
TOWN OF DIGHTON

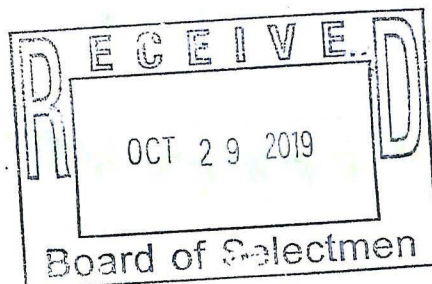
Annual Landfill Inspection Report

Dighton Landfill
Tremont Street
Dighton, Massachusetts

September 2019

Prepared For:

Town of Dighton
2011 County Street
Dighton, MA 02715



Green Seal Environmental, Inc.

114 State Road, Building B, Sagamore Beach, MA 02562 | Tel: (508) 888-6034 | Fax: (508) 888-1506 | www.gseenv.com



Green Seal Environmental, Inc.

ENGINEERING | ENVIRONMENTAL | ENERGY SERVICES
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MA-SDO Certified D/WBE, D/MBE
SBA Certified EDWOSB
MassDOT Certified | DCAMM Certified

October 7, 2019

Mr. Mark Dakers
MASSACHUSETTS DEPARTMENT of ENVIRONMENTAL PROTECTION
Southeast Regional Office
20 Riverside Drive
Lakeville, Massachusetts 02347

RE: Annual Post-Closure Landfill Inspection Report- 2019
Dighton Landfill
865 Tremont Street, Dighton, Massachusetts

Dear Mr. Dakers:

Green Seal Environmental, Inc. (GSE) on behalf of the Town of Dighton and in accordance with the requirements of 310 CMR 19.000 and the Dighton Landfill Post-Closure Monitoring and Maintenance Plan, as modified and approved by MassDEP in correspondence dated August 25, 2010 (Facility permit BWP SW 22, Transmittal #X233201), submits this annual inspection report.

ANNUAL INSPECTION

In accordance with the permit requirements, a MassDEP certified third-party inspector conducted the inspection of the closed Dighton Landfill located off Tremont Street on September 10, 2019. The weather at the time of the inspection was mostly sunny with temperatures around 68°F. The inspection as completed by the undersigned, a MassDEP registered third-party inspector and Massachusetts professional engineer from GSE.

Please find enclosed the MassDEP third-party inspection forms and representative photographs. Both the pavement and vegetated landfill caps and appurtenances are in good condition and well maintained.

If you have any questions or require additional information, please do not hesitate to contact me at (508) 888-6034.

Sincerely,

GREEN SEAL ENVIRONMENTAL, INC.

Laura A. Bugay, P.E.
Vice President of Municipal and Infrastructure

c: Thomas Ferry, Town of Dighton
Dighton Board of Health



Massachusetts Department of Environmental Protection Bureau of Waste Prevention / Solid Waste Management

Third-Party Inspection Report – 310 CMR 19.018(8)
Operation & Maintenance

Important: When completing this form on a computer, use only the Tab key to move your cursor – not the Return key.



Instructions

Use this form to record and report the results of a Third-Party Operation and Maintenance Inspection conducted pursuant to 310 CMR 19.018. Be sure to obtain the most recent version of this form. All applicable sections of the submitted form must be completed to be accepted by MassDEP.

Pursuant to 310 CMR 19.018(8)(a), the third-party inspector and facility owner/operator must sign this Third-Party Inspection Report form and submit the completed report to the appropriate MassDEP regional office and one copy of each completed report to the board of health of the municipality in which the facility is located.

In the event that this inspection report contains a recommendation for corrective action(s), the owner/operator shall also submit the information required by 310 CMR 19.018(8)(c)2.

Forms and instructions are available online:

<http://www.mass.gov/eea/agencies/massdep/recycle/approvals/solid-waste-applications-and-forms.html#8>

Note: This form does not identify all of the requirements applicable to each solid waste management facility; other requirements and/or policies may apply to the operation, maintenance and monitoring for each facility.

MassDEP Use Only

Rec'd Date:

FMF #:

RO #:

Reviewer:

Comments:

I. Facility Information

Facility Type (check one):

- ☐ Transfer Station/Handling Facility ☐ C&D Waste Processor or C&D Waste Transfer Station ☐ Municipal Waste Combustor
☐ Active Landfill ☒ Closed Landfill ☐ Other: _____
Specify _____

Facility:

Dighton Landfill

Facility Name

Dighton

City/Town

508-669-5182

Telephone Number

MA

State

172458

Regulated Object Account Number

02715

ZIP Code

39207

FMF Number

Operator:

Dighton Highway Department

Operator Name (Doing Business As/Company Name)

508-669-5461

Telephone Number

2011 County Street

Mailing Address

Dighton

City/Town

MA

State

02715

ZIP Code

Permittee:

Dighton Highway Department

Permittee Name (Entity Identified on Facility Permit)

2011 County Street

Mailing Address

Dighton

City/Town

MA

State

02715

ZIP Code

Responsible Official for the Facility:

Thomas Ferry

Responsible Official Name (Individual)

Town of Dighton

Responsible Official Company Name

dightonhwy@comcast.net

Responsible Official Email Address

508-669-5461

Responsible Official Telephone Number



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II. Third-Party Inspector

Laura A. Bugay

Third-Party Inspector Name

SW48-0000022

MassDEP Third-Party Inspector Identification Number

508-888-6034

Telephone Number

114 State Road

Mailing Address

Sagamore Beach

City/Town

Green Seal Environmental, Inc.

Company Name

05/11/2021

MassDEP Third-Party Inspector Expiration Date (MM/DD/YYYY)

l.bugay@gseenv.com

Email Address

MA

State

02562

ZIP Code

Construction and Demolition Waste (C&D Waste) Processing Facility or C&D Waste Transfer Station Only:

Identify the qualified individual that conducted the observation of incoming waste loads and collection of samples of suspect asbestos-containing materials during the inspection [pursuant to 310 CMR 19.018(6)(f)]. If the entire inspection was conducted by the third-party inspector listed above, then check the box and enter only the Asbestos Inspector Certification Number.

☐ Same as above. Provide Asbestos Certification Number ►

MA Dept. of Labor Standards Asbestos Inspector Certification Number

Asbestos Inspector Name

Company Name

Telephone Number

Email Address

Mailing Address

City/Town

State

ZIP Code

III. Inspection Details

A. FREQUENCY

Indicate the scheduled inspection frequency for this facility as required by 310 CMR 19.018(6)(b), or a more frequent schedule set forth in the Facility Permit/Other Approval:

☐ Bi-Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Biennial
☐ Other (include permit/approval type and date of issuance):

B. DATE, TIME & PERSONNEL

Inspection Date (MM/DD/YYYY): 09/10/2019

Inspection Start Time: 10:30 ☒ AM ☐ PM

Facility Representatives in Attendance During Inspection: None.

C. CONDITIONS

Air Temperature: Approximately 68 degrees F.

Weather: ☐ Clear ☒ Partly Cloudy ☐ Cloudy
☒ Dry ☐ Rain ☐ Snow

Wind Speed: ☒ Calm ☐ Breeze ☐ Moderate ☐ Strong

Wind Direction (direction from which the wind is blowing):

<input type="checkbox"/> NW	<input type="checkbox"/> N	<input type="checkbox"/> NE
<input type="checkbox"/> W	Wind	<input type="checkbox"/> E
<input checked="" type="checkbox"/> SW	<input checked="" type="checkbox"/> S	<input type="checkbox"/> SE



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IV. Pre-Inspection Preparation

A. FACILITY-SPECIFIC O&M REQUIREMENTS

During each third-party inspection, the third-party inspector shall examine and evaluate the facility's solid waste activities, equipment, operations, practices, procedures, and records relevant to the type of third-party inspection being conducted in order to determine the facility's compliance with all applicable requirements as set forth in 310 CMR 19.018(6)(a)1.

Therefore, pursuant to 310 CMR 19.018(6)(a)1, prior to conducting a third-party facility operation and maintenance inspection, the third-party inspector shall, without limitation, complete all of the following:

- ☒ Review and become familiar with the regulations set forth at 310 CMR 19.000 – *Massachusetts Solid Waste Regulations*.
- ☒ Identify, review and become familiar with all solid waste permits, plans, approvals, and orders (or other enforcement documents issued to the facility by the Department), and the solid waste requirements applicable to the operation and maintenance of the facility.

Relevant requirements may include, without limitation, specific practices and procedures for the operation, maintenance and monitoring of the facility, waste acceptance/storage limits, and other requirements related to the facility's solid waste activities. Without limitation, these facility-specific requirements may be contained in the Facility Permit, Authorization to Construct, Authorization to Operate, Operation and Maintenance Plan, Closure/Post-Closure Plans and Approvals, Facility Modification Approvals, Beneficial Use Determinations, Administrative Consent Orders, and other determinations, authorizations or enforcement actions issued by the Department.

I, Laura A. Bugay, have identified, reviewed and understand all of the aforementioned requirements that are applicable to this facility and the following are my observations and recommendations related to the facility-specific requirements. ► **LAB**
Inspector Initials

B. SOLID WASTE PERMITS, PLANS, APPROVALS & ORDERS

List all relevant solid waste permits, plans, approvals, orders or other enforcement actions issued to the facility by the Department that contain specific practices, procedures and other requirements still in effect for the operation, maintenance and monitoring or closure/post-closure of the facility. Where applicable, provide the plan or issue date for each item. For enforcement actions, include the document number, effective date, and status of implementation by the facility.

Discussion: CSA Approval, March 12, 1999; Corrective Action Design Approval, BWP SW 25, Transmittal # 100281, August 13, 1998; Landfill Closure Certification Report, June 18, 2001; Authorization to Operate Transfer Station on 2.5-acre portion of closed landfill, BWP SW 20, October 1, 2008; Environmental Monitoring Plan Modification Approval, BWP SW 22, Transmittal #X233201, August 25, 2010.



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V. Performance Standards

Examine and evaluate the facility's solid waste activities, equipment, operations, practices, procedures and records relevant to the type of solid waste facility.

Using the tables below, identify all areas evaluated by the inspector during the inspection by checking the box in the first column. Describe all deviations noted during the inspection in the third column. Provide recommendations for corrective action to return to compliance with the applicable performance standard in the fourth column.

Facility Type	Performance Standards
Transfer Station/Handling Facility (Including C&D Facility)	Complete Section A. If C&D Handling/ Processing Facility, then also complete Section B.
Municipal Waste Combustor	Complete Section A.
Active Landfill	Complete Sections C. and F. If active ash landfill, then also complete Section D.
Closed Landfill	Complete Sections E. and F.

A. TRANSFER STATION, HANDLING FACILITY, OR MUNICIPAL WASTE COMBUSTOR (INCLUDING C&D FACILITY)

Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input type="checkbox"/>	19.205(1) Storm Water Controls.		
<input type="checkbox"/>	19.205(2) Equipment.		
<input type="checkbox"/>	19.205(3) Weighing Facilities.		
<input type="checkbox"/>	19.207(1) General.	Discuss in Section VI.	Discuss in Section VI.
<input type="checkbox"/>	19.207(2) Supervision of Operation.		
<input type="checkbox"/>	19.207(3) Access to Facilities.		
<input type="checkbox"/>	19.207(4) Security.		
<input type="checkbox"/>	19.207(5) Posting of Handling Facility.		
<input type="checkbox"/>	19.207(6) Unloading of Refuse.		
<input type="checkbox"/>	19.207(7) Special Wastes.		
<input type="checkbox"/>	19.207(8) Banned/Restricted Wastes.		
<input type="checkbox"/>	19.207(9) Hazardous Waste.		
<input type="checkbox"/>	19.207(10) Household Hazardous Waste and Waste Oil Collections.		
<input type="checkbox"/>	19.207(11) Bulky Waste.		
<input type="checkbox"/>	19.207(12) Liquid Wastes.		



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Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input type="checkbox"/>	19.207(13) Bird Hazards.		
<input type="checkbox"/>	19.207(14) Dust Control.		
<input type="checkbox"/>	19.207(15) Vector Control.		
<input checked="" type="checkbox"/>	19.207(16) Control of Wind-blown Litter.		
<input type="checkbox"/>	19.207(17) Staffing.		
<input type="checkbox"/>	19.207(18) Employee Facilities.		
<input type="checkbox"/>	19.207(19) Accident Prevention/Safety.		
<input type="checkbox"/>	19.207(20) Fire Protection.		
<input type="checkbox"/>	19.207(21) Recycling Operations.		
<input type="checkbox"/>	19.207(22) Records for Operational and Plan Execution.		
<input type="checkbox"/>	19.207(23) Screening and/or Fencing.		
<input type="checkbox"/>	19.207(24) Open Burning.		
<input type="checkbox"/>	19.207(25) Inspections.		
<input type="checkbox"/>	19.207(26) End-of-Life Mercury-added Products.		

B. CONSTRUCTION AND DEMOLITION (C&D) WASTE PROCESSING FACILITY OR C&D WASTE TRANSFER STATION

Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input type="checkbox"/>	19.206(1) Enclosed Operations.		
<input type="checkbox"/>	19.206(2) Storage.		
<input type="checkbox"/>	19.206(3) Contact Water.		
<input type="checkbox"/>	Suspect Asbestos-Containing Material (ACM) Inspection and Management Protocol.		
<input type="checkbox"/>	Sample collection of suspect ACM from incoming loads.	Discuss sample results: ▶ <input type="checkbox"/> Attach analytical reports.	



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C. ACTIVE LANDFILL

Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input type="checkbox"/>	19.130(1) General.	Discuss in Section VI.	Discuss in Section VI.
<input type="checkbox"/>	19.130(2) Operator Supervision.		
<input type="checkbox"/>	19.130(3) Special Wastes.		
<input type="checkbox"/>	19.130(4) Banned/Restricted Wastes.		
<input type="checkbox"/>	19.130(5) Hazardous Waste.		
<input type="checkbox"/>	19.130(6) Bulky Wastes.		
<input type="checkbox"/>	19.130(7) Liquid Wastes.		
<input type="checkbox"/>	19.130(8) Solid Waste Handling.		
<input type="checkbox"/>	19.130(9) Bird Hazards.		
<input type="checkbox"/>	19.130(10) Equipment and Shelter.		
<input type="checkbox"/>	19.130(11) Staffing.		
<input type="checkbox"/>	19.130(12) Employee Facilities.		
<input type="checkbox"/>	19.130(13) Accident Prevention/Safety.		
<input type="checkbox"/>	19.130(14) Spreading and Compacting of Solid Waste.		
<input type="checkbox"/>	19.130(15) Cover Material.		
<input type="checkbox"/>	19.130(16) Vector, Dust and Odor Control.		
<input type="checkbox"/>	19.130(17) Litter Control.		
<input type="checkbox"/>	19.130(18) Top Slope and Side Slopes.		
<input type="checkbox"/>	19.130(19) Storm Water Drainage.		
<input type="checkbox"/>	19.130(20) Erosion Control.		
<input type="checkbox"/>	19.130(21) Boundary/Elevation Markers.		
<input type="checkbox"/>	19.130(22) Access Roads.		
<input type="checkbox"/>	19.130(23) Security.		
<input type="checkbox"/>	19.130(24) Posting of the Landfill.		



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Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input type="checkbox"/>	19.130(25) Open Burning.		
<input type="checkbox"/>	19.130(26) Fire Protection and Control.		
<input type="checkbox"/>	19.130(27) Convenience and Recycling Drop-off Areas at Landfills.		
<input type="checkbox"/>	19.130(28) Waste Oil Collections at Landfills.		
<input type="checkbox"/>	19.130(29) Household Hazardous Waste Collections at Landfills.		
<input type="checkbox"/>	19.130(30) Leachate Collection, Treatment and Disposal.		
<input type="checkbox"/>	19.130(31) Phase Completion of the Landfill.		
<input type="checkbox"/>	19.130(32) Disruption of Landfilled Areas.		
<input type="checkbox"/>	19.130(33) Construction of Buildings.		
<input type="checkbox"/>	19.130(34) Records for Operational and Plan Execution.		
<input type="checkbox"/>	19.130(35) Inspections.		
<input type="checkbox"/>	19.130(36) Re-circulation of Leachate.		
<input type="checkbox"/>	19.130(37) End-of-Life Mercury-added Products.		

D. ASH LANDFILL

Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input type="checkbox"/>	19.131(1) General.	Discuss in Section VI.	Discuss in Section VI.
<input type="checkbox"/>	19.131(2) Fugitive Emissions.		
<input type="checkbox"/>	19.131(3) Ash Moisture Content.		
<input type="checkbox"/>	19.131(4) Spreading/Compacting of Ash.		
<input type="checkbox"/>	19.131(5) Vehicle Washdown / Wheelwash / Other Measures.		



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E. CLOSED LANDFILL

Evaluated	Performance Standard	Deviation(s)	Comments/Observations and Recommended Corrective Action(s)
<input checked="" type="checkbox"/>	19.016 Post-closure Use.	None.	The 2.5-acre C&D landfill is approved for post-closure use as a transfer station and is operating within its permits.
<input checked="" type="checkbox"/>	19.142(1) General.	Discuss in Section VI.	Discuss in Section VI.
<input checked="" type="checkbox"/>	19.142(2) Post-closure Period.	None.	
<input checked="" type="checkbox"/>	19.142(3) Post-closure Period Waiver.	None.	N/A - No waiver has been proposed.
<input checked="" type="checkbox"/>	19.142(4) Post-closure Period Extension.	None.	N/A - The post-closure use period has not been extended.
<input checked="" type="checkbox"/>	19.142(5) Post-closure Requirements.	None.	The capping system, access roads, landfill gas trench and vents, stormwater controls, and environmental monitoring systems are maintained.
<input checked="" type="checkbox"/>	19.142(6) Inspection Requirements.	None.	The site is inspected by a third-party on an annual basis.
<input checked="" type="checkbox"/>	19.142(7) Additional Measures.	None.	N/A-No additional measures have been assigned.
<input checked="" type="checkbox"/>	19.142(8) Termination of the Post-Closure Period.	None.	N/A-Written determination for ending post-closure has not been provided.
<input checked="" type="checkbox"/>	19.143(1) Applicability.	None.	The facility has valid ATC and ATO permits for transfer station operations on a portion of the landfill.
<input checked="" type="checkbox"/>	19.143(2) Submission of Post-closure Use Plans.	None.	Plans have been submitted for the facility.
<input checked="" type="checkbox"/>	19.143(3) Criteria for Approval of Post-closure Use.	None.	N/A
<input checked="" type="checkbox"/>	19.143(4) Post-closure Construction.	None.	N/A



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F. ADDITIONAL LANDFILL REQUIREMENTS

Evaluated	Performance Standard	Comments/Observations and Recommended Corrective Action(s)
<input checked="" type="checkbox"/>	<p>19.132 Environmental Monitoring Requirements.</p> <p>Is the monitoring of surface water, ground water, landfill gas and any other media as determined by the Department, including without limitation, soil and sediment, being conducted on the schedule established in the permit or as otherwise required by the Department? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Are the analytical results of the environmental monitoring submitted to the Department within 60 days after the date of sample collection or as otherwise specified by the Department? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	The schedule for monitoring is per the July 2010 Minor Modification for the Post-Closure Monitoring and Maintenance Plan as modified and approved in MassDEP correspondence dated August 25, 2010. Groundwater and surface water is monitored annually and perimeter landfill gas is monitored semi-annually.
<input type="checkbox"/>	<p>19.133 Maintenance of Environmental Control and Monitoring Systems.</p> <p>Are the facility operations conducted in a manner which protects all environmental control systems as approved in the Operation and Maintenance plan and monitoring systems as approved in the Operation and Maintenance plan or permit? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Is regular maintenance of all landfill environmental control systems performed as approved in the Operation and Maintenance plan or permit? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Has the Department been notified of the existence and extent of damaged or destroyed environmental control systems, monitoring devices, or surface water sampling location markers in accordance with 310 CMR 19.133(1)(c) and/or 19.133(1)(e)? <input type="checkbox"/> N/A (if no damage to report) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p>	

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F. ADDITIONAL LANDFILL REQUIREMENTS – Continued

Evaluated	Performance Standard	Comments/Observations and Recommended Corrective Action(s)
<input checked="" type="checkbox"/>	19.121(4) Landfill Gas Recovery Operation and Maintenance Requirements.	N/A - No landfill gas recovery system exists at this facility.
	Is condensate generation kept to a minimum and condensate recirculation, if proposed, performed in accordance with the permit? <input type="checkbox"/> YES <input type="checkbox"/> NO	
	Are the sampling and analysis of condensate conducted on the schedule established in the permit or as otherwise required by the Department? <input type="checkbox"/> YES <input type="checkbox"/> NO	
	Are the analytical results of condensate monitoring reported to the Department as established in the permit or as otherwise required by the Department? <input type="checkbox"/> YES <input type="checkbox"/> NO	
	Is an annual report on the operation of the landfill gas recovery facility submitted to the Department as specified in the permit? <input type="checkbox"/> YES <input type="checkbox"/> NO	



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VI. Inspection Observations

A. FACILITY CONDITION AND OPERATIONS

Examine and evaluate the facility condition and operations as observed during the inspection, including the following:

- ☒ Describe any evidence of the following conditions observed at the time of the inspection:
 - Unpermitted discharges to air, water, land or other natural resources of the Commonwealth; and
 - Dust, odors, litter, and/or other nuisance conditions.
 - ☒ Document and discuss all deviations from any specific requirements for the facility that are not addressed in the previous section (*Section V. – Performance Standards*), including without limitation, the requirements set forth in the facility's operation and maintenance plan, orders or other enforcement documents, and other solid waste permits, approvals, and authorizations issued to the facility by MassDEP.
 - ☒ List the types and estimated quantities of all waste and materials stored at the facility at the time of the inspection.
 - ☒ Provide a narrative that describes the overall status of the general condition, operation and performance of the facility as observed at the time of the inspection.
- ⇒ Attach photographs taken during the inspection that depict the general condition and operation of the facility. At a minimum, include photographs, as applicable, of the waste unloading (tipping) area, waste storage areas, recyclable material storage and, for transfer stations, the waste reloading activity.

Discussion: No unpermitted discharges to air, water, land, or other natural resources of the Commonwealth were not observed at the time of inspection. Dust, odors, litter, or any other nuisance conditions were not observed at the time of inspection. Deviations from other permit conditions not included in Section V above were not observed at the time of inspection.

The overall condition of the landfill capping system was good. The slopes were stable and vegetated and the stormwater system was functioning well. The vegetated landfill mound was observed to have been mowed within the last year. The pavement cap in the transfer station area was in good condition and is maintained.

B. RECORD REVIEW

Examine and evaluate the facility's record-keeping. Without limitation, document the status of the facility's compliance with, and any deviations from, the record-keeping required by 310 MCR 19.000; the facility's operation and maintenance plan; orders or other enforcement documents issued to the facility; and other solid waste permits, approvals, determinations and authorizations issued to the facility by the Department, including the following:

- ☒ Discuss the evaluation of the Facility's "daily log" such as, daily tonnage records.
- ☒ List and discuss any special incidents that have occurred since the previous inspection such as exceedances of the facility's permitted waste acceptance limits, nature and outcome of complaints reported to the facility operator (including the identity of the complainant, if known), fires, emergencies, or other disruptions to the routine operation of the facility.

Discussion: N/A. No tonnage records exist for the closed facility. No special incidents have occurred.



**Massachusetts Department of Environmental Protection
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VII. Summary and Recommendations

Pursuant to 310 CMR 19.018(6)(a)4., where a third-party inspector observes that the operation or maintenance of the facility deviates from the aforementioned applicable requirements, he or she shall document all such deviations and recommend corrective actions for the facility to take to return to compliance.

A. INSPECTION RESULTS

Based on the examinations and evaluations conducted in Sections V. and VI., please summarize the inspection results by checking one of the following determinations:

- ☒ **No deviations from the applicable performance standards or additional requirements listed at 310 CMR 19.018(6) were identified during this inspection.**

If no deviations were identified during the inspection, check this box and proceed to Section VII.B.

- ☐ **Deviations from the applicable performance standards or additional requirements listed at 310 CMR 19.018(6) were identified during this inspection and are discussed further in this report.**

If deviations were identified during the inspection, check this box and ensure that each deviation and the recommended corrective actions are discussed in the applicable section(s) below.

B. STATUS OF PREVIOUS RECOMMENDATIONS FOR CORRECTIVE ACTION

If a previous inspection report identified deviations with recommendations for corrective action, please describe the action(s) taken since the last inspection to return the facility to compliance with the applicable requirements.

Discussion: N/A

C. RECOMMENDATIONS FOR CORRECTIVE ACTION

Based on the results of this inspection, please list all deviations noted during the inspection and provide recommendations for corrective action to return to compliance with the applicable requirement.

Recommendations: None.

D. ADDITIONAL COMMENTS

Comments: Improvements to the eastern access road include added stone in the area of the rip rap swale leading to stormwater detention basins 1 and 2; these area should be monitored during future annual inspections for continued function of the swales. A small animal burrow was observed on the upper eastern portion of the vegetated landfill mound. Annual inspections shall monitor if burrows become an issue with respect to cap function and/or erosion. Disturbance to the northeastern drainage swale near detention basin 2 for connections to new animal shelter trailer shall be repaired prior to the winter.

VIII. Additional Information Checklist

Attach the following additional information, as applicable, to complete the inspection report.*

- ☒ Attach photographs taken during the inspection that depict the general condition and operation of the facility, as required in Section VI.A.
- ☐ For C&D Waste facilities only, attach the analytical results, as required in Section V.B.



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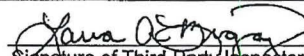
**Note: Pursuant to 310 CMR 19.018(8), MassDEP may request additional information.*

Continue to Certification Statement on Next Page ►

IX. Certification – THIRD-PARTY INSPECTOR

"I attest under the pains and penalty of perjury that:

1. I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement;
2. Based on my inquiry of those persons responsible for obtaining the information, the information contained in this submittal is, to the best of my knowledge, true, accurate and complete;
3. I have been able to conduct the third-party inspection and prepare the third-party inspection report without being influenced by the facility owner or operator and, (if I am a municipal employee) without being influenced by my municipal employer, by any coworker or by any elected or appointed official of the municipality; and
4. I am aware that there are significant penalties, including, but not limited to, possible administrative and civil penalties for submitting false, inaccurate, or incomplete information and possible fines and imprisonment for knowingly submitting false, inaccurate, or incomplete information."


Signature of Third-Party Inspector

Laura A. Bugay
Print Full Name

Green Seal Environmental, Inc.
Company Name

10/07/2019
Date (MM/DD/YYYY)

X. Certification – FACILITY OWNER/OPERATOR

Does the facility maintain a Financial Assurance Mechanism (FAM) pursuant to 310 CMR 19.051?

☐ YES ☒ NO

If yes: • Enter the amount of the current FAM:

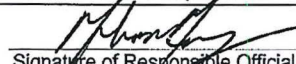
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- Enter the date of the last revision of the FAM amount, pursuant to 310 CMR 19.051(6):

As a reminder, pursuant to 310 CMR 19.051(6), the estimate of the cost of closure and post-closure maintenance must be revised every year, and every second year shall be submitted to the Department.

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2. That, in the event that this inspection report contains a recommendation for corrective action(s), I have completed and attached to this report a Corrective Action Plan and Schedule*, pursuant to 310 CMR 19.018(8)(c)2."


Signature of Responsible Official

Thomas Ferry
Print Full Name

Highway Superintendent
Title

10/24/19
Date (MM/DD/YYYY)

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Massachusetts Department of Environmental Protection
Bureau of Waste Prevention / Solid Waste Management

Third-Party Inspection Report – 310 CMR 19.018(8)
Operation & Maintenance

<p>Within 30 days of the inspection date:</p>	<ul style="list-style-type: none">• Mail this completed form to the MassDEP Regional Office that serves the municipality in which the facility is located. (Attention: Solid Waste Management)• Send one copy to the local board of health for the municipality in which the facility is located.	<p>A list of municipalities and MassDEP Regional Offices is available online at: http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html</p>
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**Dighton Landfill - Tremont Street
Third-Party Inspection Photos
September 10, 2019**



Photograph #1
Fenced and gated site entrance off
Tremont Street.



Photograph #2
Northeastern gravel perimeter access road.



Photograph #3
Eastern gravel perimeter access road.



Photograph #4
Pavement cap and transfer station area.



Dighton Landfill – Tremont Street
Third-Party Inspection Photos
September 10, 2019



Photograph #5
Pavement cap in good condition and maintained.



Photograph #6
Stormwater detention basin 2 (Basin 2)
located in northeast corner of the landfill.



Photograph #7
V-notch weir at outlet from Basin 2.



Photograph #8
Rip rap outlet from Basin 2 and weir.



Dighton Landfill – Tremont Street
Third-Party Inspection Photos
September 10, 2019



Photograph #9
Stormwater detention basin 1 (Basin 1)
located on south-east side of landfill.



Photograph #10
Rip rap swale to small basin in northwest
corner of the landfill.



Photograph #11
Grass swales in good condition.



Photograph #12
Rip rap downchute to Basin 1 in good
condition.



Dighton Landfill – Tremont Street
Third-Party Inspection Photos
September 10, 2019



Photograph #13
Rip rap swale on east side of transfer station and edge of pavement cap in good condition.



Photograph #14
Grass swales and rip rap section at top of downchute in good condition.



Photograph #15
Northern slope.



Photograph #16
Eastern slope.



Dighton Landfill – Tremont Street
Third-Party Inspection Photos
September 10, 2019



Photograph #17
Southern slope.



Photograph #18
Western slope.



Photograph #19
Plateau.



Photograph #20
Plateau.



Dighton Landfill – Tremont Street
Third-Party Inspection Photos
September 10, 2019



Photograph #21
Toe of slope rip rap protection.



Photograph #22
Toe of slope rip rap protection.



Photograph #23
Gas vents in good condition.



Photograph #24
Gas vent.



Dighton Landfill – Tremont Street
Third-Party Inspection Photos
September 10, 2019



Photograph #25
Gas monitoring well GM-2.



Photograph #26
Groundwater monitoring well MW-3 in good condition and equipped with locks.



Photograph #27
Groundwater wells MW-8S and 8D equipped with covers and locks.



Photograph #28
Landfill, facing south.





- Environmental Services
 - Solid Waste Management
 - Hazardous Waste
 - Facilities Management
 - Survey & Land Development
 - Civil Engineering
 - Construction Management
 - Wetland Restoration
-

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Board of Health



westonandsampson.com

55 Walkers Brook Drive, Suite 100
Reading, MA 01867
tel: 978.532.1900

REPORT

November 2019

TOWN OF
Dighton
MASSACHUSETTS

Dighton Sanitary Landfill

Monitoring Report





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention / Solid Waste Management

Third-Party Inspection Report – 310 CMR 19.018(8)
Operation & Maintenance

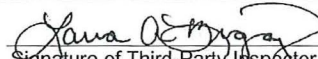
**Note: Pursuant to 310 CMR 19.018(8), MassDEP may request additional information.*

Continue to Certification Statement on Next Page ►

IX. Certification – THIRD-PARTY INSPECTOR

"I attest under the pains and penalty of perjury that:

1. I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement;
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Laura A. Bugay
Print Full Name

Green Seal Environmental, Inc.
Company Name

10/07/2019
Date (MM/DD/YYYY)

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Thomas Ferry
Print Full Name

Highway Superintendent
Title

10/24/19
Date (MM/DD/YYYY)

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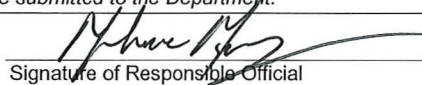
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Signature of Responsible Official

Thomas Ferry
Print Full Name

Dighton Highway Superintendent
Title

10/24/19
Date (MM/DD/YYYY)

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A list of municipalities and MassDEP Regional Offices is available online at:
<http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>

Certification

In accordance with the Massachusetts Solid Waste Management Regulations (310 CMR 19.011), the Town of Dighton, Massachusetts submits this certification for the attached September 2019 Semi-Annual Landfill Gas Monitoring Report prepared for us by Green Seal Environmental, Inc.

I, Thomas Ferry, attest under the pains and penalties of perjury that: (a) I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification statement; (b) based upon my inquiry of those persons responsible for obtaining the information, the information contained in this submittal is, to the best of my knowledge, true, accurate, and complete; (c) I am fully authorized to bind the entity required to submit these documents and to make this attestation on behalf of such entity; (d) I am aware that there are significant penalties, including, but not limited to, possible administrative and civil penalties for submitting false, inaccurate, or incomplete information and possible fines and imprisonment for knowingly submitting false, inaccurate, or incomplete information.



Thomas Ferry, Town of Dighton, Highway Superintendent

Date: 10/24/19

November 6, 2019

55 Walkers Brook Drive, Suite 100, Reading, MA 01867 (HQ)
Tel: 978.532.1900

Mr. Mark Dakers, Section Chief
Massachusetts Department of Environmental Protection
Southeast Region Office
Division of Solid Waste Management
20 Riverside Drive
Lakeville, Massachusetts 02347

Re: Fall 2019 Annual Monitoring Report
Dighton Sanitary Landfill

Dear Mr. Dakers:

On behalf of the Town of Dighton, Weston & Sampson has prepared this letter report summarizing the Fall 2019 annual monitoring results for the Dighton Sanitary Landfill (landfill) located on Tremont Street in Dighton, Massachusetts. The purpose of the monitoring is to periodically monitor landfill groundwater and surface water quality as required by the most recent amendment to the Solid Waste Regulations dated February 2014.

A locus map (Figure 1) shows the landfill location, and the site plan (Figure 2) shows the groundwater and surface water locations.

In August 2010, the Massachusetts Department of Environmental Protection (MassDEP) approved an application for Minor Modifications to the existing Post Closure Monitoring and Maintenance Plan (PCMMP) for the landfill. The modifications to the PCMMP satisfy the requirements established in 310 CMR 19.132. The revised PCMMP includes a reduction in the collection and analysis of groundwater samples for indicator and inorganic parameters and dissolved metals. According to the revised PCMMP, groundwater samples will be collected on an annual basis from MW-1, MW-2, MW-3, MW-5S, MW-5D, MW-6S, MW-6D, MW-7S and MW-7D for analysis of volatile organic compounds (VOCs) including low-level 1,4-dioxane, indicator and inorganic parameters, and dissolved metals. In addition, groundwater samples will be collected on an annual basis from monitoring wells MW-8S and MW-8D for VOC analysis including low-level 1,4-dioxane. Surface water samples are to be collected on an annual basis from a new sampling location (PZ-1) in the unnamed stream (see Figure 2). The new surface water sampling location (PZ-1) will be sampled and analyzed for inorganic and organic indicator parameters, metals, and VOCs including low-level 1,4-dioxane.

