Environmental Resources Management

One Beacon Street, 5th Floor
Boston, MA 02108
(617) 646-7800
(617) 267-6447 (fax)

http://www.erm.com

2 November 2017
Reference: 0377766

Ms. Linda Hansen
Conservation Commission
Wayland Town Hall
41 Cochituate Road
Wayland, MA 01778

Re: Transmittal of Groundwater Analytical Data
Former Raytheon Facility
430 Boston Post Road, Wayland, Massachusetts

Dear Ms. Hansen:

On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of groundwater sample analyses for the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). The results are being submitted pursuant to 310 CMR 40.1403(10) of the Massachusetts Contingency Plan.

Innovative Engineering Solutions, Inc. (IESI) collected groundwater samples from one monitoring well located on Town of Wayland Conservation Commission (Conservation Commission) property in October 2017. These samples were submitted to TestAmerica Laboratories, Inc. of Amherst, NY for analysis. All analytical results are attached to this letter.

Raytheon has implemented the Public Involvement Process in accordance with 310 CMR 40.1405. Documents pertaining to the Site can be found at the Board of Health Public Involvement Plan files, or at http://raytheon.erm.com/home.htm.

If you have any questions or comments, please contact the undersigned at (617) 646-7800 or Jonathan Hone, Raytheon Company, at (978) 436-8298.

Sincerely,

John C. Drobinski, P.G., LSP
Principal-in-Charge

Lyndsey Colburn, P.G.
Principal Consultant

enclosures: BWSC-123 – Notice of Environmental Sampling
Laboratory Analytical Reports (CD)

cc: Jonathan Hone, Raytheon Company
PIP Repositories

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3 - 13302

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 430 Boston Post Road

City/Town: Wayland Zip Code: 01778

B. This notice is being provided to the following party:

1. Name: Town of Wayland Conservation Commission
2. Street Address: 41 Cochituate Road

City/Town: Wayland Zip Code: 01778

C. This notice is being given to inform its recipient (the party listed in Section B):

☐ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 0 Old Sudbury Road

City/Town: Wayland Zip Code: 01778

2. MCP phase of work during which the sampling will be/has been conducted:

☐ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☑ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☐ residential ☐ commercial ☐ industrial ☐ school/playground ☑ Other undeveloped (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collection of groundwater samples from existing monitoring wells.

E. Contact information related to the party providing this notice:

Contact Name: Louis J. Burkhardt
Street Address: 50 Apple Hill Drive
City/Town: Tewksbury Zip Code: 01876
Telephone: (978) 858-1885 Email: louis_j_burkhardt@raytheon.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

3 - 13302

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 480-125214-1
Client Project/Site: IDS Wayland

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Vicki Pariyar

Denise L Giglia

Authorized for release by:
10/11/2017 3:16:03 PM
Denise Giglia, Project Management Assistant II
denise.giglia@testamericainc.com

Designee for

Becky Mason, Project Manager II
(413)572-4000
becky.mason@testamericainc.com

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Qualifiers

GC/MS VOA

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

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
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.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
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.
E	Result exceeded calibration range.

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)

Job ID: 480-125214-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-125214-1

Receipt
The samples were received on 10/4/2017 2:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6º C and 2.7º C.

Receipt Exceptions
Upon receipt, laboratory personnel were not able to determine if the submitted volume for Ortho-Phosphate analysis were field filtered within the method's time criteria for the following samples: DEP-21-20171002 (480-125214-1), MW-264M-20171002 (480-125214-2), MW-266MA-20171002 (480-125214-3), MW-266MB-20171002 (480-125214-4), MW-267M-20171002 (480-125214-5), MW-269MA-20171002 (480-125214-6), MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14), DUP1-20171003 (480-125214-15) and TRIP BLANKS (480-125214-16). Samples were provided to the analytical department in an "as received" condition.

GC/MS VOA
Method 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Carbon Disulfide, Isopropyl Ether, Naphthalene, tert-Amyl Methyl Ether and Tetrahydrofuran.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-380799 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : DEP-21-20171002 (480-125214-1), MW-264M-20171002 (480-125214-2), MW-266MA-20171002 (480-125214-3), MW-266MB-20171002 (480-125214-4) and MW-267M-20171002 (480-125214-5).

Method 8260C: The continuing calibration verification (CCV) for Dichlorodifluoromethane and 1,3-Dichloropropane associated with batch 480-380799 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : DEP-21-20171002 (480-125214-1), MW-264M-20171002 (480-125214-2), MW-266MA-20171002 (480-125214-3), MW-266MB-20171002 (480-125214-4) and MW-267M-20171002 (480-125214-5).

