sheen on water, Mostly urban fill <sup>1</sup> , some fine sand, slight odors , hole abanadoned at 5' due to water

**Notes:**

1. Urban Fill: Consisting of brick, block, glass, metal, wood, ash, and cinders

**Definitions:**

fbgs = feet below ground surface

PID = MiniRae photoionization detector equipped with a 10.6 eV lamp

ppm = parts per million

N/A = Non applicable



**TABLE 2**  
**SUMMARY OF SUBSURFACE SOIL/FILL ANALYTICAL RESULTS**  
**1200 JEFFERSON AVENUE SITE**  
**BUFFALO, NEW YORK**

PARAMETER <sup>1</sup>	Protection of Groundwater SCOs <sup>2</sup>	Unrestricted Use SCOs <sup>2</sup>	Restricted Residential Use SCOs <sup>2</sup>	Commercial Use SCOs <sup>2</sup>	Industrial Use SCOs <sup>5</sup>	SAMPLE LOCATION (DEPTH)														
						SB-1 (4"-1')	SB-5 (0-2')	FD-1	SB-11 (7-8')	SB-12 (8-9')	SB-13 (6-8')	SB-18 (1.5-2.5')	SB-22 (.5-2.5')	SB-12 (2"-6")	SB-25 (5-7')	SB-29 (5-6')	TP-1 (6-7')	TP-2 (0-1')	TP-3 (2-3')	TP-6 (4-5')
						02/15/2018			02/16/2018				12/18/2108			12/14/2018				
<b>Volatile Organic Compounds (VOCs) - mg/Kg <sup>3</sup></b>																				
1,2,4-Trimethylbenzene	--	3.6	52	190	380	ND	--	97	ND	7.2	8.1	--	--	--	ND	ND	ND	--	--	
1,2-Dichlorobenzene	--	1.1	100	500	1,000	ND	--	ND	ND	ND	ND	--	--	--	0.0017 J	ND	ND	--	--	
1,3,5-Trimethylbenzene	--	8.4	52	190	380	ND	--	30	ND	2.4	2.3	--	--	--	ND	ND	ND	--	--	
1,4-Dichlorobenzene	--	1.8	13	130	250	ND	--	ND	ND	ND	ND	--	--	--	0.0018 J	ND	ND	--	--	
4-Isopropyltoluene	--	--	--	--	--	ND	--	14	ND	0.14	0.17	--	--	--	ND	ND	ND	--	--	
Benzene	--	0.06	4.8	44	89	ND	--	ND	ND	0.2	0.052 J	--	--	--	ND	ND	ND	--	--	
Chloroform	0.37	0.37	49	350	700	0.003	--	ND	ND	ND	ND	--	--	--	0.0023 J	0.00041 J	ND	--	--	
Chloromethane (Methyl chloride)	--	--	--	--	--	ND	--	ND	ND	ND	ND	--	--	--	ND	ND	ND	--	--	
cis-1,2-Dichloroethene	0.25	0.25	100	500	1,000	ND	--	ND	0.42 J	ND	ND	--	--	--	0.02	0.017	ND	--	--	
Ethylbenzene	--	1	41	390	780	ND	--	1.1 J	ND	2.1	2.1	--	--	--	ND	ND	ND	--	--	
Isopropylbenzene (Cumene)	--	--	--	--	--	ND	--	1.9	ND	0.29	0.16	--	--	--	0.0061	ND	ND	--	--	
Methylcyclohexane	--	--	--	--	--	ND	--	ND	ND	1.3	0.42	--	--	--	ND	ND	ND	--	--	
Methylene chloride	0.05	0.05	100	500	1,000	ND	--	0.85 B, J	0.24 B, J	0.15 B	0.13 B	--	--	--	ND	ND	ND	--	--	
n-Butylbenzene	--	12	100	500	1,000	ND	--	34	5	0.91	0.54	--	--	--	ND	ND	ND	--	--	
n-Propylbenzene	--	3.9	100	500	1,000	ND	--	4.6	ND	1.3	0.88	--	--	--	ND	ND	ND	--	--	
sec-Butylbenzene	--	11	100	500	1,000	ND	--	1.1	ND	0.18	0.075 J	--	--	--	0.0019 J	ND	ND	--	--	
Tetrachloroethene	1.3	1.3	19	150	300	0.22	--	ND	ND	0.063 J	ND	--	--	--	110 E	7.1	ND	--	--	
Toluene	0.7	0.7	100	500	1,000	ND	--	2.5	ND	0.052 J	0.28	--	--	--	ND	ND	ND	--	--	
trans-1,2-Dichloroethene	0.19	0.19	100	500	1,000	ND	--	ND	ND	ND	ND	--	--	--	0.001 J	0.0039 J	ND	--	--	
Trichloroethene	0.47	0.47	21	200	400	ND	--	0.54 J	ND	ND	ND	--	--	--	0.27 E	0.45	ND	--	--	
Total Xylenes	--	0.26	100	500	1000	ND	--	11	ND	3.7 J	11	--	--	--	0.0043 J	ND	ND	--	--	
<b>Semi-Volatile Organic Compounds (SVOCs) - mg/Kg <sup>3</sup></b>																				
Anthracene	--	100	100	500	1,000	--	ND	ND	--	--	--	0.067	ND	ND	--	--	--	ND	ND	
Benzo(a)anthracene	--	1	1	5.6	11	--	ND	ND	--	--	--	0.21	0.69 J	0.72 J	--	--	--	0.081 J	ND	
Benzo(a)pyrene	--	1	1	1	1	--	ND	ND	--	--	--	0.2	0.68 J	0.63 J	--	--	--	0.081 J	0.047 J	
Benzo(b)fluoranthene	--	1	1	5.6	11	--	ND	ND	--	--	--	0.25	0.85 J	0.77 J	--	--	--	0.096 J	0.044 J	
Benzo(ghi)perylene	--	100	100	500	1,000	--	ND	ND	--	--	--	0.16 J	0.45 J	0.46 J	--	--	--	0.056 J	0.038 J	
Benzo(k)fluoranthene	--	0.8	3.9	56	110	--	ND	ND	--	--	--	0.12 J	0.44 J	ND	--	--	--	ND	ND	
Carbazole	--	--	--	--	--	--	ND	ND	--	--	--	ND	ND	ND	--	--	--	ND	ND	
Chrysene	--	1	3.9	56	110	--	ND	ND	--	--	--	0.22	0.75 J	0.7 J	--	--	--	0.093 J	ND	
Fluoranthene	--	100	100	500	1,000	--	0.029	11 J	--	--	--	0.3	1.3 J	1.3	--	--	--	ND	0.039	
Indeno(1,2,3-cd)pyrene	--	0.5	0.5	5.6	11	--	ND	ND	--	--	--	0.14 J	0.44 J	ND	--	--	--	ND	0.028	
Naphthalene	--	12	100	500	1,000	--	ND	38 J	--	--	--	0.086 J	ND	ND	--	--	--	ND	ND	
Phenanthrene	--	100	100	500	1,000	--	ND	8.8 J	--	--	--	0.27	0.56 J	0.79 J	--	--	--	0.17 J	ND	
Pyrene	--	100	100	500	1,000	--	ND	ND	--	--	--	0.34	1.2 J	1.3	--	--	--	0.095 J	0.042	
Total PAHs	--	--	100	500	--	--	0.029	57.8	--	--	--	2.363	7.36	6.67	--	--	--	ND	ND	
<b>Metals - mg/Kg</b>																				
Arsenic	--	13	16	16	16	--	6	3.5	--	--	--	11.8	8.8	18.3	--	--	--	10.5	4.7	
Barium	--	350	400	400	10,000	--	127	436	--	--	--	55.9	155	116	--	--	--	74.4	83.9	
Cadmium	--	2.5	4.3	9.3	60	--	ND	ND	--	--	--	ND	0.66	ND	--	--	--	ND	ND	
Chromium	--	30	180	1,500	6,800	--	23.7	228	--	--	--	10.2	15.1	14.6	--	--	--	25.7	21.6	
Lead	--	63	400	1,000	3,900	--	205	36.9	--	--	--	12.8	346	63.3	--	--	--	12.4	51.3	
Mercury	--	0.18	0.81	2.8	6	--	0.26	0.046	--	--	--	0.19	0.19	0.099	--	--	--	0.069	0.21	

**Notes:**

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparisons to SCOs

**Definitions:**

ND = Parameter not detected above laboratory detection limit.  
 "--" = No value available for the parameter. Or parameter not analysed for.  
 J = Estimated value; result is less than the sample quantitation limit but greater than zero.  
 B = Analyte was detected in associated method blank.

<b>Bold</b>	= Result exceeds Protection of Groundwater SCOs.
<b>Bold</b>	= Result exceeds Unrestricted Use SCOs.
<b>Bold</b>	= Result exceeds Restricted Residential Use SCOs.
<b>Bold</b>	= Result exceeds Commercial Use SCOs.
<b>Bold</b>	= Result exceeds Industrial Use SCOs.



**TABLE 3**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**1200 JEFFERSON AVENUE SITE**  
**BUFFALO, NEW YORK**

Parameters <sup>1</sup>	Class GA GWQS <sup>2</sup>	Sample Location			
		TMW-1	TMW-2	TMW-3	TMW-4
		2/15/18	2/16/18	12/19/18	
<b><i>Volatile Organic Compounds (VOCs) - ug/L</i></b>					
1,1-Dichloroethene	<b>5</b>	ND	1.4	ND	ND
Chloroform	<b>7</b>	3	ND	ND	ND
Methylene Chloride	<b>5</b>	3.1	0.96	ND	ND
n-Butylbenzene	<b>5</b>	ND	<b>7.5</b>	ND	ND
Tetrachloroethene	<b>5</b>	<b>30</b>	<b>6.3</b>	<b>280</b>	<b>1900 F1</b>
Trichloroethene	<b>5</b>	ND	<b>11</b>	<b>36</b>	<b>130</b>
cis-1,2-Dichloroethene	<b>5</b>	2.7	<b>470</b>	<b>9.3</b>	<b>860 F1</b>
trans-1,2-Dichloroethene	<b>5</b>	ND	<b>9.2</b>	ND	<b>34</b>
Vinyl Chloride	<b>2</b>	ND	<b>360</b>	ND	<b>24</b>

**Notes:**

1. Only parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. Values per NYSDEC TOGS 1.1.1 Class GA Groundwater Quality Standards.

**Qualifiers:**

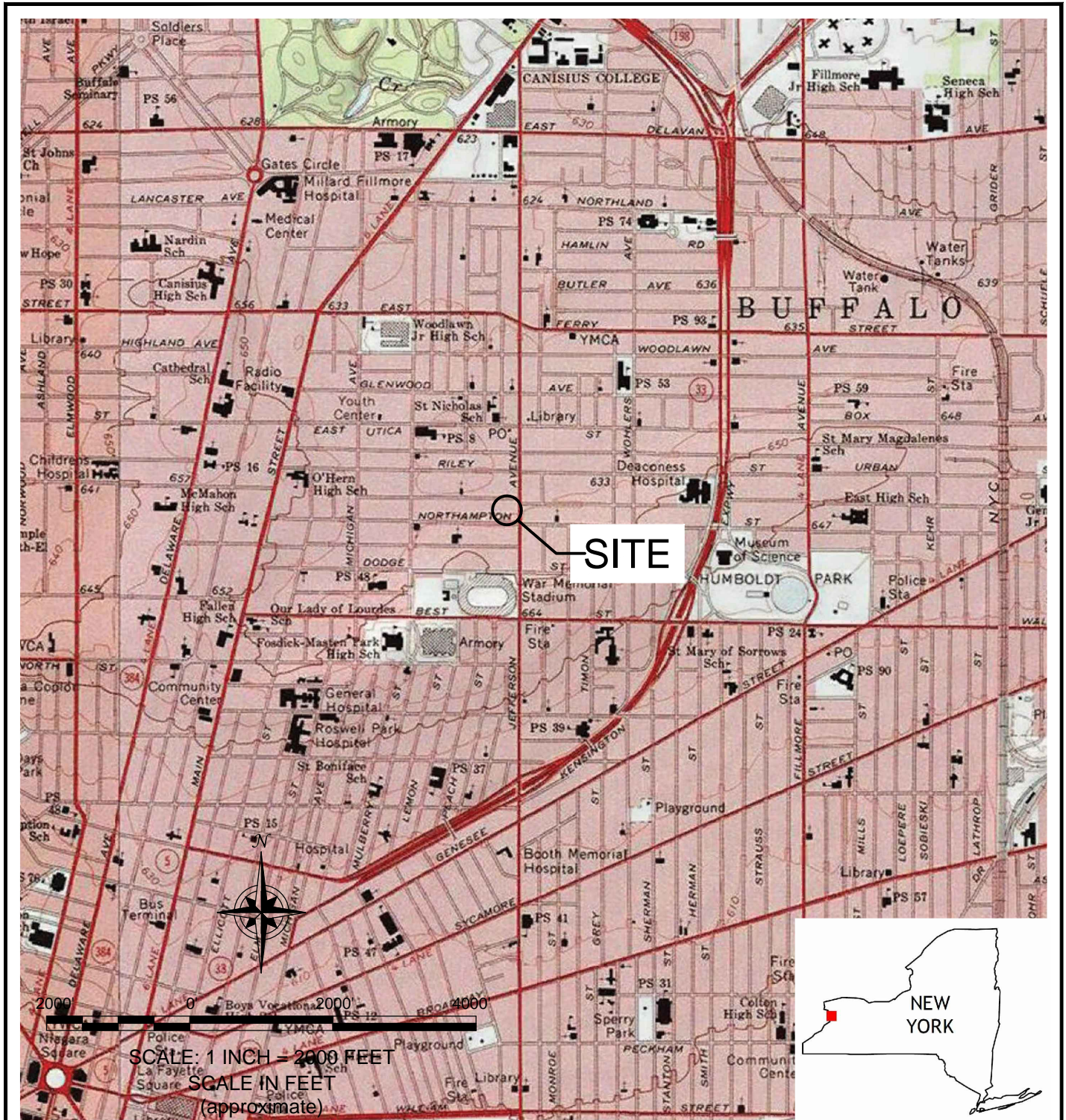
ND = Parameter not detected above laboratory detection limit.


**BOLD** = Result exceeds GWQS.



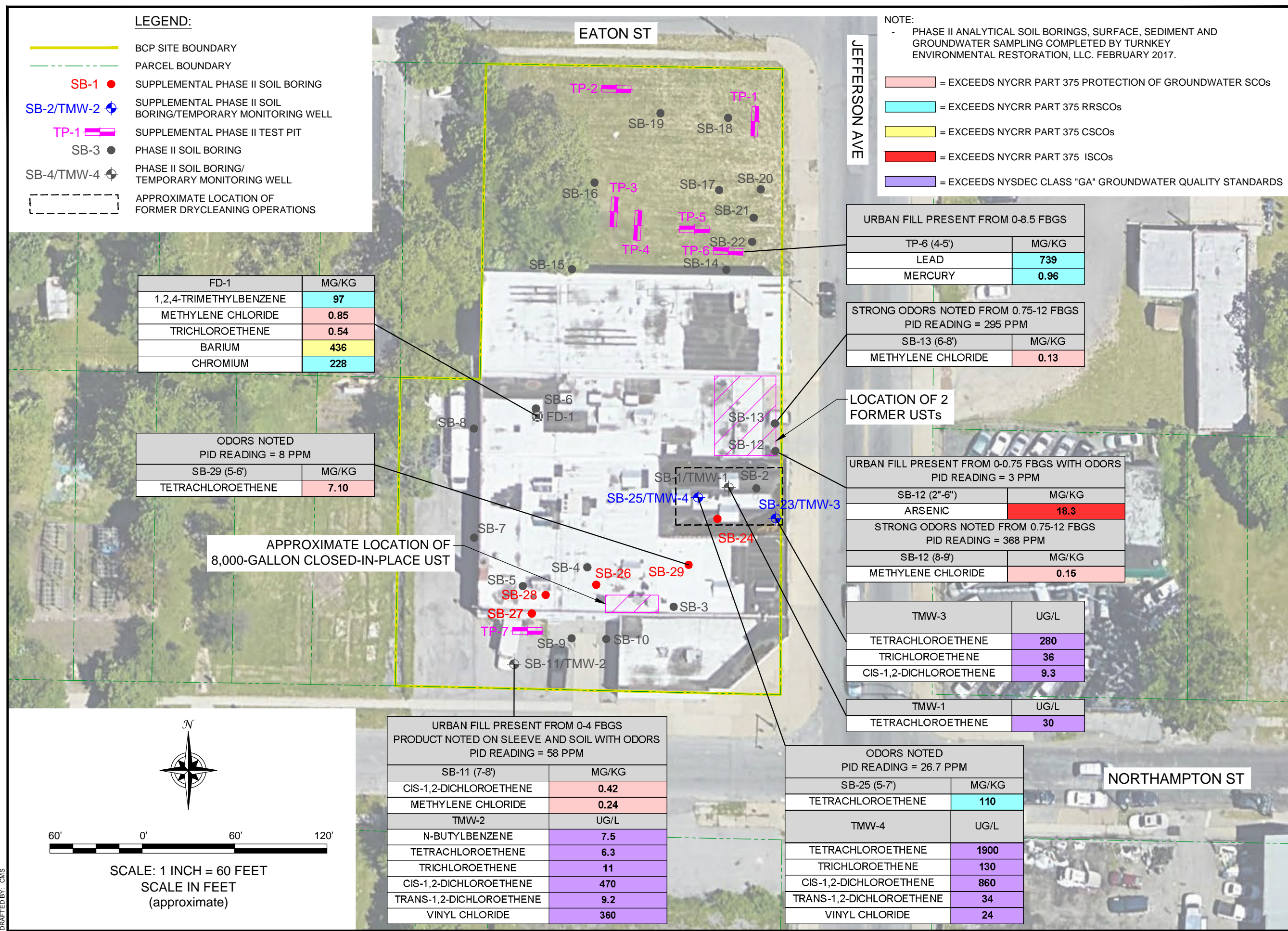
# FIGURES

**FIGURE 1**



 <p><b>2558 HAMBURG TURNPIKE SUITE 300 BUFFALO, NY 14218 (716) 856-0635</b></p>	<p><b>SITE LOCATION AND VICINITY MAP</b></p> <p>SUPPLEMENTAL SITE INVESTIGATION 1200 JEFFERSON AVENUE SITE BUFFALO, NEW YORK PREPARED FOR 1200 JEFFERSON PROPERTIES, LLC</p>
<p>PROJECT NO.: 0239-018-001</p>	
<p>DATE: FEBRUARY 2019</p>	
<p>DRAFTED BY: CMS</p>	

**DISCLAIMER:** PROPERTY OF TURNKEY ENVIRONMENTAL RESTORATION, LLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF TURNKEY ENVIRONMENTAL RESTORATION, LLC.