METHODS

Groundwater and Surface Water

On September 10, 2019, Weston & Sampson collected groundwater samples from nine (9) groundwater monitoring wells (MW-1, MW-3, MW-5S, MW-5D, MW-6D, MW-7S, MW-7D, MW-8S, and MW-8D) and one (1) surface water sample from location PZ-1. MW-2 could not be located and is assumed destroyed. MW-6S was obstructed and could not be sampled. For quality assurance purposes, a duplicate groundwater sample (DUP-1) was collected at well MW-5D and a laboratory-supplied trip blank accompanied all VOC samples. Weston & Sampson also measured depth to groundwater at the monitoring well locations. Groundwater depth and elevation readings are presented in Table 1.

Prior to groundwater sampling, Weston & Sampson calculated the standing volume of water in each well using the depth to water and total well depth measurements. Five standing volumes of water were purged from each well or the wells were purged to dryness and allowed to recharge prior to sample collection. We collected samples using

dedicated disposable bailers or the Waterra Hydrolift® inertial pump system with dedicated polyethylene tubing, as appropriate. Weston & Sampson collected the surface water sample using a dedicated disposable bailer. If any non-dedicated sampling equipment was used, Weston & Sampson decontaminated that non-dedicated equipment between wells using an Alconox wash followed by a rinse using deionized water.

Weston & Sampson measured dissolved oxygen, pH, water temperature, and specific conductivity in the field using a YSI 556 Pro multiparameter meter. Weston & Sampson submitted water samples to TestAmerica Laboratories, Inc. (TAL), a Massachusetts-certified laboratory, for analysis of the following parameters: metals (RCRA 8 plus calcium, copper, iron, manganese, sodium, and zinc), alkalinity, chemical oxygen demand (COD), chloride, total cyanide, nitrate, sulfate, total dissolved solids (TDS), volatile organic compounds (VOCs) by EPA Method 8260C including Tentatively Identified Compounds (TICs) having unknown peaks greater than five times the background intensity, and low-level 1,4-dioxane by EPA Method 522. Groundwater samples were filtered in the field using a 0.45-micron disposable filter and analyzed for dissolved metals. The surface water sample was not field-filtered and was analyzed for total metals. The surface water sample was additionally analyzed for hardness. All samples were stored on ice after collection and during transport to the laboratory. All samples were handled and relinquished using standard quality assurance and chain-of-custody procedures.

COMPARABLE STANDARDS

Groundwater analytical results were compared to Massachusetts Drinking Water Standards, published by the MassDEP in spring 2019. These standards include Massachusetts Maximum Contaminant Level (MMCL), Secondary Maximum Contaminant Level (SMCL), and Office of Research and Standards Guideline (ORSG) concentrations/ranges. Although there are no monitoring locations outside the landfill compliance boundary, the results were also compared to the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000 revised January 2015) Method 1 GW-1 and GW-3 groundwater cleanup standards as a reference for the management of risk. An Area Receptors Map is provided in Figure 3.

Surface water results were compared to Massachusetts Surface Water Standards (MSWS) (314 CMR 4.00). This regulation incorporates, by reference, additional surface water standards including the National Recommended Water Quality Criteria (NRWQC) published by the EPA in 2009. For criteria with no MSWS or NRWQC listing, results were compared to the Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision (ES/ER/TM-96/R2) (Toxicological Benchmarks).

RESULTS AND DISCUSSION

Groundwater Flow

The September 2019 groundwater elevation data presented in Table 1 indicates that shallow groundwater flows south-southeast towards the unnamed stream (refer to Figure 2).

Groundwater Quality/Trend Analysis/QAQC

Groundwater Quality

Groundwater analytical results are summarized in Table 2. The results indicate that the following parameters were detected at concentrations above applicable Massachusetts Drinking Water Standards.

MMCL:

- Dissolved arsenic was detected at concentrations above the MMCL in MW-5D, DUP-1, MW-7S, and MW-7D at concentrations of 0.032 milligrams per liter (mg/L), 0.032 mg/L, 0.069 mg/L and 0.013 mg/L, respectively.

- Dissolved lead was detected at a concentration above the MMCL in MW-7S at a concentration of 0.019 mg/L.
- Vinyl chloride was detected at concentrations above the MMCL in MW-3, MW-5D, DUP-1, and MW-7S at concentrations of 30 micrograms per liter ($\mu\text{g/L}$), 5.8 $\mu\text{g/L}$, 6.1 $\mu\text{g/L}$, and 2.4 $\mu\text{g/L}$, respectively.

Parameters above the MMCL are shown on Figure 2.

SMCL:

- Dissolved iron was detected at concentrations above the SMCL in all wells sampled at concentrations ranging from 0.50 mg/L to 49 mg/L.
- Dissolved manganese was detected at concentrations above the SMCL in all wells sampled at concentrations ranging from 0.12 mg/L to 6.8 mg/L.

In addition, groundwater pH was below the lower limit of the SMCL range of 6.5 in all wells sampled, with the exception of MW-5D, MW-6D, and MW-7S, at readings ranging from 4.71 to 6.39

ORSG/GW-1:

- Dissolved sodium was detected at concentrations above the ORSG in monitoring wells MW-3, MW-5D, DUP-1, MW-7S, MW-7D, and MW-8S at concentrations ranging from 28 mg/L to 41 mg/L.
- 1,4 Dioxane was detected at concentrations above the ORSG/GW-1 standard in monitoring wells MW-1, MW-3, MW-5D, MW-6D, MW-7S, MW-7D, MW-8S, and MW-8D at concentrations ranging from 0.39 $\mu\text{g/L}$ to 4.4 $\mu\text{g/L}$.

Three (3) VOCs (chlorobenzene, chloroethane, and cis-1,2-dichloroethene) were detected in groundwater wells at concentrations more than an order of magnitude below their applicable standards. Vinyl chloride, which was detected at concentrations above the MMCL in MW-3, MW-5D, DUP-1, and MW-7S as discussed above, was also detected in MW-7D at a concentration below the MMCL. Tentatively Identified Compounds (TICs) were not detected in groundwater samples during this monitoring event.

Trend Analysis

Groundwater analytical results are generally consistent with historical results (refer to Appendix A for historical results) with the following exceptions.

- Chloride and cis-1,2-dichloroethene were detected at historical high concentrations in MW-3. However, the detected concentrations were below the applicable standards. In addition, vinyl chloride was also detected at a historical high concentration in MW-3; the detected concentration is above the MMCL, which is typical of previous results.
- Dissolved chromium was detected above the laboratory reporting limit (RL) for the second consecutive time in MW-3; however, the detected concentration was below the applicable standard.
- 1,4-Dioxane was detected above the ORSG and MCP Method 1 GW-1 standard of 0.3 $\mu\text{g/L}$ in MW-1, MW-3, and MW-6D for the first time. In accordance with the Solid Waste Regulations, re-sampling for 1,4-dioxane at these wells was conducted on November 1, 2019. The results from the November 1, 2019 re-sampling event will be sent via e-mail to MassDEP once Weston & Sampson has received the analytical results from the laboratory.

Quality Assurance/Quality Control (QA/QC)

The September 2019 groundwater sampling and analytical program was performed with adequate QA/QC to support goals for precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) for laboratory analytical data. The QA/QC program provides an assessment of both field sample collection and handling methods and laboratory analysis method selection and analytical procedures. Field quality control includes measures undertaken during collection or handling of samples in the field (e.g., preparation of chains of custody, inclusion of trip blanks, and collection of field duplicates) to support collection of precise, accurate, and representative data. The analytical laboratory performs several internal quality controls to assess the accuracy, precision, and sensitivity of the sample data. These controls include surrogate spikes, matrix spike/matrix spike duplicates (MS/MSD), laboratory control spike and method blanks. QA/QC procedures as required by the analytical methods were achieved and the samples were received in a condition consistent with those described on the chain-of-custody. According to the laboratory results, the laboratory received all samples at approximately 3.1°C, and in good condition. The following non-conformance was noted for each of the analytical methods listed below:

Method 8260C (VOCs)

The continuing calibration verification (CCV) associated with batch 480-492178 recovered above the upper control limit for trichlorofluoromethane, resulting in a high bias on reported results. A high bias means the actual results are potentially lower than the reported results. Since the samples associated with this CCV (DUP-1, MW-1, MW-3, and MW-5D) were non-detects for the affected analyte and the bias is high, the data have been reported and the data usability is not affected.

The laboratory control sample (LCS) for analytical batch 480-492178 recovered above the upper control limit (high bias) for chloroethane. Since the samples associated with this LCS were non-detects for the affected analyte and the bias is high, the data have been reported and the data usability is not affected.

The continuing calibration verification (CCV) associated with batch 480-492224 recovered above the upper control limit (high bias) for chloroethane and trichlorofluoromethane. Since the samples associated with this CCV (MW-5S, MW-6D, MW-7D, MW-7S, MW-8D, MW-8S, PZ-1, and Trip Blank) were non-detects for the affected analytes and the bias is high, the data have been reported and the data usability is not affected.

The laboratory control sample (LCS) for analytical batch 480-492224 recovered above the upper control limit (high bias) for chloroethane. Since the samples associated with this LCS were non-detects for the affected analyte and the bias is high, the data have been reported and the data usability is not affected.

The laboratory control sample (LCS) for analytical batch 480-492178 recovered above the upper control limit (high bias) for chloroethane. This analyte was detected in the affected sample (MW-3); however, since there is no groundwater standard for this analyte, the data usability is not affected.

Method 300 (chloride and sulfate)

Samples DUP-1, MW-3, MW-5D, MW-7D, and MW-7S were diluted based on screening results or to bring the concentration of target analytes within calibration range, resulting in elevated reporting limits. However, the elevated RLs are below the applicable standards. Therefore, there is no impact on the reported results for these compounds.

The results for the duplicate sample (DUP-1) that was collected at WS-5D were generally similar to the results from the initial sample. The Relative Percent Difference (RPD) between the initial sample and the duplicate sample for all parameters ranged from 0% to 5.71%, which is below the EPA recommended criteria of 30% for water. It should be noted that 1,4-dioxane was detected in the original sample but not in the duplicate sample. A trip blank sample was submitted for VOC analysis by Method 8260. No VOCs were detected in the trip blank.

Based on our review of the above non-conformances, the non-attainment of QA/QC performance/acceptance standards did not affect the usability of data for the fall 2019 sampling event, and Weston & Sampson considers all data to be valid.

Surface Water Quality/Trend Analysis

Surface Water Quality

Surface water analytical results for sample PZ-1 are summarized in Table 3. The results indicate that the following parameters were detected above the applicable MSWS standards:

- Total barium was detected above the MSWS at a concentration of 0.014 mg/L.
- Total manganese was detected above the MSWS at a concentration of 0.23 mg/L.

1,4-Dioxane was detected in the surface water sample at a concentration of 0.74 µg/L. There were no additional VOCs or TICs detected in sample PZ-1.

Trend Analysis

The fall 2019 sampling event was the seventh event in which surface water was analyzed at the PZ-1 sample location. The fall 2019 results were generally similar to the historic results (refer to Appendix A).


RECOMMENDATIONS

Based on a review of data collected to date and the PCMMP, Weston & Sampson recommends that the Town continues to monitor groundwater and surface water on an annual basis per the requirements of the revised PCMMP. Also, Weston & Sampson recommends that the Town perform a comprehensive assessment of 1,4-dioxane, an emerging contaminant and potential contaminant of concern, that has been found in the groundwater monitoring wells at the landfill site. The assessment should include downgradient wells and receptors that might exist downgradient of the landfill. The assessment would begin with identifying any private drinking water wells, public supply wells, or irrigation wells located onsite and immediately downgradient of the Site. Weston & Sampson will be in touch with the Town regarding this matter.

If you have any questions or require additional information regarding this matter, please do not hesitate to contact Weston & Sampson.

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.



Duane C. Himes, PE, PLS, TPI
Associate



Loren E. McGrath
Senior Project Geologist

cc: Mr. Thomas Pires, Chairperson, Board of Health
File

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FIGURES

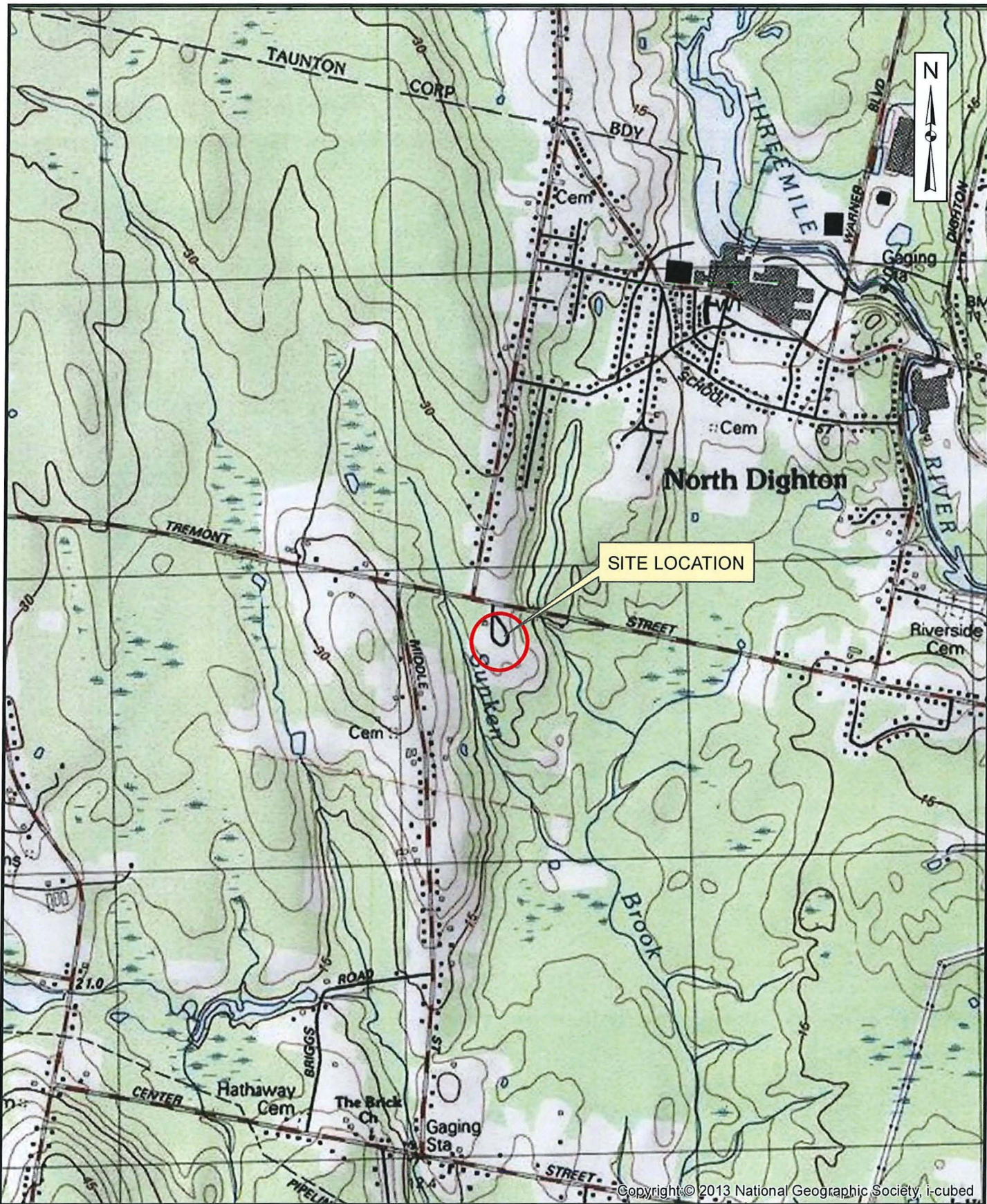


FIGURE 1
TOWN OF DIGHTON, MASSACHUSETTS
DIGHTON SANITARY LANDFILL

LOCUS MAP

0 2,000 4,000 Feet

\\wse03.local\WSE\Projects\MA_PeabodyOldServer\Dighton\LF Mon FY20 2190xxx\CAD\Figure 2 - Site Plan Sept 2019.dwg

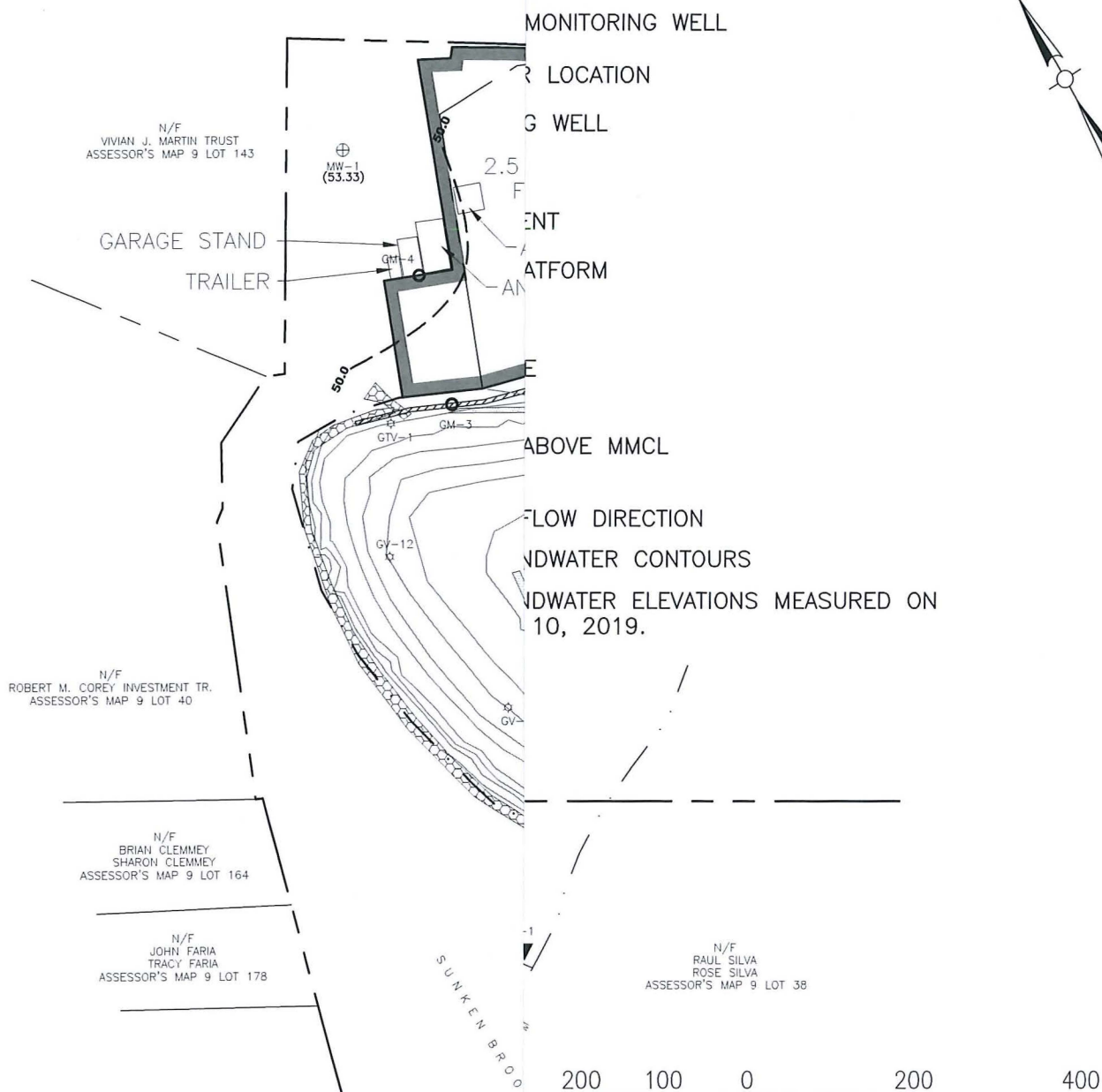


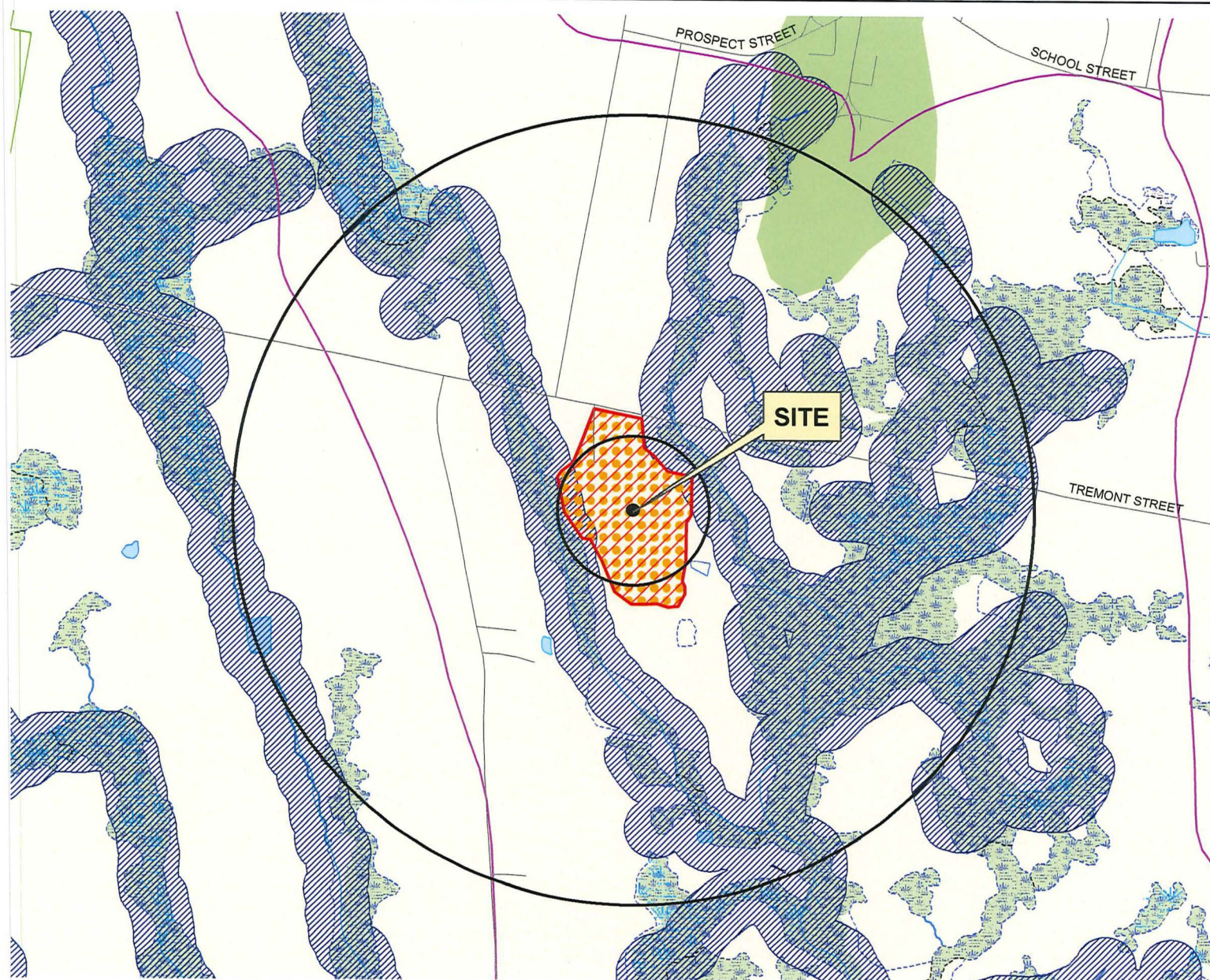
FIGURE 2

DIGHTON, MASSACHUSETTS
DIGHTON SANITARY LANDFILL

SITE PLAN

DESIGNED BY: LEM CHECKED BY: DCH DATE: SEPTEMBER 2019

Weston & Sampson SM



Legend

- Town Boundaries
- State Boundary
- ▲ Ground Water
- ▲ Surface Water
- ▲ Non-Community
- ★ NHESP Certified Vernal Pools
- Railroads by Ownership
- Pipeline
- Pipeline Arbitrary Extension
- Powerline
- Powerline Arbitrary Extension
- Ski Lift/Tramway
- Substation
- Landing Strip/Airport
- ◆ Highway Exit Locations

All Roads

Road Classification

- Limited Access Highway
- Multi-lane Hwy, not limited access
- Other Numbered Highway
- Major Road, Collector
- Minor Road, Arterial
- Sub-basins
- Major Basins

- Landfills
- Dumping Grounds
- Protected Open Space
- ACECs
- Zone A
- IWPAs
- DEP Approved Zone IIs
- River, Stream, Shoreline
- Water
- Wetland
- Sole Source Aquifers
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Priority Habitats of Rare Species

Non Potential Drinking Water Source Area

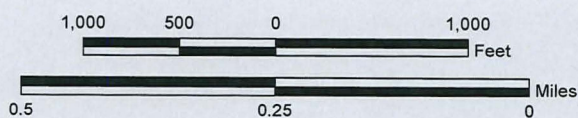
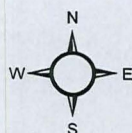
- High Yield
- Medium Yield

Aquifers

- High Yield
- Medium Yield

MA Towns (from Survey Points)

MA Towns (from Survey Points)



Data Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

NOTE: Radii shown are approximately 500-feet and 1/2-mile from center of site.

FIGURE 3
Area Receptors Map
Dighton Sanitary Landfill
Dighton, Massachusetts

TABLES

Table 1
Groundwater Elevations
Dighton Sanitary Landfill
Dighton, Massachusetts

Monitoring Well	Top of PVC Riser Elevation	Depth to Groundwater									
		04/14/09	09/23/09	04/22/10	09/23/10	10/04/11	09/25/12	09/17/13	11/13/17	10/16/18	09/10/19
MW-1	66.11	4.68	10.70	5.75	-	-	-	-	-	7.21	12.78
MW-2	39.78	3.52	4.60	3.34	5.83	3.15	4.02	5.00	---	---	---
MW-3	39.60	3.72	7.20	4.51	9.19	5.73	5.88	8.14	6.11	4.55	9.00
MW-5S (TOC)	40.48	4.74	7.20	4.98	9.45	4.87	5.27	8.45	7.00	5.51	9.83
MW-5D (TOC)	39.78	4.30	6.51	4.40	8.96	4.62	5.68	7.82	6.70	5.70	9.26
MW-6S	42.69	5.45	8.63	6.08	Dry	5.91	7.60	9.93	7.34	5.79	11.43
MW-6D	31.58	6.69	7.70	5.00	10.46	6.01	6.70	8.98	6.82	5.27	9.46
MW-7S	25.10	--	0.60	--	1.67	--	--	0.90	0.20	--	1.60
MW-7D	25.49	--	0.80	--	2.18	--	--	1.25	0.10	--	2.00
MW-8S	31.58	5.18	6.72	5.13	8.65	4.98	5.88	7.73	5.90	5.02	8.54
MW-8D	30.72	4.40	7.80	4.18	7.57	4.58	5.24	6.83	5.16	4.73	7.44

Monitoring Well	Top of PVC Riser Elevation	Groundwater Elevation									
		04/14/09	09/23/09	04/22/10	09/23/10	10/04/11	09/25/12	09/17/13	11/13/17	10/16/18	09/10/19
MW-1	66.11	61.43	55.41	60.36	-	-	-	-	-	58.90	53.33
MW-2	39.78	36.26	35.18	36.44	33.95	36.63	35.76	34.78	---	---	---
MW-3	39.60	35.88	32.40	35.09	30.41	33.87	33.72	31.46	33.49	35.05	30.60
MW-5S	40.48	35.74	33.28	35.50	31.03	35.61	35.21	32.03	33.48	34.97	30.65
MW-5D	39.78	35.48	33.27	35.38	30.82	35.16	34.10	31.96	33.08	34.08	30.52
MW-6S	42.69	37.24	34.06	36.61	Dry	36.78	35.09	32.76	35.35	36.90	31.26
MW-6D	31.58	24.89	23.88	26.58	21.12	25.57	24.88	22.60	24.76	26.31	22.12
MW-7S	25.10	--	24.86	--	23.43	--	--	24.20	24.90	--	23.50
MW-7D	25.49	--	24.69	--	16.84	--	--	24.24	25.39	--	23.49
MW-8S	31.58	26.40	24.86	26.45	22.93	26.60	25.70	23.85	25.68	26.56	23.04
MW-8D	30.72	26.32	22.92	26.54	23.15	26.14	25.48	23.89	25.56	25.99	23.28

QC by LEM 10/31/19

\\wse03.local\WSE\Projects\MAI_Peabody\OldServer\Dighton\LF Mon FY20 2190xxx\Reports\Fall 2019\Tables\Table 1-GW Elev-0919.xls\DTW-GWE

Notes:

Depth to groundwater measured from top of PVC.

Elevations in feet relative to mean sea level.

- = Obstruction in monitoring well- could not measure depth to water.

--- = Destroyed

Table 2
Groundwater Sampling Results
Dighton Sanitary Landfill
Dighton Massachusetts
September 10, 2019

Parameter	Units	Comparable Standard ⁽¹⁾	Method 1 GW-1 ⁽²⁾	Method 1 GW-3 ⁽²⁾	Sampling Location											
					MW-1	MW-2	MW-3	MW-5S	MW-5D	DUP-1 (MW-5D)	MW-6S	MW-6D	MW-7S	MW-7D	MW-8S	MW-8D
Field Parameters																
Temperature	degrees C	NS	NS	NS	14.30	--	14.40	15.70	11.70	-	*--	11.20	13.60	11.30	11.40	11.20
pH	unitless	6.5 - 8.5*	NS	NS	4.71	--	6.21	5.69	6.53	-	*--	7.17	6.68	6.39	6.31	6.12
Specific Conductivity	mS/cm	NS	NS	NS	0.062	--	0.670	0.109	0.500	-	*--	0.224	0.670	0.476	0.436	0.265
Dissolved Oxygen	mg/L	NS	NS	NS	6.81	--	2.82	2.45	4.52	-	*--	3.74	6.05	2.89	3.78	4.11
Inorganics																
Alkalinity as CaCO ₃	mg/L	NS	NS	NS	<10	--	120	<10	190	180	*--	49	220	200	150	45
Chemical Oxygen Demand	mg/L	NS	NS	NS	<10	--	47	<10	26	25	*--	<10	26	16	44	<10
Chloride	mg/L	250*	NS	NS	7.4	--	120	11	75	75	*--	14	67	53	31	29
Total Cyanide	mg/L	0.2 ⁽³⁾	0.2	0.03	<0.010	--	<0.010	<0.010	<0.010	<0.010	*--	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate	mg/L	10	NS	NS	<0.050	--	<0.050	<0.050	<0.050	<0.050	*--	<0.050	<0.050	<0.050	<0.050	<0.050
Sulfate	mg/L	250 *	NS	NS	13	--	62	5.2	18	17	*--	41	4.6	12	17	24
Total Dissolved Solids	mg/L	500*	NS	NS	55	--	450	66	350	350	*--	160	320	320	240	170
Dissolved Metals																
Arsenic	mg/L	0.010	0.01	0.9	0.0020	--	0.0016	<0.0010	0.032	0.032	*--	0.0017	0.069	0.013	0.0011	<0.0010
Barium	mg/L	2	2	50	0.110	--	0.076	0.026	0.028	0.028	*--	0.018	0.140	0.030	0.079	0.034
Cadmium	mg/L	0.005	0.005	0.004	<0.0020	--	<0.0020	<0.0020	<0.0020	<0.0020	*--	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Calcium	mg/L	NS	NS	NS	2.3	--	59	7.7	47	47	*--	26	53	49	34	21
Chromium	mg/L	0.1	0.1	0.3	0.0062	--	0.005	<0.0040	<0.0040	<0.0040	*--	<0.0040	0.019	<0.0040	<0.0040	<0.0040
Copper	mg/L	1.3	NS	NS	<0.010	--	<0.010	<0.010	<0.010	<0.010	*--	<0.010	0.030	<0.010	<0.010	<0.010
Iron	mg/L	0.3*	NS	NS	6.1	--	4.4	1.7	20	20	*--	0.50	49	4.6	8.4	7.1
Lead	mg/L	0.015	0.015	0.01	0.0046	--	0.0027	<0.0010	<0.0010	<0.0010	*--	<0.0010	0.019	<0.0010	<0.0010	<0.0010
Manganese	mg/L	0.05*	NS	NS	0.12	--	0.28	0.47	6.0	6.0	*--	0.57	6.8	4.7	1.1	0.65
Mercury	mg/L	0.002	0.002	0.02	<0.00020	--	<0.00020	<0.00020	<0.00020	<0.00020	*--	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Selenium	mg/L	0.05	0.05	0.1	<0.025	--	<0.025	<0.025	<0.025	<0.025	*--	<0.025	<0.025	<0.025	<0.025	<0.025
Silver	mg/L	0.10*	0.1	0.007	<0.0060	--	<0.0060	<0.0060	<0.0060	<0.0060	*--	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Sodium	mg/L	20 **	NS	NS	4.4	--	41	3.1	38	39	*--	11	28	29	28	13
Zinc	mg/L	5*	5	0.9	0.025	--	0.066	0.014	<0.010	<0.010	*--	<0.010	0.057	<0.010	<0.010	<0.010
VOCs (EPA Method 522)																
1,4-Dioxane	µg/L	0.3**	0.3	50,000	1.2	--	0.39	<0.20	2.5	<0.20	*--	2.4	4.0	4.4	2.4	3.4
VOCs (EPA Method 8260)																
Chlorobenzene	µg/L	100	100	1,000	<1.0	--	1.6	<1.0	2.9	3.0	*--	<1.0	2.3	1.1	<1.0	<1.0
Chloroethane	µg/L	NS	NS	NS	<1.0	--	3.2	<1.0	<1.0	<1.0	*--	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	µg/L	70	70	50,000	<1.0	--	31	<1.0	2.0	2.1	*--	<1.0	1.4	2.2	<1.0	<1.0
Methyl tert-butyl ether	µg/L	70**	70	50,000	<1.0	--	<1.0	<1.0	<1.0	<1.0	*--	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	µg/L	5	5	30,000	<1.0	--	<1.0	<1.0	<1.0	<1.0	*--	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	µg/L	5	5	5,000	<1.0	--	<1.0	<1.0	<1.0	<1.0	*--	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	µg/L	2	2	50,000	<1.0	--	30	<1.0	5.8	6.1	*--	<1.0	2.4	1.5	<1.0	<1.0

QC by LEM 10/31/19

Notes:

(1) The Comparable Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standards Drinking Water Guideline

(2) Method 1 GW-1 and GW-3 Standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000, updated January 2015

(3) MMCL Standard is for free cyanide. Applying this standard to total cyanide is conservative.

< Parameter was below the laboratory method detection limit, shown.