Method 8260C: The following volatile sample was analyzed with significant headspace in the sample Container: MW-264M-20171002 (480-125214-2). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method 8260C: The continuing calibration verification (CCV) for Carbon tetrachloride, 1,1,2,2-Tetrachloroethane, 1,3-Dichloropropane, and Ethyl ether associated with batch 480-380932 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : MW-269MA-20171002 (480-125214-6), MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14) and TRIP BLANKS (480-125214-16).

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-380932 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected : MW-269MA-20171002 (480-125214-6), MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14) and TRIP BLANKS (480-125214-16).

Method 8260C: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs).

Job ID: 480-125214-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: REW-6-20171003 (480-125214-11) and REW-11-20171003 (480-125214-13). The samples were analyzed within 7 days per EPA recommendation.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-562-20171003 (480-125214-9) and REW-6-20171003 (480-125214-11). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: REW-12-20171003 (480-125214-14). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: DUP1-20171003 (480-125214-15). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) for n-Butylbenzene, N-Propylbenzene, Acetone, 1,1,2,2-Tetrachloroethane, 1,3-Dichloropropane, Dichlorodifluoromethane and Isopropylbenzene associated with batch 480-381006 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following sample was affected : DUP1-20171003 (480-125214-15).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-381006 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following sample was affected : DUP1-20171003 (480-125214-15).

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 was reported with elevated reporting limits for all analytes: REW-6-20171003 (480-125214-11), REW-11-20171003 (480-125214-13) and REW-12-20171003 (480-125214-14). The sample was analyzed at a dilution based on screening results.

Method 300.0: The following samples was reported with elevated reporting limits for all analytes: MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8) and MW-562-20171003 (480-125214-9). The sample was analyzed at a dilution based on screening results.

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

Metals

Method 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

Method 6010, 6010C: The continuing calibration blank (CCB 480-380329/39) contained Total Iron above the reporting limit (RL). All reported samples MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14), (LCSD 480-380098/3-A), (480-125214-B-9-B MS), (480-125214-B-9-C MSD), (480-125214-B-9-A PDS) and (480-125214-B-9-A SD) associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

General Chemistry

Method 353.2: The following samples was filtered prior to analysis: MW-560-20171003 (480-125214-7), MW-561-20171003

Job ID: 480-125214-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

(480-125214-8), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12) and REW-11-20171003 (480-125214-13).

Method 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13) and REW-12-20171003 (480-125214-14).

Method SM 4500 P E: The following samples was diluted due to the nature of the sample matrix: MW-560-20171003 (480-125214-7) and MW-561-20171003 (480-125214-8). Elevated reporting limits (RLs) are provided.

Method Nitrate by calc: An abnormal inter-parameter relationship exists between Nitrate-Nitrite and Nitrite results. Reanalysis was performed and the results were confirmed for these samples: MW-562-20171003 (480-125214-9), REW-11-20171003 (480-125214-13) and REW-12-20171003 (480-125214-14).

Method 353.2: The following sample was filtered prior to analysis due to color turbidity and/or particulates: REW-12-20171003 (480-125214-14).

Method 353.2: Reanalysis of the following sample was performed outside of the analytical holding time due to nitrite value being greater than nitrate-nitrite total : REW-12-20171003 (480-125214-14).

Method 353.2: The inter-parameter relationship between nitrate/nitrite and nitrite does not meet acceptable criteria. This has been confirmed in both NO3/NO2 and NO2 analysis for these samples: MW-562-20171003 (480-125214-9) and REW-12-20171003 (480-125214-14).

Method 353.2: The inter-parameter relationship between nitrate/nitrite and nitrite does not meet acceptable criteria. This has been confirmed in both NO3/NO2 and NO2 analysis for these samples: MW-562-20171003 (480-125214-9) and REW-12-20171003 (480-125214-14).

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

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

MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-125214**

Project Location: **IDS Wayland** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):

480-125214[1-16]

Matrices: ■ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A ■	7470/7471 Hg CAM III B ☐	Mass DEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	Mass DEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	Mass DEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ■	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.	■ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	■ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	■ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	■ Yes ☐ No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	■ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes ■ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350**

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes ■ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	☐ Yes ■ No[1]

[1] All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature: Denise L Giglia Position: Project Manager Assistant II