**INVESTIGATION LOCATIONS AND AREAS OF CONCERN**

SUPPLEMENTAL SITE INVESTIGATION  
1200 JEFFERSON AVENUE SITE  
BUFFALO, NEW YORK  
PREPARED FOR  
1200 JEFFERSON PROPERTIES, LLC



2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 656-0599

JOB NO.: B0239-018-001

**FIGURE 2**

**DISCLAIMER:** PROPERTY OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC. & TURNKEY ENVIRONMENTAL RESTORATION, LLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC & TURNKEY ENVIRONMENTAL RESTORATION, LLC.

# ATTACHMENT 1

## LABORATORY ANALYTICAL DATA PACKAGE (ELECTRONICALLY)

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-146928-1

Client Project/Site: Benchmark - 1200 Jefferson St

For:

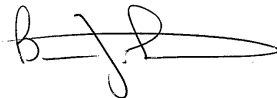
Turnkey Environmental Restoration, LLC

2558 Hamburg Turnpike

Suite 300

Lackawanna, New York 14218

Attn: Nate Munley



Authorized for release by:

12/27/2018 11:56:10 AM

Brian Fischer, Manager of Project Management

(716)504-9835

[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)

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*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Definitions/Glossary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

**Job ID: 480-146928-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-146928-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/17/2018 11:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

#### GC/MS VOA

Method(s) 8260C: The following sample was analyzed using medium level soil analysis due to the nature of the sample matrix: TP-1 (6-7') (480-146928-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-451531 recovered outside acceptance criteria, low biased, for 1,1,2-Trichloro-1,2,2-trifluoroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method(s) 8270D: The following sample was diluted due to color, appearance and viscosity: TP-6 (4-5') (480-146928-4). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following sample required a dilution due to the nature of the sample matrix: TP-6 (4-5') (480-146928-4). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

Method(s) 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: TP-6 (4-5') (480-146928-4). The reporting limits (RLs) are elevated proportionately.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Detection Summary

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Client Sample ID: TP-1 (6-7')

Lab Sample ID: 480-146928-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	41	J B	190	25	ug/Kg	1	☒	8260C	Total/NA

## Client Sample ID: TP-2 (0-1')

Lab Sample ID: 480-146928-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	81	J	230	23	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	81	J	230	34	ug/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	96	J	230	37	ug/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	56	J	230	25	ug/Kg	1	☒	8270D	Total/NA
Chrysene	93	J	230	52	ug/Kg	1	☒	8270D	Total/NA
Fluoranthene	100	J	230	25	ug/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	49	J	230	29	ug/Kg	1	☒	8270D	Total/NA
Naphthalene	93	J	230	30	ug/Kg	1	☒	8270D	Total/NA
Phenanthrene	170	J	230	34	ug/Kg	1	☒	8270D	Total/NA
Pyrene	95	J	230	27	ug/Kg	1	☒	8270D	Total/NA
Arsenic	10.5		2.7		mg/Kg	1	☒	6010C	Total/NA
Barium	74.4		0.66		mg/Kg	1	☒	6010C	Total/NA
Chromium	25.7		0.66		mg/Kg	1	☒	6010C	Total/NA
Lead	12.4		1.3		mg/Kg	1	☒	6010C	Total/NA
Mercury	0.069		0.027		mg/Kg	1	☒	7471B	Total/NA

## Client Sample ID: TP-3 (2-3')

Lab Sample ID: 480-146928-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	47	J	230	34	ug/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	44	J	230	36	ug/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	38	J	230	24	ug/Kg	1	☒	8270D	Total/NA
Fluoranthene	39	J	230	24	ug/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	28	J	230	28	ug/Kg	1	☒	8270D	Total/NA
Pyrene	42	J	230	27	ug/Kg	1	☒	8270D	Total/NA
Arsenic	4.7		2.8		mg/Kg	1	☒	6010C	Total/NA
Barium	83.9		0.69		mg/Kg	1	☒	6010C	Total/NA
Chromium	21.6		0.69		mg/Kg	1	☒	6010C	Total/NA
Lead	51.3		1.4		mg/Kg	1	☒	6010C	Total/NA
Mercury	0.21		0.027		mg/Kg	1	☒	7471B	Total/NA

## Client Sample ID: TP-6 (4-5')

Lab Sample ID: 480-146928-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	18000	J	120000	12000	ug/Kg	50	☒	8270D	Total/NA
Pyrene	15000	J	120000	14000	ug/Kg	50	☒	8270D	Total/NA
Arsenic	4.3		2.8		mg/Kg	1	☒	6010C	Total/NA
Barium	295		0.71		mg/Kg	1	☒	6010C	Total/NA
Cadmium	1.8		0.28		mg/Kg	1	☒	6010C	Total/NA
Chromium	14.6		0.71		mg/Kg	1	☒	6010C	Total/NA
Lead	739		1.4		mg/Kg	1	☒	6010C	Total/NA
Mercury	0.96		0.028		mg/Kg	1	☒	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

**Client Sample ID: TP-1 (6-7')**

**Lab Sample ID: 480-146928-1**

**Date Collected: 12/14/18 08:00**

**Matrix: Solid**

**Date Received: 12/17/18 11:40**

**Percent Solids: 60.8**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		190	54	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,1,2,2-Tetrachloroethane	ND		190	32	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		190	97	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,1,2-Trichloroethane	ND		190	41	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,1-Dichloroethane	ND		190	60	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,1-Dichloroethene	ND		190	67	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2,4-Trichlorobenzene	ND		190	74	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2,4-Trimethylbenzene	ND		190	54	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2-Dibromo-3-Chloropropane	ND		190	97	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2-Dibromoethane	ND		190	34	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2-Dichlorobenzene	ND		190	50	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2-Dichloroethane	ND		190	80	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,2-Dichloropropane	ND		190	32	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,3,5-Trimethylbenzene	ND		190	59	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,3-Dichlorobenzene	ND		190	52	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
1,4-Dichlorobenzene	ND		190	27	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
2-Butanone (MEK)	ND		970	580	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
2-Hexanone	ND		970	400	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
4-Isopropyltoluene	ND		190	66	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
4-Methyl-2-pentanone (MIBK)	ND		970	62	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Acetone	ND		970	800	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Benzene	ND		190	37	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Bromodichloromethane	ND		190	39	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Bromoform	ND		190	97	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Bromomethane	ND		190	43	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Carbon disulfide	ND		190	89	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Carbon tetrachloride	ND		190	50	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Chlorobenzene	ND		190	26	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Chloroethane	ND		190	41	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Chloroform	ND		190	130	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Chloromethane	ND		190	46	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
cis-1,2-Dichloroethene	ND		190	54	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
cis-1,3-Dichloropropene	ND		190	47	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Cyclohexane	ND		190	43	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Dibromochloromethane	ND		190	94	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Dichlorodifluoromethane	ND		190	85	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Ethylbenzene	ND		190	57	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Isopropylbenzene	ND		190	29	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
m,p-Xylene	ND		390	110	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Methyl acetate	ND		970	93	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Methyl tert-butyl ether	ND		190	74	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Methylcyclohexane	ND		190	91	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Methylene Chloride	ND		190	39	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
n-Butylbenzene	ND		190	57	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
N-Propylbenzene	ND		190	51	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
<b>o-Xylene</b>	<b>41</b>	<b>J B</b>	190	25	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
sec-Butylbenzene	ND		190	72	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Styrene	ND		190	47	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
tert-Butylbenzene	ND		190	54	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

**Client Sample ID: TP-1 (6-7')**

**Lab Sample ID: 480-146928-1**

**Date Collected: 12/14/18 08:00**

**Matrix: Solid**

**Date Received: 12/17/18 11:40**

**Percent Solids: 60.8**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		190	26	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Toluene	ND		190	52	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
trans-1,2-Dichloroethene	ND		190	46	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
trans-1,3-Dichloropropene	ND		190	19	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Trichloroethene	ND		190	54	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Trichlorofluoromethane	ND		190	91	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Vinyl chloride	ND		190	65	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1
Xylenes, Total	ND		390	110	ug/Kg	☼	12/18/18 12:31	12/19/18 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		53 - 146	12/18/18 12:31	12/19/18 02:53	1
4-Bromofluorobenzene (Surr)	101		49 - 148	12/18/18 12:31	12/19/18 02:53	1
Dibromofluoromethane (Surr)	90		60 - 140	12/18/18 12:31	12/19/18 02:53	1
Toluene-d8 (Surr)	94		50 - 149	12/18/18 12:31	12/19/18 02:53	1

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

**Client Sample ID: TP-2 (0-1')**

**Lab Sample ID: 480-146928-2**

Date Collected: 12/14/18 10:00

Matrix: Solid

Date Received: 12/17/18 11:40

Percent Solids: 72.9

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		230	34	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
Acenaphthylene	ND		230	30	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
Anthracene	ND		230	57	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Benzo[a]anthracene</b>	<b>81</b>	<b>J</b>	230	23	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Benzo[a]pyrene</b>	<b>81</b>	<b>J</b>	230	34	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Benzo[b]fluoranthene</b>	<b>96</b>	<b>J</b>	230	37	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Benzo[g,h,i]perylene</b>	<b>56</b>	<b>J</b>	230	25	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Chrysene</b>	<b>93</b>	<b>J</b>	230	52	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
Dibenz(a,h)anthracene	ND		230	41	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Fluoranthene</b>	<b>100</b>	<b>J</b>	230	25	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
Fluorene	ND		230	27	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>49</b>	<b>J</b>	230	29	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Naphthalene</b>	<b>93</b>	<b>J</b>	230	30	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Phenanthrene</b>	<b>170</b>	<b>J</b>	230	34	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Pyrene</b>	<b>95</b>	<b>J</b>	230	27	ug/Kg	☼	12/19/18 14:32	12/21/18 21:53	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	99		60 - 120				12/19/18 14:32	12/21/18 21:53	1
Nitrobenzene-d5 (Surr)	97		53 - 120				12/19/18 14:32	12/21/18 21:53	1
p-Terphenyl-d14 (Surr)	109		65 - 121				12/19/18 14:32	12/21/18 21:53	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>10.5</b>		2.7		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1
<b>Barium</b>	<b>74.4</b>		0.66		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1
Cadmium	ND		0.27		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1
<b>Chromium</b>	<b>25.7</b>		0.66		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1
<b>Lead</b>	<b>12.4</b>		1.3		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1
Selenium	ND		5.3		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1
Silver	ND		0.80		mg/Kg	☼	12/19/18 08:00	12/20/18 02:27	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.069</b>		0.027		mg/Kg	☼	12/21/18 11:10	12/21/18 15:40	1

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

**Client Sample ID: TP-3 (2-3')**

**Lab Sample ID: 480-146928-3**

Date Collected: 12/14/18 10:30

Matrix: Solid

Date Received: 12/17/18 11:40

Percent Solids: 73.6

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		230	34	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Acenaphthylene	ND		230	30	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Anthracene	ND		230	56	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Benzo[a]anthracene	ND		230	23	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
<b>Benzo[a]pyrene</b>	<b>47</b>	<b>J</b>	230	34	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
<b>Benzo[b]fluoranthene</b>	<b>44</b>	<b>J</b>	230	36	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
<b>Benzo[g,h,i]perylene</b>	<b>38</b>	<b>J</b>	230	24	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Benzo[k]fluoranthene	ND		230	30	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Chrysene	ND		230	51	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Dibenz(a,h)anthracene	ND		230	40	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
<b>Fluoranthene</b>	<b>39</b>	<b>J</b>	230	24	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Fluorene	ND		230	27	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>28</b>	<b>J</b>	230	28	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Naphthalene	ND		230	30	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Phenanthrene	ND		230	34	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
<b>Pyrene</b>	<b>42</b>	<b>J</b>	230	27	ug/Kg	☼	12/19/18 14:32	12/21/18 22:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		60 - 120				12/19/18 14:32	12/21/18 22:22	1
Nitrobenzene-d5 (Surr)	98		53 - 120				12/19/18 14:32	12/21/18 22:22	1
p-Terphenyl-d14 (Surr)	110		65 - 121				12/19/18 14:32	12/21/18 22:22	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>4.7</b>		2.8		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1
<b>Barium</b>	<b>83.9</b>		0.69		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1
Cadmium	ND		0.28		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1
<b>Chromium</b>	<b>21.6</b>		0.69		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1
<b>Lead</b>	<b>51.3</b>		1.4		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1
Selenium	ND		5.5		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1
Silver	ND		0.83		mg/Kg	☼	12/19/18 08:00	12/20/18 02:31	1

**Method: 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.21</b>		0.027		mg/Kg	☼	12/21/18 11:10	12/21/18 15:41	1

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

**Client Sample ID: TP-6 (4-5')**

**Lab Sample ID: 480-146928-4**

Date Collected: 12/14/18 12:00

Matrix: Solid

Date Received: 12/17/18 11:40

Percent Solids: 71.7

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		120000	17000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Acenaphthylene	ND		120000	15000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Anthracene	ND		120000	29000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Benzo[a]anthracene	ND		120000	12000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Benzo[a]pyrene	ND		120000	17000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Benzo[b]fluoranthene	ND		120000	18000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Benzo[g,h,i]perylene	ND		120000	12000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Benzo[k]fluoranthene	ND		120000	15000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Chrysene	ND		120000	26000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Dibenz(a,h)anthracene	ND		120000	20000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
<b>Fluoranthene</b>	<b>18000</b>	<b>J</b>	120000	12000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Fluorene	ND		120000	14000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Indeno[1,2,3-cd]pyrene	ND		120000	14000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Naphthalene	ND		120000	15000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Phenanthrene	ND		120000	17000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
<b>Pyrene</b>	<b>15000</b>	<b>J</b>	120000	14000	ug/Kg	☼	12/19/18 14:32	12/21/18 22:51	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	0	X	60 - 120				12/19/18 14:32	12/21/18 22:51	50
Nitrobenzene-d5 (Surr)	0	X	53 - 120				12/19/18 14:32	12/21/18 22:51	50
p-Terphenyl-d14 (Surr)	0	X	65 - 121				12/19/18 14:32	12/21/18 22:51	50

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>4.3</b>		2.8		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1
<b>Barium</b>	<b>295</b>		0.71		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1
<b>Cadmium</b>	<b>1.8</b>		0.28		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1
<b>Chromium</b>	<b>14.6</b>		0.71		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1
<b>Lead</b>	<b>739</b>		1.4		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1
Selenium	ND		5.7		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1
Silver	ND		0.85		mg/Kg	☼	12/19/18 08:00	12/20/18 02:46	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.96</b>		0.028		mg/Kg	☼	12/21/18 11:10	12/21/18 15:42	1

# Surrogate Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (53-146)	BFB (49-148)	DBFM (60-140)	TOL (50-149)
480-146928-1	TP-1 (6-7')	91	101	90	94
LCS 480-451417/1-A	Lab Control Sample	97	106	96	95
MB 480-451417/2-A	Method Blank	94	101	91	94

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (60-120)	NBZ (53-120)	TPHd14 (65-121)
480-146928-2	TP-2 (0-1')	99	97	109
480-146928-3	TP-3 (2-3')	94	98	110
480-146928-4	TP-6 (4-5')	0 X	0 X	0 X
LCS 480-451729/2-A	Lab Control Sample	97	96	111
MB 480-451729/1-A	Method Blank	92	95	103

### Surrogate Legend

FBP = 2-Fluorobiphenyl  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 480-451417/2-A**

**Matrix: Solid**

**Analysis Batch: 451531**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 451417**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,1-Dichloroethane	ND		100	31	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,1-Dichloroethene	ND		100	35	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2,4-Trimethylbenzene	ND		100	28	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2-Dibromoethane	ND		100	18	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2-Dichloroethane	ND		100	41	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,2-Dichloropropane	ND		100	16	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,3,5-Trimethylbenzene	ND		100	30	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
2-Butanone (MEK)	ND		500	300	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
2-Hexanone	ND		500	210	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
4-Isopropyltoluene	ND		100	34	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Acetone	ND		500	410	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Benzene	ND		100	19	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Bromodichloromethane	ND		100	20	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Bromoform	ND		100	50	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Bromomethane	ND		100	22	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Carbon disulfide	ND		100	46	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Carbon tetrachloride	ND		100	26	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Chlorobenzene	ND		100	13	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Chloroethane	ND		100	21	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Chloroform	ND		100	69	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Chloromethane	ND		100	24	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Cyclohexane	ND		100	22	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Dibromochloromethane	ND		100	48	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Ethylbenzene	ND		100	29	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Isopropylbenzene	ND		100	15	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
m,p-Xylene	ND		200	55	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Methyl acetate	ND		500	48	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Methylcyclohexane	ND		100	47	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Methylene Chloride	ND		100	20	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
n-Butylbenzene	ND		100	29	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
N-Propylbenzene	ND		100	26	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
o-Xylene	18.5	J	100	13	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
sec-Butylbenzene	ND		100	37	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Styrene	ND		100	24	ug/Kg		12/18/18 12:31	12/18/18 22:58	1