BOLD The parameter was greater than the laboratory method detection limit.

BOLD The parameter did not meet the comparable standard.

-- Parameters not taken.

*-- Destroyed

*-- Obstructed

Abbreviations:

EPA Environmental Protection Agency

mg/L milligrams per liter

mS/cm milliSiemens per centimeter

µg/L micrograms per liter

NS No Standard

NA Not Analyzed

ND Not Detected

VOCs Volatile Organic Compounds

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Table 3
Surface Water Sampling Results
Dighton Sanitary Landfill
Dighton, Massachusetts
September 10, 2019

Parameter	Units	Massachusetts Surface Water Quality Standards ⁽¹⁾	Method 1 GW-3 Standard	PZ-1
Field Parameters				
Temperature	degrees C	NS	NS	16.4
pH	SU	6.5 - 8.3 (2)	NS	7.17
Specific Conductance	mS/cm	NS	NS	0.454
Dissolved Oxygen	mg/L	NS	NS	5.18
Inorganics				
Alkalinity as CaCO ₃	mg/L	20 (3)	NS	71
Chloride	mg/L	230	NS	83
Cyanide, Total (6)	mg/L	0.0052 (4)	0.03	<0.0050
Chemical Oxygen Demand	mg/L	NS	NS	27
Nitrate as Nitrogen	mg/L	NS	NS	0.10
Sulfate	mg/L	NS	NS	19
Total Dissolved Solids	mg/L	NS	NS	300
Hardness as calcium carbonate	mg/L	NS	NS	120
Total Metals				
Arsenic	mg/L	0.15	0.9	0.0012
Barium	mg/L	0.004 (5)	50	0.014
Cadmium	mg/L	0.00025	0.004	<0.00025
Calcium	mg/L	116 (5)	NS	35
Chromium	mg/L	0.011 (6)	0.3	<0.0040
Copper	mg/L	0.0093	NS	<0.0010
Iron	mg/L	1 (d)	NS	0.65
Lead	mg/L	0.0032	0.01	<0.0010
Manganese	mg/L	0.12 (5)	NS	0.23
Mercury	mg/L	0.00091	0.02	<0.00020
Selenium	mg/L	0.005	0.1	<0.0010
Silver	mg/L	0.00036 (5)	0.007	<0.00025
Sodium	mg/L	680 (5)	NS	37
Zinc	mg/L	0.12	0.9	<0.010
VOCs (EPA Method 522)				
1,4-Dioxane	µg/L	NS	50,000	0.74
VOCs (EPA Method 8260B)				
	µg/L	various	various	ND

QC by LEM 10/31/19

\\wse03.local\WSE\Projects\MA\Peabody\OldServer\LDighton\LF Mon FY20 2190\Reports\Fall 2019\Tables\Table 3-SW-0919.xls\1117

Notes:

(1) Criteria are taken from the "National Recommended Water Quality Criteria," (USEPA Office of Water, Office of Science and Technology, 2009) unless otherwise specified, are Criteria Continuous (chronic) Concentrations.

(2) The pH standard listed in 314 CMR 4.05(3)(b)(3) is the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the background range. Surface waters at the site, namely wetlands, are considered Unlisted waters, and are classified as Class B, High Quality Waters.

(3) The derivation of this value is presented in Red Book (EPA 440/9-76-023, July 1976). The CCC of 20 mg/L is a minimum value except where alkalinity is naturally lower, in which case the criterion cannot be lower than 25% of the natural level.

(4) The standard is for free cyanide.

(5) The listed standard is published in the "Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision," (ES/ER/TM-96/R2).

(6) No standard exists for total chromium. The chromium standard listed is the criterion continuous concentration for hexavalent chromium (Cr+6).

< Parameter was below the laboratory method detection limit, shown.

Bold The resulting concentration was greater than the laboratory method detection limit, shown.

Bold The resulting concentration is greater than the MA Surface Water Standards.

Abbreviations:

SU Standard Units
mS/cm milliSiemens per centimeter
mg/L milligrams per liter
µg/L micrograms per liter
µS/cm microSiemens per centimeter
NA Not Analyzed
NS No Standard
ND Not Detected
VOCs Volatile Organic Compounds
d dissolved

APPENDIX A
Historical Groundwater and Surface Water Data Tables

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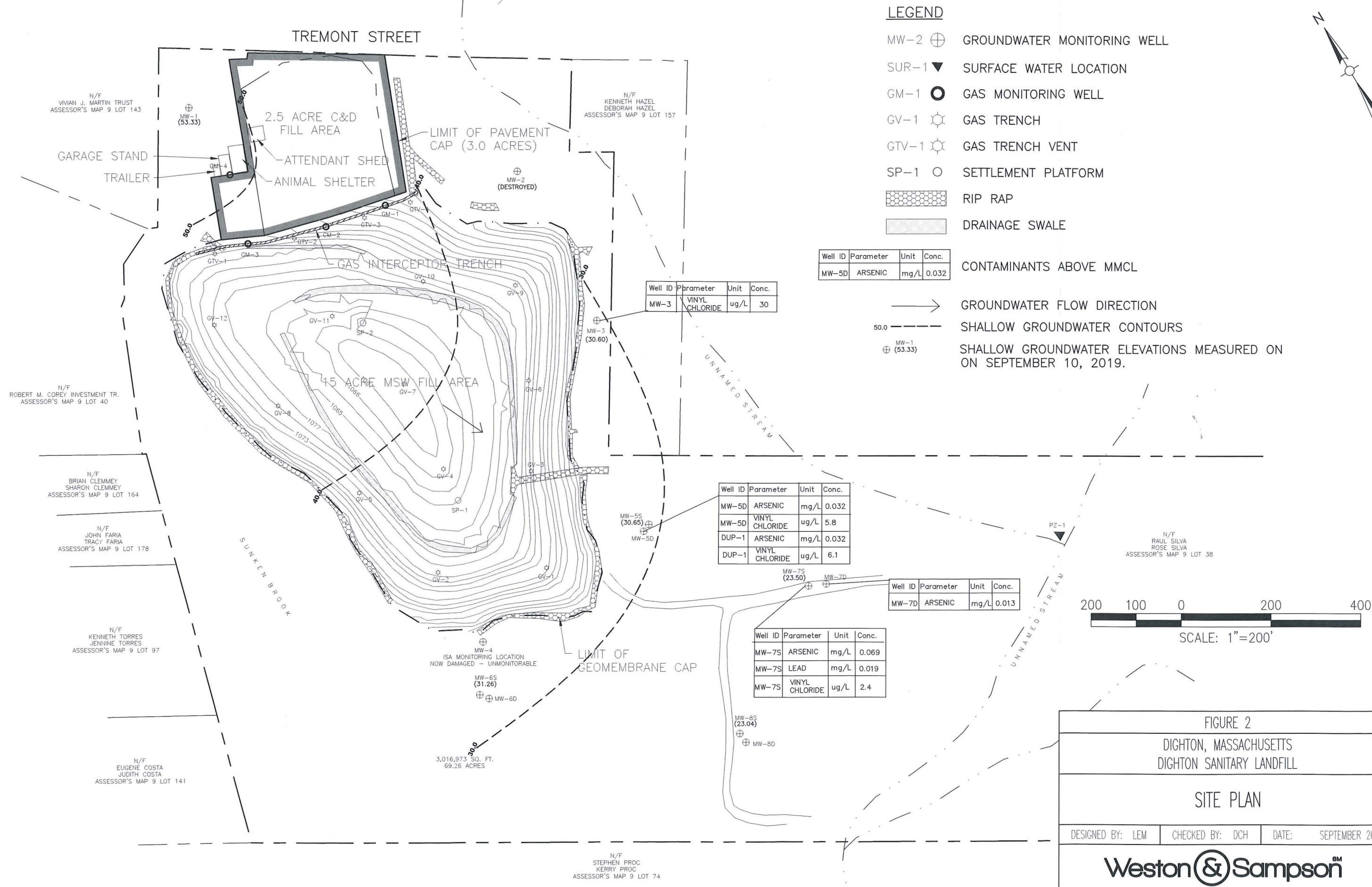


Table 1a
Groundwater Sampling Results, Monitoring Well MW-1
Dighton Landfill
Dighton, Massachusetts
November 2008 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	6/97	5/98	11/98	5/99	11/99	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	12/6/07	2/14/08 (Resampling Event)	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019	
Field Parameters																																				
Temperature	degrees C	NS	NS	NS	12.4	10.8	11.9	10.8	12.4	12.5	9.8	8.7	11.20	16.60	10.10	11.73	16.80	11.20	10.49	10.70	15.40	15.04	8.10	--	12.30	7.95	13.65	-	13.42	13.79	13.10	12.64	10.90	12.30	14.30	
pH	unitless	6.5-8.5*	NS	NS	4.71	4.49	3.93	5.80	4.21	3.5	6.16	4.16	5.66	5.11	4.64	5.10	6.35	4.63	5.17	4.05	7.48	6.29	4.67	--	6.52	6.83	3.80	-	3.06	3.46	4.86	3.65*	6.06	7.88	4.71	
Specific Conductivity	umhos/cm	NS	NS	NS	53	52	86	114	85	69	78	0.08	0.041	0.059	0.047	0.04 (mS/cm)	0.044 (mS/cm)	0.057 (mS/cm)	0.052 (mS/cm)	0.028 (mS/cm)	0.04 (mS/cm)	0.159 (mS/cm)	0.039 (mS/cm)	--	0.026 (mS/cm)	0.041 (mS/cm)	0.046 (mS/cm)	-	0.04 (mS/cm)	0.061	0.036	0.276	0.147	0.070	0.062	
Dissolved Oxygen	mg/l	NS	NS	NS	4.86	5.57	6.31	6.4	4.75	5.62	5.39	5.97	7.26	7.21	5.83	3.16	5.20	3.97	8.80	5.26	5.92	10.94	7.58	--	8.58	9.65	9.80	-	6.27	4.37	6.50	4.95	5.89	7.86	6.81	
Inorganics																																				
Alkalinity as CaCO3	mg/l	NS	NS	NS	4.4	ND	4.0	ND	ND	ND	ND	ND	ND	2.1	<1	<2	<2	<2	<2	<2	<2	<2	--	<2	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	<5.0	<5.0	<5.0	<10		
Chemical Oxygen Demand	mg/l	NS	NS	NS	120	88	150	51	96	72	52	47	70	67	5.1	210	20	64	97	38	81	50	2000	--	73	NA	84	74	<20	<20	<10	110	<10	<10		
Chloride	mg/l	250 *	NS	NS	3.8	3.8	5.4	ND	5.1	9.0	3.6	6.8	6.4	8.0	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Total Cyanide	mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.041	ND	ND	ND	ND	ND	ND	ND	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Nitrate as Nitrogen	mg/l	10	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	<0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
Sulfate	mg/l	250 *	NS	NS	7.8	ND	12	ND	ND	12	ND	11	ND	11	8.3	<10	16	<10	<10	<10	<10	<10	--	<10	7.5	8.6	12	16	9.4	13	18	11	<10	13		
Total Dissolved Solids	mg/l	500 *	NS	NS	38	34	ND	ND	43	18	43	46	16	62	72	<10	31	22	66	18	47	40	26	--	27	52	78	25	36	26	32	47	49	57	55	
Dissolved Metals:																																				
Arsenic	mg/l	0.01	0.01	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	<0.005	<0.010	<0.010	<0.010	<0.0010	<0.010	<0.0010	<0.0010	<0.0030	0.0020		
Barium	mg/l	2	2	50	0.03	0.14	0.11	0.07	0.12	ND	0.02	0.03	0.02	0.02	0.134	0.02	0.02	0.02	0.03	0.03	0.053	0.021	0.153	--	0.038	0.035	0.038	0.031	0.042	0.053	0.018	0.043	0.10	0.068	0.110	
Cadmium	mg/l	0.005	0.005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.00020		
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7	1.1	3.8	--	1.0	1.1	1	1.2	1.5	0.84	1.000	1.3	1.7	2.3		
Chromium	mg/l	0.1	0.1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	--	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0062		
Copper	mg/l	1.3	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.026	--	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0050		
Iron	mg/l	0.3 *	NS	NS	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND	23	0.11	0.59	<0.05	0.89	2.10	5.80	<0.05	33	--	<0.05	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	6.1	
Lead	mg/l	0.015	0.015	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.023	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0046		
Manganese	mg/l	0.05 *	NS	NS	0.02	0.03	0.03	0.13	0.04	0.035	0.01	0.02	0.01	0.01	0.4	0.03	0.09	0.02	0.01	0.04	0.103	0.01	0.596	--	0.011	0.012	0.015	0.011	0.018	0.014	0.015	0.11	0.069	0.12		
Mercury	mg/l	0.002	0.002	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020			
Selenium	mg/l	0.05	0.05	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	--	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.025	<0.0025	<0.025		
Silver	mg/l	0.1 *	0.1	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.02	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	--	<0.007	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	<0.0060			
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1	2.4	6.4	--	3.0	3.3	25	3.3	4.9	5.6	4.3	5	6.7	4.4		
Zinc	mg/l	5 *	5	0.9	0.02	0.09	0.07	0.05	0.07	0.075	ND	ND	ND	ND	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.102	--	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	0.020	0.11	0.033	0.025			
SVOCs (EPA Method 8270C) / VOCs (EPA Method 522)																																				
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	--	NA	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<1.6	<0.20	0.21	1.20	
VOCs (EPA Method 8260B)	µg/l	varies	varies	varies	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standard was changed from 0.05 mg/L to 0.01 mg/l in Spring 2001

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from µg/L to 0.3 µg/L in April 2014.

<= The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compound
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank
J Estimated concentration

Table 1a
Groundwater Sampling Results, Monitoring Well MW-2
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter		Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	6/97	5/98	11/98	5/99	11/99	11/00	3/01	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	8/9/07 (Resampling event)	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/13	11/13/17	10/16/18	9/10/19		
Field Parameters																																							
Temperature		degrees C	NS	NS	NS	13.0	11	11.1	11.8	12.5	13.4	6.5	12.2	11.2	14	14.80	10.50	11.81	11.30	12.80	11.00	12.00	13.20	17.61	NA	9.90	13.70	9.45	15.23	11.90	15.44	15.64	15.50	14.56	--	--	--	--	
pH		unitless	6.5-8.5*	NS	NS	6.29	6.25	5.62	6.30	5.73	5.80	6.50	5.50	5.40	7.70	6.80	5.68	6.50	6.67	6.27	6.17	6.16	5.92	6.43	NA	5.62	6.33	7.21	5.71	6.24	5.49	5.68	6.22	6.16	--	--	--	--	
Specific Conductivity		umhos/cm	NS	NS	NS	910	1610	95	1,070	70	683	673	999	0.568	0.481	0.435	0.499	0.391 (mS/cm)	0.172 (mS/cm)	0.367 (mS/cm)	0.455 (mS/cm)	0.306 (mS/cm)	0.236 (mS/cm)	0.303 (mS/cm)	NA	0.46 (mS/cm)	0.187 (mS/cm)	0.574 (mS/cm)	0.238 (mS/cm)	0.293 (mS/cm)	0.311 (mS/cm)	0.312	0.294	0.429	--	--	--		
Dissolved Oxygen		mg/l	NS	NS	NS	1.06	1.8	2.2	1.33	2.18	0.80	NA	4.52	4.52	6.32	2.01	2.14	2.27	2.30	1.88	2.74	1.65	1.41	4.12	NA	1.79	6.61	5.01	2.48	1.96	2.73	2.83	3.27	5.02	--	--	--		
Inorganics																																							
Alkalinity as CaCO ₃		mg/l	NS	NS	NS	240	450	260	300	230	220	210	200	170	140	130	180	110	100	100	120	100	110	88	NA	81	76	89	74	110	79	85	68	74	--	--	--		
Chemical Oxygen Demand		mg/l	NS	NS	NS	260	340	290	210	160	99	65	96	59	62	55	<4.0	150	45	150	74	36	41	80	NA	73	39	NA	200	33	<20	<20	<10	--	--	--			
Chloride		mg/l	250 *	NS	NS	43	59	100	ND	23	18	43	37	33	19	26	49	42	38	30	45	50	28	35	NA	16	23	76	32	70	46	35	56	77	--	--	--		
Total Cyanide		mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	<0.01	0.006	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--	--		
Nitrate as Nitrogen		mg/l	10	NS	NS	0.05	4.80	ND	ND	ND	0.14	ND	ND	ND	0.42	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	0.34	NA	<0.050	<0.050	<0.050	<0.050	<0.050	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	--	--	--		
Sulfate		mg/l	250 *	NS	NS	160	230	480	160	120	87	130	62	43	37	38	35	26	25	24	26	19	17	17	NA	250	18	19	14	27	22	16	15	20	--	--	--		
Total Dissolved Solids		mg/l	500 *	NS	NS	500	1200	1200	660	450	370	400	360	390	220	260	360	210	210	140	260	235	170	210	NA	540	150	250	160	280	190	180	220	260	--	--	--		
Dissolved Metals:																																							
Arsenic		mg/l	0.01	0.01	0.9	0.025	0.012	ND	ND	ND	0.036	ND	0.043	0.035	0.031	0.037	<0.05	0.027	0.036	0.016	0.028	0.047	0.017	0.023	0.037	<0.005	0.029	0.014	0.021	0.012	0.010	<0.0010	0.019	<0.010	--	--	--		
Barium		mg/l	2	2	50	0.08	0.230	0.21	0.17	0.69	ND	0.03	0.03	0.03	0.02	0.06	0.04	0.02	0.02	0.03	0.02	0.02	0.016	0.017	NA	0.037	0.016	0.031	<0.020	0.031	0.022	0.016	0.019	0.0240	--	--	--		
Cadmium		mg/l	0.005	0.005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	--	--	--		
Calcium		mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28	29	NA	80	24	52	24	49	32	28	30	34	--	--	--		
Chromium		mg/l	0.1	0.1	0.3	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040	--	--	--		
Copper		mg/l	1.3	NS	NS	ND	ND	0.01	ND	ND	ND	ND	ND	ND	ND	0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	--	--	--		
Iron		mg/l	0.3 *	NS	NS	30	40	ND	23	12	15	8.4	17	9.3	8.8	20	14	10	4.0	12.0	16.0	6.7	9.1	NA	1.00	9.30	9.90	6.50	9.8	4.7	6.8	9.5	4.6	--	--	--			
Lead		mg/l	0.015	0.015	0.01	ND	ND	ND	ND	ND	0.04	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--		
Manganese		mg/l	0.05 *	NS	NS	4.3	5.4	0.81	3.9	2.4	2.2	2.1	2.1	1.8	1.4	1.5	2.3	1.6	1.4	1.2	1.8	1.6	1.23	1.35	NA	1.74	1.14	2.4	1.2	2.5	1.7	1.4	1.6	2.0	--	--	--		
Mercury		mg/l	0.002	0.002	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--	--	--		
Selenium		mg/l	0.05	0.05	0.1	ND	ND	0.015	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	NA	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	--	--	--			
Silver		mg/l	0.1 *	0.1	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	NA	<0.007	<0.007	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0030	--	--	--			
Sodium		mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	20	25	25	39	32	26	34	--	--	--			
Zinc		mg/l	5 *	5	0.9	0.01	0.04	0.06	ND	ND	0.031	ND	ND	ND	ND	ND	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NA	0.14	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.023	--	--	--		
SVOCs (EPA Method 8270C) / VOCs (EPA Method 522)																																							
1,4-Dioxane		µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<1.6	--	--	--	
VOCs (EPA Method 8260B)																																							
Carbon disulfide		µg/l	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	--
Chlorobenzene		µg/l	100	100	1,000	ND	4.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	--	
cis-1,2-Dichloroethene		µg/l	70	70	50,000	1.9	2.0	ND	3.0	3.2	6.8	3.1	5.2	3.2	2.5	2.0	4.0	2.5	1.6	ND	2.1	1.7	1.8	1.3	NA	ND	1.3	1.6	1.7	1.9	1.4	1.6	1.3	1.0	--	--	--		
Methyl tert-butyl ether		µg/l	20-40 *	70	50,000	NA	13	ND	ND	ND	ND	ND	ND	1.4	ND	ND	7.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<5.0	<1.0	<1.0	<1.0	--	
Trichloroethene		µg/l	5	5	5,000	1.0	ND	ND	1.5	2.2	2.8	1.9	2.2	2.1	1.7	2.4	2.0	1.4	0.88	1.4	1.0	1.0	1.3	0.8	NA	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.3	--	--	--		

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Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standard was changed from 0.05 mg/L to 0.01 mg/L in Spring 2001

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from µg/L to 0.3 µg/L in April 2014.

<= The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

-- Destroyed

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-3
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	6/97	5/98	11/98	5/99	11/99	11/00	6/01	12/01	5/02	11/02	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019	
Field Parameters																																		
Temperature	degrees C	NS	NS	NS	12.7	11.1	11.6	11	12.5	13.3	10.6	11.1	13.2	13.80	11.23	11.60	11.70	10.38	10.90	12.30	13.95	9.10	12.00	8.20	15.60	10.54	14.68	15.07	14.92	13.62	11.30	14.30	14.40	
pH	unitless	6.5-8.5*	NS	NS	6.15	6.02	5.31	6.63	6.03	5.64	5.81	5.85	7.58	7.06	6.59	6.96	6.51	6.53	6.57	6.24	6.67	6.17	6.39	7.39	6.00	6.45	5.69	5.84	6.32	6.22	6.15	6.30	6.21	
Specific Conductivity	umhos/cm	NS	NS	NS	1490	1880	1620	1,240	1,080	1,360	1,210	1.07 (mS/cm)	0.645	0.554	0.418 (mS/cm)	0.3 (mS/cm)	0.455 (mS/cm)	0.266 (mS/cm)	0.136 (mS/cm)	0.163 (mS/cm)	0.176 (mS/cm)	0.35 (mS/cm)	0.149 (mS/cm)	0.213 (mS/cm)	0.257 (mS/cm)	0.104 (mS/cm)	0.208 (mS/cm)	0.233	0.158	0.484	0.259	0.234	0.670	
Dissolved Oxygen	mg/l	NS	NS	NS	1.39	2.8	2.1	3.16	2.89	2.13	3.27	7.69	6.84	4.37	3.21	2.98	6.58	2.14	4.66	2.32	6.42	6.37	8.44	5.17	11.72	7.48	4.17	3.97	5.01	3.13	5.07	6.21	2.82	
Inorganics																																		
Alkalinity as CaCO ₃	mg/l	NS	NS	NS	240	330	290	330	230	680	280	420	230	220	180	120	160	120	89	100	72	170	77	73	110	71	130	91	91	130	62	71	120	
Chemical Oxygen Demand	mg/l	NS	NS	NS	350	400	260	270	170	200	190	260	220	100	210	93	250	130	130	90	76	150	94	NA	180	90	35	<20	31	27	<10	18	47	
Chloride	mg/l	250 *	NS	NS	94	91	31	ND	35	77	37	72	16	11	6	5.8	9.0	2.9	1.4	4.9	3.7	38	7.4	2.5	18	2.5	48.0	7.8	9.1	57	22	27	120	
Total Cyanide	mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Nitrate as Nitrogen	mg/l	10	NS	NS	0.10	2.70	0.18	ND	1.2	ND	0.2	ND	0.95	0.64	0.22	1.0	0.13	<0.1	<0.1	<0.1	0.66	<0.1	0.19	<0.050	<0.050	<0.050	0.052	<0.050	<0.050	0.051	<0.050	<0.050		
Sulfate	mg/l	250 *	NS	NS	440	370	130	230	320	130	100	63	80	66	42	36	54	25	<10	13	13	44	23	8.6	31	11	57	17	19	57	20	62		
Total Dissolved Solids	mg/l	500 *	NS	NS	1100	1600	510	880	730	770	630	760	430	410	270	210	250	200	200	170	130	54	180	140	220	150	340	160	200	350	550	160	450	
Dissolved Metals:																																		
Arsenic	mg/l	0.01	0.01	0.9	0.005	ND	ND	ND	ND	ND	0.015	0.03	ND	ND	<0.01	<0.005	<0.005	<0.005	0.005	<0.005	0.006	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	0.0016	
Barium	mg/l	2	2	50	0.14	0.230	0.18	0.2	0.15	ND	0.07	0.12	0.04	0.04	0.04	0.03	0.04	0.02	0.03	0.019	0.038	0.05	0.027	0.02	0.032	0.016	0.051	0.024	0.020	0.051	0.018	0.17	0.076	
Cadmium	mg/l	0.005	0.005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.00050	<0.0020		
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	21	57	27	46	25	64	34	28	59	25	33	59	
Chromium	mg/l	0.1	0.1	0.3	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040	<0.0040	0.028	0.005		
Copper	mg/l	1.3	NS	NS	0.02	0.02	ND	0.01	ND	ND	ND	0.01	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.036	<0.010		
Iron	mg/l	0.3 *	NS	NS	0.03	0.36	19	ND	0.1	ND	ND	2.9	ND	ND	<0.05	<0.05	0.45	<0.05	4.2	0.35	12.0	0.84	5.20	0.43	<0.10	<0.10	<0.10	<0.10	0.57	0.17	0.081	28	4.4	
Lead	mg/l	0.015	0.015	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	0.030	0.0027		
Manganese	mg/l	0.05 *	NS	NS	0.69	0.58	3.0	0.17	0.13	ND	1.0	3.7	ND	ND	<0.01	<0.01	0.24	0.02	0.11	0.011	0.355	0.422	0.106	0.011	0.11	<0.010	0.42	0.03	0.19	0.21	0.089	0.540	0.28	
Mercury	mg/l	0.002	0.002	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Selenium	mg/l	0.05	0.05	0.1	0.012	ND	0.016	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.025	0.0030	<0.025		
Silver	mg/l	0.1 *	0.1	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	<0.0060		
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	2.6	23	4.4	3.2	12	3.5	23	7.7	5.9	25	11	13	41
Zinc	mg/l	5 *	5	0.9	ND	0.08	0.06	0.06	ND	0.048	ND	ND	ND	ND	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.125	0.125	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	0.049	0.062	0.14	0.066		
SVOCs (EPA Method 8270C) /VOCs (EPA Method 522)																																		
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	1.6	0.20	<0.20	0.39	
VOCs (EPA Method 8260B)																																		
Benzene	µg/l	5	5	10,000	ND	ND	ND	ND	ND	3.5	1.0	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	
Chlorobenzene	µg/l	100	100	1,000	ND	ND	ND	ND	ND	4.9	1.7	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	<1.0	<1.0	<1.0	1.6	
Chloroethane	µg/l	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	<2.0	<1.0	<1.0	<1.0	3.2	
Ethyl Ether	µg/l	NS	NS	NS	ND	ND	ND	ND	ND	ND	3.5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	
cis-1,2-Dichloroethene	µg/l	70	70	50,000	2.2	ND	3.7	ND	ND	ND	ND	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.9	<1.0	<1.0	<1.0	1.8	31	
Methyl tert-butyl ether	µg/l	20-40 *	70	50,000	ND	ND	ND	ND	ND	3.1	0.9	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	µg/l	5	5	30,000	ND	ND	ND	ND	ND	ND	ND	0.58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trichloroethene	µg/l	5	5	5,000	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Vinyl Chloride	µg/l	2	2	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	ND	ND	9.8	ND	18	<0.50	<1.0	15	<1.0	<1.0	30	

\\wse03.local\WSE\Projects\MA_PeabodyOldServer\Dighton\LF Mon FY20 2190xxx\Reports\Fall 2019\Appendix A-Historical Data[Dighton LF Historic GW thru 0919.xls]MW-

Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standard was changed from 0.05 mg/L to 0.01 mg/l in Spring 2001

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3 µg/L to 0.3 µg/L in April 2014.

< = The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-55
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	6/97	5/98	11/98	5/99	11/99	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	8/9/07 Resampling Event	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019	
Field Parameters																																				
Temperature	degrees C	NS	NS	NS	14.1	10.9	9.6	12.3	11.4	12.0	12	10.1	11.6	13.20	10.20	7.40	10.60	11.10	9.02	11.20	11.80	16.70	NA	6.10	12.10	7.11	16.53	9.36	14.79	15.65	15.52	14.38	9.17	14.30	15.70	
pH	unitless	6.5-8.5 *	NS	NS	6.51	6.96	5.33	7.30	6.52	5.29	6.80	6.72	6.40	6.16	6.52	6.73	6.21	5.64	6.88	6.50	6.58	NA	6.85	6.51	6.57	5.36	5.85	5.68	5.46	6.87	7.36	5.28	5.65	5.89		
Specific Conductivity	umhos/cm	NS	NS	NS	358	281	214	223	206	220	170	0.163 (mS/cm)	0.131 (mS/cm)	0.078 (mS/cm)	0.067 (mS/cm)	0.066 (mS/cm)	0.104 (mS/cm)	0.069 (mS/cm)	0.069 (mS/cm)	0.061 (mS/cm)	0.046 (mS/cm)	0.075 (mS/cm)	NA	0.044 (mS/cm)	0.044 (mS/cm)	0	0.073 (mS/cm)	0.125 (mS/cm)	0.126 (mS/cm)	0.076	0.081	0.116	0.089	0.056	0.109	
Dissolved Oxygen	mg/l	NS	NS	NS	2.39	2.4	6.7	6.36	6.1	2.55	NA	5.73	6.3	7.79	7.99	3.21	4.12	5.81	6.78	7.47	6.20	6.67	NA	6.31	9.11	6.82	4.31	5.92	5.19	5.46	6.37	4.16	5.54	5.49	2.45	
Inorganics																																				
Alkalinity as CaCO ₃	mg/l	NS	NS	NS	77	41	33	26	29	31	13	28	14	13	21	8.5	15	8.8	13	37	16	27	NA	16	16	21	17	22	38	17	29	33	6.3	13.0	<10	
Chemical Oxygen Demand	mg/l	NS	NS	NS	140	120	91	41	120	52	ND	74	120	70	17	27	43	110	67	92	34	55	NA	92	69	NA	72	51	<20	<20	<20	<10	<10	<10		
Chloride	mg/l	250 *	NS	NS	25	16	9.2	ND	9.5	7.5	6.6	8.0	9.6	6.6	<5.0	2.6	2.0	2.3	<1	3.8	1.8	NA	4.1	3	1.7	2.5	2.3	12	3	4.4	5.5	8	5.1	11		
Total Cyanide	mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	ND	NA	0.006	ND	ND	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Nitrate as Nitrogen	mg/l	10	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA	<0.1	0.14	0.27	0.12	0.070	<0.050	0.085	<0.050	<0.050	<0.050	0.082	<0.050		
Sulfate	mg/l	250 *	NS	NS	47	45	39	40	41	49	15	ND	19	18	13	15	<10	18	<10	<10	<10	<10	NA	14	<10	4.4	9.6	7.9	18	7.4	18	20	7.1	5.0	5.2	
Total Dissolved Solids	mg/l	500 *	NS	NS	220	160	130	140	140	100	77	190	52	110	68	11	46	22	87	<10	40	71	NA	290	55	64	67	62	100	74	94	62	66	38	66	
Dissolved Metals:																																				
Arsenic	mg/l	0.01	0.01	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	0.025	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.0083	<0.0010		
Barium	mg/l	2	2	50	0.03	0.17	0.14	0.15	0.12	ND	0.01	0.01	0.01	0.02	0.023	0.03	0.03	0.02	0.02	0.01	0.016	0.148	NA	0.015	0.013	0.014	<0.020	0.014	0.036	0.013	0.018	0.014	0.14	0.15	0.026	
Cadmium	mg/l	0.005	0.005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.00050	<0.0020		
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.7	12	NA	9.4	7.6	9.9	9	10	19	7.7	12	8.2	8.5	7.7		
Chromium	mg/l	0.1	0.1	0.3	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	NA	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040	<0.0040	0.016	<0.0040			
Copper	mg/l	1.3	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.034	NA	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.015	<0.010		
Iron	mg/l	0.3 *	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	0.43	0.11	0.32	<0.05	0.25	<0.05	43	NA	0.16	0.07	0.20	<0.10	<0.10	0.22	<0.10	0.12	0.08	<0.050	18	1.7	
Lead	mg/l	0.015	0.015	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.031	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0016	0.014	<0.0010			
Manganese	mg/l	0.05 *	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.04	0.02	0.32	0.05	<0.01	0.01	<0.01	0.949	NA	0.073	<0.01	<0.01	<0.010	<0.010	0.017	0.037	0.056	0.51	0.47			
Mercury	mg/l	0.002	0.002	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020			
Selenium	mg/l	0.05	0.05	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	NA	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.025	<0.0025	<0.025		
Silver	mg/l	0.1 *	0.1	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.02	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	NA	<0.007	<0.007	<0.0050	<0.0050	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	<0.0060				
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	3.2	<2	<2	2.9	2.2	7.3	3.0	5.8	7.8	4.9	5.1	3.1	
Zinc	mg/l	5 *	5	0.9	0.01	0.37	ND	ND	ND	0.039	ND	ND	ND	ND	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.117	NA	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	0.018	0.026	0.058	0.014		
SVOs (EPA Method 8270C) /VOCs (EPA Method 522)																																				
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<1.6	<0.20	<0.20	<0.20	
VOCs (EPA Method 8260B)																																				
Tetrachloroethene	µg/l	5	5	30,000	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	0.64	ND	0.52	ND	1.1	1.1	2.0	<1.0	1.2	1.0	<1.0	<1.0	<1.0	
Vinyl Chloride	µg/l	2	2	50,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	

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BOLD The resulting concentration was greater than the laboratory detection limit.