Printed Name: Denise L. Giglia Date: 10/11/17 15:01

Detection Summary

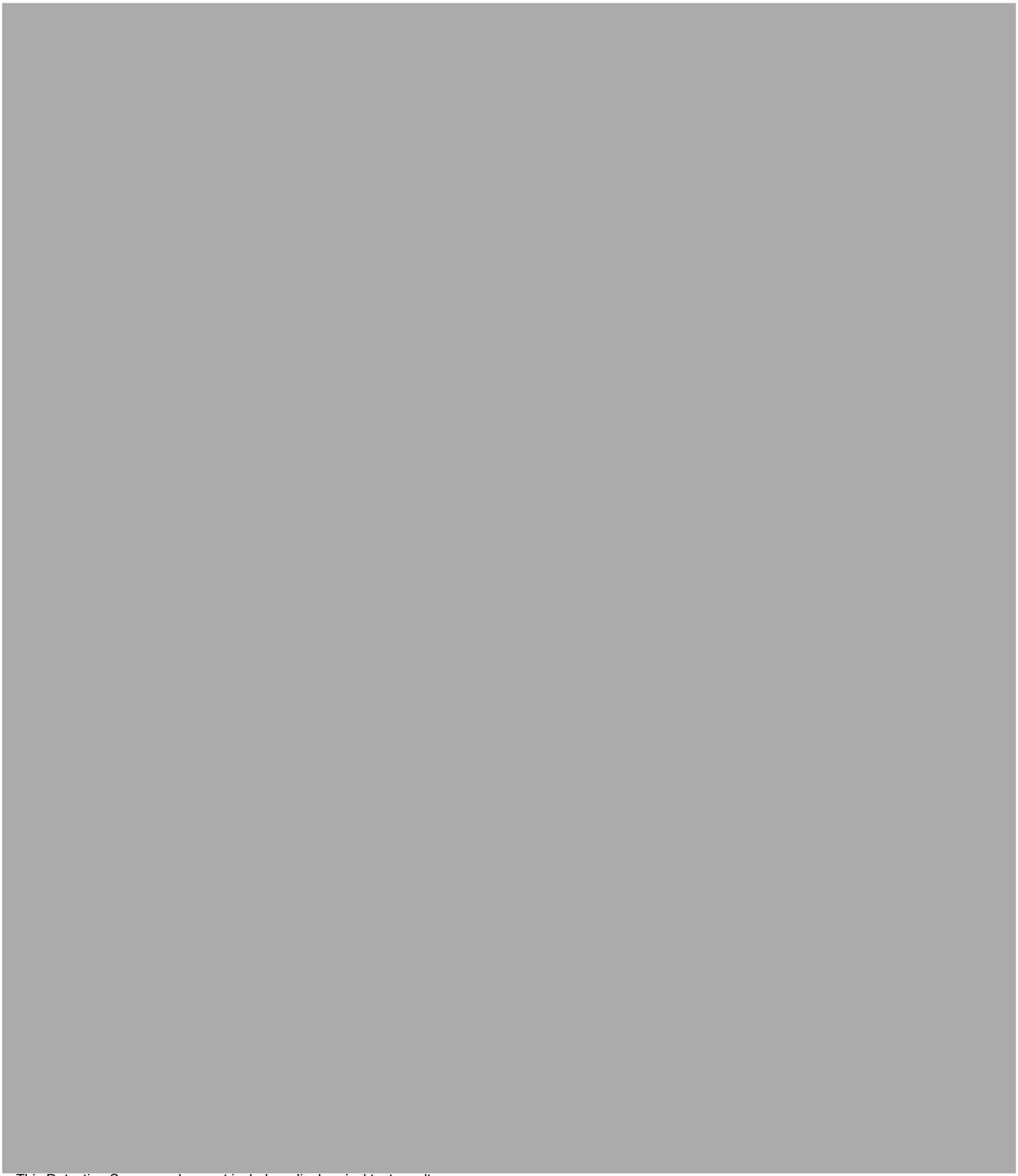
Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