TestAmerica Buffalo



# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-451417/2-A**

**Matrix: Solid**

**Analysis Batch: 451531**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 451417**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		100	28	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Tetrachloroethene	ND		100	13	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Toluene	ND		100	27	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Trichloroethene	ND		100	28	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Trichlorofluoromethane	ND		100	47	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Vinyl chloride	ND		100	34	ug/Kg		12/18/18 12:31	12/18/18 22:58	1
Xylenes, Total	ND		200	55	ug/Kg		12/18/18 12:31	12/18/18 22:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		53 - 146	12/18/18 12:31	12/18/18 22:58	1
4-Bromofluorobenzene (Surr)	101		49 - 148	12/18/18 12:31	12/18/18 22:58	1
Dibromofluoromethane (Surr)	91		60 - 140	12/18/18 12:31	12/18/18 22:58	1
Toluene-d8 (Surr)	94		50 - 149	12/18/18 12:31	12/18/18 22:58	1

**Lab Sample ID: LCS 480-451417/1-A**

**Matrix: Solid**

**Analysis Batch: 451531**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 451417**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2500	2130		ug/Kg		85	68 - 130
1,1,2,2-Tetrachloroethane	2500	1940		ug/Kg		78	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2040		ug/Kg		81	10 - 179
1,1,2-Trichloroethane	2500	2170		ug/Kg		87	80 - 120
1,1-Dichloroethane	2500	2190		ug/Kg		87	78 - 121
1,1-Dichloroethene	2500	2010		ug/Kg		81	48 - 133
1,2,4-Trichlorobenzene	2500	2020		ug/Kg		81	70 - 140
1,2,4-Trimethylbenzene	2500	2040		ug/Kg		81	77 - 127
1,2-Dibromo-3-Chloropropane	2500	2000		ug/Kg		80	56 - 122
1,2-Dibromoethane	2500	2140		ug/Kg		86	80 - 120
1,2-Dichlorobenzene	2500	2110		ug/Kg		84	78 - 125
1,2-Dichloroethane	2500	2260		ug/Kg		90	74 - 127
1,2-Dichloropropane	2500	2160		ug/Kg		87	80 - 120
1,3,5-Trimethylbenzene	2500	2040		ug/Kg		82	79 - 120
1,3-Dichlorobenzene	2500	2060		ug/Kg		82	80 - 120
1,4-Dichlorobenzene	2500	2070		ug/Kg		83	80 - 120
2-Butanone (MEK)	12500	12800		ug/Kg		102	54 - 149
2-Hexanone	12500	11800		ug/Kg		94	59 - 127
4-Isopropyltoluene	2500	2110		ug/Kg		84	80 - 120
4-Methyl-2-pentanone (MIBK)	12500	10900		ug/Kg		87	74 - 120
Acetone	12500	15400		ug/Kg		123	47 - 141
Benzene	2500	2080		ug/Kg		83	77 - 125
Bromodichloromethane	2500	2250		ug/Kg		90	71 - 121
Bromoform	2500	2310		ug/Kg		92	48 - 125
Bromomethane	2500	1980		ug/Kg		79	39 - 149
Carbon disulfide	2500	1760		ug/Kg		70	40 - 136

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-451417/1-A

Matrix: Solid

Analysis Batch: 451531

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 451417

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	2500	2180		ug/Kg		87	54 - 135
Chlorobenzene	2500	2100		ug/Kg		84	76 - 126
Chloroethane	2500	2300		ug/Kg		92	23 - 150
Chloroform	2500	2190		ug/Kg		88	78 - 120
Chloromethane	2500	2140		ug/Kg		86	61 - 124
cis-1,2-Dichloroethene	2500	2050		ug/Kg		82	79 - 124
cis-1,3-Dichloropropene	2500	2240		ug/Kg		89	75 - 121
Cyclohexane	2500	2100		ug/Kg		84	49 - 129
Dibromochloromethane	2500	2340		ug/Kg		94	64 - 120
Dichlorodifluoromethane	2500	2220		ug/Kg		89	10 - 150
Ethylbenzene	2500	2060		ug/Kg		82	78 - 124
Isopropylbenzene	2500	2000		ug/Kg		80	76 - 120
m,p-Xylene	2500	2170		ug/Kg		87	77 - 125
Methyl acetate	5000	4460		ug/Kg		89	71 - 123
Methyl tert-butyl ether	2500	2110		ug/Kg		85	67 - 137
Methylcyclohexane	2500	2240		ug/Kg		90	50 - 130
Methylene Chloride	2500	2060		ug/Kg		82	75 - 118
n-Butylbenzene	2500	2150		ug/Kg		86	80 - 120
N-Propylbenzene	2500	1980		ug/Kg		79	76 - 120
o-Xylene	2500	2090		ug/Kg		84	80 - 124
sec-Butylbenzene	2500	2050		ug/Kg		82	79 - 120
Styrene	2500	2150		ug/Kg		86	80 - 120
tert-Butylbenzene	2500	2070		ug/Kg		83	78 - 120
Tetrachloroethene	2500	2140		ug/Kg		86	73 - 133
Toluene	2500	2030		ug/Kg		81	75 - 124
trans-1,2-Dichloroethene	2500	1970		ug/Kg		79	74 - 129
trans-1,3-Dichloropropene	2500	2180		ug/Kg		87	73 - 120
Trichloroethene	2500	2080		ug/Kg		83	75 - 131
Trichlorofluoromethane	2500	2320		ug/Kg		93	29 - 158
Vinyl chloride	2500	2220		ug/Kg		89	59 - 124

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		53 - 146
4-Bromofluorobenzene (Surr)	106		49 - 148
Dibromofluoromethane (Surr)	96		60 - 140
Toluene-d8 (Surr)	95		50 - 149

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-451729/1-A

Matrix: Solid

Analysis Batch: 452136

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 451729

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		170	25	ug/Kg		12/19/18 14:32	12/21/18 15:19	1
Acenaphthylene	ND		170	22	ug/Kg		12/19/18 14:32	12/21/18 15:19	1
Anthracene	ND		170	42	ug/Kg		12/19/18 14:32	12/21/18 15:19	1
Benzo[a]anthracene	ND		170	17	ug/Kg		12/19/18 14:32	12/21/18 15:19	1

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 480-451729/1-A**

**Matrix: Solid**

**Analysis Batch: 452136**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 451729**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		170	25	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Chrysene	ND		170	38	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Fluoranthene	ND		170	18	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Fluorene	ND		170	20	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Naphthalene	ND		170	22	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Phenanthrene	ND		170	25	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1
Pyrene	ND		170	20	ug/Kg	-	12/19/18 14:32	12/21/18 15:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	92		60 - 120	12/19/18 14:32	12/21/18 15:19	1
Nitrobenzene-d5 (Surr)	95		53 - 120	12/19/18 14:32	12/21/18 15:19	1
p-Terphenyl-d14 (Surr)	103		65 - 121	12/19/18 14:32	12/21/18 15:19	1

**Lab Sample ID: LCS 480-451729/2-A**

**Matrix: Solid**

**Analysis Batch: 452136**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 451729**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1660	1570		ug/Kg	-	94	62 - 120
Acenaphthylene	1660	1630		ug/Kg	-	98	58 - 121
Anthracene	1660	1700		ug/Kg	-	102	62 - 120
Benzo[a]anthracene	1660	1740		ug/Kg	-	104	65 - 120
Benzo[a]pyrene	1660	1650		ug/Kg	-	99	64 - 120
Benzo[b]fluoranthene	1660	1620		ug/Kg	-	97	64 - 120
Benzo[g,h,i]perylene	1660	1630		ug/Kg	-	98	45 - 145
Benzo[k]fluoranthene	1660	1780		ug/Kg	-	107	65 - 120
Chrysene	1660	1720		ug/Kg	-	103	64 - 120
Dibenz(a,h)anthracene	1660	1660		ug/Kg	-	100	54 - 132
Fluoranthene	1660	1780		ug/Kg	-	107	62 - 120
Fluorene	1660	1690		ug/Kg	-	101	63 - 120
Indeno[1,2,3-cd]pyrene	1660	1660		ug/Kg	-	100	56 - 134
Naphthalene	1660	1420		ug/Kg	-	85	55 - 120
Phenanthrene	1660	1710		ug/Kg	-	103	60 - 120
Pyrene	1660	1780		ug/Kg	-	107	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	97		60 - 120
Nitrobenzene-d5 (Surr)	96		53 - 120
p-Terphenyl-d14 (Surr)	111		65 - 121

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-451427/1-A**  
**Matrix: Solid**  
**Analysis Batch: 451816**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 451427**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		12/19/18 08:00	12/20/18 01:21	1
Barium	ND		0.49		mg/Kg		12/19/18 08:00	12/20/18 01:21	1
Cadmium	ND		0.20		mg/Kg		12/19/18 08:00	12/20/18 01:21	1
Chromium	ND		0.49		mg/Kg		12/19/18 08:00	12/20/18 01:21	1
Lead	ND		0.99		mg/Kg		12/19/18 08:00	12/20/18 01:21	1
Selenium	ND		3.9		mg/Kg		12/19/18 08:00	12/20/18 01:21	1
Silver	ND		0.59		mg/Kg		12/19/18 08:00	12/20/18 01:21	1

**Lab Sample ID: LCSSRM 480-451427/2-A**  
**Matrix: Solid**  
**Analysis Batch: 451816**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 451427**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	171	158.1		mg/Kg		92.4	66.1 - 122.2
Barium	272	246.6		mg/Kg		90.7	71.7 - 119.5
Cadmium	225	200.4		mg/Kg		89.1	70.2 - 117.3
Chromium	144	129.6		mg/Kg		90.0	66.1 - 122.9
Lead	111	110.7		mg/Kg		99.8	71.0 - 128.8
Selenium	206	179.9		mg/Kg		87.3	63.6 - 122.3
Silver	45.5	42.75		mg/Kg		94.0	66.2 - 124.2

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 480-451970/1-A**  
**Matrix: Solid**  
**Analysis Batch: 452187**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 451970**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019		mg/Kg		12/21/18 11:10	12/21/18 15:27	1

**Lab Sample ID: LCSSRM 480-451970/2-A ^10**  
**Matrix: Solid**  
**Analysis Batch: 452187**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 451970**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.0	10.26		mg/Kg		85.5	57.3 - 133.3

# QC Association Summary

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## GC/MS VOA

### Prep Batch: 451417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-1	TP-1 (6-7')	Total/NA	Solid	5035A_H	
MB 480-451417/2-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-451417/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

### Analysis Batch: 451531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-1	TP-1 (6-7')	Total/NA	Solid	8260C	451417
MB 480-451417/2-A	Method Blank	Total/NA	Solid	8260C	451417
LCS 480-451417/1-A	Lab Control Sample	Total/NA	Solid	8260C	451417

## GC/MS Semi VOA

### Prep Batch: 451729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-2	TP-2 (0-1')	Total/NA	Solid	3550C	
480-146928-3	TP-3 (2-3')	Total/NA	Solid	3550C	
480-146928-4	TP-6 (4-5')	Total/NA	Solid	3550C	
MB 480-451729/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-451729/2-A	Lab Control Sample	Total/NA	Solid	3550C	

### Analysis Batch: 452136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-2	TP-2 (0-1')	Total/NA	Solid	8270D	451729
480-146928-3	TP-3 (2-3')	Total/NA	Solid	8270D	451729
480-146928-4	TP-6 (4-5')	Total/NA	Solid	8270D	451729
MB 480-451729/1-A	Method Blank	Total/NA	Solid	8270D	451729
LCS 480-451729/2-A	Lab Control Sample	Total/NA	Solid	8270D	451729

## Metals

### Prep Batch: 451427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-2	TP-2 (0-1')	Total/NA	Solid	3050B	
480-146928-3	TP-3 (2-3')	Total/NA	Solid	3050B	
480-146928-4	TP-6 (4-5')	Total/NA	Solid	3050B	
MB 480-451427/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-451427/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 451816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-2	TP-2 (0-1')	Total/NA	Solid	6010C	451427
480-146928-3	TP-3 (2-3')	Total/NA	Solid	6010C	451427
480-146928-4	TP-6 (4-5')	Total/NA	Solid	6010C	451427
MB 480-451427/1-A	Method Blank	Total/NA	Solid	6010C	451427
LCSSRM 480-451427/2-A	Lab Control Sample	Total/NA	Solid	6010C	451427

### Prep Batch: 451970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-2	TP-2 (0-1')	Total/NA	Solid	7471B	
480-146928-3	TP-3 (2-3')	Total/NA	Solid	7471B	

TestAmerica Buffalo

# QC Association Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Metals (Continued)

### Prep Batch: 451970 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-4	TP-6 (4-5')	Total/NA	Solid	7471B	
MB 480-451970/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-451970/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 452187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-2	TP-2 (0-1')	Total/NA	Solid	7471B	451970
480-146928-3	TP-3 (2-3')	Total/NA	Solid	7471B	451970
480-146928-4	TP-6 (4-5')	Total/NA	Solid	7471B	451970
MB 480-451970/1-A	Method Blank	Total/NA	Solid	7471B	451970
LCSSRM 480-451970/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	451970

## General Chemistry

### Analysis Batch: 451371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-146928-1	TP-1 (6-7')	Total/NA	Solid	Moisture	
480-146928-2	TP-2 (0-1')	Total/NA	Solid	Moisture	
480-146928-3	TP-3 (2-3')	Total/NA	Solid	Moisture	
480-146928-4	TP-6 (4-5')	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Client Sample ID: TP-1 (6-7')

Date Collected: 12/14/18 08:00

Date Received: 12/17/18 11:40

Lab Sample ID: 480-146928-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	451371	12/18/18 09:47	KPK	TAL BUF

## Client Sample ID: TP-1 (6-7')

Date Collected: 12/14/18 08:00

Date Received: 12/17/18 11:40

Lab Sample ID: 480-146928-1

Matrix: Solid

Percent Solids: 60.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			451417	12/18/18 12:31	OMI	TAL BUF
Total/NA	Analysis	8260C		1	451531	12/19/18 02:53	AMM	TAL BUF

## Client Sample ID: TP-2 (0-1')

Date Collected: 12/14/18 10:00

Date Received: 12/17/18 11:40

Lab Sample ID: 480-146928-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	451371	12/18/18 09:47	KPK	TAL BUF

## Client Sample ID: TP-2 (0-1')

Date Collected: 12/14/18 10:00

Date Received: 12/17/18 11:40

Lab Sample ID: 480-146928-2

Matrix: Solid

Percent Solids: 72.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			451729	12/19/18 14:32	SGD	TAL BUF
Total/NA	Analysis	8270D		1	452136	12/21/18 21:53	PJQ	TAL BUF
Total/NA	Prep	3050B			451427	12/19/18 08:00	JMP	TAL BUF
Total/NA	Analysis	6010C		1	451816	12/20/18 02:27	AMH	TAL BUF
Total/NA	Prep	7471B			451970	12/21/18 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	452187	12/21/18 15:40	BMB	TAL BUF

## Client Sample ID: TP-3 (2-3')

Date Collected: 12/14/18 10:30

Date Received: 12/17/18 11:40

Lab Sample ID: 480-146928-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	451371	12/18/18 09:51	KPK	TAL BUF

## Client Sample ID: TP-3 (2-3')

Date Collected: 12/14/18 10:30

Date Received: 12/17/18 11:40

Lab Sample ID: 480-146928-3

Matrix: Solid

Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			451729	12/19/18 14:32	SGD	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Client Sample ID: TP-3 (2-3')

Lab Sample ID: 480-146928-3

Date Collected: 12/14/18 10:30

Matrix: Solid

Date Received: 12/17/18 11:40

Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	452136	12/21/18 22:22	PJQ	TAL BUF
Total/NA	Prep	3050B			451427	12/19/18 08:00	JMP	TAL BUF
Total/NA	Analysis	6010C		1	451816	12/20/18 02:31	AMH	TAL BUF
Total/NA	Prep	7471B			451970	12/21/18 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	452187	12/21/18 15:41	BMB	TAL BUF

## Client Sample ID: TP-6 (4-5')

Lab Sample ID: 480-146928-4

Date Collected: 12/14/18 12:00

Matrix: Solid

Date Received: 12/17/18 11:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	451371	12/18/18 09:54	KPK	TAL BUF

## Client Sample ID: TP-6 (4-5')

Lab Sample ID: 480-146928-4

Date Collected: 12/14/18 12:00

Matrix: Solid

Date Received: 12/17/18 11:40

Percent Solids: 71.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			451729	12/19/18 14:32	SGD	TAL BUF
Total/NA	Analysis	8270D		50	452136	12/21/18 22:51	PJQ	TAL BUF
Total/NA	Prep	3050B			451427	12/19/18 08:00	JMP	TAL BUF
Total/NA	Analysis	6010C		1	451816	12/20/18 02:46	AMH	TAL BUF
Total/NA	Prep	7471B			451970	12/21/18 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	452187	12/21/18 15:42	BMB	TAL BUF

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Accreditation/Certification Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

## Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

# Method Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Fine Moisture	EPA	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
5035A_H	Closed System Purge and Trap	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-146928-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-146928-1	TP-1 (6-7')	Solid	12/14/18 08:00	12/17/18 11:40
480-146928-2	TP-2 (0-1')	Solid	12/14/18 10:00	12/17/18 11:40
480-146928-3	TP-3 (2-3')	Solid	12/14/18 10:30	12/17/18 11:40
480-146928-4	TP-6 (4-5')	Solid	12/14/18 12:00	12/17/18 11:40

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Regulatory Program:  DW  NPDES  RCRA  Other:

**Client Contact**  
Company Name: TURKEYS ENU RESTAURANT  
Address: 2558 Hempway, TPac  
City/State/Zip: Buffalo, NY 14218  
Phone: 716-70-3437  
Fax: \_\_\_\_\_  
Project Name: 1200 Jefferson Site  
Site: 2558 Hempway, TPac  
PO # 60239-018-001

**Project Manager:** Nate Murney  
Tel/Fax: 716-713-3437  
Analysis Turnaround Time  
 CALENDAR DAYS  WORKING DAYS  
TAT if different from Below \_\_\_\_\_  
 2 weeks  
 1 week  
 2 days  
 1 day

**Site Contact:** Nick Sulas Date: \_\_\_\_\_  
**Lab Contact:** Bilva Flynn Carrier: \_\_\_\_\_

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Other
TP-1 (6-7')	12/14/18	8:00	G	Soil	1	X	PAH'S TC17CPSI Vol's RCRA Metals	
TP-2 (0-1')	↓	10:00	G	↓	2	X		
TP-3 (2-3')	↓	10:30	G	↓	1	X		
TP-6 (4-5')	↓	12:00	G	↓	1	X		

**Preservation Used:** 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other \_\_\_\_\_

**Possible Hazard Identification:** Please List any EPA Hazardous Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Special Instructions/QC Requirements & Comments:**

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months

**Chain of Custody:**

Relinquished by:	Signature: <u>[Signature]</u>	Company: <u>Buttik</u>	Date/Time: <u>12/14/18 11:40</u>	Received by:	Signature: <u>[Signature]</u>	Company: <u>PAH'S</u>	Date/Time: <u>12/17/18 09:00</u>
Relinquished by:	Signature: <u>[Signature]</u>	Company: <u>PAH'S</u>	Date/Time: <u>12/17/18 11:40</u>	Received by:	Signature: <u>[Signature]</u>	Company: <u>PAH'S</u>	Date/Time: <u>12/17/18 11:40</u>

Cooler Temp. (°C): Obs'd: 3.0 Corr'd: \_\_\_\_\_  
 Inerm ID No.: 3



## Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-146928-1

**Login Number: 146928**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kinecki, Kenneth P**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	Benchmark
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-147084-1

Client Project/Site: Benchmark - 1200 Jefferson St

For:

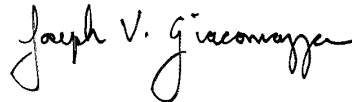
Turnkey Environmental Restoration, LLC

2558 Hamburg Turnpike

Suite 300

Lackawanna, New York 14218

Attn: Nate Munley



Authorized for release by:

1/8/2019 10:46:03 AM

Joe Giacomazza, Project Management Assistant II

[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Brian Fischer, Manager of Project Management

(716)504-9835

[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)

### LINKS

Review your project  
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*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# Case Narrative

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

**Job ID: 480-147084-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

**Job Narrative  
480-147084-1**

## Comments

No additional comments.

## Receipt

The samples were received on 12/20/2018 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.8° C.

## GC/MS Semi VOA

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-452127 and analytical batch 480-452354 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: SB-26 (.5-2") (480-147084-1), (480-147084-A-1-A MS) and (480-147084-A-1-B MSD). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

**Client Sample ID: SB-26 (.5-2')**

**Lab Sample ID: 480-147084-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	170	J	220	32	ug/Kg	1	☼	8270D	Total/NA
Anthracene	370		220	55	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	860		220	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	690		220	32	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	1000		220	35	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	550		220	23	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	430		220	29	ug/Kg	1	☼	8270D	Total/NA
Chrysene	820		220	49	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	2100	F1	220	23	ug/Kg	1	☼	8270D	Total/NA
Fluorene	190	J	220	26	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	510		220	27	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	37	J	220	29	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	1900	F1	220	32	ug/Kg	1	☼	8270D	Total/NA
Pyrene	1600	F1	220	26	ug/Kg	1	☼	8270D	Total/NA
Arsenic	15.8		2.6		mg/Kg	1	☼	6010C	Total/NA
Barium	186		0.66		mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.7		0.26		mg/Kg	1	☼	6010C	Total/NA
Chromium	40.6		0.66		mg/Kg	1	☼	6010C	Total/NA
Lead	86.8		1.3		mg/Kg	1	☼	6010C	Total/NA
Mercury	0.51		0.027		mg/Kg	1	☼	7471B	Total/NA

**Client Sample ID: SB-27 (.5-2')**

**Lab Sample ID: 480-147084-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	33	J	220	33	ug/Kg	1	☼	8270D	Total/NA
Anthracene	110	J	220	55	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	300		220	22	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	280		220	33	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	370		220	35	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	200	J	220	24	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	130	J	220	29	ug/Kg	1	☼	8270D	Total/NA
Chrysene	290		220	50	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	540		220	24	ug/Kg	1	☼	8270D	Total/NA
Fluorene	32	J	220	26	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	190	J	220	28	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	30	J	220	29	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	400		220	33	ug/Kg	1	☼	8270D	Total/NA
Pyrene	440		220	26	ug/Kg	1	☼	8270D	Total/NA
Arsenic	3.7		2.7		mg/Kg	1	☼	6010C	Total/NA
Barium	93.8		0.66		mg/Kg	1	☼	6010C	Total/NA
Chromium	30.6		0.66		mg/Kg	1	☼	6010C	Total/NA
Lead	20.7		1.3		mg/Kg	1	☼	6010C	Total/NA
Mercury	0.33		0.025		mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

**Client Sample ID: SB-26 (.5-2')**

**Lab Sample ID: 480-147084-1**

Date Collected: 12/18/18 12:00

Matrix: Solid

Date Received: 12/20/18 11:30

Percent Solids: 76.4

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>170</b>	<b>J</b>	220	32	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
Acenaphthylene	ND		220	29	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Anthracene</b>	<b>370</b>		220	55	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Benzo[a]anthracene</b>	<b>860</b>		220	22	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Benzo[a]pyrene</b>	<b>690</b>		220	32	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Benzo[b]fluoranthene</b>	<b>1000</b>		220	35	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Benzo[g,h,i]perylene</b>	<b>550</b>		220	23	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Benzo[k]fluoranthene</b>	<b>430</b>		220	29	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Chrysene</b>	<b>820</b>		220	49	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Fluoranthene</b>	<b>2100</b>	<b>F1</b>	220	23	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Fluorene</b>	<b>190</b>	<b>J</b>	220	26	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>510</b>		220	27	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Naphthalene</b>	<b>37</b>	<b>J</b>	220	29	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Phenanthrene</b>	<b>1900</b>	<b>F1</b>	220	32	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Pyrene</b>	<b>1600</b>	<b>F1</b>	220	26	ug/Kg	☼	12/21/18 12:13	12/24/18 16:00	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	87		60 - 120				12/21/18 12:13	12/24/18 16:00	1
Nitrobenzene-d5 (Surr)	85		53 - 120				12/21/18 12:13	12/24/18 16:00	1
p-Terphenyl-d14 (Surr)	106		65 - 121				12/21/18 12:13	12/24/18 16:00	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>15.8</b>		2.6		mg/Kg	☼	12/29/18 06:49	01/02/19 09:49	1
<b>Barium</b>	<b>186</b>		0.66		mg/Kg	☼	12/29/18 06:49	12/31/18 20:44	1
<b>Cadmium</b>	<b>1.7</b>		0.26		mg/Kg	☼	12/29/18 06:49	12/31/18 20:44	1
<b>Chromium</b>	<b>40.6</b>		0.66		mg/Kg	☼	12/29/18 06:49	01/02/19 09:49	1
<b>Lead</b>	<b>86.8</b>		1.3		mg/Kg	☼	12/29/18 06:49	12/31/18 20:44	1
Selenium	ND		5.3		mg/Kg	☼	12/29/18 06:49	12/31/18 20:44	1
Silver	ND		0.79		mg/Kg	☼	12/29/18 06:49	12/31/18 20:44	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.51</b>		0.027		mg/Kg	☼	12/26/18 11:40	12/26/18 14:24	1

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

**Client Sample ID: SB-27 (.5-2')**

**Lab Sample ID: 480-147084-2**

Date Collected: 12/18/18 13:00

Matrix: Solid

Date Received: 12/20/18 11:30

Percent Solids: 75.1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acenaphthene</b>	<b>33</b>	<b>J</b>	220	33	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
Acenaphthylene	ND		220	29	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Anthracene</b>	<b>110</b>	<b>J</b>	220	55	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Benzo[a]anthracene</b>	<b>300</b>		220	22	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Benzo[a]pyrene</b>	<b>280</b>		220	33	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Benzo[b]fluoranthene</b>	<b>370</b>		220	35	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Benzo[g,h,i]perylene</b>	<b>200</b>	<b>J</b>	220	24	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Benzo[k]fluoranthene</b>	<b>130</b>	<b>J</b>	220	29	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Chrysene</b>	<b>290</b>		220	50	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
Dibenz(a,h)anthracene	ND		220	39	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Fluoranthene</b>	<b>540</b>		220	24	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Fluorene</b>	<b>32</b>	<b>J</b>	220	26	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>190</b>	<b>J</b>	220	28	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Naphthalene</b>	<b>30</b>	<b>J</b>	220	29	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Phenanthrene</b>	<b>400</b>		220	33	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Pyrene</b>	<b>440</b>		220	26	ug/Kg	☼	12/21/18 12:13	12/24/18 17:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	84		60 - 120				12/21/18 12:13	12/24/18 17:15	1
Nitrobenzene-d5 (Surr)	80		53 - 120				12/21/18 12:13	12/24/18 17:15	1
p-Terphenyl-d14 (Surr)	105		65 - 121				12/21/18 12:13	12/24/18 17:15	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>3.7</b>		2.7		mg/Kg	☼	12/29/18 06:49	01/02/19 09:53	1
<b>Barium</b>	<b>93.8</b>		0.66		mg/Kg	☼	12/29/18 06:49	12/31/18 20:47	1
Cadmium	ND		0.27		mg/Kg	☼	12/29/18 06:49	12/31/18 20:47	1
<b>Chromium</b>	<b>30.6</b>		0.66		mg/Kg	☼	12/29/18 06:49	01/02/19 09:53	1
<b>Lead</b>	<b>20.7</b>		1.3		mg/Kg	☼	12/29/18 06:49	12/31/18 20:47	1
Selenium	ND		5.3		mg/Kg	☼	12/29/18 06:49	12/31/18 20:47	1
Silver	ND		0.80		mg/Kg	☼	12/29/18 06:49	12/31/18 20:47	1

## Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.33</b>		0.025		mg/Kg	☼	12/26/18 11:40	12/26/18 14:29	1

# Surrogate Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP	NBZ	TPHd14
		(60-120)	(53-120)	(65-121)
480-147084-1	SB-26 (.5-2')	87	85	106
480-147084-1 MS	SB-26 (.5-2')	85	82	102
480-147084-1 MSD	SB-26 (.5-2')	85	77	103
480-147084-2	SB-27 (.5-2')	84	80	105
LCS 480-452127/2-A	Lab Control Sample	82	78	101
MB 480-452127/1-A	Method Blank	83	81	97

### Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 480-452127/1-A**

**Matrix: Solid**

**Analysis Batch: 452354**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 452127**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		170	25	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Acenaphthylene	ND		170	22	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Anthracene	ND		170	42	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Benzo[a]anthracene	ND		170	17	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Benzo[a]pyrene	ND		170	25	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Chrysene	ND		170	38	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Fluoranthene	ND		170	18	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Fluorene	ND		170	20	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Naphthalene	ND		170	22	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Phenanthrene	ND		170	25	ug/Kg		12/21/18 12:13	12/24/18 14:20	1
Pyrene	ND		170	20	ug/Kg		12/21/18 12:13	12/24/18 14:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		60 - 120	12/21/18 12:13	12/24/18 14:20	1
Nitrobenzene-d5 (Surr)	81		53 - 120	12/21/18 12:13	12/24/18 14:20	1
p-Terphenyl-d14 (Surr)	97		65 - 121	12/21/18 12:13	12/24/18 14:20	1

**Lab Sample ID: LCS 480-452127/2-A**

**Matrix: Solid**

**Analysis Batch: 452354**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 452127**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	1620	1370		ug/Kg		85	62 - 120
Acenaphthylene	1620	1380		ug/Kg		85	58 - 121
Anthracene	1620	1550		ug/Kg		96	62 - 120
Benzo[a]anthracene	1620	1550		ug/Kg		96	65 - 120
Benzo[a]pyrene	1620	1630		ug/Kg		101	64 - 120
Benzo[b]fluoranthene	1620	1590		ug/Kg		98	64 - 120
Benzo[g,h,i]perylene	1620	1730		ug/Kg		107	45 - 145
Benzo[k]fluoranthene	1620	1690		ug/Kg		105	65 - 120
Chrysene	1620	1540		ug/Kg		95	64 - 120
Dibenz(a,h)anthracene	1620	1740		ug/Kg		108	54 - 132
Fluoranthene	1620	1660		ug/Kg		103	62 - 120
Fluorene	1620	1460		ug/Kg		90	63 - 120
Indeno[1,2,3-cd]pyrene	1620	1750		ug/Kg		108	56 - 134
Naphthalene	1620	1240		ug/Kg		77	55 - 120
Phenanthrene	1620	1510		ug/Kg		94	60 - 120
Pyrene	1620	1490		ug/Kg		92	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	82		60 - 120
Nitrobenzene-d5 (Surr)	78		53 - 120

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-452127/2-A**  
**Matrix: Solid**  
**Analysis Batch: 452354**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 452127**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>p</i> -Terphenyl-d14 (Surr)	101		65 - 121

**Lab Sample ID: 480-147084-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 452354**

**Client Sample ID: SB-26 (.5-2')**  
**Prep Type: Total/NA**  
**Prep Batch: 452127**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	170	J	2140	2000		ug/Kg	☼	85	60 - 120
Acenaphthylene	ND		2140	1900		ug/Kg	☼	89	58 - 121
Anthracene	370		2140	2280		ug/Kg	☼	89	62 - 120
Benzo[a]anthracene	860		2140	2460		ug/Kg	☼	75	65 - 120
Benzo[a]pyrene	690		2140	2490		ug/Kg	☼	84	64 - 120
Benzo[b]fluoranthene	1000		2140	2720		ug/Kg	☼	80	64 - 120
Benzo[g,h,i]perylene	550		2140	2680		ug/Kg	☼	99	45 - 145
Benzo[k]fluoranthene	430		2140	2410		ug/Kg	☼	93	65 - 120
Chrysene	820		2140	2500		ug/Kg	☼	79	64 - 120
Dibenz(a,h)anthracene	ND		2140	2490		ug/Kg	☼	116	54 - 132
Fluoranthene	2100	F1	2140	3130	F1	ug/Kg	☼	47	62 - 120
Fluorene	190	J	2140	2100		ug/Kg	☼	89	63 - 120
Indeno[1,2,3-cd]pyrene	510		2140	2600		ug/Kg	☼	98	56 - 134
Naphthalene	37	J	2140	1750		ug/Kg	☼	80	46 - 120
Phenanthrene	1900	F1	2140	2880	F1	ug/Kg	☼	48	60 - 122
Pyrene	1600	F1	2140	2790	F1	ug/Kg	☼	54	61 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
<i>2</i> -Fluorobiphenyl	85		60 - 120
<i>Nitrobenzene-d5</i> (Surr)	82		53 - 120
<i>p</i> -Terphenyl-d14 (Surr)	102		65 - 121

**Lab Sample ID: 480-147084-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 452354**

**Client Sample ID: SB-26 (.5-2')**  
**Prep Type: Total/NA**  
**Prep Batch: 452127**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Acenaphthene	170	J	2180	1990		ug/Kg	☼	84	60 - 120	0	35
Acenaphthylene	ND		2180	1920		ug/Kg	☼	88	58 - 121	1	18
Anthracene	370		2180	2210		ug/Kg	☼	85	62 - 120	3	15
Benzo[a]anthracene	860		2180	2460		ug/Kg	☼	73	65 - 120	0	15
Benzo[a]pyrene	690		2180	2420		ug/Kg	☼	79	64 - 120	3	15
Benzo[b]fluoranthene	1000		2180	2720		ug/Kg	☼	79	64 - 120	0	15
Benzo[g,h,i]perylene	550		2180	2740		ug/Kg	☼	101	45 - 145	3	15
Benzo[k]fluoranthene	430		2180	2160		ug/Kg	☼	79	65 - 120	11	22
Chrysene	820		2180	2480		ug/Kg	☼	76	64 - 120	1	15
Dibenz(a,h)anthracene	ND		2180	2570		ug/Kg	☼	118	54 - 132	3	15
Fluoranthene	2100	F1	2180	2900	F1	ug/Kg	☼	36	62 - 120	8	15
Fluorene	190	J	2180	2190		ug/Kg	☼	92	63 - 120	4	15
Indeno[1,2,3-cd]pyrene	510		2180	2600		ug/Kg	☼	96	56 - 134	0	15
Naphthalene	37	J	2180	1700		ug/Kg	☼	76	46 - 120	3	29

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 480-147084-1 MSD**

**Matrix: Solid**

**Analysis Batch: 452354**

**Client Sample ID: SB-26 (.5-2')**

**Prep Type: Total/NA**

**Prep Batch: 452127**

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Phenanthrene	1900	F1	2180	2630	F1	ug/Kg	☼	35	60 - 122	9	15
Pyrene	1600	F1	2180	2640	F1	ug/Kg	☼	46	61 - 133	6	35
<b>Surrogate</b>	<b>MSD</b>	<b>MSD</b>	<b>Limits</b>								
	<b>%Recovery</b>	<b>Qualifier</b>									
2-Fluorobiphenyl	85		60 - 120								
Nitrobenzene-d5 (Surr)	77		53 - 120								
p-Terphenyl-d14 (Surr)	103		65 - 121								