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VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Parameter		Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	3/00																			12/3/04 VOC Resampling	8/07 Resampling Event	8/07														
						6/97	5/98	11/98	5/99	11/99	Resampling per DEP Request	11/00	Resampling per DEP Request	6/01	Resampling per DEP Request	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06			11/30/06	5/24/07	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019	
Field Parameters																																									
Temperature	degrees C	NS	NS	NS	NS	10.5	10.9	11.6	11.2	12.5	NA	12.5	6.8	11.9	13.4	11.1	12.3	14.00	10.20	11.93	10.20	11.40	NA	9.33	9.80	12.80	15.41	NA	9.50	13.60	9.49	12.06	9.81	12.17	11.42	11.80	9.68	10.06	11.70	11.70	
pH	unitless	6.5-8.5*	NS	NS	NS	6.23	6.23	5.72	6.32	5.91	NA	5.76	6.41	5.73	6.01	5.74	8.03	6.97	6.28	6.38	6.55	6.28	NA	5.95	6.40	6.29	6.63	NA	6.31	6.37	6.68	6.05	6.29	5.72	5.94	6.71	6.54	6.13	6.26	6.63	
Specific Conductivity	umhos/cm	NS	NS	NS	NS	1410	1480	1480	1,520	1,690	NA	1,520	851	1,980	1,207	1.98 (mS/cm)	1.14 (mS/cm)	1.21 (mS/cm)	0.99 (mS/cm)	0.888 (mS/cm)	0.404 (mS/cm)	0.331 (mS/cm)	NA	0.216 (mS/cm)	0.402 (mS/cm)	0.428 (mS/cm)	0.508 (mS/cm)	NA	0.507 (mS/cm)	0.436 (mS/cm)	0.445 (mS/cm)	0.503 (mS/cm)	0.273 (mS/cm)	0.514 (mS/cm)	0.468	0.416	0.436	0.478	0.688	0.500	0.500
Dissolved Oxygen	mg/l	NS	NS	NS	NS	0.17	0.17	4.88	1.87	11.8	NA	1.22	NA	1.96	NA	1.7	3.54	1.18	2.24	2.81	1.51	1.84	NA	6.78	5.67	1.99	9.79	NA	1.84	5.96	4.53	2.87	3.07	4.26	0.14	5.15	2.87	3.02	4.98	4.52	
Inorganics																																									
Alkalinity as CaCO3	mg/l	NS	NS	NS	NS	590	570	620	600	650	NA	550	520	490	NA	540	470	460	420	370	370	380	NA	300	270	250	290	NA	320	290	170	260	190	270	220	230	230	230	210	190	
Chemical Oxygen Demand	mg/l	NS	NS	NS	NS	130	380	220	160	210	NA	130	110	75	NA	120	95	83	68	58	70	90	NA	60	38	45	36	NA	39	39	NA	40	27	37	20	26	10	<10	14	26	
Chloride	mg/l	250 *	NS	NS	NS	120	80	100	ND	100	NA	88	76	71	NA	86	64	64	50	46	46	44	NA	33	31	24	32	NA	41	31	18	30	19	42	23	31	45	46	66	75	
Total Cyanide	mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	<0.01	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	<0.005	<0.005	NA	<0.010	<0.010	<0.010	<0.010	<0.010	0.027	<0.010	0.014	<0.010	
Nitrate as Nitrogen	mg/l	10	NS	NS	NS	6.29	ND	ND	ND	ND	NA	NA	ND	ND	ND	NA	0.11	ND	ND	<0.01	<0.1	<0.1	NA	<0.1	<0.1	<0.1	0.15	NA	<0.1	<0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.089	<0.050	<0.050		
Sulfate	mg/l	250 *	NS	NS	NS	75	71	71	79	100	NA	74	120	61	58	NA	55	68	59	42	34	28	NA	31	29	24	24	NA	29	24	24	24	24	24	22	27	8.5	18	18	18	
Total Dissolved Solids	mg/l	500 *	NS	NS	NS	810	860	880	870	900	NA	740	860	810	NA	1000	630	650	540</																						

BOLD The resulting concentration was greater than the laboratory detection limit

[illegible]

SU	Standard Units
µg/l	micrograms per liter (parts per billion)
mg/l	milligrams per liter (parts per million)
mS/cm	milliSiemens per centimeter
VOCs	Volatile Organic Compounds
NS	Not Standard
ND	Not Detected
NA	Not Analyzed
B	Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-6S
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	6/97	5/98	11/98	5/99	11/99	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	12/6/07	2/14/08 Resampling Event	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019	
Field Parameters																																				
Temperature	degrees C	NS	NS	NS	12.8	11.1	9.9	9.9	10.9	11.8	10.6	9.3	11.3	12.30	9.30	9.80	8.90	10.90	9.62	11.20	14.30	12.63	4.80	NA	15.50	6.48	16.37	9.81	Dry	15.44	15.24	13.89	13.20	13.90	--	
pH	unitless	6.5-8.5*	NS	NS	6.51	7.68	7.04	6.73	5.81	5.15	6.25	6.75	7.84	7.05	9.05	6.62	6.80	6.58	5.46	8.85	9.16	9.66	8.91	NA	6.31	6.51	5.43	5.28	Dry	5.52	5.78	7.58	5.92	5.91	--	
Specific Conductivity	umhos/cm	NS	NS	NS	110	97	111	97	112	164	176	0.130 (mS/cm)	0.085 (mS/cm)	0.108 (mS/cm)	0.113 (mS/cm)	0.076 (mS/cm)	0.088 (mS/cm)	0.101 (mS/cm)	0.074 (mS/cm)	0.033 (mS/cm)	0.052 (mS/cm)	0.09 (mS/cm)	0.078 (mS/cm)	NA	0.67 (mS/cm)	0.071 (mS/cm)	0.109 (mS/cm)	0.032 (mS/cm)	Dry	0.078	0.058	0.076	0.074	0.065	--	
Dissolved Oxygen	mg/l	NS	NS	NS	2.71	5.18	5.23	4.09	3.79	3.17	4.71	6.67	6.75	9.07	0.04	4.89	4.70	5.92	9.78	7.68	5.18	9.08	9.27	NA	7.29	7.50	2.57	5.52	Dry	4.59	5.32	3.42	3.89	6.93	--	
Inorganics																																				
Alkalinity as CaCO3	mg/l	NS	NS	NS	20	11	15	11	14	28	16	13	10	14	15	16	14	13	11	6.6	5.4	13	18	NA	14	7.3	16	8.2	Dry	11.0	13	10	7.6	<5.0	--	
Chemical Oxygen Demand	mg/l	NS	NS	NS	47	ND	43	26	49	ND	24	200	ND	ND	4.3	27	<20	<20	<20	<20	<20	160	180	NA	<20	NA	38	33	Dry	<20	<20	<10	18	<10	--	
Chloride	mg/l	250 *	NS	NS	8.2	7.8	8	ND	11	10	7.9	9.9	5.7	7.0	7.1	5.6	5.6	5.8	5.2	2.7	4.4	5.4	6.8	NA	6.4	4.6	5.8	4.3	Dry	5.5	5.6	7.0	12	7.6	--	
Total Cyanide	mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	NA	<0.010	<0.010	Dry	<0.010	<0.010	<0.010	<0.010	<0.010	--	
Nitrate as Nitrogen	mg/l	10	NS	NS	0.15	0.44	ND	ND	ND	ND	0.14	ND	ND	ND	0.04	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	NA	<0.050	<0.050	<0.050	<0.050	Dry	<0.050	<0.050	<0.050	<0.050	<0.050	--	
Sulfate	mg/l	250 *	NS	NS	14	14	16	13	21	18	16	18	13	20	17	15	15	15	10	<10	24	29	NA	17	10	16	13	14	Dry	13	14	16	13	8.7	--	
Total Dissolved Solids	mg/l	500 *	NS	NS	59	65	46	46	65	30	71	200	56	120	64	45	52	53	89	54	48	87	70	NA	66	20	80	49	Dry	52	65	99	42	230	--	
Dissolved Metals:																																				
Arsenic	mg/l	0.01	0.01	0.9	ND	ND	ND	ND	ND	ND	ND	0.006	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.010	<0.010	<0.010	Dry	<0.010	<0.0010	<0.010	<0.0010	0.0049	--	
Barium	mg/l	2	2	50	ND	0.2	0.13	0.12	0.12	ND	ND	ND	ND	ND	0.007	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	0.011	<0.020	<0.010	Dry	<0.010	0.018	0.0049	0.0039	0.053	--	
Cadmium	mg/l	0.005	0.005	0.004	0.14	0.01	ND	ND	0.01	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.114	0.026	<0.005	<0.010	<0.010	Dry	<0.0010	<0.0010	<0.0010	0.023	0.0039	--		
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.5	8.2	7.8	NA	20	5.3	8	6.0	Dry	7.0	5.9	7.7	6.3	8.0	--		
Chromium	mg/l	0.1	0.1	0.3	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.0050	<0.0050	<0.0050	Dry	<0.0050	<0.0050	<0.0040	0.0040	0.0077	--	
Copper	mg/l	1.3	NS	NS	ND	0.01	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.010	<0.010	<0.010	Dry	<0.010	<0.010	<0.010	0.010	0.013	--	
Iron	mg/l	0.3 *	NS	NS	0.3	0.16	0.14	0.24	9.3	0.97	ND	7.6	0.05	ND	0.33	<0.05	2.8	0.89	0.22	0.89	<0.05	<0.01	4.1	3.4	NA	0.93	0.27	1.4	0.19	Dry	<0.10	2.4	5.4	<0.050	14	--
Lead	mg/l	0.015	0.015	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NA	<0.01	<0.0050	<0.0050	<0.0050	Dry	<0.0050	<0.0050	<0.0010	0.011	0.011	--	
Manganese	mg/l	0.05 *	NS	NS	0.18	0.07	0.08	0.11	0.05	0.49	0.01	0.48	0.01	ND	<0.02	0.02	0.10	0.01	0.01	<0.01	0.016	0.041	0.16	NA	0.889	0.018	0.3	0.015	Dry	0.140	0.28	0.17	0.064	0.19	--	
Mercury	mg/l	0.002	0.002	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA	<0.0002	<0.00020	<0.00020	<0.00020	Dry	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	--		
Selenium	mg/l	0.05	0.05	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	NA	<0.01	<0.010	<0.010	<0.010	Dry	<0.010	<0.010	<0.015	<0.025	<0.0025	--	
Silver	mg/l	0.1 *	0.1	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.02	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	NA	<0.007	<0.0050	<0.0050	<0.0050	Dry	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	--	
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.7	4.3	7.7	NA	8.5	5	7.2	4.5	Dry	6.9	6.2	6.4	6.8	7.9	--	
Zinc	mg/l	5 *	5	0.9	0.1	0.17	0.06	0.24	0.06	0.026	0.026	0.026	ND	ND	<0.02	<0.05	0.06	0.09	<0.05	<0.05	<0.05	<0.05	0.544	NA	<0.05	<0.050	<0.050	<0.050	Dry	<0.050	<0.050	0.046	0.041	0.048	--	
SVOCs (EPA Method 8270C) / VOCs (EPA Method 522)																																				
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	<3.0	Dry	<3.0	<5.0	<3.2	<0.20	1.9	--	
VOCs (EPA Method 8260B)	µg/l	varies	varies	varies	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	Dry	ND	ND	ND	ND	ND	--

\\wse03.local\WSE\Projects\MAI_PeabodyOldServer\Dighton\LF Mon FY20 2190xx\Reports\Fall 2019\Appendix A-Historical Data\Dighton LF Historic GW thru 0919.xls\MV

Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standard was changed from 0.05 mg/L to 0.01 mg/L in Spring 2001

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3µg/L to 0.3 µg/L in April 2014.

< = The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

-- Well was obstructed

Abbreviations
SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-6D
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	6/97	5/98	11/98	5/99	11/99	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019	
Field Parameters																																			
Temperature	degrees C	NS	NS	NS	10.6	10.3	10.1	9.8	10.8	10.8	10	9.5	10.2	12.80	10.50	10.08	9.20	9.90	9.89	9.60	14.80	17.90	8.50	11.60	9.30	11.93	10.81	11.12	10.85	10.94	10.16	9.14	10.80	11.20	
pH	unitless	6.5-8.5*	NS	NS	10.36	10.35	7.55	9.96	7.34	8.27	10.16	7.32	8.09	7.97	9.61	10.33	11.28	11.42	11.89	11.37	10.96	11.28	9.25	8.27	10.01	5.41	6.79	5.30	9.93	5.95	6.41	6.21	5.94	7.17	
Specific Conductivity	umhos/cm	NS	NS	NS	272	389	238	270	230	259	809	0.238 (mS/cm)	0.236 (mS/cm)	0.259 (mS/cm)	0.362 (mS/cm)	0.298 (mS/cm)	1.3 (mS/cm)	0.629 (mS/cm)	0.907 (mS/cm)	0.507 (mS/cm)	0.34 (mS/cm)	0.38 (mS/cm)	0.168 (mS/cm)	0.156 (mS/cm)	0.249 (mS/cm)	0.184 (mS/cm)	0.398 (mS/cm)	0.161	0.179	0.154	0.200	0.187	0.216	0.224	
Dissolved Oxygen	mg/l	NS	NS	NS	3.94	1.41	0.46	2.43	4.81	1.33	1.33	2.68	2.39	4.38	0.40	1.91	3.91	1.80	2.87	2.44	2.97	8.75	1.87	5.84	7.33	6.11	9.12	3.51	7.38	5.64	12.08	6.90	3.22	3.74	
Inorganics																																			
Alkalinity as CaCO3	mg/l	NS	NS	NS	60	75	63	48	36	44	100	74	54	69	270	64	270	140	150	170	140	140	54	58	44	49	49	45	43	41	45	45	49		
Chemical Oxygen Demand	mg/l	NS	NS	NS	ND	450	260	21	160	150	29	400	410	ND	<4.0	210	58	180	110	110	93	<20	<20	41	NA	<20	65	<20	<20	<10	<10	<10	<10		
Chloride	mg/l	250 *	NS	NS	13	11	10	ND	10	12	12	12	12	11.0	9.1	9.7	6.9	8.6	5.7	8.5	8.1	8.7	12	12	12	12	12	12	12	13	13	13	14		
Total Cyanide	mg/l	0.2	0.2	0.03	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Nitrate as Nitrogen	mg/l	10	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18	<0.01	<0.1	<0.1	<0.1	0.38	<0.1	<0.1	<0.1	<0.1	<0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
Sulfate	mg/l	250 *	NS	NS	45	40	43	45	36	53	40	43	45	46	19	52	<10	29	21	30	28	32	47	48	47	48	51	53	42	46	46	43	43	41	
Total Dissolved Solids	mg/l	500 *	NS	NS	160	190	130	130	130	130	200	290	140	210	320	140	320	160	170	180	190	220	140	170	120	160	180	170	150	140	190	160	160		
Dissolved Metals:																																			
Arsenic	mg/l	0.01	0.01	0.9	ND	ND	ND	ND	ND	ND	ND	0.007	0.056	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0010	0.0013	<0.0030	0.0017	
Barium	mg/l	2	2	50	0.04	0.36	0.25	0.21	0.2	ND	0.02	0.01	0.05	0.01	0.032	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.019	<0.020	0.022	0.020	0.014	0.014	0.018	0.021	0.018		
Cadmium	mg/l	0.005	0.005	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	<0.00050	<0.00020		
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41	86	34	30	27	29	27	22	26	25	26	25	26		
Chromium	mg/l	0.1	0.1	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0040	<0.0040	<0.0010	<0.0040			
Copper	mg/l	1.3	NS	NS	ND	0.01	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Iron	mg/l	0.3 *	NS	NS	ND	0.31	0.13	ND	1.0	0.16	ND	1.4	19	ND	0.19	<0.05	0.19	<0.05	<0.05	<0.05	<0.05	0.65	<0.05	0.62	0.96	0.39	0.66	0.84	1.10	1.3	0.099	1.3	0.50		
Lead	mg/l	0.015	0.015	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0018	<0.0025	<0.0010		
Manganese	mg/l	0.05 *	NS	NS	ND	0.29	0.75	0.03	1.6	0.17	ND	1.5	11	0.34	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.067	0.6	0.8	0.65	0.72	0.67	0.80	1.1	0.5	1.1	0.57		
Mercury	mg/l	0.002	0.002	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.0005	<0.0005	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020			
Selenium	mg/l	0.05	0.05	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.015	<0.025	<0.0025	<0.025			
Silver	mg/l	0.1 *	0.1	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.02	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	<0.0060			
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	12	13	11	13	13	14	13	10	11	11	12	11		
Zinc	mg/l	5 *	5	0.9	ND	0.23	0.05	ND	ND	ND	ND	ND	ND	ND	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.010	0.053	<0.020	<0.010		
SVOcs (EPA Method 8270C) /VOCs (EPA Method 522)																																			
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	<1.6	<0.20	<0.20	2.4	
VOCs (EPA Method 8260B)																																			
Carbon Disulfide	µg/l	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

\\wse03.local\WSE\Projects\MA\PeabodyOldServer\Dighton\LF Mon FY20 2190\ox\Reports\Fall 2019\Appendix A-Historical Data[Dighton LF Historic GW thru 0919.xls]MW-1

Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standard was changed from 0.05 mg/L to 0.01 mg/l in Spring 2001.

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3 µg/L to 0.3 µg/L in April 2014.

< = The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-7S
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	11/00	6/01	8/01 Resampling Event	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	12/3/04 Resampling Event	5/19/05	6/8/06	11/30/06	5/24/07	8/9/07 Resampling Event	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/13	11/13/17	10/16/18	9/10/19				
Field Parameters																																				
Temperature	degrees C	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	10.40	9.50	11.30	NA	10.60	9.40	12.40	11.38	NA	7.90	12.90	8.61	13.55	9.12	13.58	12.93	13.54	13.56	10.09	13.00	13.60				
pH	unitless	6.5-8.5*	NS	NS	NA	NA	NA	NA	NA	NA	NA	6.54	6.53	6.37	NA	6.12	6.39	6.47	6.39	NA	6.68	6.58	6.64	6.14	6.31	5.66	5.78	6.76	6.56	6.87	6.17	6.68				
Specific Conductivity	umhos/cm	mS/cm	NS	NS	NA	NA	NA	NA	NA	NA	NA	1.104	1.100	1.1	NA	0.963	0.614	0.586	0.212	NA	0.538	0.493	0.764	0.569	0.398	0.555	31.7	0.502	0.562	0.531	0.445	0.670				
Dissolved Oxygen	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	3.10	2.55	1.56	NA	2.22	0.99	1.19	4.87	NA	2.04	5.89	1.59	1.60	1.88	1.67	3.22	2.38	3.50	3.03	2.68	6.05				
Inorganics							NA																													
Alkalinity as CaCO ₃	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	280	280	260	260	240	220	220				
Chemical Oxygen Demand	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44	39	35	<10	11	15	26				
Chloride	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	31	30	32	38	44	67				
Total Cyanide	mg/l	0.2	0.2	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010			
Nitrate as Nitrogen	mg/l	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.089	<0.050	<0.050	<0.050	1.3	0.076	<0.050				
Sulfate	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16	14	14	14	3.8	4.8	4.6			
Total Dissolved Solids	mg/l	500 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	340	340	330	300	280	290	320			
Dissolved Metals:							NA																													
Arsenic	mg/l	0.01	0.01	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.059	0.05	0.046	0.055	0.0046	0.089	0.069			
Barium	mg/l	2	2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.048	0.046	0.039	0.044	0.048	0.260	0.140			
Cadmium	mg/l	0.005	0.005	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0010	<0.0010	<0.0010	<0.0010	<0.0020	0.0011	<0.0020			
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56	59	50	47	45	66	53			
Chromium	mg/l	0.1	0.1	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.0040	<0.0040	0.030	0.019			
Copper	mg/l	1.3	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010	<0.010	<0.010	0.071	0.030			
Iron	mg/l	0.3 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	20	17	18	<0.050	58	49			
Lead	mg/l	0.015	0.015	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.0010	0.043	0.019			
Manganese	mg/l	0.05 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.0	6.9	6.4	6.6	5.7	8.0	6.8			
Mercury	mg/l	0.002	0.002	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020			
Selenium	mg/l	0.05	0.05	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010	<0.015	<0.025	0.0045	<0.025			
Silver	mg/l	0.1 *	0.1	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	<0.0060			
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35	34	27	28	26	30	28			
Zinc	mg/l	5 *	5	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.050	<0.050	<0.050	<0.010	0.011	0.091	0.057			
SVOCs (EPA Method 8270C) /VOCs (EPA Method 522) 1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	4.0	4.3	3.9	3.3	2.3	1.5	4.5	4.0
VOCs (EPA Method 8260B)																																				
Benzene	µg/l	5	5	10,000	2.5	2.3	2.3	2.1	1.9	1.8	ND	1.2	1.3	1.0	1.2	0.98	0.84	0.79	0.83	NA	0.79	0.74	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0			
Chlorobenzene	µg/l	100	100	1,000	6.1	6.0	6.0	6.2	4.3	5.2	5.0	3.5	4.0	3.5	3.8	3.4	3.1	3	3.5	NA	3.4	2.9	2.8	3.0	ND	2.9	2.9	2.8	2.6	2.1	1.8	2.3				
Chloroethane	µg/l	NS	NS	NS	ND	4.1	4.2	ND	3.2	ND	ND	ND	2.6	ND	2.5	ND	ND	ND	1.4	NA	1.3	ND	ND	ND	ND	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Ethyl Ether	µg/l	NS	NS	NS	ND	26	26	22	20	20	ND	11	10	7.7	9.2	7.6	5.4	4.9	5.9	NA	4.8	4.8	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0			
cis-1,2-Dichloroethene	µg/l	70	70	50,000	ND	1.4	1.3	1.2	0.95	0.93	ND	1.1	1.8	ND	1.5	1.1	1.3	1.6	2	NA	1.7	1.6	1.6	2.2	2.8	2.4	2.5	1.7	1.2	1.0	1.1	1.4				
Isopropylbenzene	µg/l	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0			
Methyl tert-butyl ether	µg/l	20-40 *	70	50,000	6.8	6.6	7.1	4.9	4.8	4.4	2.0	2.1	ND	ND	2.1	ND	ND	1.4	1.7	NA	ND	1.1	ND	ND	ND	ND	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0			
Tetrachloroethene	µg/l	5	5	30,000	ND	0.65	0.74	1.4	0.93	0.89	ND	0.61	ND	ND	1.2	0.59	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Trichloroethene	µg/l	5	5	5,000	ND	0.94	1.0	1.2	1.1	1.1	ND	0.87	0.82	0.74	0.98	0.76	0.66	0.66	0.72	NA	0.52	0.62	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			
Vinyl Chloride	µg/l	2	2	50,000	5.8	3.8	2.9	2.0	1.4	ND	ND	2.1	4.2	3.4	3.9	2.3	3.4	5.7	5.8	3.1	6.6	3.5	2.7	5.8	8.9	9.0	4.6	3.5	2.4	<1.0	<1.0	<1.0				

Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.
MMCL: Massachusetts Maximum Contaminant Level concentration
* SMCL: Secondary Maximum Contaminant Level concentration
** ORSG: Office of Research and Standard Drinking Water Guideline
NOTE: The arsenic standrad was changed from 0.05 mg/L to 0.01 mg/l in Spring 2001
(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).
(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3 µg/L to 0.3 µg/L in April 2014.
<= The resulting concentration was below the laboratory detection limit, shown.
BOLD The resulting concentration was greater than the laboratory detection limit.
BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank
J Estimated concentration

\\wse03.local\WSE\Projects\IMA_Peabody\OldServer\Dighton\LF Mon FY20 2190xxx\Reports\Fall 2019\Appendix A-Historical Data\Dighton LF Historic GW thru 0919.xls\JMW-1

Table 1a
Groundwater Sampling Results, Monitoring Well MW-7D
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	12/3/04 Resampling Event	5/19/05	6/8/06	11/30/06	5/24/07	8/9/07 Resampling Event	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	DUP-1 10/16/2018	9/10/2019
Field Parameters																																
Temperature	degrees C	NS	NS	NS	NA	NA	NA	NA	NA	NA	9.78	10.60	10.40	NA	9.74	9.80	11.60	12.72	NA	6.30	12.20	10.42	11.31	10.28	11.48	11.23	11.41	11.55	10.20	11.10	-	11.30
pH	unitless	6.5-8.5*	NS	NS	NA	NA	NA	NA	NA	NA	6.50	6.45	6.28	NA	6.02	6.35	6.39	6.37	NA	6.51	6.33	6.49	5.58	6.28	4.99	5.74	6.49	6.83	6.38	6.24	-	6.39
Specific Conductivity	umhos/cm	mS/cm	NS	NS	NA	NA	NA	NA	NA	NA	0.940	869	0.948	NA	0.904	0.564	0.558	0.541	NA	0.480	0.461	0.755	0.517	0.389	0.491	0.561	0.429	0.414	0.602	0.550	-	0.476
Dissolved Oxygen	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	4.24	2.42	1.51	NA	4.65	3.72	1.91	5.92	NA	2.72	6.15	2.87	2.08	2.58	2.74	2.96	2.97	2.80	3.07	3.51	-	2.89
Inorganics																																
Alkalinity as CaCO ₃	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	260	260	240	250	230	220	220	200
Chemical Oxygen Demand	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26	<20	37	11	14	16	13	16
Chloride	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38	34	36	37	39	44	45	53
Total Cyanide	mg/l	0.2	0.2	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.59	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate as Nitrogen	mg/l	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sulfate	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25	21	22	20	11	12	12	12
Total Dissolved Solids	mg/l	500 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360	340	350	320	290	310	300	320
Dissolved Metals:																																
Arsenic	mg/l	0.01	0.01	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.016	0.016	0.012	<0.010	0.0078	0.015	0.019	0.013
Barium	mg/l	2	2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.049	0.032	0.034	0.033	0.020	0.024	0.031	0.030
Cadmium	mg/l	0.005	0.005	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0010	<0.0010	<0.0010	0.0047	<0.0020	<0.00050	<0.00050	<0.0020
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	61	62	53	51	46	50	62	49
Chromium	mg/l	0.1	0.1	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.0040	<0.0040	<0.0050	<0.0050	<0.0040
Copper	mg/l	1.3	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0050	<0.0050	<0.010
Iron	mg/l	0.3 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.7	5.0	4.7	4.0	<0.050	4.5	5.8	4.6
Lead	mg/l	0.015	0.015	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	0.049	<0.0010	<0.0025	<0.0025	<0.0010
Manganese	mg/l	0.05 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0	5.2	4.6	4.9	4.5	4.7	6.0	4.7
Mercury	mg/l	0.002	0.002	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Selenium	mg/l	0.05	0.05	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010	0.18	<0.025	<0.0025	<0.0025	<0.025
Silver	mg/l	0.1 *	0.1	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0050	<0.0050	<0.0050	<0.0030	<0.0060	<0.0010	<0.0010	<0.0060
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43	41	34	35	29	28	35	29
Zinc	mg/l	5 *	5	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.050	<0.050	<0.050	<0.050	<0.010	<0.020	<0.020	<0.010
SVOCs (EPA Method 8270C) /VOCs (EPA Method 522)																																
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	7.5	8.4	11	6.8	5.5	3.0	4.0	<0.20	4.4
VOCs (EPA Method 8260B)																																
Benzene	µg/l	5	5	10,000	ND	1.0	0.56	0.86	0.69	ND	0.58	ND	0.53	ND	0.52	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	µg/l	100	100	1,000	ND	2.2	1.7	1.9	2.1	3.0	1.7	1.1	1.7	1.3	1.9	1.5	1.4	1.6	NA	ND	0.63	1.3	1.2	2.8	1.1	1.2	1.1	1.2	1.1	<1.0	<1.0	1.1
Chloroethane	µg/l	NS	NS	NS	ND	3.7	ND	2.8	ND	ND	ND	2.3	ND	2.1	ND	ND	1.3	1.5	NA	ND	ND	ND	ND	ND	<2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Ether	µg/l	NS	NS	NS	ND	22	14	17	17	ND	11	10	8.7	9.4	6.9	5.9	6.4	7.3	NA	6.7	6.8	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2,-Dichloroethene	µg/l	70	70	50,000	ND	1.8	1.7	1.8	1.9	1.0	1.8	2.3	ND	2.0	1.6	1.9	2.1	2.1	NA	1.5	2.0	2.3	2.7	ND	2.5	2.7	2.4	2.1	1.9	1.8	1.8	2.2
Isopropylbenzene	µg/l	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert-butyl ether	µg/l	20-40 *	70	50,000	3.6	5.4	3.2	3.9	3.8	2.0	2.2	ND	ND	2.2	ND	ND	1.8	1.9	NA	1.4	1.6	1.2	1.4	1.1	1.3	1.1	<5.0	<1.0	<1.0	<1.0	<1.0	
Tetrachloroethene	µg/l	5	5	30,000	ND	1.6	ND	0.98	1.2	ND	0.81	ND	0.66	ND	0.62	ND	ND	ND	NA	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	µg/l	5	5	5,000	ND	1.3	1.2	1.3	1.4	ND	1.1	1.1	1.1	0.9	1.1	1.0	1.0	0.96	NA	ND	0.56	ND	ND	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	µg/l	2	2	50,000	2.3	1.9	1.2	1.5	ND	ND	1.5	ND	2.0	2.0	1.3	2.2	2.6	2.6	ND	ND	1.2	1.7	2.2	3.5	3.5	2.5	1.8	1.9	<1.0	1.0	1.2	1.5

\\wse03.local\WSE\Projects\MAI_PeabodyOldServer\Dighton\LF Mon FY20 2190xxx\Reports\Fall 2019\Appendix A-Historical Data[Dighton LF Historic GW thru 0919.xls]MW-1

Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.
MMCL Massachusetts Maximum Contaminant Level concentration
* SMCL Secondary Maximum Contaminant Level concentration
** ORSG Office of Research and Standard Drinking Water Guideline
NOTE: The arsenic standard was changed from 0.05 mg/L to 0.01 mg/L in Spring 2001
(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).
(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3 µg/L to 0.3 µg/L in April 2014.
< = The resulting concentration was below the laboratory detection limit, shown.
BOLD The resulting concentration was greater than the laboratory detection limit.
BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-8S
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019
Field Parameters																													
Temperature	degrees C	NS	NS	NS	NA	NA	NA	NA	NA	NA	10.86	10.80	11.10	9.14	10.40	14.30	15.72	8.60	12.30	8.67	11.30	8.91	12.59	11.57	11.72	11.83	11.07	11.50	11.40
pH	unitless	6.5-8.5*	NS	NS	NA	NA	NA	NA	NA	NA	6.28	6.00	6.14	6.46	6.04	6.19	6.64	6.18	6.38	6.40	5.50	6.19	5.55	5.55	6.31	6.35	6.27	6.46	6.31
Specific Conductivity	umhos/cm	mS/cm	NS	NS	NA	NA	NA	NA	NA	NA	0.918	449	0.880	0.789	0.455	0.301	0.367	0.321	0.376	0.586	0.487	0.364	0.380	0.522	0.404	0.276	0.382	0.499	0.436
Dissolved Oxygen	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	1.18	3.25	2.41	2.16	1.86	1.85	8.63	4.79	6.32	4.93	3.02	26.20	3.16	3.44	4.20	5.92	4.13	2.97	3.78
Inorganics																													
Alkalinity as CaCO ₃	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190	170	150
Chemical Oxygen Demand	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29	27	44
Chloride	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	31	31
Total Cyanide	mg/l	0.2	0.2	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010
Nitrate as Nitrogen	mg/l	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.050	<0.050	<0.050
Sulfate	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18	17	17
Total Dissolved Solids	mg/l	500 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	240	240
Dissolved Metals:																													
Arsenic	mg/l	0.01	0.01	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0010	<0.0030	0.0011
Barium	mg/l	2	2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.084	0.10	0.079
Cadmium	mg/l	0.005	0.005	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0020	<0.00050	<0.0020
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38	44	34
Chromium	mg/l	0.1	0.1	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0040	<0.0050	<0.0040
Copper	mg/l	1.3	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.0050	<0.010
Iron	mg/l	0.3 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.059	12	8.4
Lead	mg/l	0.015	0.015	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0010	<0.0025	<0.0010
Manganese	mg/l	0.05 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3	1.5	1.1
Mercury	mg/l	0.002	0.002	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00020	<0.00020	<0.00020
Selenium	mg/l	0.05	0.05	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.0025	<0.025
Silver	mg/l	0.1 *	0.1	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0060	<0.0010	<0.0060
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31	34	28
Zinc	mg/l	5 *	5	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014	<0.020	<0.010
SVOcs (EPA Method 8270C) /VOCs (EPA Method 522)																													
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.5	<3.0	7.8	9.3	9.6	7.1	6.9	3.8	4.0	2.4
VOCs (EPA Method 8260B)																													
Benzene	µg/l	5	5	10,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	µg/l	100	100	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Chloroethane	µg/l	NS	NS	NS	ND	ND	ND	1.9	ND	ND	ND	1.4	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	µg/l	700	700	5,000	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Ethyl Ether	µg/l	NS	NS	NS	ND	ND	19	16	17	ND	11	12	8.4	8.2	5.1	4.2	ND	5.7	5.3	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	µg/l	70	70	50,000	ND	ND	ND	ND	ND	ND	0.57	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Methyl tert-butyl ether	µg/l	20-40 *	70	50,000	ND	1.7	5.3	5.1	5.1	4.0	3.3	ND	ND	ND	ND	1.8	ND	1.5	1.7	2.1	2.1	1.6	1.8	1.7	<5.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	µg/l	5	5	30,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Trichloroethene	µg/l	5	5	5,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	µg/l	NS	NS	NS	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	µg/l	2	2	50,000	ND	ND	1.1	1.2	1.0	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	0.5	ND	0.66	0.52	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes	µg/l	10,000	10,000	5,000	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	<1.0

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Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standrad was changed from 0.05 mg/L to 0.01 mg/l in Spring 2001

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3µg/L to 0.3 µg/L in April 2014.

< = The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1a
Groundwater Sampling Results, Monitoring Well MW-8D
Dighton Landfill
Dighton, Massachusetts
November 2000 through September 2019

Parameter	Units	Comparable Standard (1)	Method 1 GW-1 (2)	Method 1 GW-3 (2)	11/00	6/01	12/01	5/02	11/02	5/03	11/26/03	5/27/04	11/10/04	5/19/05	6/8/06	11/30/06	5/24/07	12/6/07	6/12/08	4/14/09	9/23/09	4/22/10	9/23/10	10/4/11	9/25/12	9/17/2013	11/13/2017	10/16/2018	9/10/2019
Field Parameters																													
Temperature	degrees C	NS	NS	NS	NA	NA	NA	NA	NA	NA	10.05	10.70	10.10	9.00	10.30	13.70	17.44	8.10	10.40	10.07	11.35	10.28	10.76	10.26	10.55	10.06	10.92	10.40	11.20
pH	unitless	6.5-8.5*	NS	NS	NA	NA	NA	NA	NA	NA	6.64	6.90	6.50	6.54	6.15	6.48	6.61	6.63	6.31	7.21	6.01	6.34	4.54	5.43	6.59	6.37	6.49	6.52	6.12
Specific Conductivity	umhos/cm	mS/cm	NS	NS	NA	NA	NA	NA	NA	NA	0.191	244	0.253	0.237	0.156	0.207	0.237	0.187	0.201	0.207	0.072	0.117	0.167	0.185	0.142	0.134	0.189	0.240	0.265
Dissolved Oxygen	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	3.61	3.92	1.478	4.76	1.83	1.94	7.43	4.52	6.32	5.01	9.64	1.67	1.82	1.38	4.21	5.30	5.20	3.38	4.11
Inorganics																													
Alkalinity as CaCO ₃	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51	57	45
Chemical Oxygen Demand	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	<10	<10
Chloride	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	25	29
Total Cyanide	mg/l	0.2	0.2	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010
Nitrate as Nitrogen	mg/l	10	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.050	<0.050	<0.050
Sulfate	mg/l	250 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	23	24
Total Dissolved Solids	mg/l	500 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	150	170
Dissolved Metals:																													
Arsenic	mg/l	0.01	0.01	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0010	<0.0010	<0.0010
Barium	mg/l	2	2	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.024	0.030	0.034
Cadmium	mg/l	0.005	0.005	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0020	<0.0020	<0.0020
Calcium	mg/l	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	19	21
Chromium	mg/l	0.1	0.1	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0040	<0.0040	<0.0040
Copper	mg/l	1.3	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010
Iron	mg/l	0.3 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	6.3	7.1
Lead	mg/l	0.015	0.015	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0010	<0.0010	<0.0010
Manganese	mg/l	0.05 *	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.51	0.60	0.65
Mercury	mg/l	0.002	0.002	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00020	<0.00020	<0.00020
Selenium	mg/l	0.05	0.05	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.025	<0.025	<0.025
Silver	mg/l	0.1 *	0.1	0.007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0060	<0.0060	<0.0060
Sodium	mg/l	20 **	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11	12	13
Zinc	mg/l	5 *	5	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	<0.010	<0.010
SVOCs (EPA Method 8270C) /VOCs (EPA Method 522)																													
1,4-Dioxane	µg/l	0.3**	0.3 (3)	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0	<3.0	<3.0	<3.0	<3.0	<5.0	1.9	1.7	2.6	3.4
VOCs (EPA Method 8260B)																													
Ethyl Ether	µg/l	NS	NS	NS	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0
Methyl tert-butyl ether	µg/l	20-40 *	70	50,000	2.9	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	ND	<1.0	<1.0	<5.0	ND	<1.0	<1.0	<1.0
Trichloroethene	µg/l	5	5	5,000	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	<1.0	ND	<1.0	<1.0	<1.0

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Notes: (1) The Standard is from "Drinking Water Standards & Guidelines for Chemicals in Massachusetts Drinking Water," dated Spring 2019.

MMCL Massachusetts Maximum Contaminant Level concentration

* SMCL Secondary Maximum Contaminant Level concentration

** ORSG Office of Research and Standard Drinking Water Guideline

NOTE: The arsenic standrad was changed from 0.05 mg/L to 0.01 mg/l in Spring 2001

(2) Method 1 GW-1 and GW-3 standards taken from the Massachusetts Contingency Plan 310 CMR 40.0000 (updated January 2015).

(3) The Method 1 GW-1 Standard for 1,4-dioxane was changed from 3 µg/L to 0.3 µg/L in April 2014.

< = The resulting concentration was below the laboratory detection limit, shown.

BOLD The resulting concentration was greater than the laboratory detection limit.

BOLD The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling)

Abbreviations: SU Standard Units
µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed
B Compound detected in method blank

Table 1b
Surface Water Sampling Results, Surface Water Location PZ-1 (formerly known as SUR-1)
Dighton Landfill
Dighton, Massachusetts
April 2011 through September 2019

Parameter	Units	Massachusetts Surface Water Quality Standards ⁽¹⁾	4/19/2011	10/4/2011	3/27/2012	9/25/2012	9/17/2013	11/13/2017	10/16/2018	9/10/2019
Field Parameters										
Temperature	degrees C	NS	9.04	17.99	-	12.30	DRY	5.30	11.90	16.4
pH	unitless	6.5-8.3 (2)	7.04	6.31	-	6.87	DRY	7.26	6.06	7.17
Specific Conductivity	umhos/cm	mS/cm	0.13	0.32	-	0.158	DRY	0.359	0.151	0.454
Dissolved Oxygen	mg/l	NS	9.71	1.47	-	8.59	DRY	7.52	7.18	5.18
Inorganics										
Alkalinity as CaCO ₃	mg/l	20 (6)	30	130	180	41	DRY	50	37	71
Chloride	mg/l	230	20	20	23	35	DRY	61	43	83
Total Cyanide	mg/l	0.0052	<0.010	<0.010	<0.010	<0.0050	DRY	<0.0050	<0.0050	<0.0050
Chemical Oxygen Demand	mg/l	NS	28	72	50	<20	DRY	11	38	27
Nitrate as Nitrogen	mg/l	NS	0.94	<0.05	<0.05	2.0	DRY	1.0	0.32	0.10
Sulfate	mg/l	NS	9.6	<2.0	2.2	8.9	DRY	12	6.6	19
Total Dissolved Solids	mg/l	NS	82	240	280	160	DRY	200	150	300
Hardness	mg/l	NS	NA	NA	NA	NA	DRY	80	52	120
Dissolved Metals:										
Arsenic	mg/l	0.15	<0.010	0.0026	0.011	<0.0010	DRY	0.0020	<0.0030	0.0012
Barium	mg/l	0.004 (3)	<0.010	0.022	0.19	0.0092	DRY	0.013	0.012	0.014
Cadmium	mg/l	0.00025	<0.0010	<0.0010	<0.0010	<0.0010	DRY	<0.00025	<0.00050	<0.00025
Calcium	mg/l	116 (4)	12	33	47	17	DRY	23	15	35
Chromium	mg/l	0.011 (5)	<0.0050	<0.0010	<0.0050	0.0046	DRY	<0.0040	<0.0050	<0.0040
Copper	mg/l	0.0090	<0.010	0.0011	0.011	<0.0010	DRY	0.0011	<0.0050	<0.0010
Iron	mg/l	1.0	0.15	0.75	27	0.11	DRY	0.84	0.61	0.65
Lead	mg/l	0.0025	<0.0050	<0.0010	0.018	<0.0010	DRY	<0.0010	<0.0025	<0.0010
Manganese	mg/l	0.12 (3)	0.04	0.17	5.0	0.073	DRY	0.81	0.29	0.23
Mercury	mg/l	0.00077	<0.00020	<0.00020	<0.00020	<0.00020	DRY	<0.00020	<0.00020	<0.00020
Selenium	mg/l	0.0046	<0.010	<0.0010	<0.010	<0.0010	DRY	<0.0010	<0.0025	<0.0010
Silver	mg/l	0.00036 (3)	<0.0050	<0.0010	<0.0050	<0.0010	DRY	<0.00025	<0.0010	<0.00025
Sodium	mg/l	680 (4)	13	26	27	18	DRY	29	19	37
Zinc	mg/l	0.12	<0.050	0.0041	<0.050	0.0033	DRY	<0.010	<0.010	<0.010
SVOCs (EPA Method 8270C) /VOCs (EPA Method 522)										
1,4-Dioxane	µg/l	NS	<3.0	<15	<3.0	<3.0	DRY	0.22	<0.20	0.74
VOCs (EPA Method 8260B)										
Acetone	µg/l	1500 (3)	ND	ND	ND	ND	DRY	ND	ND	ND
cis-1,2,-Dichloroethene	µg/l	NS	ND	ND	ND	ND	DRY	ND	ND	ND
Vinyl Acetate	µg/l	16 (3)	ND	ND	ND	ND	DRY	ND	ND	ND
Vinyl Chloride	µg/l	NS	ND	ND	ND	ND	DRY	ND	ND	ND

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Notes:

- (1) The standard listed is defined in 314 CMR 4.00. Surface waters at the site, namely wetlands, are considered Unlisted waters, and are classified as Class B, High Quality Waters. Criteria taken from the National Recommended Water Quality Criteria (USEPA, 2009) unless otherwise specified, are Criteria Continuous (chronic) Concentrations.
- (2) The pH standard listed in 314 CMR 4.05(3)(b)(3.) is the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the background range.
- (3) The value is the Tier II Secondary Chronic Value published in Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision (ES/ER/TM-96/RZ).
- (4) The value is the Lowest Chronic Value for all organisms published in Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision (ES/ER/TM-96/RZ).
- (5) No standard exists for total chromium. The chromium standard listed is the criterion continuous concentration for hexavalent chromium (Cr+6).
- (6) The derivation of this value is presented in the Red Book (EPA 440/9-76-023, July 1976). The CCC of 20 mg/l is a minimum value except where alkalinity is naturally lower. In which case, the criterion cannot be lower than 25% of the natural level. Results were not compared to this lower limit until September 2012.

<

Parameter was below the laboratory detection limit, shown.

BOLD

The resulting concentration was greater than the laboratory detection limit.

BOLD

The resulting concentration was greater than the Comparable Standard (exceedances shown are for the existing standards at the time of sampling).

-

Parameters not measured.

Abbreviations:

µg/l micrograms per liter (parts per billion)
mg/l milligrams per liter (parts per million)
mS/cm milliSiemens per centimeter
VOCs Volatile Organic Compounds
SVOCs Semi-Volatile Organic Compounds
NS No Standard
ND Not Detected
NA Not Analyzed

APPENDIX B
Laboratory Analytical Results

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-158965-1
Client Project/Site: Dighton Landfill
Sampling Event: Dighton Landfill

For:
Weston & Sampson Engineers
55 Walkers Brook Drive
Suite 100
Reading, Massachusetts 01867

Attn: Duane Himes



Authorized for release by:
9/23/2019 10:26:17 AM

Steve Hartmann, Project Manager I
(413)572-4000
steve.hartmann@testamericainc.com

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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: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
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.
±	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: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Job ID: 480-158965-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative

480-158965-1

Comments

No additional comments.

Receipt

The samples were received on 9/11/2019 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-492178 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: DUP-1 (480-158965-1), MW-1 (480-158965-2), MW-3 (480-158965-3) and MW-5D (480-158965-4).

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-492178 recovered outside control limits for the following analyte: Chloroethane. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-492224 recovered above the upper control limit for Chloroethane and 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: MW-5S (480-158965-5), MW-6D (480-158965-6), MW-7D (480-158965-7), MW-7S (480-158965-8), MW-8D (480-158965-9), MW-8S (480-158965-10), PZ-1 (480-158965-11) and TRIP BLANK (480-158965-12).

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-492224 recovered outside control limits for the following analyte: Chloroethane. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-492178 recovered outside control limits, high bias for the following analyte: Chloroethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The following sample is impacted: MW-3 (480-158965-3).

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

GC/MS Semi VOA

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

HPLC/IC

Method 300.0: The following samples were reported with elevated reporting limits for all analytes: DUP-1 (480-158965-1), MW-5D (480-158965-4), MW-7D (480-158965-7) and MW-7S (480-158965-8). The sample was analyzed at a dilution based on screening results.

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-3 (480-158965-3). Elevated reporting limits (RLs) are provided.

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.

General Chemistry

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

Organic Prep

Case Narrative

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Job ID: 480-158965-1 (Continued)

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

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

Detection Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: DUP-1

Lab Sample ID: 480-158965-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	3.0		1.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.1		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	6.1		1.0		ug/L	1		8260C	Total/NA
Barium	0.028		0.0020		mg/L	1		6010C	Dissolved
Calcium	47		0.50		mg/L	1		6010C	Dissolved
Iron	20		0.050		mg/L	1		6010C	Dissolved
Manganese	6.0		0.0030		mg/L	1		6010C	Dissolved
Sodium	39		1.0		mg/L	1		6010C	Dissolved
Arsenic	32		1.0		ug/L	1		6020A	Dissolved
Chloride	75		1.0		mg/L	2		300.0	Total/NA
Sulfate	17		4.0		mg/L	2		300.0	Total/NA
Alkalinity, Total	180		20		mg/L	2		310.2	Total/NA
Chemical Oxygen Demand	25		10		mg/L	1		410.4	Total/NA
Total Dissolved Solids	350		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-1

Lab Sample ID: 480-158965-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.2		0.20		ug/L	1		522	Total/NA
Barium	0.11		0.0020		mg/L	1		6010C	Dissolved
Calcium	2.3		0.50		mg/L	1		6010C	Dissolved
Chromium	0.0062		0.0040		mg/L	1		6010C	Dissolved
Iron	6.1		0.050		mg/L	1		6010C	Dissolved
Manganese	0.12		0.0030		mg/L	1		6010C	Dissolved
Sodium	4.4		1.0		mg/L	1		6010C	Dissolved
Zinc	0.025		0.010		mg/L	1		6010C	Dissolved
Arsenic	2.0		1.0		ug/L	1		6020A	Dissolved
Lead	4.6		1.0		ug/L	1		6020A	Dissolved
Chloride	7.4		0.50		mg/L	1		300.0	Total/NA
Sulfate	13		2.0		mg/L	1		300.0	Total/NA
Total Dissolved Solids	55		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 480-158965-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	1.6		1.0		ug/L	1		8260C	Total/NA
Chloroethane	3.2	*	1.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	31		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	30		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	0.39		0.20		ug/L	1		522	Total/NA
Barium	0.076		0.0020		mg/L	1		6010C	Dissolved
Calcium	59		0.50		mg/L	1		6010C	Dissolved
Chromium	0.0050		0.0040		mg/L	1		6010C	Dissolved
Iron	4.4		0.050		mg/L	1		6010C	Dissolved
Manganese	0.28		0.0030		mg/L	1		6010C	Dissolved
Sodium	41		1.0		mg/L	1		6010C	Dissolved
Zinc	0.066		0.010		mg/L	1		6010C	Dissolved
Arsenic	1.6		1.0		ug/L	1		6020A	Dissolved
Lead	2.7		1.0		ug/L	1		6020A	Dissolved
Chloride	120		1.0		mg/L	2		300.0	Total/NA
Sulfate	62		4.0		mg/L	2		300.0	Total/NA
Alkalinity, Total	120		20		mg/L	2		310.2	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-3 (Continued)

Lab Sample ID: 480-158965-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chemical Oxygen Demand	47		10		mg/L	1		410.4	Total/NA
Total Dissolved Solids	450		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5D

Lab Sample ID: 480-158965-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	2.9		1.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.0		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	5.8		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	2.5		0.20		ug/L	1		522	Total/NA
Barium	0.028		0.0020		mg/L	1		6010C	Dissolved
Calcium	47		0.50		mg/L	1		6010C	Dissolved
Iron	20		0.050		mg/L	1		6010C	Dissolved
Manganese	6.0		0.0030		mg/L	1		6010C	Dissolved
Sodium	38	F1	1.0		mg/L	1		6010C	Dissolved
Arsenic	32		1.0		ug/L	1		6020A	Dissolved
Chloride	75		1.0		mg/L	2		300.0	Total/NA
Sulfate	18		4.0		mg/L	2		300.0	Total/NA
Alkalinity, Total	190		30		mg/L	3		310.2	Total/NA
Chemical Oxygen Demand	26		10		mg/L	1		410.4	Total/NA
Total Dissolved Solids	350		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5S

Lab Sample ID: 480-158965-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.026		0.0020		mg/L	1		6010C	Dissolved
Calcium	7.7		0.50		mg/L	1		6010C	Dissolved
Iron	1.7		0.050		mg/L	1		6010C	Dissolved
Manganese	0.47		0.0030		mg/L	1		6010C	Dissolved
Sodium	3.1		1.0		mg/L	1		6010C	Dissolved
Zinc	0.014		0.010		mg/L	1		6010C	Dissolved
Chloride	11		0.50		mg/L	1		300.0	Total/NA
Sulfate	5.2		2.0		mg/L	1		300.0	Total/NA
Total Dissolved Solids	66		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-6D

Lab Sample ID: 480-158965-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.4		0.20		ug/L	1		522	Total/NA
Barium	0.018		0.0020		mg/L	1		6010C	Dissolved
Calcium	26		0.50		mg/L	1		6010C	Dissolved
Iron	0.50		0.050		mg/L	1		6010C	Dissolved
Manganese	0.57		0.0030		mg/L	1		6010C	Dissolved
Sodium	11		1.0		mg/L	1		6010C	Dissolved
Arsenic	1.7		1.0		ug/L	1		6020A	Dissolved
Chloride	14		0.50		mg/L	1		300.0	Total/NA
Sulfate	41		2.0		mg/L	1		300.0	Total/NA
Alkalinity, Total	49		10		mg/L	1		310.2	Total/NA
Total Dissolved Solids	160		10		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7D

Lab Sample ID: 480-158965-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	1.1		1.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.2		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	1.5		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	4.4		0.20		ug/L	1		522	Total/NA
Barium	0.030		0.0020		mg/L	1		6010C	Dissolved
Calcium	49		0.50		mg/L	1		6010C	Dissolved
Iron	4.6		0.050		mg/L	1		6010C	Dissolved
Manganese	4.7		0.0030		mg/L	1		6010C	Dissolved
Sodium	29		1.0		mg/L	1		6010C	Dissolved
Arsenic	13		1.0		ug/L	1		6020A	Dissolved
Chloride	53		1.0		mg/L	2		300.0	Total/NA
Sulfate	12		4.0		mg/L	2		300.0	Total/NA
Alkalinity, Total	200		30		mg/L	3		310.2	Total/NA
Chemical Oxygen Demand	16		10		mg/L	1		410.4	Total/NA
Total Dissolved Solids	320		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7S

Lab Sample ID: 480-158965-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	2.3		1.0		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.4		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	2.4		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	4.0		0.20		ug/L	1		522	Total/NA
Barium	0.14		0.0020		mg/L	1		6010C	Dissolved
Calcium	53		0.50		mg/L	1		6010C	Dissolved
Chromium	0.019		0.0040		mg/L	1		6010C	Dissolved
Copper	0.030		0.010		mg/L	1		6010C	Dissolved
Iron	49		0.050		mg/L	1		6010C	Dissolved
Manganese	6.8		0.0030		mg/L	1		6010C	Dissolved
Sodium	28		1.0		mg/L	1		6010C	Dissolved
Zinc	0.057		0.010		mg/L	1		6010C	Dissolved
Arsenic	69		1.0		ug/L	1		6020A	Dissolved
Lead	19		1.0		ug/L	1		6020A	Dissolved
Chloride	67		1.0		mg/L	2		300.0	Total/NA
Sulfate	4.6		4.0		mg/L	2		300.0	Total/NA
Alkalinity, Total	220		30		mg/L	3		310.2	Total/NA
Chemical Oxygen Demand	26		10		mg/L	1		410.4	Total/NA
Total Dissolved Solids	320		10		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-8D

Lab Sample ID: 480-158965-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	3.4		0.20		ug/L	1		522	Total/NA
Barium	0.034		0.0020		mg/L	1		6010C	Dissolved
Calcium	21		0.50		mg/L	1		6010C	Dissolved
Iron	7.1		0.050		mg/L	1		6010C	Dissolved
Manganese	0.65		0.0030		mg/L	1		6010C	Dissolved
Sodium	13		1.0		mg/L	1		6010C	Dissolved
Chloride	29		0.50		mg/L	1		300.0	Total/NA
Sulfate	24		2.0		mg/L	1		300.0	Total/NA
Alkalinity, Total	45		10		mg/L	1		310.2	Total/NA
Total Dissolved Solids	170		10		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8S

Lab Sample ID: 480-158965-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	2.4		0.20		ug/L		1		522	Total/NA
Barium	0.079		0.0020		mg/L		1		6010C	Dissolved
Calcium	34		0.50		mg/L		1		6010C	Dissolved
Iron	8.4		0.050		mg/L		1		6010C	Dissolved
Manganese	1.1		0.0030		mg/L		1		6010C	Dissolved
Sodium	28		1.0		mg/L		1		6010C	Dissolved
Arsenic	1.1		1.0		ug/L		1		6020A	Dissolved
Chloride	31		0.50		mg/L		1		300.0	Total/NA
Sulfate	17		2.0		mg/L		1		300.0	Total/NA
Alkalinity, Total	150		20		mg/L		2		310.2	Total/NA
Chemical Oxygen Demand	44		10		mg/L		1		410.4	Total/NA
Total Dissolved Solids	240		10		mg/L		1		SM 2540C	Total/NA

Client Sample ID: PZ-1

Lab Sample ID: 480-158965-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,4-Dioxane	0.74		0.20		ug/L		1		522	Total/NA
Barium	0.014		0.0020		mg/L		1		6010C	Total/NA
Calcium	35		0.50		mg/L		1		6010C	Total/NA
Iron	0.65		0.050		mg/L		1		6010C	Total/NA
Manganese	0.23		0.0030		mg/L		1		6010C	Total/NA
Sodium	37		1.0		mg/L		1		6010C	Total/NA
Arsenic	1.2		1.0		ug/L		1		6020A	Total/NA
Hardness as calcium carbonate	120		0.50		mg/L		1		SM 2340B	Total/NA
Chloride	83		0.50		mg/L		1		300.0	Total/NA
Sulfate	19		2.0		mg/L		1		300.0	Total/NA
Alkalinity, Total	71		10		mg/L		1		310.2	Total/NA
Nitrate as N	0.10		0.050		mg/L		1		353.2	Total/NA
Chemical Oxygen Demand	27		10		mg/L		1		410.4	Total/NA
Total Dissolved Solids	300		10		mg/L		1		SM 2540C	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-158965-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: DUP-1

Date Collected: 09/10/19 00:00

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/15/19 23:49	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/15/19 23:49	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/15/19 23:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/15/19 23:49	1
1,1-Dichloroethane	ND		1.0		ug/L			09/15/19 23:49	1
1,1-Dichloroethene	ND		1.0		ug/L			09/15/19 23:49	1
1,1-Dichloropropene	ND		1.0		ug/L			09/15/19 23:49	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/15/19 23:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/15/19 23:49	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,2-Dichloroethane	ND		1.0		ug/L			09/15/19 23:49	1
1,2-Dichloropropane	ND		1.0		ug/L			09/15/19 23:49	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,3-Dichloropropane	ND		1.0		ug/L			09/15/19 23:49	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/15/19 23:49	1
2,2-Dichloropropane	ND		1.0		ug/L			09/15/19 23:49	1
2-Chlorotoluene	ND		1.0		ug/L			09/15/19 23:49	1
2-Hexanone	ND		5.0		ug/L			09/15/19 23:49	1
4-Chlorotoluene	ND		1.0		ug/L			09/15/19 23:49	1
4-Isopropyltoluene	ND		1.0		ug/L			09/15/19 23:49	1
Acetone	ND		10		ug/L			09/15/19 23:49	1
Benzene	ND		1.0		ug/L			09/15/19 23:49	1
Bromobenzene	ND		1.0		ug/L			09/15/19 23:49	1
Bromoform	ND		1.0		ug/L			09/15/19 23:49	1
Bromomethane	ND		1.0		ug/L			09/15/19 23:49	1
Carbon tetrachloride	ND		1.0		ug/L			09/15/19 23:49	1
Chlorobenzene	3.0		1.0		ug/L			09/15/19 23:49	1
Bromochloromethane	ND		1.0		ug/L			09/15/19 23:49	1
Dibromochloromethane	ND		1.0		ug/L			09/15/19 23:49	1
Chloroethane	ND *		1.0		ug/L			09/15/19 23:49	1
Chloroform	ND		1.0		ug/L			09/15/19 23:49	1
Chloromethane	ND		1.0		ug/L			09/15/19 23:49	1
cis-1,2-Dichloroethene	2.1		1.0		ug/L			09/15/19 23:49	1
cis-1,3-Dichloropropane	ND		1.0		ug/L			09/15/19 23:49	1
Dibromomethane	ND		1.0		ug/L			09/15/19 23:49	1
Bromodichloromethane	ND		1.0		ug/L			09/15/19 23:49	1
Ethylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
1,2-Dibromoethane	ND		1.0		ug/L			09/15/19 23:49	1
Hexachlorobutadiene	ND		2.0		ug/L			09/15/19 23:49	1
Isopropylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
2-Butanone (MEK)	ND		10		ug/L			09/15/19 23:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/15/19 23:49	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/15/19 23:49	1
Methylene Chloride	ND		1.0		ug/L			09/15/19 23:49	1
m,p-Xylene	ND		2.0		ug/L			09/15/19 23:49	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: DUP-1

Lab Sample ID: 480-158965-1

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			09/15/19 23:49	1
n-Butylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
N-Propylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
o-Xylene	ND		1.0		ug/L			09/15/19 23:49	1
sec-Butylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
Styrene	ND		1.0		ug/L			09/15/19 23:49	1
tert-Butylbenzene	ND		1.0		ug/L			09/15/19 23:49	1
Tetrachloroethene	ND		1.0		ug/L			09/15/19 23:49	1
Toluene	ND		1.0		ug/L			09/15/19 23:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/15/19 23:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/15/19 23:49	1
Trichloroethene	ND		1.0		ug/L			09/15/19 23:49	1
Trichlorofluoromethane	ND		1.0		ug/L			09/15/19 23:49	1
Vinyl chloride	6.1		1.0		ug/L			09/15/19 23:49	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/15/19 23:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 120		09/15/19 23:49	1
Toluene-d8 (Surr)	96		80 - 120		09/15/19 23:49	1
4-Bromofluorobenzene (Surr)	107		73 - 120		09/15/19 23:49	1
Dibromofluoromethane (Surr)	112		75 - 123		09/15/19 23:49	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		09/17/19 11:30	09/19/19 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	96		46 - 130	09/17/19 11:30	09/19/19 13:39	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.028		0.0020		mg/L		09/16/19 08:16	09/16/19 14:45	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 14:45	1
Calcium	47		0.50		mg/L		09/16/19 08:16	09/16/19 14:45	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 14:45	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:45	1
Iron	20		0.050		mg/L		09/16/19 08:16	09/16/19 14:45	1
Manganese	6.0		0.0030		mg/L		09/16/19 08:16	09/16/19 14:45	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 14:45	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 14:45	1
Sodium	39		1.0		mg/L		09/16/19 08:16	09/16/19 14:45	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:45	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		1.0		ug/L		09/16/19 07:18	09/18/19 20:27	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:27	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: DUP-1

Date Collected: 09/10/19 00:00

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-1

Matrix: Water

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75		1.0		mg/L			09/16/19 16:14	2
Sulfate	17		4.0		mg/L			09/16/19 16:14	2
Alkalinity, Total	180		20		mg/L			09/19/19 20:37	2
Nitrate as N	ND		0.050		mg/L			09/11/19 21:48	1
Chemical Oxygen Demand	25		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:25	09/16/19 13:45	1
Total Dissolved Solids	350		10		mg/L			09/13/19 09:40	1

Client Sample ID: MW-1

Date Collected: 09/10/19 13:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 00:13	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 00:13	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 00:13	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 00:13	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 00:13	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 00:13	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 00:13	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 00:13	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 00:13	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 00:13	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 00:13	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 00:13	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 00:13	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 00:13	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 00:13	1
2-Hexanone	ND		5.0		ug/L			09/16/19 00:13	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 00:13	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 00:13	1
Acetone	ND		10		ug/L			09/16/19 00:13	1
Benzene	ND		1.0		ug/L			09/16/19 00:13	1
Bromobenzene	ND		1.0		ug/L			09/16/19 00:13	1
Bromoform	ND		1.0		ug/L			09/16/19 00:13	1
Bromomethane	ND		1.0		ug/L			09/16/19 00:13	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 00:13	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 00:13	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 00:13	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-1

Lab Sample ID: 480-158965-2

Date Collected: 09/10/19 13:30

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			09/16/19 00:13	1
Chloroethane	ND	*	1.0		ug/L			09/16/19 00:13	1
Chloroform	ND		1.0		ug/L			09/16/19 00:13	1
Chloromethane	ND		1.0		ug/L			09/16/19 00:13	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 00:13	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 00:13	1
Dibromomethane	ND		1.0		ug/L			09/16/19 00:13	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 00:13	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 00:13	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 00:13	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 00:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 00:13	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 00:13	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 00:13	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 00:13	1
Naphthalene	ND		1.0		ug/L			09/16/19 00:13	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
o-Xylene	ND		1.0		ug/L			09/16/19 00:13	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
Styrene	ND		1.0		ug/L			09/16/19 00:13	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 00:13	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 00:13	1
Toluene	ND		1.0		ug/L			09/16/19 00:13	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 00:13	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 00:13	1
Trichloroethene	ND		1.0		ug/L			09/16/19 00:13	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 00:13	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 00:13	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 00:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 120		09/16/19 00:13	1
Toluene-d8 (Surr)	97		80 - 120		09/16/19 00:13	1
4-Bromofluorobenzene (Surr)	106		73 - 120		09/16/19 00:13	1
Dibromofluoromethane (Surr)	117		75 - 123		09/16/19 00:13	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.2		0.20		ug/L		09/17/19 11:30	09/19/19 10:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	94		46 - 130	09/17/19 11:30	09/19/19 10:05	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.11		0.0020		mg/L		09/16/19 08:16	09/16/19 14:49	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-1

Lab Sample ID: 480-158965-2

Date Collected: 09/10/19 13:30

Matrix: Water

Date Received: 09/11/19 08:00

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 14:49	1
Calcium	2.3		0.50		mg/L		09/16/19 08:16	09/16/19 14:49	1
Chromium	0.0062		0.0040		mg/L		09/16/19 08:16	09/16/19 14:49	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:49	1
Iron	6.1		0.050		mg/L		09/16/19 08:16	09/16/19 14:49	1
Manganese	0.12		0.0030		mg/L		09/16/19 08:16	09/16/19 14:49	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 14:49	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 14:49	1
Sodium	4.4		1.0		mg/L		09/16/19 08:16	09/16/19 14:49	1
Zinc	0.025		0.010		mg/L		09/16/19 08:16	09/16/19 14:49	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		1.0		ug/L		09/16/19 07:18	09/18/19 20:39	1
Lead	4.6		1.0		ug/L		09/16/19 07:18	09/18/19 20:39	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 16:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		0.50		mg/L			09/16/19 16:22	1
Sulfate	13		2.0		mg/L			09/16/19 16:22	1
Alkalinity, Total	ND		10		mg/L			09/19/19 20:21	1
Nitrate as N	ND		0.050		mg/L			09/11/19 20:35	1
Chemical Oxygen Demand	ND		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:25	09/16/19 13:47	1
Total Dissolved Solids	55		10		mg/L			09/13/19 09:40	1

Client Sample ID: MW-3

Lab Sample ID: 480-158965-3

Date Collected: 09/10/19 15:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 00:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 00:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 00:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 00:37	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 00:37	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 00:37	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 00:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 00:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 00:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 00:37	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 00:37	1

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Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-3

Date Collected: 09/10/19 15:00

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 00:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 00:37	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 00:37	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 00:37	1
2-Hexanone	ND		5.0		ug/L			09/16/19 00:37	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 00:37	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 00:37	1
Acetone	ND		10		ug/L			09/16/19 00:37	1
Benzene	ND		1.0		ug/L			09/16/19 00:37	1
Bromobenzene	ND		1.0		ug/L			09/16/19 00:37	1
Bromoform	ND		1.0		ug/L			09/16/19 00:37	1
Bromomethane	ND		1.0		ug/L			09/16/19 00:37	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 00:37	1
Chlorobenzene	1.6		1.0		ug/L			09/16/19 00:37	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 00:37	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 00:37	1
Chloroethane	3.2 *		1.0		ug/L			09/16/19 00:37	1
Chloroform	ND		1.0		ug/L			09/16/19 00:37	1
Chloromethane	ND		1.0		ug/L			09/16/19 00:37	1
cis-1,2-Dichloroethene	31		1.0		ug/L			09/16/19 00:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 00:37	1
Dibromomethane	ND		1.0		ug/L			09/16/19 00:37	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 00:37	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 00:37	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 00:37	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 00:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 00:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 00:37	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 00:37	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 00:37	1
Naphthalene	ND		1.0		ug/L			09/16/19 00:37	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
o-Xylene	ND		1.0		ug/L			09/16/19 00:37	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
Styrene	ND		1.0		ug/L			09/16/19 00:37	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 00:37	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 00:37	1
Toluene	ND		1.0		ug/L			09/16/19 00:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 00:37	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 00:37	1
Trichloroethene	ND		1.0		ug/L			09/16/19 00:37	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 00:37	1
Vinyl chloride	30		1.0		ug/L			09/16/19 00:37	1

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Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-3

Date Collected: 09/10/19 15:00

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-3

Matrix: Water

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					<i>09/16/19 00:37</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	<i>107</i>		<i>77 - 120</i>					<i>09/16/19 00:37</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>97</i>		<i>80 - 120</i>					<i>09/16/19 00:37</i>	<i>1</i>
<i>4-Bromofluorobenzene (Surr)</i>	<i>104</i>		<i>73 - 120</i>					<i>09/16/19 00:37</i>	<i>1</i>
<i>Dibromofluoromethane (Surr)</i>	<i>109</i>		<i>75 - 123</i>					<i>09/16/19 00:37</i>	<i>1</i>

Method: 522 - 1,4 Dioxane (GC/MS SIM)

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,4-Dioxane</i>	<i>0.39</i>		<i>0.20</i>		<i>ug/L</i>		<i>09/17/19 11:30</i>	<i>09/19/19 10:19</i>	<i>1</i>

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,4-Dioxane-d8 (Surr)</i>	<i>101</i>		<i>46 - 130</i>				<i>09/17/19 11:30</i>	<i>09/19/19 10:19</i>	<i>1</i>

Method: 6010C - Metals (ICP) - Dissolved

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Barium</i>	<i>0.076</i>		<i>0.0020</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Cadmium</i>	<i>ND</i>		<i>0.0020</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Calcium</i>	<i>59</i>		<i>0.50</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Chromium</i>	<i>0.0050</i>		<i>0.0040</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Copper</i>	<i>ND</i>		<i>0.010</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Iron</i>	<i>4.4</i>		<i>0.050</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Manganese</i>	<i>0.28</i>		<i>0.0030</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Selenium</i>	<i>ND</i>		<i>0.025</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Silver</i>	<i>ND</i>		<i>0.0060</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Sodium</i>	<i>41</i>		<i>1.0</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>
<i>Zinc</i>	<i>0.066</i>		<i>0.010</i>		<i>mg/L</i>		<i>09/16/19 08:16</i>	<i>09/16/19 14:53</i>	<i>1</i>

Method: 6020A - Metals (ICP/MS) - Dissolved

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Arsenic</i>	<i>1.6</i>		<i>1.0</i>		<i>ug/L</i>		<i>09/16/19 07:18</i>	<i>09/18/19 20:41</i>	<i>1</i>
<i>Lead</i>	<i>2.7</i>		<i>1.0</i>		<i>ug/L</i>		<i>09/16/19 07:18</i>	<i>09/18/19 20:41</i>	<i>1</i>

Method: 7470A - Mercury (CVAA) - Dissolved

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Mercury</i>	<i>ND</i>		<i>0.00020</i>		<i>mg/L</i>		<i>09/16/19 13:31</i>	<i>09/16/19 16:55</i>	<i>1</i>