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-452861/1-A**

**Matrix: Solid**

**Analysis Batch: 453268**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 452861**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		2.0		mg/Kg		12/29/18 06:49	12/31/18 18:58	1
Barium	ND		0.50		mg/Kg		12/29/18 06:49	12/31/18 18:58	1
Cadmium	ND		0.20		mg/Kg		12/29/18 06:49	12/31/18 18:58	1
Chromium	ND		0.50		mg/Kg		12/29/18 06:49	12/31/18 18:58	1
Lead	ND		1.0		mg/Kg		12/29/18 06:49	12/31/18 18:58	1
Selenium	ND		4.0		mg/Kg		12/29/18 06:49	12/31/18 18:58	1
Silver	ND		0.60		mg/Kg		12/29/18 06:49	12/31/18 18:58	1

**Lab Sample ID: LCSSRM 480-452861/2-A**

**Matrix: Solid**

**Analysis Batch: 453268**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 452861**

Analyte	Spike	LCSSRM		Unit	D	%Rec	%Rec.	Limits
		Added	Result					
Arsenic	171	166.6		mg/Kg		97.4	66.1 - 122.	2
Barium	272	217.6		mg/Kg		80.0	71.7 - 119.	5
Cadmium	225	208.0		mg/Kg		92.4	70.2 - 117.	3
Chromium	144	117.7		mg/Kg		81.7	66.1 - 122.	9
Lead	111	112.9		mg/Kg		101.7	71.0 - 128.	8
Selenium	206	172.6		mg/Kg		83.8	63.6 - 122.	3
Silver	45.5	38.91		mg/Kg		85.5	66.2 - 124.	2



# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 480-452497/1-A**  
**Matrix: Solid**  
**Analysis Batch: 452536**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 452497**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019		mg/Kg		12/26/18 11:40	12/26/18 14:21	1

**Lab Sample ID: LCDSRM 480-452497/11-A ^10**  
**Matrix: Solid**  
**Analysis Batch: 452536**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 452497**

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	12.0	12.39		mg/Kg		103.3	57.3 - 133.3	11	20

**Lab Sample ID: LCSSRM 480-452497/2-A ^10**  
**Matrix: Solid**  
**Analysis Batch: 452536**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 452497**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	12.0	11.09		mg/Kg		92.4	57.3 - 133.3		

**Lab Sample ID: 480-147084-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 452536**

**Client Sample ID: SB-26 (.5-2')**  
**Prep Type: Total/NA**  
**Prep Batch: 452497**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.51		0.424	0.851		mg/Kg	☼	81	80 - 120

**Lab Sample ID: 480-147084-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 452536**

**Client Sample ID: SB-26 (.5-2')**  
**Prep Type: Total/NA**  
**Prep Batch: 452497**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.51		0.422	1.01		mg/Kg	☼	119	80 - 120	17	20

# QC Association Summary

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## GC/MS Semi VOA

### Prep Batch: 452127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	3550C	
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	3550C	
MB 480-452127/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-452127/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-147084-1 MS	SB-26 (.5-2')	Total/NA	Solid	3550C	
480-147084-1 MSD	SB-26 (.5-2')	Total/NA	Solid	3550C	

### Analysis Batch: 452354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	8270D	452127
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	8270D	452127
MB 480-452127/1-A	Method Blank	Total/NA	Solid	8270D	452127
LCS 480-452127/2-A	Lab Control Sample	Total/NA	Solid	8270D	452127
480-147084-1 MS	SB-26 (.5-2')	Total/NA	Solid	8270D	452127
480-147084-1 MSD	SB-26 (.5-2')	Total/NA	Solid	8270D	452127

## Metals

### Prep Batch: 452497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	7471B	
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	7471B	
MB 480-452497/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-452497/11-A	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-452497/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-147084-1 MS	SB-26 (.5-2')	Total/NA	Solid	7471B	
480-147084-1 MSD	SB-26 (.5-2')	Total/NA	Solid	7471B	

### Analysis Batch: 452536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	7471B	452497
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	7471B	452497
MB 480-452497/1-A	Method Blank	Total/NA	Solid	7471B	452497
LCDSRM 480-452497/11-A	Lab Control Sample Dup	Total/NA	Solid	7471B	452497
LCSSRM 480-452497/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	452497
480-147084-1 MS	SB-26 (.5-2')	Total/NA	Solid	7471B	452497
480-147084-1 MSD	SB-26 (.5-2')	Total/NA	Solid	7471B	452497

### Prep Batch: 452861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	3050B	
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	3050B	
MB 480-452861/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-452861/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Analysis Batch: 453268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	6010C	452861
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	6010C	452861
MB 480-452861/1-A	Method Blank	Total/NA	Solid	6010C	452861

TestAmerica Buffalo

# QC Association Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Metals (Continued)

### Analysis Batch: 453268 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-452861/2-A	Lab Control Sample	Total/NA	Solid	6010C	452861

### Analysis Batch: 453337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	6010C	452861
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	6010C	452861

## General Chemistry

### Analysis Batch: 452742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147084-1	SB-26 (.5-2')	Total/NA	Solid	Moisture	
480-147084-2	SB-27 (.5-2')	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

**Client Sample ID: SB-26 (.5-2')**

**Date Collected: 12/18/18 12:00**

**Date Received: 12/20/18 11:30**

**Lab Sample ID: 480-147084-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	452742	12/27/18 13:59	KPK	TAL BUF

**Client Sample ID: SB-26 (.5-2')**

**Date Collected: 12/18/18 12:00**

**Date Received: 12/20/18 11:30**

**Lab Sample ID: 480-147084-1**

**Matrix: Solid**

**Percent Solids: 76.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			452127	12/21/18 12:13	SGD	TAL BUF
Total/NA	Analysis	8270D		1	452354	12/24/18 16:00	RJS	TAL BUF
Total/NA	Prep	3050B			452861	12/29/18 06:49	VEG	TAL BUF
Total/NA	Analysis	6010C		1	453337	01/02/19 09:49	AMH	TAL BUF
Total/NA	Prep	3050B			452861	12/29/18 06:49	VEG	TAL BUF
Total/NA	Analysis	6010C		1	453268	12/31/18 20:44	AMH	TAL BUF
Total/NA	Prep	7471B			452497	12/26/18 11:40	BMB	TAL BUF
Total/NA	Analysis	7471B		1	452536	12/26/18 14:24	BMB	TAL BUF

**Client Sample ID: SB-27 (.5-2')**

**Date Collected: 12/18/18 13:00**

**Date Received: 12/20/18 11:30**

**Lab Sample ID: 480-147084-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	452742	12/27/18 13:59	KPK	TAL BUF

**Client Sample ID: SB-27 (.5-2')**

**Date Collected: 12/18/18 13:00**

**Date Received: 12/20/18 11:30**

**Lab Sample ID: 480-147084-2**

**Matrix: Solid**

**Percent Solids: 75.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			452127	12/21/18 12:13	SGD	TAL BUF
Total/NA	Analysis	8270D		1	452354	12/24/18 17:15	RJS	TAL BUF
Total/NA	Prep	3050B			452861	12/29/18 06:49	VEG	TAL BUF
Total/NA	Analysis	6010C		1	453337	01/02/19 09:53	AMH	TAL BUF
Total/NA	Prep	3050B			452861	12/29/18 06:49	VEG	TAL BUF
Total/NA	Analysis	6010C		1	453268	12/31/18 20:47	AMH	TAL BUF
Total/NA	Prep	7471B			452497	12/26/18 11:40	BMB	TAL BUF
Total/NA	Analysis	7471B		1	452536	12/26/18 14:29	BMB	TAL BUF

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Accreditation/Certification Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

## Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Method Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Sample Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147084-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-147084-1	SB-26 (.5-2')	Solid	12/18/18 12:00	12/20/18 11:30
480-147084-2	SB-27 (.5-2')	Solid	12/18/18 13:00	12/20/18 11:30

1

2

3

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15



<b>Client Contact</b> Company Name: <u>TO/Asky Env. Restoring</u> Address: <u>2500 Hemlock Trl. 1</u> City/State/Zip: <u>Buffalo, NY 14219</u> Phone: <u>716-713-3937</u> Fax: Project Name: <u>1200 Jefferson Site</u> Site: PO # <u>0234-018-001</u>		<b>Regulatory Program:</b> <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other: Project Manager: <u>Nate Munley</u> Tell Fax: <u>716-713-2433</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact:</b> <u>Nice Swad</u> Date: <u>12/19/18</u> <b>Lab Contact:</b> <u>Brian Flynn</u> Carrier: COC No.: <u>480-147084 COC</u> Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.: Sample Specific Notes:	
Sample Identification <u>SB-26 (.5-2')</u> <u>SB-27 (.5-2')</u>		Filtered Sample (Y/N) Perform MS / MSD (Y/N)	Matrix Soil 1 Soil 1	Sample Type (C=Comp, G=Grab) G G	# of Cont. 1 1

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

**Possible Hazard Identification:** Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Special Instructions/QC Requirements & Comments:**

Relinquished by: Relinquished by: Relinquished by:	Custody Seal No.: Company: <u>BATC</u> Company: <u>TAAS</u> Company:	Date/Time: Date/Time: Date/Time:	Cooler Temp. (°C): Obs'd: <u>40</u> Corr'd: Company: <u>TAAS</u> Company: <u>TAAS</u> Company:	Therm ID No.: Date/Time: Date/Time: Date/Time:
--	---	--	--	---

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months





## Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-147084-1

**Login Number: 147084**

**List Number: 1**

**Creator: Stopa, Erik S**

**List Source: TestAmerica Buffalo**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BMTK
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-147085-1

Client Project/Site: Benchmark - 1200 Jefferson St

For:

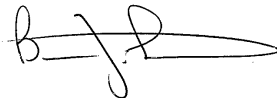
Turnkey Environmental Restoration, LLC

2558 Hamburg Turnpike

Suite 300

Lackawanna, New York 14218

Attn: Nate Munley



Authorized for release by:

12/27/2018 12:15:34 PM

Brian Fischer, Manager of Project Management

(716)504-9835

[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)

### LINKS

Review your project  
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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Job ID: 480-147085-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-147085-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/20/2018 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.8° C.

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-452238 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TMW-3 (480-147085-3) and TMW-4 (480-147085-4).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: TMW-3 (480-147085-3) and TMW-4 (480-147085-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: TMW-3 (480-147085-3).

Method(s) 8260C: The surrogate 1,2-Dichloroethane-d4 (SURR) was outside the 20%D limits on the continuing calibration verification (CCV) but was within laboratory limits. The following samples are impacted: TMW-3 (480-147085-3) and TMW-4 (480-147085-4).

Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 480-452238 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8260C: Due to the high concentration of Tetrachloroethane, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 480-452238 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 8260C: The following sample was analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: SB-25 (5-7) (480-147085-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was analyzed using medium level soil analysis to bring the concentration of target analytes within the calibration range: SB-29 (5-6) (480-147085-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: This analyte Trichloroethene was detected in sample SB-25 (5-7) (480-147085-1) at a concentration above the linear range of the initial calibration curve. Due to the high dilution dictated by other target compounds, Trichloroethene was diluted out in the re-analysis of the sample. Therefore, the value being reported is from the original analysis and is qualified as estimated with an E flag.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Client Sample ID: SB-25 (5-7)

## Lab Sample ID: 480-147085-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	1.7	J	5.8	0.45	ug/Kg	1	☼	8260C	Total/NA
1,4-Dichlorobenzene	1.8	J	5.8	0.81	ug/Kg	1	☼	8260C	Total/NA
Chloroform	2.3	J	5.8	0.36	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	20		5.8	0.74	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	6.1		5.8	0.87	ug/Kg	1	☼	8260C	Total/NA
o-Xylene	4.3	J	5.8	0.75	ug/Kg	1	☼	8260C	Total/NA
sec-Butylbenzene	1.9	J	5.8	0.50	ug/Kg	1	☼	8260C	Total/NA
trans-1,2-Dichloroethene	1.0	J	5.8	0.60	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	270	E	5.8	1.3	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	4.3	J	12	0.97	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene - DL	110000		2600	350	ug/Kg	20	☼	8260C	Total/NA

## Client Sample ID: SB-29 (5-6)

## Lab Sample ID: 480-147085-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.41	J	5.9	0.37	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	17		5.9	0.76	ug/Kg	1	☼	8260C	Total/NA
trans-1,2-Dichloroethene	3.9	J	5.9	0.61	ug/Kg	1	☼	8260C	Total/NA
Tetrachloroethene - DL	7100		130	18	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene - DL	450		130	36	ug/Kg	1	☼	8260C	Total/NA

## Client Sample ID: TMW-3

## Lab Sample ID: 480-147085-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	9.3		4.0	3.2	ug/L	4		8260C	Total/NA
Tetrachloroethene	280		4.0	1.4	ug/L	4		8260C	Total/NA
Trichloroethene	36		4.0	1.8	ug/L	4		8260C	Total/NA

## Client Sample ID: TMW-4

## Lab Sample ID: 480-147085-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	860	F1	20	16	ug/L	20		8260C	Total/NA
Tetrachloroethene	1900	F1	20	7.2	ug/L	20		8260C	Total/NA
trans-1,2-Dichloroethene	34		20	18	ug/L	20		8260C	Total/NA
Trichloroethene	130		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	24		20	18	ug/L	20		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: SB-25 (5-7)**

**Lab Sample ID: 480-147085-1**

Date Collected: 12/18/18 11:00

Matrix: Solid

Date Received: 12/20/18 11:30

Percent Solids: 83.9

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.8	0.42	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,1,2,2-Tetrachloroethane	ND		5.8	0.94	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,1,2-Trichloroethane	ND		5.8	0.75	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,1-Dichloroethane	ND		5.8	0.70	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,1-Dichloroethene	ND		5.8	0.71	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,2,4-Trichlorobenzene	ND		5.8	0.35	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,2,4-Trimethylbenzene	ND		5.8	1.1	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,2-Dibromo-3-Chloropropane	ND		5.8	2.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,2-Dibromoethane	ND		5.8	0.74	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>1,2-Dichlorobenzene</b>	<b>1.7</b>	<b>J</b>	5.8	0.45	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,2-Dichloroethane	ND		5.8	0.29	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,2-Dichloropropane	ND		5.8	2.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,3,5-Trimethylbenzene	ND		5.8	0.37	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
1,3-Dichlorobenzene	ND		5.8	0.30	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>1,4-Dichlorobenzene</b>	<b>1.8</b>	<b>J</b>	5.8	0.81	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
4-Isopropyltoluene	ND		5.8	0.46	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Acetone	ND		29	4.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Benzene	ND		5.8	0.28	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Bromodichloromethane	ND		5.8	0.77	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Bromoform	ND		5.8	2.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Bromomethane	ND		5.8	0.52	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Carbon disulfide	ND		5.8	2.9	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Carbon tetrachloride	ND		5.8	0.56	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Chlorobenzene	ND		5.8	0.76	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Chloroethane	ND		5.8	1.3	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>Chloroform</b>	<b>2.3</b>	<b>J</b>	5.8	0.36	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Chloromethane	ND		5.8	0.35	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>cis-1,2-Dichloroethene</b>	<b>20</b>		5.8	0.74	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
cis-1,3-Dichloropropene	ND		5.8	0.83	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Cyclohexane	ND		5.8	0.81	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Dibromochloromethane	ND		5.8	0.74	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Dichlorodifluoromethane	ND		5.8	0.48	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Ethylbenzene	ND		5.8	0.40	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>Isopropylbenzene</b>	<b>6.1</b>		5.8	0.87	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
m,p-Xylene	ND		12	0.97	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Methyl acetate	ND		29	3.5	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Methyl tert-butyl ether	ND		5.8	0.57	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Methylcyclohexane	ND		5.8	0.88	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Methylene Chloride	ND		5.8	2.7	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
n-Butylbenzene	ND		5.8	0.50	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
N-Propylbenzene	ND		5.8	0.46	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>o-Xylene</b>	<b>4.3</b>	<b>J</b>	5.8	0.75	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>sec-Butylbenzene</b>	<b>1.9</b>	<b>J</b>	5.8	0.50	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Styrene	ND		5.8	0.29	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
tert-Butylbenzene	ND		5.8	0.60	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: SB-25 (5-7)**

**Lab Sample ID: 480-147085-1**

Date Collected: 12/18/18 11:00

Matrix: Solid

Date Received: 12/20/18 11:30

Percent Solids: 83.9

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		5.8	0.44	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>trans-1,2-Dichloroethene</b>	<b>1.0</b>	<b>J</b>	5.8	0.60	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
trans-1,3-Dichloropropene	ND		5.8	2.5	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>Trichloroethene</b>	<b>270</b>	<b>E</b>	5.8	1.3	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Trichlorofluoromethane	ND		5.8	0.55	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
Vinyl chloride	ND		5.8	0.70	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1
<b>Xylenes, Total</b>	<b>4.3</b>	<b>J</b>	12	0.97	ug/Kg	☼	12/21/18 11:00	12/21/18 14:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		64 - 126	12/21/18 11:00	12/21/18 14:44	1
4-Bromofluorobenzene (Surr)	88		72 - 126	12/21/18 11:00	12/21/18 14:44	1
Dibromofluoromethane (Surr)	114		60 - 140	12/21/18 11:00	12/21/18 14:44	1
Toluene-d8 (Surr)	100		71 - 125	12/21/18 11:00	12/21/18 14:44	1

**Method: 8260C - Volatile Organic Compounds by GC/MS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>110000</b>		2600	350	ug/Kg	☼	12/22/18 14:35	12/24/18 12:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		53 - 146	12/22/18 14:35	12/24/18 12:19	20
4-Bromofluorobenzene (Surr)	103		49 - 148	12/22/18 14:35	12/24/18 12:19	20
Dibromofluoromethane (Surr)	99		60 - 140	12/22/18 14:35	12/24/18 12:19	20
Toluene-d8 (Surr)	95		50 - 149	12/22/18 14:35	12/24/18 12:19	20



# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: SB-29 (5-6)**

**Lab Sample ID: 480-147085-2**

**Date Collected: 12/18/18 15:00**

**Matrix: Solid**

**Date Received: 12/20/18 11:30**

**Percent Solids: 83.2**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.9	0.43	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,1,2,2-Tetrachloroethane	ND		5.9	0.96	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.9	1.4	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,1,2-Trichloroethane	ND		5.9	0.77	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,1-Dichloroethane	ND		5.9	0.72	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,1-Dichloroethene	ND		5.9	0.73	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2,4-Trichlorobenzene	ND		5.9	0.36	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2,4-Trimethylbenzene	ND		5.9	1.1	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2-Dibromo-3-Chloropropane	ND		5.9	3.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2-Dibromoethane	ND		5.9	0.76	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2-Dichlorobenzene	ND		5.9	0.46	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2-Dichloroethane	ND		5.9	0.30	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,2-Dichloropropane	ND		5.9	3.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,3,5-Trimethylbenzene	ND		5.9	0.38	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,3-Dichlorobenzene	ND		5.9	0.30	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
1,4-Dichlorobenzene	ND		5.9	0.83	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
2-Butanone (MEK)	ND		30	2.2	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
2-Hexanone	ND		30	3.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
4-Isopropyltoluene	ND		5.9	0.48	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
4-Methyl-2-pentanone (MIBK)	ND		30	1.9	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Acetone	ND		30	5.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Benzene	ND		5.9	0.29	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Bromodichloromethane	ND		5.9	0.79	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Bromoform	ND		5.9	3.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Bromomethane	ND		5.9	0.53	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Carbon disulfide	ND		5.9	3.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Carbon tetrachloride	ND		5.9	0.57	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Chlorobenzene	ND		5.9	0.78	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Chloroethane	ND		5.9	1.3	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
<b>Chloroform</b>	<b>0.41</b>	<b>J</b>	5.9	0.37	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Chloromethane	ND		5.9	0.36	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
<b>cis-1,2-Dichloroethene</b>	<b>17</b>		5.9	0.76	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
cis-1,3-Dichloropropene	ND		5.9	0.85	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Cyclohexane	ND		5.9	0.83	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Dibromochloromethane	ND		5.9	0.76	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Dichlorodifluoromethane	ND		5.9	0.49	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Ethylbenzene	ND		5.9	0.41	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Isopropylbenzene	ND		5.9	0.89	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
m,p-Xylene	ND		12	1.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Methyl acetate	ND		30	3.6	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Methyl tert-butyl ether	ND		5.9	0.58	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Methylcyclohexane	ND		5.9	0.90	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Methylene Chloride	ND		5.9	2.7	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
n-Butylbenzene	ND		5.9	0.52	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
N-Propylbenzene	ND		5.9	0.47	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
o-Xylene	ND		5.9	0.77	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
sec-Butylbenzene	ND		5.9	0.52	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Styrene	ND		5.9	0.30	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
tert-Butylbenzene	ND		5.9	0.62	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: SB-29 (5-6)**

**Lab Sample ID: 480-147085-2**

Date Collected: 12/18/18 15:00

Matrix: Solid

Date Received: 12/20/18 11:30

Percent Solids: 83.2

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		5.9	0.45	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
<b>trans-1,2-Dichloroethene</b>	<b>3.9</b>	<b>J</b>	5.9	0.61	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
trans-1,3-Dichloropropene	ND		5.9	2.6	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Trichlorofluoromethane	ND		5.9	0.56	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Vinyl chloride	ND		5.9	0.72	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1
Xylenes, Total	ND		12	1.0	ug/Kg	☼	12/21/18 11:00	12/21/18 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	12/21/18 11:00	12/21/18 15:10	1
4-Bromofluorobenzene (Surr)	97		72 - 126	12/21/18 11:00	12/21/18 15:10	1
Dibromofluoromethane (Surr)	110		60 - 140	12/21/18 11:00	12/21/18 15:10	1
Toluene-d8 (Surr)	103		71 - 125	12/21/18 11:00	12/21/18 15:10	1

**Method: 8260C - Volatile Organic Compounds by GC/MS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>7100</b>		130	18	ug/Kg	☼	12/22/18 14:35	12/24/18 12:46	1
<b>Trichloroethene</b>	<b>450</b>		130	36	ug/Kg	☼	12/22/18 14:35	12/24/18 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		53 - 146	12/22/18 14:35	12/24/18 12:46	1
4-Bromofluorobenzene (Surr)	97		49 - 148	12/22/18 14:35	12/24/18 12:46	1
Dibromofluoromethane (Surr)	94		60 - 140	12/22/18 14:35	12/24/18 12:46	1
Toluene-d8 (Surr)	92		50 - 149	12/22/18 14:35	12/24/18 12:46	1

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: TMW-3**

**Lab Sample ID: 480-147085-3**

**Date Collected: 12/19/18 10:00**

**Matrix: Water**

**Date Received: 12/20/18 11:30**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	3.3	ug/L			12/22/18 15:37	4
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			12/22/18 15:37	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	1.2	ug/L			12/22/18 15:37	4
1,1,2-Trichloroethane	ND		4.0	0.92	ug/L			12/22/18 15:37	4
1,1-Dichloroethane	ND		4.0	1.5	ug/L			12/22/18 15:37	4
1,1-Dichloroethene	ND		4.0	1.2	ug/L			12/22/18 15:37	4
1,2,4-Trichlorobenzene	ND		4.0	1.6	ug/L			12/22/18 15:37	4
1,2,4-Trimethylbenzene	ND		4.0	3.0	ug/L			12/22/18 15:37	4
1,2-Dibromo-3-Chloropropane	ND		4.0	1.6	ug/L			12/22/18 15:37	4
1,2-Dibromoethane	ND		4.0	2.9	ug/L			12/22/18 15:37	4
1,2-Dichlorobenzene	ND		4.0	3.2	ug/L			12/22/18 15:37	4
1,2-Dichloroethane	ND		4.0	0.84	ug/L			12/22/18 15:37	4
1,2-Dichloropropane	ND		4.0	2.9	ug/L			12/22/18 15:37	4
1,3,5-Trimethylbenzene	ND		4.0	3.1	ug/L			12/22/18 15:37	4
1,3-Dichlorobenzene	ND		4.0	3.1	ug/L			12/22/18 15:37	4
1,4-Dichlorobenzene	ND		4.0	3.4	ug/L			12/22/18 15:37	4
2-Butanone (MEK)	ND		40	5.3	ug/L			12/22/18 15:37	4
2-Hexanone	ND		20	5.0	ug/L			12/22/18 15:37	4
4-Isopropyltoluene	ND		4.0	1.2	ug/L			12/22/18 15:37	4
4-Methyl-2-pentanone (MIBK)	ND		20	8.4	ug/L			12/22/18 15:37	4
Acetone	ND		40	12	ug/L			12/22/18 15:37	4
Benzene	ND		4.0	1.6	ug/L			12/22/18 15:37	4
Bromodichloromethane	ND		4.0	1.6	ug/L			12/22/18 15:37	4
Bromoform	ND		4.0	1.0	ug/L			12/22/18 15:37	4
Bromomethane	ND		4.0	2.8	ug/L			12/22/18 15:37	4
Carbon disulfide	ND		4.0	0.76	ug/L			12/22/18 15:37	4
Carbon tetrachloride	ND		4.0	1.1	ug/L			12/22/18 15:37	4
Chlorobenzene	ND		4.0	3.0	ug/L			12/22/18 15:37	4
Chloroethane	ND		4.0	1.3	ug/L			12/22/18 15:37	4
Chloroform	ND		4.0	1.4	ug/L			12/22/18 15:37	4
Chloromethane	ND		4.0	1.4	ug/L			12/22/18 15:37	4
<b>cis-1,2-Dichloroethene</b>	<b>9.3</b>		4.0	3.2	ug/L			12/22/18 15:37	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			12/22/18 15:37	4
Cyclohexane	ND		4.0	0.72	ug/L			12/22/18 15:37	4
Dibromochloromethane	ND		4.0	1.3	ug/L			12/22/18 15:37	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			12/22/18 15:37	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/22/18 15:37	4
Isopropylbenzene	ND		4.0	3.2	ug/L			12/22/18 15:37	4
m,p-Xylene	ND		8.0	2.6	ug/L			12/22/18 15:37	4
Methyl acetate	ND		10	5.2	ug/L			12/22/18 15:37	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			12/22/18 15:37	4
Methylcyclohexane	ND		4.0	0.64	ug/L			12/22/18 15:37	4
Methylene Chloride	ND		4.0	1.8	ug/L			12/22/18 15:37	4
n-Butylbenzene	ND		4.0	2.6	ug/L			12/22/18 15:37	4
N-Propylbenzene	ND		4.0	2.8	ug/L			12/22/18 15:37	4
o-Xylene	ND		4.0	3.0	ug/L			12/22/18 15:37	4
sec-Butylbenzene	ND		4.0	3.0	ug/L			12/22/18 15:37	4
Styrene	ND		4.0	2.9	ug/L			12/22/18 15:37	4
tert-Butylbenzene	ND		4.0	3.2	ug/L			12/22/18 15:37	4

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: TMW-3**

**Lab Sample ID: 480-147085-3**

**Date Collected: 12/19/18 10:00**

**Matrix: Water**

**Date Received: 12/20/18 11:30**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>280</b>		4.0	1.4	ug/L			12/22/18 15:37	4
Toluene	ND		4.0	2.0	ug/L			12/22/18 15:37	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			12/22/18 15:37	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			12/22/18 15:37	4
<b>Trichloroethene</b>	<b>36</b>		4.0	1.8	ug/L			12/22/18 15:37	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			12/22/18 15:37	4
Vinyl chloride	ND		4.0	3.6	ug/L			12/22/18 15:37	4
Xylenes, Total	ND		8.0	2.6	ug/L			12/22/18 15:37	4
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	98		77 - 120					12/22/18 15:37	4
4-Bromofluorobenzene (Surr)	95		73 - 120					12/22/18 15:37	4
Toluene-d8 (Surr)	93		80 - 120					12/22/18 15:37	4

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: TMW-4**

**Lab Sample ID: 480-147085-4**

**Date Collected: 12/19/18 10:30**

**Matrix: Water**

**Date Received: 12/20/18 11:30**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			12/22/18 16:04	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			12/22/18 16:04	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			12/22/18 16:04	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			12/22/18 16:04	20
1,1-Dichloroethane	ND		20	7.6	ug/L			12/22/18 16:04	20
1,1-Dichloroethene	ND		20	5.8	ug/L			12/22/18 16:04	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			12/22/18 16:04	20
1,2,4-Trimethylbenzene	ND		20	15	ug/L			12/22/18 16:04	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			12/22/18 16:04	20
1,2-Dibromoethane	ND		20	15	ug/L			12/22/18 16:04	20
1,2-Dichlorobenzene	ND		20	16	ug/L			12/22/18 16:04	20
1,2-Dichloroethane	ND		20	4.2	ug/L			12/22/18 16:04	20
1,2-Dichloropropane	ND		20	14	ug/L			12/22/18 16:04	20
1,3,5-Trimethylbenzene	ND		20	15	ug/L			12/22/18 16:04	20
1,3-Dichlorobenzene	ND		20	16	ug/L			12/22/18 16:04	20
1,4-Dichlorobenzene	ND		20	17	ug/L			12/22/18 16:04	20
2-Butanone (MEK)	ND		200	26	ug/L			12/22/18 16:04	20
2-Hexanone	ND		100	25	ug/L			12/22/18 16:04	20
4-Isopropyltoluene	ND		20	6.2	ug/L			12/22/18 16:04	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			12/22/18 16:04	20
Acetone	ND		200	60	ug/L			12/22/18 16:04	20
Benzene	ND		20	8.2	ug/L			12/22/18 16:04	20
Bromodichloromethane	ND		20	7.8	ug/L			12/22/18 16:04	20
Bromoform	ND		20	5.2	ug/L			12/22/18 16:04	20
Bromomethane	ND		20	14	ug/L			12/22/18 16:04	20
Carbon disulfide	ND		20	3.8	ug/L			12/22/18 16:04	20
Carbon tetrachloride	ND		20	5.4	ug/L			12/22/18 16:04	20
Chlorobenzene	ND		20	15	ug/L			12/22/18 16:04	20
Chloroethane	ND		20	6.4	ug/L			12/22/18 16:04	20
Chloroform	ND		20	6.8	ug/L			12/22/18 16:04	20
Chloromethane	ND		20	7.0	ug/L			12/22/18 16:04	20
<b>cis-1,2-Dichloroethene</b>	<b>860</b>	<b>F1</b>	20	16	ug/L			12/22/18 16:04	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			12/22/18 16:04	20
Cyclohexane	ND		20	3.6	ug/L			12/22/18 16:04	20
Dibromochloromethane	ND		20	6.4	ug/L			12/22/18 16:04	20
Dichlorodifluoromethane	ND		20	14	ug/L			12/22/18 16:04	20
Ethylbenzene	ND		20	15	ug/L			12/22/18 16:04	20
Isopropylbenzene	ND		20	16	ug/L			12/22/18 16:04	20
m,p-Xylene	ND		40	13	ug/L			12/22/18 16:04	20
Methyl acetate	ND		50	26	ug/L			12/22/18 16:04	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			12/22/18 16:04	20
Methylcyclohexane	ND		20	3.2	ug/L			12/22/18 16:04	20
Methylene Chloride	ND		20	8.8	ug/L			12/22/18 16:04	20
n-Butylbenzene	ND		20	13	ug/L			12/22/18 16:04	20
N-Propylbenzene	ND		20	14	ug/L			12/22/18 16:04	20
o-Xylene	ND		20	15	ug/L			12/22/18 16:04	20
sec-Butylbenzene	ND		20	15	ug/L			12/22/18 16:04	20
Styrene	ND		20	15	ug/L			12/22/18 16:04	20
tert-Butylbenzene	ND		20	16	ug/L			12/22/18 16:04	20

TestAmerica Buffalo

# Client Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Client Sample ID: TMW-4**

**Lab Sample ID: 480-147085-4**

**Date Collected: 12/19/18 10:30**

**Matrix: Water**

**Date Received: 12/20/18 11:30**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>1900</b>	<b>F1</b>	20	7.2	ug/L			12/22/18 16:04	20
Toluene	ND		20	10	ug/L			12/22/18 16:04	20
<b>trans-1,2-Dichloroethene</b>	<b>34</b>		20	18	ug/L			12/22/18 16:04	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			12/22/18 16:04	20
<b>Trichloroethene</b>	<b>130</b>		20	9.2	ug/L			12/22/18 16:04	20
Trichlorofluoromethane	ND		20	18	ug/L			12/22/18 16:04	20
<b>Vinyl chloride</b>	<b>24</b>		20	18	ug/L			12/22/18 16:04	20
Xylenes, Total	ND		40	13	ug/L			12/22/18 16:04	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					12/22/18 16:04	20
4-Bromofluorobenzene (Surr)	99		73 - 120					12/22/18 16:04	20
Toluene-d8 (Surr)	95		80 - 120					12/22/18 16:04	20

# Surrogate Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (64-126)	BFB (72-126)	DBFM (60-140)	TOL (71-125)
480-147085-1	SB-25 (5-7)	111	88	114	100
480-147085-2	SB-29 (5-6)	108	97	110	103
LCS 480-452103/1-A	Lab Control Sample	105	104	108	104
MB 480-452103/2-A	Method Blank	108	101	109	103

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (53-146)	BFB (49-148)	DBFM (60-140)	TOL (50-149)
480-147085-1 - DL	SB-25 (5-7)	99	103	99	95
480-147085-2 - DL	SB-29 (5-6)	97	97	94	92
LCS 480-452255/1-A	Lab Control Sample	100	106	101	99
MB 480-452255/2-A	Method Blank	101	104	97	100

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DCA (77-120)	BFB (73-120)	TOL (80-120)
480-147085-3	TMW-3	98	95	93
480-147085-4	TMW-4	102	99	95
480-147085-4 MS	TMW-4	99	100	94
480-147085-4 MSD	TMW-4	97	101	95
LCS 480-452238/6	Lab Control Sample	80	113	86
MB 480-452238/28	Method Blank	102	103	101

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
TOL = Toluene-d8 (Surr)

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 480-452103/2-A**

**Matrix: Solid**

**Analysis Batch: 452093**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 452103**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2,4-Trimethylbenzene	ND		5.0	0.96	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,3,5-Trimethylbenzene	ND		5.0	0.32	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
2-Hexanone	ND		25	2.5	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
4-Isopropyltoluene	ND		5.0	0.40	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Acetone	ND		25	4.2	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Benzene	ND		5.0	0.25	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Bromoform	ND		5.0	2.5	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Bromomethane	ND		5.0	0.45	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Chloroethane	ND		5.0	1.1	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Chloroform	ND		5.0	0.31	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Chloromethane	ND		5.0	0.30	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Cyclohexane	ND		5.0	0.70	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
m,p-Xylene	ND		10	0.84	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Methyl acetate	ND		25	3.0	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
n-Butylbenzene	ND		5.0	0.44	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
N-Propylbenzene	ND		5.0	0.40	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
o-Xylene	ND		5.0	0.65	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
sec-Butylbenzene	ND		5.0	0.44	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Styrene	ND		5.0	0.25	ug/Kg		12/21/18 11:00	12/21/18 14:01	1

TestAmerica Buffalo



# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-452103/2-A**

**Matrix: Solid**

**Analysis Batch: 452093**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 452103**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		5.0	0.52	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Toluene	ND		5.0	0.38	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Trichloroethene	ND		5.0	1.1	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		12/21/18 11:00	12/21/18 14:01	1
Xylenes, Total	ND		10	0.84	ug/Kg		12/21/18 11:00	12/21/18 14:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	12/21/18 11:00	12/21/18 14:01	1
4-Bromofluorobenzene (Surr)	101		72 - 126	12/21/18 11:00	12/21/18 14:01	1
Dibromofluoromethane (Surr)	109		60 - 140	12/21/18 11:00	12/21/18 14:01	1
Toluene-d8 (Surr)	103		71 - 125	12/21/18 11:00	12/21/18 14:01	1