General Chemistry

<i>Analyte</i>	<i>Result</i>	<i>Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Chloride</i>	<i>120</i>		<i>1.0</i>		<i>mg/L</i>			<i>09/16/19 16:30</i>	<i>2</i>
<i>Sulfate</i>	<i>62</i>		<i>4.0</i>		<i>mg/L</i>			<i>09/16/19 16:30</i>	<i>2</i>
<i>Alkalinity, Total</i>	<i>120</i>		<i>20</i>		<i>mg/L</i>			<i>09/20/19 17:29</i>	<i>2</i>
<i>Nitrate as N</i>	<i>ND</i>		<i>0.050</i>		<i>mg/L</i>			<i>09/11/19 20:36</i>	<i>1</i>
<i>Chemical Oxygen Demand</i>	<i>47</i>		<i>10</i>		<i>mg/L</i>			<i>09/12/19 16:30</i>	<i>1</i>
<i>Cyanide, Total</i>	<i>ND</i>		<i>0.010</i>		<i>mg/L</i>		<i>09/15/19 15:25</i>	<i>09/16/19 13:48</i>	<i>1</i>
<i>Total Dissolved Solids</i>	<i>450</i>		<i>10</i>		<i>mg/L</i>			<i>09/13/19 09:40</i>	<i>1</i>

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-5D

Date Collected: 09/10/19 10:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 01:01	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 01:01	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 01:01	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 01:01	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 01:01	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 01:01	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 01:01	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 01:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 01:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 01:01	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 01:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 01:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 01:01	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 01:01	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 01:01	1
2-Hexanone	ND		5.0		ug/L			09/16/19 01:01	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 01:01	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 01:01	1
Acetone	ND		10		ug/L			09/16/19 01:01	1
Benzene	ND		1.0		ug/L			09/16/19 01:01	1
Bromobenzene	ND		1.0		ug/L			09/16/19 01:01	1
Bromoform	ND		1.0		ug/L			09/16/19 01:01	1
Bromomethane	ND		1.0		ug/L			09/16/19 01:01	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 01:01	1
Chlorobenzene	2.9		1.0		ug/L			09/16/19 01:01	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 01:01	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 01:01	1
Chloroethane	ND *		1.0		ug/L			09/16/19 01:01	1
Chloroform	ND		1.0		ug/L			09/16/19 01:01	1
Chloromethane	ND		1.0		ug/L			09/16/19 01:01	1
cis-1,2-Dichloroethene	2.0		1.0		ug/L			09/16/19 01:01	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 01:01	1
Dibromomethane	ND		1.0		ug/L			09/16/19 01:01	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 01:01	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 01:01	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 01:01	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 01:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 01:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 01:01	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 01:01	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 01:01	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-5D

Lab Sample ID: 480-158965-4

Date Collected: 09/10/19 10:30

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			09/16/19 01:01	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
o-Xylene	ND		1.0		ug/L			09/16/19 01:01	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
Styrene	ND		1.0		ug/L			09/16/19 01:01	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 01:01	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 01:01	1
Toluene	ND		1.0		ug/L			09/16/19 01:01	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 01:01	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 01:01	1
Trichloroethene	ND		1.0		ug/L			09/16/19 01:01	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 01:01	1
Vinyl chloride	5.8		1.0		ug/L			09/16/19 01:01	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		09/16/19 01:01	1
Toluene-d8 (Surr)	94		80 - 120		09/16/19 01:01	1
4-Bromofluorobenzene (Surr)	101		73 - 120		09/16/19 01:01	1
Dibromofluoromethane (Surr)	109		75 - 123		09/16/19 01:01	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.5		0.20		ug/L		09/17/19 11:30	09/19/19 10:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	101		46 - 130	09/17/19 11:30	09/19/19 10:32	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.028		0.0020		mg/L		09/16/19 08:16	09/16/19 14:57	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 14:57	1
Calcium	47		0.50		mg/L		09/16/19 08:16	09/16/19 14:57	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 14:57	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:57	1
Iron	20		0.050		mg/L		09/16/19 08:16	09/16/19 14:57	1
Manganese	6.0		0.0030		mg/L		09/16/19 08:16	09/16/19 14:57	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 14:57	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 14:57	1
Sodium	38 F1		1.0		mg/L		09/16/19 08:16	09/16/19 14:57	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:57	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		1.0		ug/L		09/16/19 07:18	09/18/19 20:43	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:43	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-5D

Lab Sample ID: 480-158965-4

Date Collected: 09/10/19 10:30

Matrix: Water

Date Received: 09/11/19 08:00

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 16:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75		1.0		mg/L			09/16/19 16:38	2
Sulfate	18		4.0		mg/L			09/16/19 16:38	2
Alkalinity, Total	190		30		mg/L			09/20/19 17:57	3
Nitrate as N	ND		0.050		mg/L			09/11/19 21:49	1
Chemical Oxygen Demand	26		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:25	09/16/19 13:50	1
Total Dissolved Solids	350		10		mg/L			09/13/19 09:40	1

Client Sample ID: MW-5S

Lab Sample ID: 480-158965-5

Date Collected: 09/10/19 10:10

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 12:38	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 12:38	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 12:38	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 12:38	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 12:38	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 12:38	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 12:38	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 12:38	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 12:38	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 12:38	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 12:38	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 12:38	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 12:38	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 12:38	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 12:38	1
2-Hexanone	ND		5.0		ug/L			09/16/19 12:38	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 12:38	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 12:38	1
Acetone	ND		10		ug/L			09/16/19 12:38	1
Benzene	ND		1.0		ug/L			09/16/19 12:38	1
Bromobenzene	ND		1.0		ug/L			09/16/19 12:38	1
Bromoform	ND		1.0		ug/L			09/16/19 12:38	1
Bromomethane	ND		1.0		ug/L			09/16/19 12:38	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 12:38	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 12:38	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 12:38	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-5S

Lab Sample ID: 480-158965-5

Date Collected: 09/10/19 10:10

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			09/16/19 12:38	1
Chloroethane	ND	*	1.0		ug/L			09/16/19 12:38	1
Chloroform	ND		1.0		ug/L			09/16/19 12:38	1
Chloromethane	ND		1.0		ug/L			09/16/19 12:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 12:38	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 12:38	1
Dibromomethane	ND		1.0		ug/L			09/16/19 12:38	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 12:38	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 12:38	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 12:38	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 12:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 12:38	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 12:38	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 12:38	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 12:38	1
Naphthalene	ND		1.0		ug/L			09/16/19 12:38	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
o-Xylene	ND		1.0		ug/L			09/16/19 12:38	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
Styrene	ND		1.0		ug/L			09/16/19 12:38	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 12:38	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 12:38	1
Toluene	ND		1.0		ug/L			09/16/19 12:38	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 12:38	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 12:38	1
Trichloroethene	ND		1.0		ug/L			09/16/19 12:38	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 12:38	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 12:38	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		09/16/19 12:38	1
Toluene-d8 (Surr)	97		80 - 120		09/16/19 12:38	1
4-Bromofluorobenzene (Surr)	106		73 - 120		09/16/19 12:38	1
Dibromofluoromethane (Surr)	112		75 - 123		09/16/19 12:38	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		09/17/19 11:30	09/19/19 10:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	105		46 - 130	09/17/19 11:30	09/19/19 10:45	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.026		0.0020		mg/L		09/16/19 08:16	09/16/19 15:27	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-5S

Date Collected: 09/10/19 10:10

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-5

Matrix: Water

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 15:27	1
Calcium	7.7		0.50		mg/L		09/16/19 08:16	09/16/19 15:27	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 15:27	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:27	1
Iron	1.7		0.050		mg/L		09/16/19 08:16	09/16/19 15:27	1
Manganese	0.47		0.0030		mg/L		09/16/19 08:16	09/16/19 15:27	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 15:27	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 15:27	1
Sodium	3.1		1.0		mg/L		09/16/19 08:16	09/16/19 15:27	1
Zinc	0.014		0.010		mg/L		09/16/19 08:16	09/16/19 15:27	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:52	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:52	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 16:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		0.50		mg/L			09/16/19 17:27	1
Sulfate	5.2		2.0		mg/L			09/16/19 17:27	1
Alkalinity, Total	ND		10		mg/L			09/19/19 20:21	1
Nitrate as N	ND		0.050		mg/L			09/11/19 20:38	1
Chemical Oxygen Demand	ND		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND	F1	0.010		mg/L		09/17/19 11:02	09/17/19 15:41	1
Total Dissolved Solids	66		10		mg/L			09/13/19 09:40	1

Client Sample ID: MW-6D

Date Collected: 09/10/19 14:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 13:02	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 13:02	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 13:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 13:02	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 13:02	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 13:02	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 13:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 13:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 13:02	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 13:02	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 13:02	1

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Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-6D

Date Collected: 09/10/19 14:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 13:02	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:02	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 13:02	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 13:02	1
2-Hexanone	ND		5.0		ug/L			09/16/19 13:02	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 13:02	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 13:02	1
Acetone	ND		10		ug/L			09/16/19 13:02	1
Benzene	ND		1.0		ug/L			09/16/19 13:02	1
Bromobenzene	ND		1.0		ug/L			09/16/19 13:02	1
Bromoform	ND		1.0		ug/L			09/16/19 13:02	1
Bromomethane	ND		1.0		ug/L			09/16/19 13:02	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 13:02	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 13:02	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 13:02	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 13:02	1
Chloroethane	ND *		1.0		ug/L			09/16/19 13:02	1
Chloroform	ND		1.0		ug/L			09/16/19 13:02	1
Chloromethane	ND		1.0		ug/L			09/16/19 13:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 13:02	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 13:02	1
Dibromomethane	ND		1.0		ug/L			09/16/19 13:02	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 13:02	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 13:02	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 13:02	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 13:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 13:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 13:02	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 13:02	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 13:02	1
Naphthalene	ND		1.0		ug/L			09/16/19 13:02	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
o-Xylene	ND		1.0		ug/L			09/16/19 13:02	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
Styrene	ND		1.0		ug/L			09/16/19 13:02	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 13:02	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 13:02	1
Toluene	ND		1.0		ug/L			09/16/19 13:02	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 13:02	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 13:02	1
Trichloroethene	ND		1.0		ug/L			09/16/19 13:02	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 13:02	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 13:02	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-6D

Lab Sample ID: 480-158965-6

Date Collected: 09/10/19 14:30

Matrix: Water

Date Received: 09/11/19 08:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		09/16/19 13:02	1
Toluene-d8 (Surr)	93		80 - 120		09/16/19 13:02	1
4-Bromofluorobenzene (Surr)	102		73 - 120		09/16/19 13:02	1
Dibromofluoromethane (Surr)	111		75 - 123		09/16/19 13:02	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.4		0.20		ug/L		09/17/19 11:30	09/19/19 10:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	98		46 - 130	09/17/19 11:30	09/19/19 10:59	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.018		0.0020		mg/L		09/16/19 08:16	09/16/19 15:31	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 15:31	1
Calcium	26		0.50		mg/L		09/16/19 08:16	09/16/19 15:31	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 15:31	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:31	1
Iron	0.50		0.050		mg/L		09/16/19 08:16	09/16/19 15:31	1
Manganese	0.57		0.0030		mg/L		09/16/19 08:16	09/16/19 15:31	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 15:31	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 15:31	1
Sodium	11		1.0		mg/L		09/16/19 08:16	09/16/19 15:31	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:31	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7		1.0		ug/L		09/16/19 07:18	09/18/19 20:55	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:55	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 16:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		0.50		mg/L			09/16/19 17:35	1
Sulfate	41		2.0		mg/L			09/16/19 17:35	1
Alkalinity, Total	49		10		mg/L			09/19/19 20:21	1
Nitrate as N	ND		0.050		mg/L			09/11/19 20:39	1
Chemical Oxygen Demand	ND		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:30	09/16/19 14:15	1
Total Dissolved Solids	160		10		mg/L			09/13/19 09:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7D

Date Collected: 09/10/19 11:45

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 13:26	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 13:26	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 13:26	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 13:26	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 13:26	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 13:26	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 13:26	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 13:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 13:26	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 13:26	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 13:26	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 13:26	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:26	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 13:26	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 13:26	1
2-Hexanone	ND		5.0		ug/L			09/16/19 13:26	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 13:26	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 13:26	1
Acetone	ND		10		ug/L			09/16/19 13:26	1
Benzene	ND		1.0		ug/L			09/16/19 13:26	1
Bromobenzene	ND		1.0		ug/L			09/16/19 13:26	1
Bromoform	ND		1.0		ug/L			09/16/19 13:26	1
Bromomethane	ND		1.0		ug/L			09/16/19 13:26	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 13:26	1
Chlorobenzene	1.1		1.0		ug/L			09/16/19 13:26	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 13:26	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 13:26	1
Chloroethane	ND *		1.0		ug/L			09/16/19 13:26	1
Chloroform	ND		1.0		ug/L			09/16/19 13:26	1
Chloromethane	ND		1.0		ug/L			09/16/19 13:26	1
cis-1,2-Dichloroethene	2.2		1.0		ug/L			09/16/19 13:26	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 13:26	1
Dibromomethane	ND		1.0		ug/L			09/16/19 13:26	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 13:26	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 13:26	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 13:26	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 13:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 13:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 13:26	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 13:26	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 13:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7D

Lab Sample ID: 480-158965-7

Date Collected: 09/10/19 11:45

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			09/16/19 13:26	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
o-Xylene	ND		1.0		ug/L			09/16/19 13:26	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
Styrene	ND		1.0		ug/L			09/16/19 13:26	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 13:26	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 13:26	1
Toluene	ND		1.0		ug/L			09/16/19 13:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 13:26	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 13:26	1
Trichloroethene	ND		1.0		ug/L			09/16/19 13:26	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 13:26	1
Vinyl chloride	1.5		1.0		ug/L			09/16/19 13:26	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 13:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	115		77 - 120		09/16/19 13:26	1
Toluene-d8 (Surr)	99		80 - 120		09/16/19 13:26	1
4-Bromofluorobenzene (Surr)	109		73 - 120		09/16/19 13:26	1
Dibromofluoromethane (Surr)	110		75 - 123		09/16/19 13:26	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.4		0.20		ug/L		09/17/19 11:30	09/19/19 11:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	98		46 - 130	09/17/19 11:30	09/19/19 11:12	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.030		0.0020		mg/L		09/16/19 08:16	09/16/19 15:35	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 15:35	1
Calcium	49		0.50		mg/L		09/16/19 08:16	09/16/19 15:35	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 15:35	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:35	1
Iron	4.6		0.050		mg/L		09/16/19 08:16	09/16/19 15:35	1
Manganese	4.7		0.0030		mg/L		09/16/19 08:16	09/16/19 15:35	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 15:35	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 15:35	1
Sodium	29		1.0		mg/L		09/16/19 08:16	09/16/19 15:35	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:35	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		1.0		ug/L		09/16/19 07:18	09/18/19 20:57	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:57	1

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Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7D

Date Collected: 09/10/19 11:45

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-7

Matrix: Water

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53		1.0		mg/L			09/16/19 17:44	2
Sulfate	12		4.0		mg/L			09/16/19 17:44	2
Alkalinity, Total	200		30		mg/L			09/20/19 17:29	3
Nitrate as N	ND		0.050		mg/L			09/11/19 20:45	1
Chemical Oxygen Demand	16		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:30	09/16/19 14:18	1
Total Dissolved Solids	320		10		mg/L			09/13/19 09:40	1

Client Sample ID: MW-7S

Date Collected: 09/10/19 11:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 13:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 13:50	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 13:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 13:50	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 13:50	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 13:50	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 13:50	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 13:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 13:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 13:50	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 13:50	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 13:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 13:50	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 13:50	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 13:50	1
2-Hexanone	ND		5.0		ug/L			09/16/19 13:50	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 13:50	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 13:50	1
Acetone	ND		10		ug/L			09/16/19 13:50	1
Benzene	ND		1.0		ug/L			09/16/19 13:50	1
Bromobenzene	ND		1.0		ug/L			09/16/19 13:50	1
Bromoform	ND		1.0		ug/L			09/16/19 13:50	1
Bromomethane	ND		1.0		ug/L			09/16/19 13:50	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 13:50	1
Chlorobenzene	2.3		1.0		ug/L			09/16/19 13:50	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 13:50	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7S

Lab Sample ID: 480-158965-8

Date Collected: 09/10/19 11:30

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			09/16/19 13:50	1
Chloroethane	ND	*	1.0		ug/L			09/16/19 13:50	1
Chloroform	ND		1.0		ug/L			09/16/19 13:50	1
Chloromethane	ND		1.0		ug/L			09/16/19 13:50	1
cis-1,2-Dichloroethene	1.4		1.0		ug/L			09/16/19 13:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 13:50	1
Dibromomethane	ND		1.0		ug/L			09/16/19 13:50	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 13:50	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 13:50	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 13:50	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 13:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 13:50	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 13:50	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 13:50	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 13:50	1
Naphthalene	ND		1.0		ug/L			09/16/19 13:50	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
o-Xylene	ND		1.0		ug/L			09/16/19 13:50	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
Styrene	ND		1.0		ug/L			09/16/19 13:50	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 13:50	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 13:50	1
Toluene	ND		1.0		ug/L			09/16/19 13:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 13:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 13:50	1
Trichloroethene	ND		1.0		ug/L			09/16/19 13:50	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 13:50	1
Vinyl chloride	2.4		1.0		ug/L			09/16/19 13:50	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 13:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		09/16/19 13:50	1
Toluene-d8 (Surr)	93		80 - 120		09/16/19 13:50	1
4-Bromofluorobenzene (Surr)	102		73 - 120		09/16/19 13:50	1
Dibromofluoromethane (Surr)	108		75 - 123		09/16/19 13:50	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.0		0.20		ug/L		09/17/19 11:30	09/19/19 11:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	91		46 - 130	09/17/19 11:30	09/19/19 11:39	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.14		0.0020		mg/L		09/16/19 08:16	09/16/19 15:39	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7S

Lab Sample ID: 480-158965-8

Date Collected: 09/10/19 11:30

Matrix: Water

Date Received: 09/11/19 08:00

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 15:39	1
Calcium	53		0.50		mg/L		09/16/19 08:16	09/16/19 15:39	1
Chromium	0.019		0.0040		mg/L		09/16/19 08:16	09/16/19 15:39	1
Copper	0.030		0.010		mg/L		09/16/19 08:16	09/16/19 15:39	1
Iron	49		0.050		mg/L		09/16/19 08:16	09/16/19 15:39	1
Manganese	6.8		0.0030		mg/L		09/16/19 08:16	09/16/19 15:39	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 15:39	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 15:39	1
Sodium	28		1.0		mg/L		09/16/19 08:16	09/16/19 15:39	1
Zinc	0.057		0.010		mg/L		09/16/19 08:16	09/16/19 15:39	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	69		1.0		ug/L		09/16/19 07:18	09/18/19 20:59	1
Lead	19		1.0		ug/L		09/16/19 07:18	09/18/19 20:59	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 17:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67		1.0		mg/L			09/16/19 17:52	2
Sulfate	4.6		4.0		mg/L			09/16/19 17:52	2
Alkalinity, Total	220		30		mg/L			09/20/19 17:36	3
Nitrate as N	ND		0.050		mg/L			09/11/19 20:48	1
Chemical Oxygen Demand	26		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND	F1	0.010		mg/L		09/17/19 11:02	09/17/19 15:44	1
Total Dissolved Solids	320		10		mg/L			09/13/19 09:40	1

Client Sample ID: MW-8D

Lab Sample ID: 480-158965-9

Date Collected: 09/10/19 12:45

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 14:14	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 14:14	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 14:14	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 14:14	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 14:14	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 14:14	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 14:14	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 14:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 14:14	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 14:14	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 14:14	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8D

Date Collected: 09/10/19 12:45

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 14:14	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 14:14	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 14:14	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 14:14	1
2-Hexanone	ND		5.0		ug/L			09/16/19 14:14	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 14:14	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 14:14	1
Acetone	ND		10		ug/L			09/16/19 14:14	1
Benzene	ND		1.0		ug/L			09/16/19 14:14	1
Bromobenzene	ND		1.0		ug/L			09/16/19 14:14	1
Bromoform	ND		1.0		ug/L			09/16/19 14:14	1
Bromomethane	ND		1.0		ug/L			09/16/19 14:14	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 14:14	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 14:14	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 14:14	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 14:14	1
Chloroethane	ND	*	1.0		ug/L			09/16/19 14:14	1
Chloroform	ND		1.0		ug/L			09/16/19 14:14	1
Chloromethane	ND		1.0		ug/L			09/16/19 14:14	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 14:14	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 14:14	1
Dibromomethane	ND		1.0		ug/L			09/16/19 14:14	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 14:14	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 14:14	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 14:14	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 14:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 14:14	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 14:14	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 14:14	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 14:14	1
Naphthalene	ND		1.0		ug/L			09/16/19 14:14	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
o-Xylene	ND		1.0		ug/L			09/16/19 14:14	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
Styrene	ND		1.0		ug/L			09/16/19 14:14	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 14:14	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 14:14	1
Toluene	ND		1.0		ug/L			09/16/19 14:14	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 14:14	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 14:14	1
Trichloroethene	ND		1.0		ug/L			09/16/19 14:14	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 14:14	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 14:14	1

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8D

Lab Sample ID: 480-158965-9

Date Collected: 09/10/19 12:45

Matrix: Water

Date Received: 09/11/19 08:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		09/16/19 14:14	1
Toluene-d8 (Surr)	93		80 - 120		09/16/19 14:14	1
4-Bromofluorobenzene (Surr)	99		73 - 120		09/16/19 14:14	1
Dibromofluoromethane (Surr)	108		75 - 123		09/16/19 14:14	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	3.4		0.20		ug/L		09/17/19 11:30	09/19/19 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	103		46 - 130	09/17/19 11:30	09/19/19 11:52	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.034		0.0020		mg/L		09/16/19 08:16	09/16/19 15:43	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 15:43	1
Calcium	21		0.50		mg/L		09/16/19 08:16	09/16/19 15:43	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 15:43	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:43	1
Iron	7.1		0.050		mg/L		09/16/19 08:16	09/16/19 15:43	1
Manganese	0.65		0.0030		mg/L		09/16/19 08:16	09/16/19 15:43	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 15:43	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 15:43	1
Sodium	13		1.0		mg/L		09/16/19 08:16	09/16/19 15:43	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:43	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0		ug/L		09/16/19 07:18	09/18/19 21:02	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 21:02	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 17:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29		0.50		mg/L			09/16/19 18:00	1
Sulfate	24		2.0		mg/L			09/16/19 18:00	1
Alkalinity, Total	45		10		mg/L			09/19/19 20:21	1
Nitrate as N	ND		0.050		mg/L			09/11/19 21:54	1
Chemical Oxygen Demand	ND		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:30	09/16/19 14:23	1
Total Dissolved Solids	170		10		mg/L			09/13/19 09:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8S

Date Collected: 09/10/19 12:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 14:38	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 14:38	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 14:38	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 14:38	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 14:38	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 14:38	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 14:38	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 14:38	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 14:38	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 14:38	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 14:38	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 14:38	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 14:38	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 14:38	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 14:38	1
2-Hexanone	ND		5.0		ug/L			09/16/19 14:38	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 14:38	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 14:38	1
Acetone	ND		10		ug/L			09/16/19 14:38	1
Benzene	ND		1.0		ug/L			09/16/19 14:38	1
Bromobenzene	ND		1.0		ug/L			09/16/19 14:38	1
Bromoform	ND		1.0		ug/L			09/16/19 14:38	1
Bromomethane	ND		1.0		ug/L			09/16/19 14:38	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 14:38	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 14:38	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 14:38	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 14:38	1
Chloroethane	ND *		1.0		ug/L			09/16/19 14:38	1
Chloroform	ND		1.0		ug/L			09/16/19 14:38	1
Chloromethane	ND		1.0		ug/L			09/16/19 14:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 14:38	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 14:38	1
Dibromomethane	ND		1.0		ug/L			09/16/19 14:38	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 14:38	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 14:38	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 14:38	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 14:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 14:38	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 14:38	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 14:38	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 14:38	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8S

Lab Sample ID: 480-158965-10

Date Collected: 09/10/19 12:30

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0		ug/L			09/16/19 14:38	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
o-Xylene	ND		1.0		ug/L			09/16/19 14:38	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
Styrene	ND		1.0		ug/L			09/16/19 14:38	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 14:38	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 14:38	1
Toluene	ND		1.0		ug/L			09/16/19 14:38	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 14:38	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 14:38	1
Trichloroethene	ND		1.0		ug/L			09/16/19 14:38	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 14:38	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 14:38	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		77 - 120		09/16/19 14:38	1
Toluene-d8 (Surr)	94		80 - 120		09/16/19 14:38	1
4-Bromofluorobenzene (Surr)	104		73 - 120		09/16/19 14:38	1
Dibromofluoromethane (Surr)	113		75 - 123		09/16/19 14:38	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.4		0.20		ug/L		09/17/19 11:30	09/19/19 12:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	100		46 - 130	09/17/19 11:30	09/19/19 12:06	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.079		0.0020		mg/L		09/16/19 08:16	09/16/19 15:47	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 15:47	1
Calcium	34		0.50		mg/L		09/16/19 08:16	09/16/19 15:47	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 15:47	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:47	1
Iron	8.4		0.050		mg/L		09/16/19 08:16	09/16/19 15:47	1
Manganese	1.1		0.0030		mg/L		09/16/19 08:16	09/16/19 15:47	1
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 15:47	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 15:47	1
Sodium	28		1.0		mg/L		09/16/19 08:16	09/16/19 15:47	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 15:47	1

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.1		1.0		ug/L		09/16/19 07:18	09/18/19 21:04	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 21:04	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8S

Date Collected: 09/10/19 12:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-10

Matrix: Water

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 17:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		0.50		mg/L			09/16/19 18:08	1
Sulfate	17		2.0		mg/L			09/16/19 18:08	1
Alkalinity, Total	150		20		mg/L			09/19/19 20:39	2
Nitrate as N	ND		0.050		mg/L			09/11/19 21:56	1
Chemical Oxygen Demand	44		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:30	09/16/19 14:24	1
Total Dissolved Solids	240		10		mg/L			09/13/19 09:40	1

Client Sample ID: PZ-1

Date Collected: 09/10/19 13:00

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 15:02	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 15:02	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 15:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 15:02	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 15:02	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 15:02	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 15:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 15:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 15:02	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 15:02	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 15:02	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 15:02	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 15:02	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 15:02	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 15:02	1
2-Hexanone	ND		5.0		ug/L			09/16/19 15:02	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 15:02	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 15:02	1
Acetone	ND		10		ug/L			09/16/19 15:02	1
Benzene	ND		1.0		ug/L			09/16/19 15:02	1
Bromobenzene	ND		1.0		ug/L			09/16/19 15:02	1
Bromoform	ND		1.0		ug/L			09/16/19 15:02	1
Bromomethane	ND		1.0		ug/L			09/16/19 15:02	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 15:02	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 15:02	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 15:02	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: PZ-1

Lab Sample ID: 480-158965-11

Date Collected: 09/10/19 13:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0		ug/L			09/16/19 15:02	1
Chloroethane	ND	*	1.0		ug/L			09/16/19 15:02	1
Chloroform	ND		1.0		ug/L			09/16/19 15:02	1
Chloromethane	ND		1.0		ug/L			09/16/19 15:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 15:02	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 15:02	1
Dibromomethane	ND		1.0		ug/L			09/16/19 15:02	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 15:02	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 15:02	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 15:02	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 15:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 15:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 15:02	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 15:02	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 15:02	1
Naphthalene	ND		1.0		ug/L			09/16/19 15:02	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
o-Xylene	ND		1.0		ug/L			09/16/19 15:02	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
Styrene	ND		1.0		ug/L			09/16/19 15:02	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 15:02	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 15:02	1
Toluene	ND		1.0		ug/L			09/16/19 15:02	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 15:02	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 15:02	1
Trichloroethene	ND		1.0		ug/L			09/16/19 15:02	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 15:02	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 15:02	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		77 - 120		09/16/19 15:02	1
Toluene-d8 (Surr)	96		80 - 120		09/16/19 15:02	1
4-Bromofluorobenzene (Surr)	105		73 - 120		09/16/19 15:02	1
Dibromofluoromethane (Surr)	112		75 - 123		09/16/19 15:02	1

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.74		0.20		ug/L		09/17/19 11:30	09/19/19 12:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	93		46 - 130	09/17/19 11:30	09/19/19 12:19	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.014		0.0020		mg/L		09/16/19 08:16	09/17/19 01:56	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: PZ-1

Lab Sample ID: 480-158965-11

Date Collected: 09/10/19 13:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35		0.50		mg/L		09/16/19 08:16	09/17/19 01:56	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/17/19 01:56	1
Iron	0.65		0.050		mg/L		09/16/19 08:16	09/17/19 01:56	1
Manganese	0.23		0.0030		mg/L		09/16/19 08:16	09/17/19 01:56	1
Sodium	37		1.0		mg/L		09/16/19 08:16	09/17/19 01:56	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/17/19 01:56	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		1.0		ug/L		09/16/19 07:18	09/18/19 19:24	1
Cadmium	ND		0.25		ug/L		09/16/19 07:18	09/18/19 19:24	1
Copper	ND		1.0		ug/L		09/16/19 07:18	09/18/19 19:24	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 19:24	1
Selenium	ND		1.0		ug/L		09/16/19 07:18	09/18/19 19:24	1
Silver	ND		0.25		ug/L		09/16/19 07:18	09/18/19 19:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 12:05	09/16/19 16:22	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	120		0.50		mg/L			09/18/19 09:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83		0.50		mg/L			09/16/19 18:49	1
Sulfate	19		2.0		mg/L			09/16/19 18:49	1
Alkalinity, Total	71		10		mg/L			09/19/19 20:25	1
Nitrate as N	0.10		0.050		mg/L			09/11/19 21:57	1
Chemical Oxygen Demand	27		10		mg/L			09/12/19 16:30	1
Cyanide, Total	ND		0.0050		mg/L		09/16/19 09:44	09/16/19 13:16	1
Total Dissolved Solids	300		10		mg/L			09/13/19 09:40	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-158965-12

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 15:26	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 15:26	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 15:26	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 15:26	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 15:26	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 15:26	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 15:26	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 15:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 15:26	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 15:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-158965-12

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 15:26	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 15:26	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 15:26	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 15:26	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 15:26	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 15:26	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 15:26	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 15:26	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 15:26	1
2-Hexanone	ND		5.0		ug/L			09/16/19 15:26	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 15:26	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 15:26	1
Acetone	ND		10		ug/L			09/16/19 15:26	1
Benzene	ND		1.0		ug/L			09/16/19 15:26	1
Bromobenzene	ND		1.0		ug/L			09/16/19 15:26	1
Bromoform	ND		1.0		ug/L			09/16/19 15:26	1
Bromomethane	ND		1.0		ug/L			09/16/19 15:26	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 15:26	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 15:26	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 15:26	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 15:26	1
Chloroethane	ND *		1.0		ug/L			09/16/19 15:26	1
Chloroform	ND		1.0		ug/L			09/16/19 15:26	1
Chloromethane	ND		1.0		ug/L			09/16/19 15:26	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 15:26	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 15:26	1
Dibromomethane	ND		1.0		ug/L			09/16/19 15:26	1
Bromodichloromethane	ND		1.0		ug/L			09/16/19 15:26	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 15:26	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 15:26	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 15:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 15:26	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 15:26	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 15:26	1
Naphthalene	ND		1.0		ug/L			09/16/19 15:26	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
o-Xylene	ND		1.0		ug/L			09/16/19 15:26	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
Styrene	ND		1.0		ug/L			09/16/19 15:26	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 15:26	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 15:26	1
Toluene	ND		1.0		ug/L			09/16/19 15:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 15:26	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 15:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-158965-12

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.0		ug/L			09/16/19 15:26	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 15:26	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 15:26	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Tentatively Identified Compound</i>	<i>None</i>		<i>ug/L</i>					09/16/19 15:26	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>1,2-Dichloroethane-d4 (Surr)</i>	110		77 - 120					09/16/19 15:26	1
<i>Toluene-d8 (Surr)</i>	94		80 - 120					09/16/19 15:26	1
<i>4-Bromofluorobenzene (Surr)</i>	101		73 - 120					09/16/19 15:26	1
<i>Dibromofluoromethane (Surr)</i>	112		75 - 123					09/16/19 15:26	1

Surrogate Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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)	TOL (80-120)	BFB (73-120)	DBFM (75-123)
480-158965-1	DUP-1	114	96	107	112
480-158965-2	MW-1	118	97	106	117
480-158965-3	MW-3	107	97	104	109
480-158965-4	MW-5D	112	94	101	109
480-158965-5	MW-5S	116	97	106	112
480-158965-6	MW-6D	112	93	102	111
480-158965-7	MW-7D	115	99	109	110
480-158965-8	MW-7S	109	93	102	108
480-158965-9	MW-8D	112	93	99	108
480-158965-10	MW-8S	114	94	104	113
480-158965-11	PZ-1	113	96	105	112
480-158965-12	TRIP BLANK	110	94	101	112
LCS 480-492178/5	Lab Control Sample	110	104	112	112
LCS 480-492224/5	Lab Control Sample	110	99	107	112
MB 480-492178/7	Method Blank	109	96	104	110
MB 480-492224/7	Method Blank	104	94	100	104

Surrogate Legend

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

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DXE (46-130)	
480-158965-1	DUP-1	96	
480-158965-2	MW-1	94	
480-158965-3	MW-3	101	
480-158965-4	MW-5D	101	
480-158965-5	MW-5S	105	
480-158965-6	MW-6D	98	
480-158965-7	MW-7D	98	
480-158965-8	MW-7S	91	
480-158965-9	MW-8D	103	
480-158965-10	MW-8S	100	
480-158965-11	PZ-1	93	
LCS 200-147393/2-A	Lab Control Sample	99	
MB 200-147393/1-A	Method Blank	104	

Surrogate Legend

DXE = 1,4-Dioxane-d8 (Surr)

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: MB 480-492178/7

Matrix: Water

Analysis Batch: 492178

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/15/19 22:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/15/19 22:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/15/19 22:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/15/19 22:37	1
1,1-Dichloroethane	ND		1.0		ug/L			09/15/19 22:37	1
1,1-Dichloroethene	ND		1.0		ug/L			09/15/19 22:37	1
1,1-Dichloropropene	ND		1.0		ug/L			09/15/19 22:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/15/19 22:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/15/19 22:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,2-Dichloroethane	ND		1.0		ug/L			09/15/19 22:37	1
1,2-Dichloropropane	ND		1.0		ug/L			09/15/19 22:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,3-Dichloropropane	ND		1.0		ug/L			09/15/19 22:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/15/19 22:37	1
2,2-Dichloropropane	ND		1.0		ug/L			09/15/19 22:37	1
2-Chlorotoluene	ND		1.0		ug/L			09/15/19 22:37	1
2-Hexanone	ND		5.0		ug/L			09/15/19 22:37	1
4-Chlorotoluene	ND		1.0		ug/L			09/15/19 22:37	1
4-Isopropyltoluene	ND		1.0		ug/L			09/15/19 22:37	1
Acetone	ND		10		ug/L			09/15/19 22:37	1
Benzene	ND		1.0		ug/L			09/15/19 22:37	1
Bromobenzene	ND		1.0		ug/L			09/15/19 22:37	1
Bromoform	ND		1.0		ug/L			09/15/19 22:37	1
Bromomethane	ND		1.0		ug/L			09/15/19 22:37	1
Carbon tetrachloride	ND		1.0		ug/L			09/15/19 22:37	1
Chlorobenzene	ND		1.0		ug/L			09/15/19 22:37	1
Bromochloromethane	ND		1.0		ug/L			09/15/19 22:37	1
Dibromochloromethane	ND		1.0		ug/L			09/15/19 22:37	1
Chloroethane	ND		1.0		ug/L			09/15/19 22:37	1
Chloroform	ND		1.0		ug/L			09/15/19 22:37	1
Chloromethane	ND		1.0		ug/L			09/15/19 22:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/15/19 22:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/15/19 22:37	1
Dibromomethane	ND		1.0		ug/L			09/15/19 22:37	1
Bromodichloromethane	ND		1.0		ug/L			09/15/19 22:37	1
Ethylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
1,2-Dibromoethane	ND		1.0		ug/L			09/15/19 22:37	1
Hexachlorobutadiene	ND		2.0		ug/L			09/15/19 22:37	1
Isopropylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
2-Butanone (MEK)	ND		10		ug/L			09/15/19 22:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/15/19 22:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/15/19 22:37	1
Methylene Chloride	ND		1.0		ug/L			09/15/19 22:37	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: MB 480-492178/7

Matrix: Water

Analysis Batch: 492178

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		2.0		ug/L			09/15/19 22:37	1
Naphthalene	ND		1.0		ug/L			09/15/19 22:37	1
n-Butylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
N-Propylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
o-Xylene	ND		1.0		ug/L			09/15/19 22:37	1
sec-Butylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
Styrene	ND		1.0		ug/L			09/15/19 22:37	1
tert-Butylbenzene	ND		1.0		ug/L			09/15/19 22:37	1
Tetrachloroethene	ND		1.0		ug/L			09/15/19 22:37	1
Toluene	ND		1.0		ug/L			09/15/19 22:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/15/19 22:37	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/15/19 22:37	1
Trichloroethene	ND		1.0		ug/L			09/15/19 22:37	1
Trichlorofluoromethane	ND		1.0		ug/L			09/15/19 22:37	1
Vinyl chloride	ND		1.0		ug/L			09/15/19 22:37	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/15/19 22:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		09/15/19 22:37	1
Toluene-d8 (Surr)	96		80 - 120		09/15/19 22:37	1
4-Bromofluorobenzene (Surr)	104		73 - 120		09/15/19 22:37	1
Dibromofluoromethane (Surr)	110		75 - 123		09/15/19 22:37	1

Lab Sample ID: LCS 480-492178/5

Matrix: Water

Analysis Batch: 492178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.4		ug/L		101	80 - 120
1,1,1-Trichloroethane	25.0	25.4		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	76 - 120
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	76 - 122
1,1-Dichloroethane	25.0	23.8		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	25.4		ug/L		102	66 - 127
1,1-Dichloropropene	25.0	23.0		ug/L		92	72 - 122
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	75 - 123
1,2,3-Trichloropropane	25.0	26.1		ug/L		104	68 - 122
1,2,4-Trichlorobenzene	25.0	25.2		ug/L		101	79 - 122
1,2,4-Trimethylbenzene	25.0	23.6		ug/L		94	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	22.4		ug/L		90	56 - 134
1,2-Dichlorobenzene	25.0	26.2		ug/L		105	80 - 124
1,2-Dichloroethane	25.0	26.3		ug/L		105	75 - 120
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3,5-Trimethylbenzene	25.0	23.2		ug/L		93	77 - 121
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	77 - 120
1,3-Dichloropropane	25.0	25.8		ug/L		103	75 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: LCS 480-492178/5

Matrix: Water

Analysis Batch: 492178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	80 - 120
2,2-Dichloropropane	25.0	22.9		ug/L		92	63 - 136
2-Chlorotoluene	25.0	23.5		ug/L		94	76 - 121
2-Hexanone	125	117		ug/L		94	65 - 127
4-Chlorotoluene	25.0	25.6		ug/L		102	77 - 121
4-Isopropyltoluene	25.0	24.0		ug/L		96	73 - 120
Acetone	125	133		ug/L		106	56 - 142
Benzene	25.0	24.4		ug/L		98	71 - 124
Bromobenzene	25.0	25.8		ug/L		103	78 - 120
Bromoform	25.0	27.5		ug/L		110	61 - 132
Bromomethane	25.0	33.1		ug/L		133	55 - 144
Carbon tetrachloride	25.0	24.8		ug/L		99	72 - 134
Chlorobenzene	25.0	24.4		ug/L		97	80 - 120
Bromochloromethane	25.0	27.5		ug/L		110	72 - 130
Dibromochloromethane	25.0	27.4		ug/L		110	75 - 125
Chloroethane	25.0	35.2 *		ug/L		141	69 - 136
Chloroform	25.0	25.5		ug/L		102	73 - 127
Chloromethane	25.0	22.9		ug/L		92	68 - 124
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	74 - 124
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	74 - 124
Dibromomethane	25.0	27.9		ug/L		112	76 - 127
Bromodichloromethane	25.0	26.2		ug/L		105	80 - 122
Ethylbenzene	25.0	23.8		ug/L		95	77 - 123
1,2-Dibromoethane	25.0	27.2		ug/L		109	77 - 120
Hexachlorobutadiene	25.0	25.1		ug/L		100	68 - 131
Isopropylbenzene	25.0	23.1		ug/L		92	77 - 122
2-Butanone (MEK)	125	116		ug/L		93	57 - 140
4-Methyl-2-pentanone (MIBK)	125	112		ug/L		90	71 - 125
Methyl tert-butyl ether	25.0	26.2		ug/L		105	77 - 120
Methylene Chloride	25.0	24.5		ug/L		98	75 - 124
m,p-Xylene	25.0	24.0		ug/L		96	76 - 122
Naphthalene	25.0	24.7		ug/L		99	66 - 125
n-Butylbenzene	25.0	23.6		ug/L		95	71 - 128
N-Propylbenzene	25.0	23.0		ug/L		92	75 - 127
o-Xylene	25.0	24.6		ug/L		98	76 - 122
sec-Butylbenzene	25.0	23.6		ug/L		94	74 - 127
Styrene	25.0	24.9		ug/L		100	80 - 120
tert-Butylbenzene	25.0	22.4		ug/L		90	75 - 123
Tetrachloroethene	25.0	24.4		ug/L		98	74 - 122
Toluene	25.0	23.7		ug/L		95	80 - 122
trans-1,2-Dichloroethene	25.0	24.0		ug/L		96	73 - 127
trans-1,3-Dichloropropene	25.0	24.5		ug/L		98	80 - 120
Trichloroethene	25.0	26.1		ug/L		104	74 - 123
Trichlorofluoromethane	25.0	30.4		ug/L		122	62 - 150
Vinyl chloride	25.0	24.2		ug/L		97	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		77 - 120

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: LCS 480-492178/5

Matrix: Water

Analysis Batch: 492178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	112		73 - 120
Dibromofluoromethane (Surr)	112		75 - 123

Lab Sample ID: MB 480-492224/7

Matrix: Water

Analysis Batch: 492224

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 10:46	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/16/19 10:46	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/16/19 10:46	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/16/19 10:46	1
1,1-Dichloroethane	ND		1.0		ug/L			09/16/19 10:46	1
1,1-Dichloroethene	ND		1.0		ug/L			09/16/19 10:46	1
1,1-Dichloropropene	ND		1.0		ug/L			09/16/19 10:46	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,2,3-Trichloropropane	ND		1.0		ug/L			09/16/19 10:46	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/16/19 10:46	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,2-Dichloroethane	ND		1.0		ug/L			09/16/19 10:46	1
1,2-Dichloropropane	ND		1.0		ug/L			09/16/19 10:46	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,3-Dichloropropane	ND		1.0		ug/L			09/16/19 10:46	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/16/19 10:46	1
2,2-Dichloropropane	ND		1.0		ug/L			09/16/19 10:46	1
2-Chlorotoluene	ND		1.0		ug/L			09/16/19 10:46	1
2-Hexanone	ND		5.0		ug/L			09/16/19 10:46	1
4-Chlorotoluene	ND		1.0		ug/L			09/16/19 10:46	1
4-Isopropyltoluene	ND		1.0		ug/L			09/16/19 10:46	1
Acetone	ND		10		ug/L			09/16/19 10:46	1
Benzene	ND		1.0		ug/L			09/16/19 10:46	1
Bromobenzene	ND		1.0		ug/L			09/16/19 10:46	1
Bromoform	ND		1.0		ug/L			09/16/19 10:46	1
Bromomethane	ND		1.0		ug/L			09/16/19 10:46	1
Carbon tetrachloride	ND		1.0		ug/L			09/16/19 10:46	1
Chlorobenzene	ND		1.0		ug/L			09/16/19 10:46	1
Bromochloromethane	ND		1.0		ug/L			09/16/19 10:46	1
Dibromochloromethane	ND		1.0		ug/L			09/16/19 10:46	1
Chloroethane	ND		1.0		ug/L			09/16/19 10:46	1
Chloroform	ND		1.0		ug/L			09/16/19 10:46	1
Chloromethane	ND		1.0		ug/L			09/16/19 10:46	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 10:46	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 10:46	1
Dibromomethane	ND		1.0		ug/L			09/16/19 10:46	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: MB 480-492224/7

Matrix: Water

Analysis Batch: 492224

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0		ug/L			09/16/19 10:46	1
Ethylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
1,2-Dibromoethane	ND		1.0		ug/L			09/16/19 10:46	1
Hexachlorobutadiene	ND		2.0		ug/L			09/16/19 10:46	1
Isopropylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
2-Butanone (MEK)	ND		10		ug/L			09/16/19 10:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			09/16/19 10:46	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/16/19 10:46	1
Methylene Chloride	ND		1.0		ug/L			09/16/19 10:46	1
m,p-Xylene	ND		2.0		ug/L			09/16/19 10:46	1
Naphthalene	ND		1.0		ug/L			09/16/19 10:46	1
n-Butylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
N-Propylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
o-Xylene	ND		1.0		ug/L			09/16/19 10:46	1
sec-Butylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
Styrene	ND		1.0		ug/L			09/16/19 10:46	1
tert-Butylbenzene	ND		1.0		ug/L			09/16/19 10:46	1
Tetrachloroethene	ND		1.0		ug/L			09/16/19 10:46	1
Toluene	ND		1.0		ug/L			09/16/19 10:46	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/16/19 10:46	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/16/19 10:46	1
Trichloroethene	ND		1.0		ug/L			09/16/19 10:46	1
Trichlorofluoromethane	ND		1.0		ug/L			09/16/19 10:46	1
Vinyl chloride	ND		1.0		ug/L			09/16/19 10:46	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/16/19 10:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		09/16/19 10:46	1
Toluene-d8 (Surr)	94		80 - 120		09/16/19 10:46	1
4-Bromofluorobenzene (Surr)	100		73 - 120		09/16/19 10:46	1
Dibromofluoromethane (Surr)	104		75 - 123		09/16/19 10:46	1

Lab Sample ID: LCS 480-492224/5

Matrix: Water

Analysis Batch: 492224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	23.7		ug/L		95	80 - 120
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.8		ug/L		91	76 - 120
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	76 - 122
1,1-Dichloroethane	25.0	23.5		ug/L		94	77 - 120
1,1-Dichloroethene	25.0	26.1		ug/L		104	66 - 127
1,1-Dichloropropene	25.0	24.4		ug/L		98	72 - 122
1,2,3-Trichlorobenzene	25.0	22.7		ug/L		91	75 - 123
1,2,3-Trichloropropane	25.0	22.8		ug/L		91	68 - 122

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: LCS 480-492224/5

Matrix: Water

Analysis Batch: 492224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	79 - 122
1,2,4-Trimethylbenzene	25.0	22.5		ug/L		90	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	20.4		ug/L		82	56 - 134
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 124
1,2-Dichloroethane	25.0	25.2		ug/L		101	75 - 120
1,2-Dichloropropane	25.0	22.7		ug/L		91	76 - 120
1,3,5-Trimethylbenzene	25.0	22.5		ug/L		90	77 - 121
1,3-Dichlorobenzene	25.0	23.4		ug/L		94	77 - 120
1,3-Dichloropropane	25.0	22.6		ug/L		91	75 - 120
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 120
2,2-Dichloropropane	25.0	24.3		ug/L		97	63 - 136
2-Chlorotoluene	25.0	22.0		ug/L		88	76 - 121
2-Hexanone	125	103		ug/L		82	65 - 127
4-Chlorotoluene	25.0	21.6		ug/L		87	77 - 121
4-Isopropyltoluene	25.0	23.4		ug/L		94	73 - 120
Acetone	125	121		ug/L		97	56 - 142
Benzene	25.0	24.3		ug/L		97	71 - 124
Bromobenzene	25.0	24.2		ug/L		97	78 - 120
Bromoform	25.0	23.6		ug/L		94	61 - 132
Bromomethane	25.0	32.5		ug/L		130	55 - 144
Carbon tetrachloride	25.0	25.4		ug/L		102	72 - 134
Chlorobenzene	25.0	23.2		ug/L		93	80 - 120
Bromochloromethane	25.0	25.8		ug/L		103	72 - 130
Dibromochloromethane	25.0	23.4		ug/L		94	75 - 125
Chloroethane	25.0	35.3 *		ug/L		141	69 - 136
Chloroform	25.0	25.2		ug/L		101	73 - 127
Chloromethane	25.0	24.1		ug/L		96	68 - 124
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	74 - 124
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	74 - 124
Dibromomethane	25.0	26.4		ug/L		105	76 - 127
Bromodichloromethane	25.0	25.5		ug/L		102	80 - 122
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
1,2-Dibromoethane	25.0	23.6		ug/L		94	77 - 120
Hexachlorobutadiene	25.0	24.3		ug/L		97	68 - 131
Isopropylbenzene	25.0	22.3		ug/L		89	77 - 122
2-Butanone (MEK)	125	108		ug/L		87	57 - 140
4-Methyl-2-pentanone (MIBK)	125	98.3		ug/L		79	71 - 125
Methyl tert-butyl ether	25.0	24.2		ug/L		97	77 - 120
Methylene Chloride	25.0	23.7		ug/L		95	75 - 124
m,p-Xylene	25.0	23.6		ug/L		94	76 - 122
Naphthalene	25.0	21.6		ug/L		86	66 - 125
n-Butylbenzene	25.0	22.6		ug/L		90	71 - 128
N-Propylbenzene	25.0	22.4		ug/L		90	75 - 127
o-Xylene	25.0	23.4		ug/L		94	76 - 122
sec-Butylbenzene	25.0	23.1		ug/L		92	74 - 127
Styrene	25.0	22.7		ug/L		91	80 - 120
tert-Butylbenzene	25.0	22.4		ug/L		90	75 - 123
Tetrachloroethene	25.0	24.9		ug/L		100	74 - 122
Toluene	25.0	23.1		ug/L		92	80 - 122

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: LCS 480-492224/5

Matrix: Water

Analysis Batch: 492224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	25.0	25.4		ug/L		102	73 - 127
trans-1,3-Dichloropropene	25.0	21.5		ug/L		86	80 - 120
Trichloroethene	25.0	26.2		ug/L		105	74 - 123
Trichlorofluoromethane	25.0	31.3		ug/L		125	62 - 150
Vinyl chloride	25.0	26.0		ug/L		104	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		77 - 120
Toluene-d8 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	107		73 - 120
Dibromofluoromethane (Surr)	112		75 - 123

Method: 522 - 1,4 Dioxane (GC/MS SIM)

Lab Sample ID: MB 200-147393/1-A

Matrix: Water

Analysis Batch: 147492

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 147393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		09/17/19 11:30	09/19/19 07:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	104		46 - 130	09/17/19 11:30	09/19/19 07:52	1

Lab Sample ID: LCS 200-147393/2-A

Matrix: Water

Analysis Batch: 147492

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 147393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	8.00	8.07		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	99		46 - 130

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-491805/1-A

Matrix: Water

Analysis Batch: 492405

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 491805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 14:37	1
Cadmium	ND		0.0020		mg/L		09/16/19 08:16	09/16/19 14:37	1
Calcium	ND		0.50		mg/L		09/16/19 08:16	09/16/19 14:37	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/16/19 14:37	1
Copper	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:37	1
Iron	ND		0.050		mg/L		09/16/19 08:16	09/16/19 14:37	1
Manganese	ND		0.0030		mg/L		09/16/19 08:16	09/16/19 14:37	1

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QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: MB 480-491805/1-A
Matrix: Water
Analysis Batch: 492405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.025		mg/L		09/16/19 08:16	09/16/19 14:37	1
Silver	ND		0.0060		mg/L		09/16/19 08:16	09/16/19 14:37	1
Sodium	ND		1.0		mg/L		09/16/19 08:16	09/16/19 14:37	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/16/19 14:37	1

Lab Sample ID: LCS 480-491805/2-A
Matrix: Water
Analysis Batch: 492405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.200	0.204		mg/L		102	80 - 120
Cadmium	0.200	0.192		mg/L		96	80 - 120
Calcium	10.0	9.68		mg/L		97	80 - 120
Chromium	0.200	0.198		mg/L		99	80 - 120
Copper	0.200	0.188		mg/L		94	80 - 120
Iron	10.0	9.75		mg/L		98	80 - 120
Manganese	0.200	0.193		mg/L		97	80 - 120
Selenium	0.200	0.187		mg/L		93	80 - 120
Silver	0.0500	0.0495		mg/L		99	80 - 120
Sodium	10.0	9.28		mg/L		93	80 - 120
Zinc	0.200	0.200		mg/L		100	80 - 120

Lab Sample ID: MB 480-491806/1-A
Matrix: Water
Analysis Batch: 492399

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491806

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.0020		mg/L		09/16/19 08:16	09/17/19 00:17	1
Calcium	ND		0.50		mg/L		09/16/19 08:16	09/17/19 00:17	1
Chromium	ND		0.0040		mg/L		09/16/19 08:16	09/17/19 00:17	1
Iron	ND		0.050		mg/L		09/16/19 08:16	09/17/19 00:17	1
Manganese	ND		0.0030		mg/L		09/16/19 08:16	09/17/19 00:17	1
Sodium	ND		1.0		mg/L		09/16/19 08:16	09/17/19 00:17	1
Zinc	ND		0.010		mg/L		09/16/19 08:16	09/17/19 00:17	1

Lab Sample ID: LCS 480-491806/2-A
Matrix: Water
Analysis Batch: 492399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491806

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Barium	0.200	0.204		mg/L		102	80 - 120
Calcium	10.0	10.0		mg/L		100	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Iron	10.0	10.2		mg/L		102	80 - 120
Manganese	0.200	0.202		mg/L		101	80 - 120
Sodium	10.0	9.58		mg/L		96	80 - 120
Zinc	0.200	0.212		mg/L		106	80 - 120

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

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

Lab Sample ID: 480-158965-4 MS

Matrix: Water

Analysis Batch: 492405

Client Sample ID: MW-5D

Prep Type: Dissolved

Prep Batch: 491805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Barium	0.028		0.200	0.220		mg/L		96	75 - 125
Cadmium	ND		0.200	0.191		mg/L		96	75 - 125
Calcium	47		10.0	53.6	4	mg/L		65	75 - 125
Chromium	ND		0.200	0.191		mg/L		96	75 - 125
Copper	ND		0.200	0.184		mg/L		92	75 - 125
Iron	20		10.0	27.9		mg/L		81	75 - 125
Manganese	6.0		0.200	5.83	4	mg/L		-95	75 - 125
Selenium	ND		0.200	0.180		mg/L		90	75 - 125
Silver	ND		0.0500	0.0479		mg/L		96	75 - 125
Sodium	38	F1	10.0	45.4	F1	mg/L		70	75 - 125
Zinc	ND		0.200	0.195		mg/L		96	75 - 125

Lab Sample ID: 480-158965-4 MSD

Matrix: Water

Analysis Batch: 492405

Client Sample ID: MW-5D

Prep Type: Dissolved

Prep Batch: 491805

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	0.028		0.200	0.220		mg/L		96	75 - 125	0	20
Cadmium	ND		0.200	0.193		mg/L		97	75 - 125	1	20
Calcium	47		10.0	54.4	4	mg/L		72	75 - 125	1	20
Chromium	ND		0.200	0.191		mg/L		95	75 - 125	0	20
Copper	ND		0.200	0.186		mg/L		93	75 - 125	1	20
Iron	20		10.0	28.4		mg/L		86	75 - 125	2	20
Manganese	6.0		0.200	5.95	4	mg/L		-36	75 - 125	2	20
Selenium	ND		0.200	0.182		mg/L		91	75 - 125	1	20
Silver	ND		0.0500	0.0480		mg/L		96	75 - 125	0	20
Sodium	38	F1	10.0	46.2		mg/L		78	75 - 125	2	20
Zinc	ND		0.200	0.194		mg/L		95	75 - 125	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 480-491804/1-A

Matrix: Water

Analysis Batch: 492865

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 491804

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:22	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 20:22	1

Lab Sample ID: LCS 480-491804/2-A

Matrix: Water

Analysis Batch: 492865

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 491804

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	17.3		ug/L		86	80 - 120
Lead	20.0	17.5		ug/L		88	80 - 120

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QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 480-491811/1-A
Matrix: Water
Analysis Batch: 492864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 491811

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0		ug/L		09/16/19 07:18	09/18/19 18:13	1
Cadmium	ND		0.25		ug/L		09/16/19 07:18	09/18/19 18:13	1
Copper	ND		1.0		ug/L		09/16/19 07:18	09/18/19 18:13	1
Lead	ND		1.0		ug/L		09/16/19 07:18	09/18/19 18:13	1
Selenium	ND		1.0		ug/L		09/16/19 07:18	09/18/19 18:13	1
Silver	ND		0.25		ug/L		09/16/19 07:18	09/18/19 18:13	1

Lab Sample ID: LCS 480-491811/2-A
Matrix: Water
Analysis Batch: 492864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 491811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	20.0	19.0		ug/L		95	80 - 120
Cadmium	20.0	18.5		ug/L		92	80 - 120
Copper	20.0	21.3		ug/L		107	80 - 120
Lead	20.0	18.5		ug/L		92	80 - 120
Selenium	20.0	18.3		ug/L		91	80 - 120
Silver	20.0	19.4		ug/L		97	80 - 120

Lab Sample ID: 480-158965-1 MS
Matrix: Water
Analysis Batch: 492865

Client Sample ID: DUP-1
Prep Type: Dissolved
Prep Batch: 491804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	32		20.0	51.7		ug/L		99	75 - 125
Lead	ND		20.0	18.7		ug/L		93	75 - 125

Lab Sample ID: 480-158965-1 MSD
Matrix: Water
Analysis Batch: 492865

Client Sample ID: DUP-1
Prep Type: Dissolved
Prep Batch: 491804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	32		20.0	51.8		ug/L		100	75 - 125	0	20
Lead	ND		20.0	19.2		ug/L		95	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-492284/1-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 12:05	09/16/19 16:04	1

Lab Sample ID: LCS 480-492284/2-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492284

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00667	0.00670		mg/L		100	80 - 120

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QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-492312/1-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492312

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		09/16/19 13:31	09/16/19 16:29	1

Lab Sample ID: LCS 480-492312/2-A
Matrix: Water
Analysis Batch: 492364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00667	0.00685		mg/L		103	80 - 120

Lab Sample ID: 480-158965-2 MS
Matrix: Water
Analysis Batch: 492364

Client Sample ID: MW-1
Prep Type: Dissolved
Prep Batch: 492312

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		0.00667	0.00713		mg/L		107	80 - 120

Lab Sample ID: 480-158965-2 MSD
Matrix: Water
Analysis Batch: 492364

Client Sample ID: MW-1
Prep Type: Dissolved
Prep Batch: 492312

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND		0.00667	0.00707		mg/L		106	80 - 120	1	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-492286/28
Matrix: Water
Analysis Batch: 492286

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			09/16/19 17:19	1
Sulfate	ND		2.0		mg/L			09/16/19 17:19	1

Lab Sample ID: MB 480-492286/4
Matrix: Water
Analysis Batch: 492286

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			09/16/19 14:03	1
Sulfate	ND		2.0		mg/L			09/16/19 14:03	1

Lab Sample ID: LCS 480-492286/27
Matrix: Water
Analysis Batch: 492286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	50.0	51.2		mg/L		102	90 - 110
Sulfate	50.0	49.0		mg/L		98	90 - 110

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 480-492286/3

Matrix: Water

Analysis Batch: 492286

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.8		mg/L		98	90 - 110
Sulfate	50.0	47.1		mg/L		94	90 - 110

Lab Sample ID: 480-158965-4 MS

Matrix: Water

Analysis Batch: 492286

Client Sample ID: MW-5D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	75		100	177		mg/L		102	81 - 120
Sulfate	18		100	122		mg/L		104	80 - 120

Lab Sample ID: 480-158965-10 MS

Matrix: Water

Analysis Batch: 492286

Client Sample ID: MW-8S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	31		50.0	82.7		mg/L		103	81 - 120
Sulfate	17		50.0	68.3		mg/L		103	80 - 120

Lab Sample ID: 480-158965-10 MSD

Matrix: Water

Analysis Batch: 492286

Client Sample ID: MW-8S

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	31		50.0	83.4		mg/L		105	81 - 120	1	15
Sulfate	17		50.0	69.1		mg/L		105	80 - 120	1	15

Lab Sample ID: 480-158965-11 MS

Matrix: Water

Analysis Batch: 492286

Client Sample ID: PZ-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	83		50.0	133	E	mg/L		98	81 - 120
Sulfate	19		50.0	70.4		mg/L		103	80 - 120

Method: 310.2 - Alkalinity

Lab Sample ID: MB 480-493290/123

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/19/19 19:24	1

Lab Sample ID: MB 480-493290/186

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/19/19 20:16	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 310.2 - Alkalinity (Continued)

Lab Sample ID: MB 480-493290/197

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/19/19 20:33	1

Lab Sample ID: MB 480-493290/204

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/19/19 20:37	1

Lab Sample ID: MB 480-493290/220

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/19/19 21:07	1

Lab Sample ID: MB 480-493290/227

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/20/19 17:30	1

Lab Sample ID: MB 480-493290/95

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		10		mg/L			09/19/19 17:52	1

Lab Sample ID: LCS 480-493290/124

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	47.5		mg/L		95	90 - 110

Lab Sample ID: LCS 480-493290/187

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	51.2		mg/L		102	90 - 110

Lab Sample ID: LCS 480-493290/198

Matrix: Water

Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	48.7		mg/L		97	90 - 110

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 310.2 - Alkalinity

Lab Sample ID: LCS 480-493290/205
Matrix: Water
Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	52.8		mg/L		106	90 - 110

Lab Sample ID: LCS 480-493290/221
Matrix: Water
Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	48.4		mg/L		97	90 - 110

Lab Sample ID: LCS 480-493290/228
Matrix: Water
Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	53.0		mg/L		106	90 - 110

Lab Sample ID: LCS 480-493290/96
Matrix: Water
Analysis Batch: 493290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	50.0	53.6		mg/L		107	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-491825/27
Matrix: Water
Analysis Batch: 491825

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			09/12/19 16:30	1

Lab Sample ID: MB 480-491825/51
Matrix: Water
Analysis Batch: 491825

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			09/12/19 16:30	1

Lab Sample ID: LCS 480-491825/28
Matrix: Water
Analysis Batch: 491825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	26.8		mg/L		107	90 - 110

QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 410.4 - COD (Continued)

Lab Sample ID: LCS 480-491825/52

Matrix: Water

Analysis Batch: 491825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	27.1		mg/L		108	90 - 110

Lab Sample ID: 480-158965-6 MS

Matrix: Water

Analysis Batch: 491825

Client Sample ID: MW-6D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	54.7		mg/L		109	75 - 125

Lab Sample ID: 480-158965-6 MSD

Matrix: Water

Analysis Batch: 491825

Client Sample ID: MW-6D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	53.1		mg/L		106	75 - 125	3	20

Lab Sample ID: 480-158965-7 MS

Matrix: Water

Analysis Batch: 491825

Client Sample ID: MW-7D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	16		50.0	72.4		mg/L		112	75 - 125

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 400-457109/1-A

Matrix: Water

Analysis Batch: 457104

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 457109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.0050		mg/L		09/16/19 09:44	09/16/19 13:11	1

Lab Sample ID: LCS 400-457109/2-A

Matrix: Water

Analysis Batch: 457104

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 457109

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.399	0.435		mg/L		109	75 - 125

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 480-492184/1-A

Matrix: Water

Analysis Batch: 492324

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 492184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:25	09/16/19 13:19	1

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QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 9012B - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LCS 480-492184/2-A
Matrix: Water
Analysis Batch: 492324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492184
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.400	0.407		mg/L		102	90 - 110

Lab Sample ID: MB 480-492185/1-A
Matrix: Water
Analysis Batch: 492341

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L		09/15/19 15:30	09/16/19 14:11	1

Lab Sample ID: LCS 480-492185/2-A
Matrix: Water
Analysis Batch: 492344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492185
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.250	0.230		mg/L		92	90 - 110

Lab Sample ID: 480-158965-6 DU
Matrix: Water
Analysis Batch: 492341

Client Sample ID: MW-6D
Prep Type: Total/NA
Prep Batch: 492185

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cyanide, Total	ND		ND		mg/L		NC	15

Lab Sample ID: MB 480-492463/1-A
Matrix: Water
Analysis Batch: 492555

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 492463

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010		mg/L		09/17/19 11:02	09/17/19 15:13	1

Lab Sample ID: LCS 480-492463/2-A
Matrix: Water
Analysis Batch: 492555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492463
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.400	0.368		mg/L		92	90 - 110

Lab Sample ID: LCS 480-492463/3-A
Matrix: Water
Analysis Batch: 492555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 492463
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	0.250	0.224		mg/L		90	90 - 110

Lab Sample ID: 480-158965-5 MS
Matrix: Water
Analysis Batch: 492555

Client Sample ID: MW-5S
Prep Type: Total/NA
Prep Batch: 492463
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	ND	F1	0.100	0.0862	F1	mg/L		86	90 - 110

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QC Sample Results

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: 480-158965-8 MS

Matrix: Water

Analysis Batch: 492555

Client Sample ID: MW-7S

Prep Type: Total/NA

Prep Batch: 492463

%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	ND	F1	0.100	0.0842	F1	mg/L		84	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 480-491893/1

Matrix: Water

Analysis Batch: 491893

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			09/13/19 09:40	1

Lab Sample ID: LCS 480-491893/2

Matrix: Water

Analysis Batch: 491893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	500	476		mg/L		95	85 - 115

Lab Sample ID: 480-158965-6 DU

Matrix: Water

Analysis Batch: 491893

Client Sample ID: MW-6D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	160		159		mg/L		1	10

Lab Sample ID: 480-158965-7 DU

Matrix: Water

Analysis Batch: 491893

Client Sample ID: MW-7D

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	320		315		mg/L		0.9	10

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

GC/MS VOA

Analysis Batch: 492178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	8260C	
480-158965-2	MW-1	Total/NA	Water	8260C	
480-158965-3	MW-3	Total/NA	Water	8260C	
480-158965-4	MW-5D	Total/NA	Water	8260C	
MB 480-492178/7	Method Blank	Total/NA	Water	8260C	
LCS 480-492178/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 492224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-5	MW-5S	Total/NA	Water	8260C	
480-158965-6	MW-6D	Total/NA	Water	8260C	
480-158965-7	MW-7D	Total/NA	Water	8260C	
480-158965-8	MW-7S	Total/NA	Water	8260C	
480-158965-9	MW-8D	Total/NA	Water	8260C	
480-158965-10	MW-8S	Total/NA	Water	8260C	
480-158965-11	PZ-1	Total/NA	Water	8260C	
480-158965-12	TRIP BLANK	Total/NA	Water	8260C	
MB 480-492224/7	Method Blank	Total/NA	Water	8260C	
LCS 480-492224/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 147393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	522	
480-158965-2	MW-1	Total/NA	Water	522	
480-158965-3	MW-3	Total/NA	Water	522	
480-158965-4	MW-5D	Total/NA	Water	522	
480-158965-5	MW-5S	Total/NA	Water	522	
480-158965-6	MW-6D	Total/NA	Water	522	
480-158965-7	MW-7D	Total/NA	Water	522	
480-158965-8	MW-7S	Total/NA	Water	522	
480-158965-9	MW-8D	Total/NA	Water	522	
480-158965-10	MW-8S	Total/NA	Water	522	
480-158965-11	PZ-1	Total/NA	Water	522	
MB 200-147393/1-A	Method Blank	Total/NA	Water	522	
LCS 200-147393/2-A	Lab Control Sample	Total/NA	Water	522	

Analysis Batch: 147492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	522	147393
480-158965-2	MW-1	Total/NA	Water	522	147393
480-158965-3	MW-3	Total/NA	Water	522	147393
480-158965-4	MW-5D	Total/NA	Water	522	147393
480-158965-5	MW-5S	Total/NA	Water	522	147393
480-158965-6	MW-6D	Total/NA	Water	522	147393
480-158965-7	MW-7D	Total/NA	Water	522	147393
480-158965-8	MW-7S	Total/NA	Water	522	147393
480-158965-9	MW-8D	Total/NA	Water	522	147393
480-158965-10	MW-8S	Total/NA	Water	522	147393
480-158965-11	PZ-1	Total/NA	Water	522	147393

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QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

GC/MS Semi VOA (Continued)

Analysis Batch: 147492 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 200-147393/1-A	Method Blank	Total/NA	Water	522	147393
LCS 200-147393/2-A	Lab Control Sample	Total/NA	Water	522	147393

Metals

Prep Batch: 491804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Dissolved	Water	3020A	
480-158965-2	MW-1	Dissolved	Water	3020A	
480-158965-3	MW-3	Dissolved	Water	3020A	
480-158965-4	MW-5D	Dissolved	Water	3020A	
480-158965-5	MW-5S	Dissolved	Water	3020A	
480-158965-6	MW-6D	Dissolved	Water	3020A	
480-158965-7	MW-7D	Dissolved	Water	3020A	
480-158965-8	MW-7S	Dissolved	Water	3020A	
480-158965-9	MW-8D	Dissolved	Water	3020A	
480-158965-10	MW-8S	Dissolved	Water	3020A	
MB 480-491804/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-491804/2-A	Lab Control Sample	Total/NA	Water	3020A	
480-158965-1 MS	DUP-1	Dissolved	Water	3020A	
480-158965-1 MSD	DUP-1	Dissolved	Water	3020A	