**Lab Sample ID: LCS 480-452103/1-A**

**Matrix: Solid**

**Analysis Batch: 452093**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 452103**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	47.3		ug/Kg		95	77 - 121
1,1,2,2-Tetrachloroethane	50.0	47.4		ug/Kg		95	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.5		ug/Kg		91	60 - 140
1,1,2-Trichloroethane	50.0	48.8		ug/Kg		98	78 - 122
1,1-Dichloroethane	50.0	45.7		ug/Kg		91	73 - 126
1,1-Dichloroethene	50.0	45.9		ug/Kg		92	59 - 125
1,2,4-Trichlorobenzene	50.0	44.5		ug/Kg		89	64 - 120
1,2,4-Trimethylbenzene	50.0	45.8		ug/Kg		92	74 - 120
1,2-Dibromo-3-Chloropropane	50.0	43.6		ug/Kg		87	63 - 124
1,2-Dibromoethane	50.0	51.4		ug/Kg		103	78 - 120
1,2-Dichlorobenzene	50.0	47.0		ug/Kg		94	75 - 120
1,2-Dichloroethane	50.0	49.4		ug/Kg		99	77 - 122
1,2-Dichloropropane	50.0	45.1		ug/Kg		90	75 - 124
1,3,5-Trimethylbenzene	50.0	45.9		ug/Kg		92	74 - 120
1,3-Dichlorobenzene	50.0	47.0		ug/Kg		94	74 - 120
1,4-Dichlorobenzene	50.0	47.6		ug/Kg		95	73 - 120
2-Butanone (MEK)	250	237		ug/Kg		95	70 - 134
2-Hexanone	250	229		ug/Kg		92	59 - 130
4-Isopropyltoluene	50.0	44.8		ug/Kg		90	74 - 120
4-Methyl-2-pentanone (MIBK)	250	214		ug/Kg		86	65 - 133
Acetone	250	255		ug/Kg		102	61 - 137
Benzene	50.0	47.5		ug/Kg		95	79 - 127
Bromodichloromethane	50.0	49.4		ug/Kg		99	80 - 122
Bromoform	50.0	52.4		ug/Kg		105	68 - 126
Bromomethane	50.0	40.6		ug/Kg		81	37 - 149
Carbon disulfide	50.0	40.4		ug/Kg		81	64 - 131

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-452103/1-A**

**Matrix: Solid**

**Analysis Batch: 452093**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 452103**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	50.0	46.6		ug/Kg		93	75 - 135
Chlorobenzene	50.0	48.8		ug/Kg		98	76 - 124
Chloroethane	50.0	42.8		ug/Kg		86	69 - 135
Chloroform	50.0	48.7		ug/Kg		97	80 - 120
Chloromethane	50.0	40.9		ug/Kg		82	63 - 127
cis-1,2-Dichloroethene	50.0	47.9		ug/Kg		96	81 - 120
cis-1,3-Dichloropropene	50.0	46.9		ug/Kg		94	80 - 120
Cyclohexane	50.0	38.4		ug/Kg		77	65 - 120
Dibromochloromethane	50.0	52.7		ug/Kg		105	76 - 125
Dichlorodifluoromethane	50.0	42.0		ug/Kg		84	57 - 142
Ethylbenzene	50.0	47.3		ug/Kg		95	80 - 120
Isopropylbenzene	50.0	44.9		ug/Kg		90	72 - 120
m,p-Xylene	50.0	46.7		ug/Kg		93	70 - 130
Methyl acetate	100	97.7		ug/Kg		98	55 - 136
Methyl tert-butyl ether	50.0	48.1		ug/Kg		96	63 - 125
Methylcyclohexane	50.0	40.8		ug/Kg		82	60 - 140
Methylene Chloride	50.0	47.5		ug/Kg		95	61 - 127
n-Butylbenzene	50.0	43.9		ug/Kg		88	70 - 120
N-Propylbenzene	50.0	45.0		ug/Kg		90	70 - 130
o-Xylene	50.0	46.1		ug/Kg		92	70 - 130
sec-Butylbenzene	50.0	44.6		ug/Kg		89	74 - 120
Styrene	50.0	45.9		ug/Kg		92	80 - 120
tert-Butylbenzene	50.0	45.0		ug/Kg		90	73 - 120
Tetrachloroethene	50.0	47.3		ug/Kg		95	74 - 122
Toluene	50.0	46.6		ug/Kg		93	74 - 128
trans-1,2-Dichloroethene	50.0	48.0		ug/Kg		96	78 - 126
trans-1,3-Dichloropropene	50.0	47.1		ug/Kg		94	73 - 123
Trichloroethene	50.0	48.0		ug/Kg		96	77 - 129
Trichlorofluoromethane	50.0	45.0		ug/Kg		90	65 - 146
Vinyl chloride	50.0	43.0		ug/Kg		86	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		64 - 126
4-Bromofluorobenzene (Surr)	104		72 - 126
Dibromofluoromethane (Surr)	108		60 - 140
Toluene-d8 (Surr)	104		71 - 125

**Lab Sample ID: MB 480-452238/28**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/22/18 14:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/22/18 14:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/22/18 14:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/22/18 14:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/22/18 14:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/22/18 14:06	1

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-452238/28

Matrix: Water

Analysis Batch: 452238

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/22/18 14:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			12/22/18 14:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/22/18 14:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/22/18 14:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/22/18 14:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/22/18 14:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/22/18 14:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			12/22/18 14:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/22/18 14:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/22/18 14:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/22/18 14:06	1
2-Hexanone	ND		5.0	1.2	ug/L			12/22/18 14:06	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			12/22/18 14:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/22/18 14:06	1
Acetone	ND		10	3.0	ug/L			12/22/18 14:06	1
Benzene	ND		1.0	0.41	ug/L			12/22/18 14:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/22/18 14:06	1
Bromoform	ND		1.0	0.26	ug/L			12/22/18 14:06	1
Bromomethane	ND		1.0	0.69	ug/L			12/22/18 14:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/22/18 14:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/22/18 14:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/22/18 14:06	1
Chloroethane	ND		1.0	0.32	ug/L			12/22/18 14:06	1
Chloroform	ND		1.0	0.34	ug/L			12/22/18 14:06	1
Chloromethane	ND		1.0	0.35	ug/L			12/22/18 14:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/22/18 14:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/22/18 14:06	1
Cyclohexane	ND		1.0	0.18	ug/L			12/22/18 14:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/22/18 14:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/22/18 14:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/22/18 14:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/22/18 14:06	1
m,p-Xylene	ND		2.0	0.66	ug/L			12/22/18 14:06	1
Methyl acetate	ND		2.5	1.3	ug/L			12/22/18 14:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/22/18 14:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/22/18 14:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/22/18 14:06	1
n-Butylbenzene	ND		1.0	0.64	ug/L			12/22/18 14:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			12/22/18 14:06	1
o-Xylene	ND		1.0	0.76	ug/L			12/22/18 14:06	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			12/22/18 14:06	1
Styrene	ND		1.0	0.73	ug/L			12/22/18 14:06	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			12/22/18 14:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/22/18 14:06	1
Toluene	ND		1.0	0.51	ug/L			12/22/18 14:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/22/18 14:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/22/18 14:06	1
Trichloroethene	ND		1.0	0.46	ug/L			12/22/18 14:06	1

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-452238/28**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/22/18 14:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/22/18 14:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/22/18 14:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		12/22/18 14:06	1
4-Bromofluorobenzene (Surr)	103		73 - 120		12/22/18 14:06	1
Toluene-d8 (Surr)	101		80 - 120		12/22/18 14:06	1

**Lab Sample ID: LCS 480-452238/6**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.7		ug/L		103	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.5		ug/L		90	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.0		ug/L		100	61 - 148
1,1,2-Trichloroethane	25.0	23.5		ug/L		94	76 - 122
1,1-Dichloroethane	25.0	24.9		ug/L		100	77 - 120
1,1-Dichloroethane	25.0	24.8		ug/L		99	66 - 127
1,2,4-Trichlorobenzene	25.0	23.9		ug/L		95	79 - 122
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	22.2		ug/L		89	56 - 134
1,2-Dibromoethane	25.0	23.9		ug/L		96	77 - 120
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	24.4		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	25.4		ug/L		101	76 - 120
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		103	77 - 121
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	77 - 120
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 120
2-Butanone (MEK)	125	129		ug/L		103	57 - 140
2-Hexanone	125	120		ug/L		96	65 - 127
4-Isopropyltoluene	25.0	27.3		ug/L		109	73 - 120
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125
Acetone	125	167		ug/L		134	56 - 142
Benzene	25.0	23.7		ug/L		95	71 - 124
Bromodichloromethane	25.0	24.7		ug/L		99	80 - 122
Bromoform	25.0	26.3		ug/L		105	61 - 132
Bromomethane	25.0	22.8		ug/L		91	55 - 144
Carbon disulfide	25.0	21.3		ug/L		85	59 - 134
Carbon tetrachloride	25.0	26.6		ug/L		107	72 - 134
Chlorobenzene	25.0	24.1		ug/L		97	80 - 120
Chloroethane	25.0	25.1		ug/L		101	69 - 136
Chloroform	25.0	24.6		ug/L		98	73 - 127
Chloromethane	25.0	24.7		ug/L		99	68 - 124
cis-1,2-Dichloroethane	25.0	24.2		ug/L		97	74 - 124
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	74 - 124

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-452238/6**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	25.0	28.1		ug/L		112	59 - 135
Dibromochloromethane	25.0	26.7		ug/L		107	75 - 125
Dichlorodifluoromethane	25.0	28.7		ug/L		115	59 - 135
Ethylbenzene	25.0	24.9		ug/L		100	77 - 123
Isopropylbenzene	25.0	25.7		ug/L		103	77 - 122
m,p-Xylene	25.0	25.8		ug/L		103	76 - 122
Methyl acetate	50.0	46.2		ug/L		92	74 - 133
Methyl tert-butyl ether	25.0	23.5		ug/L		94	77 - 120
Methylcyclohexane	25.0	28.8		ug/L		115	68 - 134
Methylene Chloride	25.0	22.5		ug/L		90	75 - 124
n-Butylbenzene	25.0	26.9		ug/L		108	71 - 128
N-Propylbenzene	25.0	25.0		ug/L		100	75 - 127
o-Xylene	25.0	24.9		ug/L		99	76 - 122
sec-Butylbenzene	25.0	26.4		ug/L		106	74 - 127
Styrene	25.0	24.2		ug/L		97	80 - 120
tert-Butylbenzene	25.0	25.9		ug/L		104	75 - 123
Tetrachloroethene	25.0	25.6		ug/L		103	74 - 122
Toluene	25.0	24.2		ug/L		97	80 - 122
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	73 - 127
trans-1,3-Dichloropropene	25.0	24.8		ug/L		99	80 - 120
Trichloroethene	25.0	24.5		ug/L		98	74 - 123
Trichlorofluoromethane	25.0	28.3		ug/L		113	62 - 150
Vinyl chloride	25.0	25.8		ug/L		103	65 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	80		77 - 120
4-Bromofluorobenzene (Surr)	113		73 - 120
Toluene-d8 (Surr)	86		80 - 120

**Lab Sample ID: 480-147085-4 MS**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: TMW-4**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
1,1,1-Trichloroethane	ND		500	511		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	ND		500	444		ug/L		89	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	510		ug/L		102	61 - 148
1,1,2-Trichloroethane	ND		500	456		ug/L		91	76 - 122
1,1-Dichloroethane	ND		500	492		ug/L		98	77 - 120
1,1-Dichloroethene	ND		500	501		ug/L		100	66 - 127
1,2,4-Trichlorobenzene	ND		500	446		ug/L		89	79 - 122
1,2,4-Trimethylbenzene	ND		500	499		ug/L		100	76 - 121
1,2-Dibromo-3-Chloropropane	ND		500	420		ug/L		84	56 - 134
1,2-Dibromoethane	ND		500	459		ug/L		92	77 - 120
1,2-Dichlorobenzene	ND		500	492		ug/L		98	80 - 124
1,2-Dichloroethane	ND		500	487		ug/L		97	75 - 120
1,2-Dichloropropane	ND		500	492		ug/L		98	76 - 120

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# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-147085-4 MS**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: TMW-4**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
1,3,5-Trimethylbenzene	ND		500	493		ug/L		99	77 - 121
1,3-Dichlorobenzene	ND		500	466		ug/L		93	77 - 120
1,4-Dichlorobenzene	ND		500	466		ug/L		93	78 - 124
2-Butanone (MEK)	ND		2500	2450		ug/L		98	57 - 140
2-Hexanone	ND		2500	2300		ug/L		92	65 - 127
4-Isopropyltoluene	ND		500	522		ug/L		104	73 - 120
4-Methyl-2-pentanone (MIBK)	ND		2500	2280		ug/L		91	71 - 125
Acetone	ND		2500	2860		ug/L		115	56 - 142
Benzene	ND		500	482		ug/L		96	71 - 124
Bromodichloromethane	ND		500	494		ug/L		99	80 - 122
Bromoform	ND		500	517		ug/L		103	61 - 132
Bromomethane	ND		500	477		ug/L		95	55 - 144
Carbon disulfide	ND		500	427		ug/L		85	59 - 134
Carbon tetrachloride	ND		500	521		ug/L		104	72 - 134
Chlorobenzene	ND		500	480		ug/L		96	80 - 120
Chloroethane	ND		500	566		ug/L		113	69 - 136
Chloroform	ND		500	488		ug/L		98	73 - 127
Chloromethane	ND		500	491		ug/L		98	68 - 124
cis-1,2-Dichloroethene	860	F1	500	1160	F1	ug/L		60	74 - 124
cis-1,3-Dichloropropene	ND		500	470		ug/L		94	74 - 124
Cyclohexane	ND		500	546		ug/L		109	59 - 135
Dibromochloromethane	ND		500	509		ug/L		102	75 - 125
Dichlorodifluoromethane	ND		500	588		ug/L		118	59 - 135
Ethylbenzene	ND		500	483		ug/L		97	77 - 123
Isopropylbenzene	ND		500	500		ug/L		100	77 - 122
m,p-Xylene	ND		500	506		ug/L		101	76 - 122
Methyl acetate	ND		1000	916		ug/L		92	74 - 133
Methyl tert-butyl ether	ND		500	471		ug/L		94	77 - 120
Methylcyclohexane	ND		500	576		ug/L		115	68 - 134
Methylene Chloride	ND		500	451		ug/L		90	75 - 124
n-Butylbenzene	ND		500	508		ug/L		102	71 - 128
N-Propylbenzene	ND		500	485		ug/L		97	75 - 127
o-Xylene	ND		500	481		ug/L		96	76 - 122
sec-Butylbenzene	ND		500	507		ug/L		101	74 - 127
Styrene	ND		500	474		ug/L		95	80 - 120
tert-Butylbenzene	ND		500	513		ug/L		103	75 - 123
Tetrachloroethene	1900	F1	500	1950	F1	ug/L		2	74 - 122
Toluene	ND		500	473		ug/L		95	80 - 122
trans-1,2-Dichloroethene	34		500	515		ug/L		96	73 - 127
trans-1,3-Dichloropropene	ND		500	460		ug/L		92	80 - 120
Trichloroethene	130		500	576		ug/L		89	74 - 123
Trichlorofluoromethane	ND		500	606		ug/L		121	62 - 150
Vinyl chloride	24		500	559		ug/L		107	65 - 133

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Toluene-d8 (Surr)	94		80 - 120