Prep Batch: 491805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Dissolved	Water	3005A	
480-158965-2	MW-1	Dissolved	Water	3005A	
480-158965-3	MW-3	Dissolved	Water	3005A	
480-158965-4	MW-5D	Dissolved	Water	3005A	
480-158965-5	MW-5S	Dissolved	Water	3005A	
480-158965-6	MW-6D	Dissolved	Water	3005A	
480-158965-7	MW-7D	Dissolved	Water	3005A	
480-158965-8	MW-7S	Dissolved	Water	3005A	
480-158965-9	MW-8D	Dissolved	Water	3005A	
480-158965-10	MW-8S	Dissolved	Water	3005A	
MB 480-491805/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-491805/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-158965-4 MS	MW-5D	Dissolved	Water	3005A	
480-158965-4 MSD	MW-5D	Dissolved	Water	3005A	

Prep Batch: 491806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	3005A	
MB 480-491806/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-491806/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 491811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	3020A	
MB 480-491811/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-491811/2-A	Lab Control Sample	Total/NA	Water	3020A	

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Metals

Prep Batch: 492284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	7470A	
MB 480-492284/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-492284/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 492312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Dissolved	Water	7470A	
480-158965-2	MW-1	Dissolved	Water	7470A	
480-158965-3	MW-3	Dissolved	Water	7470A	
480-158965-4	MW-5D	Dissolved	Water	7470A	
480-158965-5	MW-5S	Dissolved	Water	7470A	
480-158965-6	MW-6D	Dissolved	Water	7470A	
480-158965-7	MW-7D	Dissolved	Water	7470A	
480-158965-8	MW-7S	Dissolved	Water	7470A	
480-158965-9	MW-8D	Dissolved	Water	7470A	
480-158965-10	MW-8S	Dissolved	Water	7470A	
MB 480-492312/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-492312/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-158965-2 MS	MW-1	Dissolved	Water	7470A	
480-158965-2 MSD	MW-1	Dissolved	Water	7470A	

Analysis Batch: 492364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Dissolved	Water	7470A	492312
480-158965-2	MW-1	Dissolved	Water	7470A	492312
480-158965-3	MW-3	Dissolved	Water	7470A	492312
480-158965-4	MW-5D	Dissolved	Water	7470A	492312
480-158965-5	MW-5S	Dissolved	Water	7470A	492312
480-158965-6	MW-6D	Dissolved	Water	7470A	492312
480-158965-7	MW-7D	Dissolved	Water	7470A	492312
480-158965-8	MW-7S	Dissolved	Water	7470A	492312
480-158965-9	MW-8D	Dissolved	Water	7470A	492312
480-158965-10	MW-8S	Dissolved	Water	7470A	492312
480-158965-11	PZ-1	Total/NA	Water	7470A	492284
MB 480-492284/1-A	Method Blank	Total/NA	Water	7470A	492284
MB 480-492312/1-A	Method Blank	Total/NA	Water	7470A	492312
LCS 480-492284/2-A	Lab Control Sample	Total/NA	Water	7470A	492284
LCS 480-492312/2-A	Lab Control Sample	Total/NA	Water	7470A	492312
480-158965-2 MS	MW-1	Dissolved	Water	7470A	492312
480-158965-2 MSD	MW-1	Dissolved	Water	7470A	492312

Analysis Batch: 492399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	6010C	491806
MB 480-491806/1-A	Method Blank	Total/NA	Water	6010C	491806
LCS 480-491806/2-A	Lab Control Sample	Total/NA	Water	6010C	491806

Analysis Batch: 492405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Dissolved	Water	6010C	491805
480-158965-2	MW-1	Dissolved	Water	6010C	491805

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Metals (Continued)

Analysis Batch: 492405 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-3	MW-3	Dissolved	Water	6010C	491805
480-158965-4	MW-5D	Dissolved	Water	6010C	491805
480-158965-5	MW-5S	Dissolved	Water	6010C	491805
480-158965-6	MW-6D	Dissolved	Water	6010C	491805
480-158965-7	MW-7D	Dissolved	Water	6010C	491805
480-158965-8	MW-7S	Dissolved	Water	6010C	491805
480-158965-9	MW-8D	Dissolved	Water	6010C	491805
480-158965-10	MW-8S	Dissolved	Water	6010C	491805
MB 480-491805/1-A	Method Blank	Total/NA	Water	6010C	491805
LCS 480-491805/2-A	Lab Control Sample	Total/NA	Water	6010C	491805
480-158965-4 MS	MW-5D	Dissolved	Water	6010C	491805
480-158965-4 MSD	MW-5D	Dissolved	Water	6010C	491805

Analysis Batch: 492653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	SM 2340B	

Analysis Batch: 492864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	6020A	491811
MB 480-491811/1-A	Method Blank	Total/NA	Water	6020A	491811
LCS 480-491811/2-A	Lab Control Sample	Total/NA	Water	6020A	491811

Analysis Batch: 492865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Dissolved	Water	6020A	491804
480-158965-2	MW-1	Dissolved	Water	6020A	491804
480-158965-3	MW-3	Dissolved	Water	6020A	491804
480-158965-4	MW-5D	Dissolved	Water	6020A	491804
480-158965-5	MW-5S	Dissolved	Water	6020A	491804
480-158965-6	MW-6D	Dissolved	Water	6020A	491804
480-158965-7	MW-7D	Dissolved	Water	6020A	491804
480-158965-8	MW-7S	Dissolved	Water	6020A	491804
480-158965-9	MW-8D	Dissolved	Water	6020A	491804
480-158965-10	MW-8S	Dissolved	Water	6020A	491804
MB 480-491804/1-A	Method Blank	Total/NA	Water	6020A	491804
LCS 480-491804/2-A	Lab Control Sample	Total/NA	Water	6020A	491804
480-158965-1 MS	DUP-1	Dissolved	Water	6020A	491804
480-158965-1 MSD	DUP-1	Dissolved	Water	6020A	491804

General Chemistry

Analysis Batch: 457104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	9012A	457109
MB 400-457109/1-A	Method Blank	Total/NA	Water	9012A	457109
LCS 400-457109/2-A	Lab Control Sample	Total/NA	Water	9012A	457109

Prep Batch: 457109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-11	PZ-1	Total/NA	Water	9012A	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

General Chemistry (Continued)

Prep Batch: 457109 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-457109/1-A	Method Blank	Total/NA	Water	9012A	
LCS 400-457109/2-A	Lab Control Sample	Total/NA	Water	9012A	

Analysis Batch: 491607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	353.2	
480-158965-2	MW-1	Total/NA	Water	353.2	
480-158965-3	MW-3	Total/NA	Water	353.2	
480-158965-4	MW-5D	Total/NA	Water	353.2	
480-158965-5	MW-5S	Total/NA	Water	353.2	
480-158965-6	MW-6D	Total/NA	Water	353.2	
480-158965-7	MW-7D	Total/NA	Water	353.2	
480-158965-8	MW-7S	Total/NA	Water	353.2	
480-158965-9	MW-8D	Total/NA	Water	353.2	
480-158965-10	MW-8S	Total/NA	Water	353.2	
480-158965-11	PZ-1	Total/NA	Water	353.2	

Analysis Batch: 491825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	410.4	
480-158965-2	MW-1	Total/NA	Water	410.4	
480-158965-3	MW-3	Total/NA	Water	410.4	
480-158965-4	MW-5D	Total/NA	Water	410.4	
480-158965-5	MW-5S	Total/NA	Water	410.4	
480-158965-6	MW-6D	Total/NA	Water	410.4	
480-158965-7	MW-7D	Total/NA	Water	410.4	
480-158965-8	MW-7S	Total/NA	Water	410.4	
480-158965-9	MW-8D	Total/NA	Water	410.4	
480-158965-10	MW-8S	Total/NA	Water	410.4	
480-158965-11	PZ-1	Total/NA	Water	410.4	
MB 480-491825/27	Method Blank	Total/NA	Water	410.4	
MB 480-491825/51	Method Blank	Total/NA	Water	410.4	
LCS 480-491825/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-491825/52	Lab Control Sample	Total/NA	Water	410.4	
480-158965-6 MS	MW-6D	Total/NA	Water	410.4	
480-158965-6 MSD	MW-6D	Total/NA	Water	410.4	
480-158965-7 MS	MW-7D	Total/NA	Water	410.4	

Analysis Batch: 491893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	SM 2540C	
480-158965-2	MW-1	Total/NA	Water	SM 2540C	
480-158965-3	MW-3	Total/NA	Water	SM 2540C	
480-158965-4	MW-5D	Total/NA	Water	SM 2540C	
480-158965-5	MW-5S	Total/NA	Water	SM 2540C	
480-158965-6	MW-6D	Total/NA	Water	SM 2540C	
480-158965-7	MW-7D	Total/NA	Water	SM 2540C	
480-158965-8	MW-7S	Total/NA	Water	SM 2540C	
480-158965-9	MW-8D	Total/NA	Water	SM 2540C	
480-158965-10	MW-8S	Total/NA	Water	SM 2540C	
480-158965-11	PZ-1	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

General Chemistry (Continued)

Analysis Batch: 491893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-491893/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 480-491893/2	Lab Control Sample	Total/NA	Water	SM 2540C	
480-158965-6 DU	MW-6D	Total/NA	Water	SM 2540C	
480-158965-7 DU	MW-7D	Total/NA	Water	SM 2540C	

Prep Batch: 492184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	9012B	
480-158965-2	MW-1	Total/NA	Water	9012B	
480-158965-3	MW-3	Total/NA	Water	9012B	
480-158965-4	MW-5D	Total/NA	Water	9012B	
MB 480-492184/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-492184/2-A	Lab Control Sample	Total/NA	Water	9012B	

Prep Batch: 492185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-6	MW-6D	Total/NA	Water	9012B	
480-158965-7	MW-7D	Total/NA	Water	9012B	
480-158965-9	MW-8D	Total/NA	Water	9012B	
480-158965-10	MW-8S	Total/NA	Water	9012B	
MB 480-492185/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-492185/2-A	Lab Control Sample	Total/NA	Water	9012B	
480-158965-6 DU	MW-6D	Total/NA	Water	9012B	

Analysis Batch: 492286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	300.0	
480-158965-2	MW-1	Total/NA	Water	300.0	
480-158965-3	MW-3	Total/NA	Water	300.0	
480-158965-4	MW-5D	Total/NA	Water	300.0	
480-158965-5	MW-5S	Total/NA	Water	300.0	
480-158965-6	MW-6D	Total/NA	Water	300.0	
480-158965-7	MW-7D	Total/NA	Water	300.0	
480-158965-8	MW-7S	Total/NA	Water	300.0	
480-158965-9	MW-8D	Total/NA	Water	300.0	
480-158965-10	MW-8S	Total/NA	Water	300.0	
480-158965-11	PZ-1	Total/NA	Water	300.0	
MB 480-492286/28	Method Blank	Total/NA	Water	300.0	
MB 480-492286/4	Method Blank	Total/NA	Water	300.0	
LCS 480-492286/27	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-492286/3	Lab Control Sample	Total/NA	Water	300.0	
480-158965-4 MS	MW-5D	Total/NA	Water	300.0	
480-158965-10 MS	MW-8S	Total/NA	Water	300.0	
480-158965-10 MSD	MW-8S	Total/NA	Water	300.0	
480-158965-11 MS	PZ-1	Total/NA	Water	300.0	

Analysis Batch: 492324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	9012B	492184
480-158965-2	MW-1	Total/NA	Water	9012B	492184
480-158965-3	MW-3	Total/NA	Water	9012B	492184

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

General Chemistry (Continued)

Analysis Batch: 492324 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-4	MW-5D	Total/NA	Water	9012B	492184
MB 480-492184/1-A	Method Blank	Total/NA	Water	9012B	492184
LCS 480-492184/2-A	Lab Control Sample	Total/NA	Water	9012B	492184

Analysis Batch: 492341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-6	MW-6D	Total/NA	Water	9012B	492185
480-158965-7	MW-7D	Total/NA	Water	9012B	492185
480-158965-9	MW-8D	Total/NA	Water	9012B	492185
480-158965-10	MW-8S	Total/NA	Water	9012B	492185
MB 480-492185/1-A	Method Blank	Total/NA	Water	9012B	492185
480-158965-6 DU	MW-6D	Total/NA	Water	9012B	492185

Analysis Batch: 492344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-492185/2-A	Lab Control Sample	Total/NA	Water	9012B	492185

Prep Batch: 492463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-5	MW-5S	Total/NA	Water	9012B	
480-158965-8	MW-7S	Total/NA	Water	9012B	
MB 480-492463/1-A	Method Blank	Total/NA	Water	9012B	
LCS 480-492463/2-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 480-492463/3-A	Lab Control Sample	Total/NA	Water	9012B	
480-158965-5 MS	MW-5S	Total/NA	Water	9012B	
480-158965-8 MS	MW-7S	Total/NA	Water	9012B	

Analysis Batch: 492555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-5	MW-5S	Total/NA	Water	9012B	492463
480-158965-8	MW-7S	Total/NA	Water	9012B	492463
MB 480-492463/1-A	Method Blank	Total/NA	Water	9012B	492463
LCS 480-492463/2-A	Lab Control Sample	Total/NA	Water	9012B	492463
LCS 480-492463/3-A	Lab Control Sample	Total/NA	Water	9012B	492463
480-158965-5 MS	MW-5S	Total/NA	Water	9012B	492463
480-158965-8 MS	MW-7S	Total/NA	Water	9012B	492463

Analysis Batch: 493290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-158965-1	DUP-1	Total/NA	Water	310.2	
480-158965-2	MW-1	Total/NA	Water	310.2	
480-158965-3	MW-3	Total/NA	Water	310.2	
480-158965-4	MW-5D	Total/NA	Water	310.2	
480-158965-5	MW-5S	Total/NA	Water	310.2	
480-158965-6	MW-6D	Total/NA	Water	310.2	
480-158965-7	MW-7D	Total/NA	Water	310.2	
480-158965-8	MW-7S	Total/NA	Water	310.2	
480-158965-9	MW-8D	Total/NA	Water	310.2	
480-158965-10	MW-8S	Total/NA	Water	310.2	
480-158965-11	PZ-1	Total/NA	Water	310.2	
MB 480-493290/123	Method Blank	Total/NA	Water	310.2	

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

General Chemistry (Continued)

Analysis Batch: 493290 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-493290/186	Method Blank	Total/NA	Water	310.2	
MB 480-493290/197	Method Blank	Total/NA	Water	310.2	
MB 480-493290/204	Method Blank	Total/NA	Water	310.2	
MB 480-493290/220	Method Blank	Total/NA	Water	310.2	
MB 480-493290/227	Method Blank	Total/NA	Water	310.2	
MB 480-493290/95	Method Blank	Total/NA	Water	310.2	
LCS 480-493290/124	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-493290/187	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-493290/198	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-493290/205	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-493290/221	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-493290/228	Lab Control Sample	Total/NA	Water	310.2	
LCS 480-493290/96	Lab Control Sample	Total/NA	Water	310.2	

Lab Chronicle

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: DUP-1

Lab Sample ID: 480-158965-1

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492178	09/15/19 23:49	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 13:39	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 14:45	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:27	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 16:46	BMB	TAL BUF
Total/NA	Analysis	300.0		2	492286	09/16/19 16:14	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	493290	09/19/19 20:37	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 21:48	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492184	09/15/19 15:25	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492324	09/16/19 13:45	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Client Sample ID: MW-1

Lab Sample ID: 480-158965-2

Date Collected: 09/10/19 13:30

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492178	09/16/19 00:13	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 10:05	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 14:49	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:39	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 16:47	BMB	TAL BUF
Total/NA	Analysis	300.0		1	492286	09/16/19 16:22	IMZ	TAL BUF
Total/NA	Analysis	310.2		1	493290	09/19/19 20:21	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 20:35	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492184	09/15/19 15:25	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492324	09/16/19 13:47	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Lab Chronicle

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-3

Lab Sample ID: 480-158965-3

Date Collected: 09/10/19 15:00

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492178	09/16/19 00:37	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 10:19	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 14:53	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:41	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 16:55	BMB	TAL BUF
Total/NA	Analysis	300.0		2	492286	09/16/19 16:30	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	493290	09/20/19 17:29	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 20:36	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492184	09/15/19 15:25	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492324	09/16/19 13:48	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Client Sample ID: MW-5D

Lab Sample ID: 480-158965-4

Date Collected: 09/10/19 10:30

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492178	09/16/19 01:01	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 10:32	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 14:57	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:43	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 16:56	BMB	TAL BUF
Total/NA	Analysis	300.0		2	492286	09/16/19 16:38	IMZ	TAL BUF
Total/NA	Analysis	310.2		3	493290	09/20/19 17:57	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 21:49	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492184	09/15/19 15:25	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492324	09/16/19 13:50	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Lab Chronicle

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-5S

Date Collected: 09/10/19 10:10

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 12:38	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 10:45	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 15:27	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:52	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 16:58	BMB	TAL BUF
Total/NA	Analysis	300.0		1	492286	09/16/19 17:27	IMZ	TAL BUF
Total/NA	Analysis	310.2		1	493290	09/19/19 20:21	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 20:38	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492463	09/17/19 11:02	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492555	09/17/19 15:41	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Client Sample ID: MW-6D

Date Collected: 09/10/19 14:30

Date Received: 09/11/19 08:00

Lab Sample ID: 480-158965-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 13:02	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 10:59	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 15:31	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:55	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 16:59	BMB	TAL BUF
Total/NA	Analysis	300.0		1	492286	09/16/19 17:35	IMZ	TAL BUF
Total/NA	Analysis	310.2		1	493290	09/19/19 20:21	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 20:39	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492185	09/15/19 15:30	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492341	09/16/19 14:15	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Lab Chronicle

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-7D

Lab Sample ID: 480-158965-7

Date Collected: 09/10/19 11:45

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 13:26	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 11:12	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 15:35	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:57	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 17:00	BMB	TAL BUF
Total/NA	Analysis	300.0		2	492286	09/16/19 17:44	IMZ	TAL BUF
Total/NA	Analysis	310.2		3	493290	09/20/19 17:29	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 20:45	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492185	09/15/19 15:30	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492341	09/16/19 14:18	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Client Sample ID: MW-7S

Lab Sample ID: 480-158965-8

Date Collected: 09/10/19 11:30

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 13:50	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 11:39	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 15:39	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 20:59	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 17:02	BMB	TAL BUF
Total/NA	Analysis	300.0		2	492286	09/16/19 17:52	IMZ	TAL BUF
Total/NA	Analysis	310.2		3	493290	09/20/19 17:36	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 20:48	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492463	09/17/19 11:02	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492555	09/17/19 15:44	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Lab Chronicle

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: MW-8D

Lab Sample ID: 480-158965-9

Date Collected: 09/10/19 12:45

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 14:14	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 11:52	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 15:43	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 21:02	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 17:03	BMB	TAL BUF
Total/NA	Analysis	300.0		1	492286	09/16/19 18:00	IMZ	TAL BUF
Total/NA	Analysis	310.2		1	493290	09/19/19 20:21	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 21:54	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492185	09/15/19 15:30	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492341	09/16/19 14:23	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Client Sample ID: MW-8S

Lab Sample ID: 480-158965-10

Date Collected: 09/10/19 12:30

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 14:38	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 12:06	DJB	TAL BUR
Dissolved	Prep	3005A			491805	09/16/19 08:16	NSW	TAL BUF
Dissolved	Analysis	6010C		1	492405	09/16/19 15:47	LMH	TAL BUF
Dissolved	Prep	3020A			491804	09/16/19 07:18	NSW	TAL BUF
Dissolved	Analysis	6020A		1	492865	09/18/19 21:04	KMP	TAL BUF
Dissolved	Prep	7470A			492312	09/16/19 13:31	BMB	TAL BUF
Dissolved	Analysis	7470A		1	492364	09/16/19 17:07	BMB	TAL BUF
Total/NA	Analysis	300.0		1	492286	09/16/19 18:08	IMZ	TAL BUF
Total/NA	Analysis	310.2		2	493290	09/19/19 20:39	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 21:56	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012B			492185	09/15/19 15:30	MDL	TAL BUF
Total/NA	Analysis	9012B		1	492341	09/16/19 14:24	MDL	TAL BUF
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Lab Chronicle

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Client Sample ID: PZ-1

Lab Sample ID: 480-158965-11

Date Collected: 09/10/19 13:00

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 15:02	RJF	TAL BUF
Total/NA	Prep	522			147393	09/17/19 11:30	MJW	TAL BUR
Total/NA	Analysis	522		1	147492	09/19/19 12:19	DJB	TAL BUR
Total/NA	Prep	3005A			491806	09/16/19 08:16	NSW	TAL BUF
Total/NA	Analysis	6010C		1	492399	09/17/19 01:56	LMH	TAL BUF
Total/NA	Prep	3020A			491811	09/16/19 07:18	NSW	TAL BUF
Total/NA	Analysis	6020A		1	492864	09/18/19 19:24	KMP	TAL BUF
Total/NA	Prep	7470A			492284	09/16/19 12:05	BMB	TAL BUF
Total/NA	Analysis	7470A		1	492364	09/16/19 16:22	BMB	TAL BUF
Total/NA	Analysis	SM 2340B		1	492653	09/18/19 09:07	LMH	TAL BUF
Total/NA	Analysis	300.0		1	492286	09/16/19 18:49	IMZ	TAL BUF
Total/NA	Analysis	310.2		1	493290	09/19/19 20:25	SRW	TAL BUF
Total/NA	Analysis	353.2		1	491607	09/11/19 21:57	BEF	TAL BUF
Total/NA	Analysis	410.4		1	491825	09/12/19 16:30	CSS	TAL BUF
Total/NA	Prep	9012A			457109	09/16/19 09:44	BAB	TAL PEN
Total/NA	Analysis	9012A		1	457104	09/16/19 13:16	BAB	TAL PEN
Total/NA	Analysis	SM 2540C		1	491893	09/13/19 09:40	CSS	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-158965-12

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	492224	09/16/19 15:26	RJF	TAL BUF

Laboratory References:

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

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State Program	M-NY044	06-30-20
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
6010C	3005A	Water	Barium
6010C	3005A	Water	Cadmium
6010C	3005A	Water	Calcium
6010C	3005A	Water	Chromium
6010C	3005A	Water	Copper
6010C	3005A	Water	Iron
6010C	3005A	Water	Manganese
6010C	3005A	Water	Selenium
6010C	3005A	Water	Silver
6010C	3005A	Water	Sodium
6010C	3005A	Water	Zinc
6020A	3020A	Water	Arsenic
6020A	3020A	Water	Cadmium
6020A	3020A	Water	Copper
6020A	3020A	Water	Lead
6020A	3020A	Water	Selenium
6020A	3020A	Water	Silver
7470A	7470A	Water	Mercury
8260C		Water	1,1,1,2-Tetrachloroethane
8260C		Water	1,1,1-Trichloroethane
8260C		Water	1,1,2,2-Tetrachloroethane
8260C		Water	1,1,2-Trichloroethane
8260C		Water	1,1-Dichloroethane
8260C		Water	1,1-Dichloroethene
8260C		Water	1,1-Dichloropropene
8260C		Water	1,2,3-Trichlorobenzene
8260C		Water	1,2,3-Trichloropropane
8260C		Water	1,2,4-Trichlorobenzene
8260C		Water	1,2,4-Trimethylbenzene
8260C		Water	1,2-Dibromo-3-Chloropropane
8260C		Water	1,2-Dibromoethane
8260C		Water	1,2-Dichlorobenzene
8260C		Water	1,2-Dichloroethane
8260C		Water	1,2-Dichloropropane
8260C		Water	1,3,5-Trimethylbenzene
8260C		Water	1,3-Dichlorobenzene
8260C		Water	1,3-Dichloropropane
8260C		Water	1,4-Dichlorobenzene
8260C		Water	2,2-Dichloropropane
8260C		Water	2-Butanone (MEK)
8260C		Water	2-Chlorotoluene
8260C		Water	2-Hexanone
8260C		Water	4-Chlorotoluene
8260C		Water	4-Isopropyltoluene
8260C		Water	4-Methyl-2-pentanone (MIBK)

Accreditation/Certification Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Laboratory: Eurofins TestAmerica, Buffalo (Continued)

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

Authority	Program	Identification Number	Expiration Date
Massachusetts	State Program	M-NY044	06-30-20
8260C	Water	Acetone	
8260C	Water	Benzene	
8260C	Water	Bromobenzene	
8260C	Water	Bromochloromethane	
8260C	Water	Bromodichloromethane	
8260C	Water	Bromoform	
8260C	Water	Bromomethane	
8260C	Water	Carbon tetrachloride	
8260C	Water	Chlorobenzene	
8260C	Water	Chloroethane	
8260C	Water	Chloroform	
8260C	Water	Chloromethane	
8260C	Water	cis-1,2-Dichloroethene	
8260C	Water	cis-1,3-Dichloropropene	
8260C	Water	Dibromochloromethane	
8260C	Water	Dibromomethane	
8260C	Water	Ethylbenzene	
8260C	Water	Hexachlorobutadiene	
8260C	Water	Isopropylbenzene	
8260C	Water	m,p-Xylene	
8260C	Water	Methyl tert-butyl ether	
8260C	Water	Methylene Chloride	
8260C	Water	Naphthalene	
8260C	Water	n-Butylbenzene	
8260C	Water	N-Propylbenzene	
8260C	Water	o-Xylene	
8260C	Water	sec-Butylbenzene	
8260C	Water	Styrene	
8260C	Water	tert-Butylbenzene	
8260C	Water	Tetrachloroethene	
8260C	Water	Toluene	
8260C	Water	trans-1,2-Dichloroethene	
8260C	Water	trans-1,3-Dichloropropene	
8260C	Water	Trichloroethene	
8260C	Water	Trichlorofluoromethane	
8260C	Water	Vinyl chloride	
9012B	Water	Cyanide, Total	
SM 2340B	Water	Hardness as calcium carbonate	
SM 2540C	Water	Total Dissolved Solids	

Accreditation/Certification Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-20
ANAB	DoD	L2336	02-25-20
Connecticut	State Program	PH-0751	09-30-19 *
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-15-20
DE Haz. Subst. Cleanup Act (HSCA)	State Program	NA	02-01-20
Florida	NELAP	E87467	06-30-20
Florida	NELAP	E87467	06-01-20
Minnesota	NELAP	050-999-436	12-31-19
Minnesota	NELAP	050-999-436	12-31-19
New Hampshire	NELAP	2006	12-18-19
New Jersey	NELAP	VT972	06-30-20
New Jersey	NELAP	VT972	06-30-20
New York	NELAP	10391	04-01-20
New York	NELAP	10391	03-31-20
Pennsylvania	NELAP	68-00489	04-30-20
Pennsylvania	NELAP	68-00489	04-30-20
Rhode Island	State Program	LAO00298	12-30-19
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P330-11-00093	07-24-20
USDA	US Federal Programs	P330-17-00272	08-09-20
Vermont	State Program	VT-4000	12-31-19
Virginia	NELAP	460209	12-14-19
Virginia	NELAP	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Buffalo

Accreditation/Certification Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
Alabama	State Program	40150	06-30-20
ANAB	ISO/IEC 17025	L2471	02-22-20
ANAB	ISO/IEC 17025	L2471	02-22-20
Arizona	State	AZ0710	01-12-20
Arizona	State Program	AZ0710	01-12-20
Arkansas DEQ	State	88-0689	09-01-20
Arkansas DEQ	State Program	88-0689	09-01-20
California	State	2510	07-01-20
California	State Program	2510	06-30-20
Florida	NELAP	E81010	06-30-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Georgia	State Program	E81010 (FL)	06-30-20
Illinois	NELAP	200041	10-09-19
Illinois	NELAP	004586	10-09-19
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	10-31-19
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (VW)	State	93030	12-30-19
Kentucky (VW)	State Program	98030	12-31-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State	233	09-30-20
Maryland	State Program	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Massachusetts	State Program	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Michigan	State Program	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	06-30-20
New Jersey	NELAP	FL006	07-30-20
North Carolina (VW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Oklahoma	State Program	9810	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Tennessee	State Program	TN02907	06-30-20
Texas	NELAP	T104704286-18-15	09-30-19
Texas	NELAP	T104704286	09-30-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20

Eurofins TestAmerica, Buffalo

Accreditation/Certification Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State Program	C915	05-15-20
West Virginia DEP	State	136	09-30-19
West Virginia DEP	State Program	136	09-30-19

Sample Summary

Client: Weston & Sampson Engineers
Project/Site: Dighton Landfill

Job ID: 480-158965-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-158965-1	DUP-1	Water	09/10/19 00:00	09/11/19 08:00	
480-158965-2	MW-1	Water	09/10/19 13:30	09/11/19 08:00	
480-158965-3	MW-3	Water	09/10/19 15:00	09/11/19 08:00	
480-158965-4	MW-5D	Water	09/10/19 10:30	09/11/19 08:00	
480-158965-5	MW-5S	Water	09/10/19 10:10	09/11/19 08:00	
480-158965-6	MW-6D	Water	09/10/19 14:30	09/11/19 08:00	
480-158965-7	MW-7D	Water	09/10/19 11:45	09/11/19 08:00	
480-158965-8	MW-7S	Water	09/10/19 11:30	09/11/19 08:00	
480-158965-9	MW-8D	Water	09/10/19 12:45	09/11/19 08:00	
480-158965-10	MW-8S	Water	09/10/19 12:30	09/11/19 08:00	
480-158965-11	PZ-1	Water	09/10/19 13:00	09/11/19 08:00	
480-158965-12	TRIP BLANK	Water	09/10/19 00:00	09/11/19 08:00	

Chain of Custody Record

Client Information Client Contact: Loren McGrath Company: Weston & Sampson Engineers Address: 5 Centennial Drive City: Peabody State, Zip: MA, 01960 Phone: 978-532-1900 Email: mcgrathl@wseinc.com Project Name: MA Landfills Site: Dighton Landfill				Sampler: Steve Hartmann		Lab PM: Steve Hartmann		Carrier Tracking No(s):		COC No:																																																																																																																																																																																																																	
				Phone:		E-Mail: steve.hartmann@testamericainc.com				Page: Page 1 of 2																																																																																																																																																																																																																	
				Analysis Requested																																																																																																																																																																																																																							
Due Date Requested:				<div style="display: flex; justify-content: space-between;"> <div> <p>Field Filtered Sample (Yes or No)</p> <p>Perform MS/MSD (Yes or No)</p> <p>410.4 - Chemical Oxygen Demand</p> <p>Alkalinity/Chloride/Nitrate/Sulfate/TDS</p> <p>9012B - Cyanide, Total</p> <p>GW metals (As/Ba/Ca/Cd/Cr/Cu/Fe/Pb/Mn/Hg/Se/Ag/Na/Zn)</p> <p>SW metals (As/Ba/Cd/Cr/Cu/Fe/Pb/Mn/Hg/Se/Ag/Na/Zn)</p> <p>8260C - with TICS</p> <p>1,4 Dioxane @ 0.3ug/L - EPA522</p> <p>Hardness</p> <p>9012A Cyanide for SW</p> </div> <div> <p>480-158965 Chain of Custody</p> </div> </div>																																																																																																																																																																																																																							
TAT Requested (days): 7 days																																																																																																																																																																																																																											
PO #: Purchase order not required																																																																																																																																																																																																																											
WO #:																																																																																																																																																																																																																											
Project #: 48006597				<div style="display: flex; justify-content: space-between;"> <div> <p>Other:</p> <p>R - MeOH</p> <p>G - Amchlor</p> <p>H - Ascorbic Acid</p> <p>I - Ice</p> <p>J - DI Water</p> <p>K - EDTA</p> <p>L - EDA</p> </div> <div> <p>R - Na2S2O3</p> <p>S - H2SO4</p> <p>T - TSP Dodecahydrate</p> <p>U - Acetone</p> <p>V - MCAA</p> <p>W - ph 4-5</p> <p>Z - other (specify)</p> </div> </div>																																																																																																																																																																																																																							
SSOW#:																																																																																																																																																																																																																											
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Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																																																																																																																																																																							
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:																																																																																																																																																																																																																							
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:																																																																																																																																																																																																																			
Relinquished by: <i>[Signature]</i>				Date/Time: 9-16-19 / 1530		Company: WSE		Received by: <i>[Signature]</i>																																																																																																																																																																																																																			
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Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: #1 3.1																																																																																																																																																																																																																					

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Chain of Custody Record



480-158965 Chain of Custody

ORIGIN ID:BXCA (781) 466-6900
PAUL HOBART
TESTAMERICA
240 BEAR HILL ROAD
SUITE 104
WALTHAM, MA 02451
UNITED STATES US

SHIP DATE: 10SEP19
ACTWT: 30.95 LB
CAD: 590887/CAFE3211

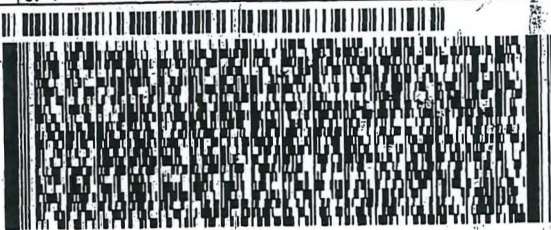
BILL RECIPIENT

TO **SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403**

(802) 860-1990

REF:

DEPT:



FedEx
Express



J181118005010V

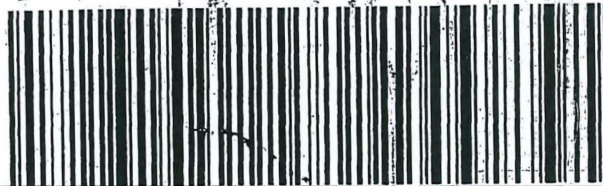
TRK# 4258 8395 0675
0201

WED - 11 SEP 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403

VT-US BTV



Environment Testing
TestAmerica

Login Sample Receipt Checklist

Client: Weston & Sampson Engineers

Job Number: 480-158965-1

Login Number: 158965

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Weston & Sampson Engineers

Job Number: 480-158965-1

Login Number: 158965

List Number: 2

Creator: Mohn, Taylor J

List Source: Eurofins TestAmerica, Burlington

List Creation: 09/13/19 04:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are 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	0.3°C
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 containers received 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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weston & Sampson Engineers

Job Number: 480-158965-1

Login Number: 158965

List Number: 3

Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola

List Creation: 09/14/19 08:12 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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	0.8°C IR-8
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	