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Lab Sample ID: 480-147085-4 MSD**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: TMW-4**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,1,1-Trichloroethane	ND		500	516		ug/L		103	73 - 126	1	15
1,1,1,2-Tetrachloroethane	ND		500	463		ug/L		93	76 - 120	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		500	516		ug/L		103	61 - 148	1	20
1,1,2-Trichloroethane	ND		500	470		ug/L		94	76 - 122	3	15
1,1-Dichloroethane	ND		500	504		ug/L		101	77 - 120	2	20
1,1-Dichloroethene	ND		500	514		ug/L		103	66 - 127	3	16
1,2,4-Trichlorobenzene	ND		500	472		ug/L		94	79 - 122	6	20
1,2,4-Trimethylbenzene	ND		500	520		ug/L		104	76 - 121	4	20
1,2-Dibromo-3-Chloropropane	ND		500	449		ug/L		90	56 - 134	7	15
1,2-Dibromoethane	ND		500	481		ug/L		96	77 - 120	5	15
1,2-Dichlorobenzene	ND		500	519		ug/L		104	80 - 124	5	20
1,2-Dichloroethane	ND		500	488		ug/L		98	75 - 120	0	20
1,2-Dichloropropane	ND		500	497		ug/L		99	76 - 120	1	20
1,3,5-Trimethylbenzene	ND		500	526		ug/L		105	77 - 121	6	20
1,3-Dichlorobenzene	ND		500	493		ug/L		99	77 - 120	5	20
1,4-Dichlorobenzene	ND		500	503		ug/L		101	78 - 124	8	20
2-Butanone (MEK)	ND		2500	2530		ug/L		101	57 - 140	3	20
2-Hexanone	ND		2500	2340		ug/L		94	65 - 127	2	15
4-Isopropyltoluene	ND		500	549		ug/L		110	73 - 120	5	20
4-Methyl-2-pentanone (MIBK)	ND		2500	2340		ug/L		94	71 - 125	3	35
Acetone	ND		2500	2760		ug/L		110	56 - 142	4	15
Benzene	ND		500	487		ug/L		97	71 - 124	1	13
Bromodichloromethane	ND		500	510		ug/L		102	80 - 122	3	15
Bromoform	ND		500	514		ug/L		103	61 - 132	0	15
Bromomethane	ND		500	465		ug/L		93	55 - 144	3	15
Carbon disulfide	ND		500	437		ug/L		87	59 - 134	2	15
Carbon tetrachloride	ND		500	525		ug/L		105	72 - 134	1	15
Chlorobenzene	ND		500	482		ug/L		96	80 - 120	0	25
Chloroethane	ND		500	546		ug/L		109	69 - 136	4	15
Chloroform	ND		500	511		ug/L		102	73 - 127	5	20
Chloromethane	ND		500	514		ug/L		103	68 - 124	5	15
cis-1,2-Dichloroethene	860	F1	500	1210	F1	ug/L		70	74 - 124	4	15
cis-1,3-Dichloropropene	ND		500	496		ug/L		99	74 - 124	6	15
Cyclohexane	ND		500	561		ug/L		112	59 - 135	3	20
Dibromochloromethane	ND		500	515		ug/L		103	75 - 125	1	15
Dichlorodifluoromethane	ND		500	620		ug/L		124	59 - 135	5	20
Ethylbenzene	ND		500	496		ug/L		99	77 - 123	3	15
Isopropylbenzene	ND		500	517		ug/L		103	77 - 122	3	20
m,p-Xylene	ND		500	512		ug/L		102	76 - 122	1	16
Methyl acetate	ND		1000	922		ug/L		92	74 - 133	1	20
Methyl tert-butyl ether	ND		500	462		ug/L		92	77 - 120	2	37
Methylcyclohexane	ND		500	588		ug/L		118	68 - 134	2	20
Methylene Chloride	ND		500	435		ug/L		87	75 - 124	3	15
n-Butylbenzene	ND		500	535		ug/L		107	71 - 128	5	15
N-Propylbenzene	ND		500	504		ug/L		101	75 - 127	4	15
o-Xylene	ND		500	493		ug/L		99	76 - 122	2	16
sec-Butylbenzene	ND		500	540		ug/L		108	74 - 127	6	15
Styrene	ND		500	493		ug/L		99	80 - 120	4	20
tert-Butylbenzene	ND		500	535		ug/L		107	75 - 123	4	15

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-147085-4 MSD**

**Matrix: Water**

**Analysis Batch: 452238**

**Client Sample ID: TMW-4**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Tetrachloroethene	1900	F1	500	2010	E F1	ug/L		13	74 - 122	3	20
Toluene	ND		500	475		ug/L		95	80 - 122	0	15
trans-1,2-Dichloroethene	34		500	514		ug/L		96	73 - 127	0	20
trans-1,3-Dichloropropene	ND		500	461		ug/L		92	80 - 120	0	15
Trichloroethene	130		500	592		ug/L		92	74 - 123	3	16
Trichlorofluoromethane	ND		500	583		ug/L		117	62 - 150	4	20
Vinyl chloride	24		500	561		ug/L		107	65 - 133	0	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		77 - 120
4-Bromofluorobenzene (Surr)	101		73 - 120
Toluene-d8 (Surr)	95		80 - 120

**Lab Sample ID: MB 480-452255/2-A**

**Matrix: Solid**

**Analysis Batch: 452307**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 452255**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		100	28	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,1-Dichloroethane	ND		100	31	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,1-Dichloroethene	ND		100	35	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2,4-Trimethylbenzene	ND		100	28	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2-Dibromoethane	ND		100	18	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2-Dichloroethane	ND		100	41	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,2-Dichloropropane	ND		100	16	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,3,5-Trimethylbenzene	ND		100	30	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
2-Butanone (MEK)	ND		500	300	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
2-Hexanone	ND		500	210	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
4-Isopropyltoluene	ND		100	34	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Acetone	ND		500	410	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Benzene	ND		100	19	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Bromodichloromethane	ND		100	20	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Bromoform	ND		100	50	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Bromomethane	ND		100	22	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Carbon disulfide	ND		100	46	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Carbon tetrachloride	ND		100	26	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Chlorobenzene	ND		100	13	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Chloroethane	ND		100	21	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Chloroform	ND		100	69	ug/Kg		12/22/18 14:35	12/24/18 10:25	1

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# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-452255/2-A**

**Matrix: Solid**

**Analysis Batch: 452307**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 452255**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		100	24	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Cyclohexane	ND		100	22	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Dibromochloromethane	ND		100	48	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Ethylbenzene	ND		100	29	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Isopropylbenzene	ND		100	15	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
m,p-Xylene	ND		200	55	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Methyl acetate	ND		500	48	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Methylcyclohexane	ND		100	47	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Methylene Chloride	ND		100	20	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
n-Butylbenzene	ND		100	29	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
N-Propylbenzene	ND		100	26	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
o-Xylene	18.0	J	100	13	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
sec-Butylbenzene	ND		100	37	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Styrene	ND		100	24	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
tert-Butylbenzene	ND		100	28	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Tetrachloroethene	ND		100	13	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Toluene	ND		100	27	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Trichloroethene	ND		100	28	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Trichlorofluoromethane	ND		100	47	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Vinyl chloride	ND		100	34	ug/Kg		12/22/18 14:35	12/24/18 10:25	1
Xylenes, Total	ND		200	55	ug/Kg		12/22/18 14:35	12/24/18 10:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	12/22/18 14:35	12/24/18 10:25	1
4-Bromofluorobenzene (Surr)	104		49 - 148	12/22/18 14:35	12/24/18 10:25	1
Dibromofluoromethane (Surr)	97		60 - 140	12/22/18 14:35	12/24/18 10:25	1
Toluene-d8 (Surr)	100		50 - 149	12/22/18 14:35	12/24/18 10:25	1

**Lab Sample ID: LCS 480-452255/1-A**

**Matrix: Solid**

**Analysis Batch: 452307**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 452255**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2500	2280		ug/Kg		91	68 - 130
1,1,2,2-Tetrachloroethane	2500	1860		ug/Kg		74	73 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2270		ug/Kg		91	10 - 179
1,1,2-Trichloroethane	2500	2100		ug/Kg		84	80 - 120
1,1-Dichloroethane	2500	2300		ug/Kg		92	78 - 121
1,1-Dichloroethene	2500	2290		ug/Kg		92	48 - 133
1,2,4-Trichlorobenzene	2500	2060		ug/Kg		82	70 - 140
1,2,4-Trimethylbenzene	2500	2240		ug/Kg		90	77 - 127

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-452255/1-A**

**Matrix: Solid**

**Analysis Batch: 452307**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 452255**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	2500	1730		ug/Kg		69	56 - 122
1,2-Dibromoethane	2500	2040		ug/Kg		82	80 - 120
1,2-Dichlorobenzene	2500	2160		ug/Kg		86	78 - 125
1,2-Dichloroethane	2500	2140		ug/Kg		86	74 - 127
1,2-Dichloropropane	2500	2160		ug/Kg		87	80 - 120
1,3,5-Trimethylbenzene	2500	2250		ug/Kg		90	79 - 120
1,3-Dichlorobenzene	2500	2060		ug/Kg		82	80 - 120
1,4-Dichlorobenzene	2500	2110		ug/Kg		85	80 - 120
2-Butanone (MEK)	12500	10800		ug/Kg		86	54 - 149
2-Hexanone	12500	9620		ug/Kg		77	59 - 127
4-Isopropyltoluene	2500	2350		ug/Kg		94	80 - 120
4-Methyl-2-pentanone (MIBK)	12500	9680		ug/Kg		77	74 - 120
Acetone	12500	11100		ug/Kg		89	47 - 141
Benzene	2500	2190		ug/Kg		88	77 - 125
Bromodichloromethane	2500	2160		ug/Kg		87	71 - 121
Bromoform	2500	2110		ug/Kg		84	48 - 125
Bromomethane	2500	2080		ug/Kg		83	39 - 149
Carbon disulfide	2500	1830		ug/Kg		73	40 - 136
Carbon tetrachloride	2500	2300		ug/Kg		92	54 - 135
Chlorobenzene	2500	2210		ug/Kg		88	76 - 126
Chloroethane	2500	2680		ug/Kg		107	23 - 150
Chloroform	2500	2270		ug/Kg		91	78 - 120
Chloromethane	2500	1950		ug/Kg		78	61 - 124
cis-1,2-Dichloroethene	2500	2150		ug/Kg		86	79 - 124
cis-1,3-Dichloropropene	2500	2140		ug/Kg		85	75 - 121
Cyclohexane	2500	2430		ug/Kg		97	49 - 129
Dibromochloromethane	2500	2080		ug/Kg		83	64 - 120
Dichlorodifluoromethane	2500	2010		ug/Kg		80	10 - 150
Ethylbenzene	2500	2200		ug/Kg		88	78 - 124
Isopropylbenzene	2500	2260		ug/Kg		90	76 - 120
m,p-Xylene	2500	2300		ug/Kg		92	77 - 125
Methyl acetate	5000	4010		ug/Kg		80	71 - 123
Methyl tert-butyl ether	2500	2080		ug/Kg		83	67 - 137
Methylcyclohexane	2500	2580		ug/Kg		103	50 - 130
Methylene Chloride	2500	1970		ug/Kg		79	75 - 118
n-Butylbenzene	2500	2340		ug/Kg		94	80 - 120
N-Propylbenzene	2500	2220		ug/Kg		89	76 - 120
o-Xylene	2500	2170		ug/Kg		87	80 - 124
sec-Butylbenzene	2500	2330		ug/Kg		93	79 - 120
Styrene	2500	2120		ug/Kg		85	80 - 120
tert-Butylbenzene	2500	2260		ug/Kg		90	78 - 120
Tetrachloroethene	2500	2290		ug/Kg		92	73 - 133
Toluene	2500	2120		ug/Kg		85	75 - 124
trans-1,2-Dichloroethene	2500	2160		ug/Kg		87	74 - 129
trans-1,3-Dichloropropene	2500	2080		ug/Kg		83	73 - 120
Trichloroethene	2500	2190		ug/Kg		88	75 - 131
Trichlorofluoromethane	2500	2520		ug/Kg		101	29 - 158
Vinyl chloride	2500	2110		ug/Kg		84	59 - 124

TestAmerica Buffalo

# QC Sample Results

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-452255/1-A

Matrix: Solid

Analysis Batch: 452307

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 452255

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		53 - 146
4-Bromofluorobenzene (Surr)	106		49 - 148
Dibromofluoromethane (Surr)	101		60 - 140
Toluene-d8 (Surr)	99		50 - 149

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# QC Association Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## GC/MS VOA

### Analysis Batch: 452093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147085-1	SB-25 (5-7)	Total/NA	Solid	8260C	452103
480-147085-2	SB-29 (5-6)	Total/NA	Solid	8260C	452103
MB 480-452103/2-A	Method Blank	Total/NA	Solid	8260C	452103
LCS 480-452103/1-A	Lab Control Sample	Total/NA	Solid	8260C	452103

### Prep Batch: 452103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147085-1	SB-25 (5-7)	Total/NA	Solid	5035A_L	
480-147085-2	SB-29 (5-6)	Total/NA	Solid	5035A_L	
MB 480-452103/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-452103/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

### Analysis Batch: 452238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147085-3	TMW-3	Total/NA	Water	8260C	
480-147085-4	TMW-4	Total/NA	Water	8260C	
MB 480-452238/28	Method Blank	Total/NA	Water	8260C	
LCS 480-452238/6	Lab Control Sample	Total/NA	Water	8260C	
480-147085-4 MS	TMW-4	Total/NA	Water	8260C	
480-147085-4 MSD	TMW-4	Total/NA	Water	8260C	

### Prep Batch: 452255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147085-1 - DL	SB-25 (5-7)	Total/NA	Solid	5035A_H	
480-147085-2 - DL	SB-29 (5-6)	Total/NA	Solid	5035A_H	
MB 480-452255/2-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-452255/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

### Analysis Batch: 452307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147085-1 - DL	SB-25 (5-7)	Total/NA	Solid	8260C	452255
480-147085-2 - DL	SB-29 (5-6)	Total/NA	Solid	8260C	452255
MB 480-452255/2-A	Method Blank	Total/NA	Solid	8260C	452255
LCS 480-452255/1-A	Lab Control Sample	Total/NA	Solid	8260C	452255

## General Chemistry

### Analysis Batch: 452217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147085-1	SB-25 (5-7)	Total/NA	Solid	Moisture	
480-147085-2	SB-29 (5-6)	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Turnkey Environmental Restoration, LLC  
 Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Client Sample ID: SB-25 (5-7)

Date Collected: 12/18/18 11:00

Date Received: 12/20/18 11:30

Lab Sample ID: 480-147085-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	452217	12/22/18 00:00	AEM	TAL BUF

## Client Sample ID: SB-25 (5-7)

Date Collected: 12/18/18 11:00

Date Received: 12/20/18 11:30

Lab Sample ID: 480-147085-1

Matrix: Solid

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			452103	12/21/18 11:00	LCH	TAL BUF
Total/NA	Analysis	8260C		1	452093	12/21/18 14:44	LCH	TAL BUF
Total/NA	Prep	5035A_H	DL		452255	12/22/18 14:35	OMI	TAL BUF
Total/NA	Analysis	8260C	DL	20	452307	12/24/18 12:19	AMM	TAL BUF

## Client Sample ID: SB-29 (5-6)

Date Collected: 12/18/18 15:00

Date Received: 12/20/18 11:30

Lab Sample ID: 480-147085-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	452217	12/22/18 00:00	AEM	TAL BUF

## Client Sample ID: SB-29 (5-6)

Date Collected: 12/18/18 15:00

Date Received: 12/20/18 11:30

Lab Sample ID: 480-147085-2

Matrix: Solid

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			452103	12/21/18 11:00	LCH	TAL BUF
Total/NA	Analysis	8260C		1	452093	12/21/18 15:10	LCH	TAL BUF
Total/NA	Prep	5035A_H	DL		452255	12/22/18 14:35	OMI	TAL BUF
Total/NA	Analysis	8260C	DL	1	452307	12/24/18 12:46	AMM	TAL BUF

## Client Sample ID: TMW-3

Date Collected: 12/19/18 10:00

Date Received: 12/20/18 11:30

Lab Sample ID: 480-147085-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	452238	12/22/18 15:37	AMM	TAL BUF

## Client Sample ID: TMW-4

Date Collected: 12/19/18 10:30

Date Received: 12/20/18 11:30

Lab Sample ID: 480-147085-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	452238	12/22/18 16:04	AMM	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# Accreditation/Certification Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

## Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



# Method Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
5035A_H	Closed System Purge and Trap	SW846	TAL BUF
5035A_L	Closed System Purge and Trap	SW846	TAL BUF

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600





# Sample Summary

Client: Turnkey Environmental Restoration, LLC  
Project/Site: Benchmark - 1200 Jefferson St

TestAmerica Job ID: 480-147085-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-147085-1	SB-25 (5-7)	Solid	12/18/18 11:00	12/20/18 11:30
480-147085-2	SB-29 (5-6)	Solid	12/18/18 15:00	12/20/18 11:30
480-147085-3	TMW-3	Water	12/19/18 10:00	12/20/18 11:30
480-147085-4	TMW-4	Water	12/19/18 10:30	12/20/18 11:30

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Regulatory Program:  DW  NPDES  RCRA  Other:

<b>Client Contact</b> Company Name: <u>Timberly Elk Restroom</u> Address: <u>255 S. Hurlock, This</u> City/State/Zip: <u>Buffalo, NY 14218</u> Phone: <u>716-713-3437</u> Fax: Project Name: <u>1200 Jefferson Site</u> Site: P O # <u>0229-018-001</u>		<b>Project Manager:</b> <u>Dick Smith</u> Tell Fax: <u>716-713-3437</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: <u>Dick Smith</u> Lab Contact: <u>Bob Fuller</u> Date: <u>12/19/18</u> Carrier:		COC No. of COCs Sampler: For Lab Walk-in Lab Sa Job # 460-147085 CO Sample Specific Notes:									
Sample Identification <u>SB-25 (5-7)</u> <u>SB-29 (5-6)</u> <u>TMW-3</u> <u>TMW-4</u>		Sample Date <u>12/18/18</u> <u>12/19/18</u> <u>12/19/18</u> <u>12/19/18</u>		Sample Time <u>11:00</u> <u>15:00</u> <u>16:00</u> <u>16:30</u>		Sample Type (C=Comp, G=Grab) <u>G</u> <u>G</u> <u>G</u> <u>G</u>		Matrix <u>Soil</u> <u>Soil</u> <u>Water</u> <u>Water</u>		# of Cont. <u>1</u> <u>1</u> <u>3</u> <u>3</u>		Filtered Sample (Y/N) Perform MS / MSD (Y/N)		COC No. of COCs Sampler: For Lab Walk-in Lab Sa Job # 460-147085 CO Sample Specific Notes:	

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other  
**Possible Hazard Identification:**  
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Special Instructions/QC Requirements & Comments:**  
Separate report each COC

Custody Seal No.: Relinquished by: <u>[Signature]</u> Relinquished by: <u>[Signature]</u> Relinquished by: <u>[Signature]</u>	Company: <u>BMTK</u> Company: <u>[Signature]</u> Company:	Date/Time: <u>12/19/18 14:00</u> Date/Time: <u>12/20/18 11:30</u> Date/Time:	Codar Temp (°C): Obs'd: <u>[Signature]</u> Received by: <u>[Signature]</u> Received by: <u>[Signature]</u> Received in Laboratory by: <u>[Signature]</u>	Corr'd: Company: <u>AP3</u> Company: Company: <u>JROS</u>	Therm ID No.: Date/Time: <u>12/20/18 09:30</u> Date/Time: Date/Time: <u>12/20/18 130</u>
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## Login Sample Receipt Checklist

Client: Turnkey Environmental Restoration, LLC

Job Number: 480-147085-1

**Login Number: 147085**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Harper, Marcus D**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	TER
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	