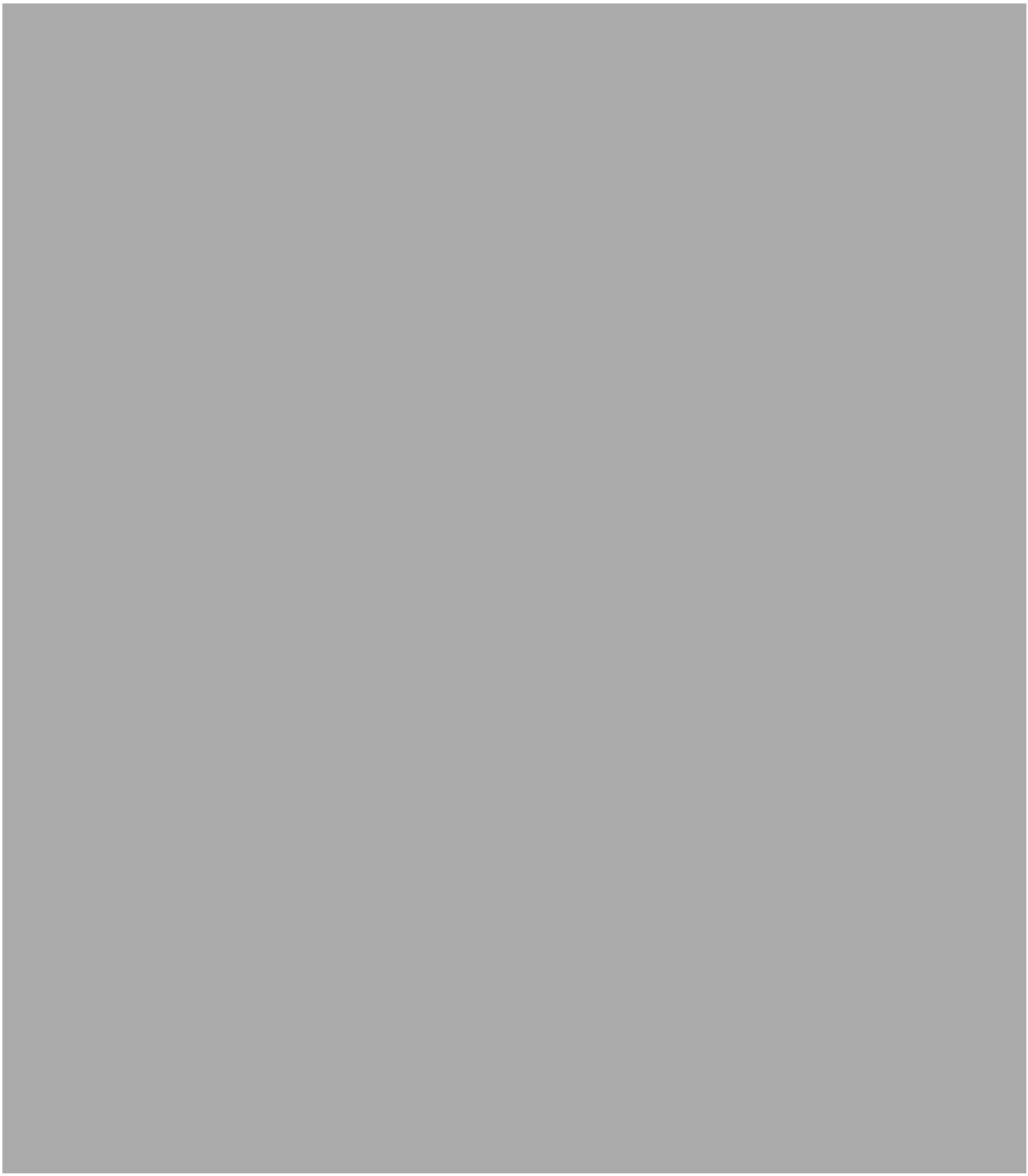
Client Sample ID: DEP-21-20171002 **Lab Sample ID: 480-125214-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	56		10		ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.



This Detection Summary does not include radiochemical test results.



This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

Client Sample ID: TRIP BLANKS **Lab Sample ID: 480-125214-16**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP-21-20171002
Date Collected: 10/02/17 08:45
Date Received: 10/04/17 02:15

Lab Sample ID: 480-125214-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			10/09/17 15:57	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 15:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 15:57	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 15:57	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 15:57	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 15:57	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 15:57	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 15:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 15:57	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 15:57	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 15:57	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 15:57	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 15:57	1
1,4-Dioxane	ND		50		ug/L			10/09/17 15:57	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 15:57	1
2-Butanone (MEK)	ND	*	10		ug/L			10/09/17 15:57	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 15:57	1
2-Hexanone	ND		10		ug/L			10/09/17 15:57	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 15:57	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 15:57	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 15:57	1
Acetone	ND		50		ug/L			10/09/17 15:57	1
Benzene	ND		1.0		ug/L			10/09/17 15:57	1
Bromobenzene	ND		1.0		ug/L			10/09/17 15:57	1
Bromoform	ND		1.0		ug/L			10/09/17 15:57	1
Bromomethane	ND		2.0		ug/L			10/09/17 15:57	1
Carbon disulfide	**56**		10		ug/L			10/09/17 15:57	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 15:57	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 15:57	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 15:57	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 15:57	1
Chloroethane	ND		2.0		ug/L			10/09/17 15:57	1
Chloroform	ND		1.0		ug/L			10/09/17 15:57	1
Chloromethane	ND		2.0		ug/L			10/09/17 15:57	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 15:57	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 15:57	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 15:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 15:57	1
Ethyl ether	ND		1.0		ug/L			10/09/17 15:57	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 15:57	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 15:57	1
Isopropyl ether	ND		10		ug/L			10/09/17 15:57	1

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

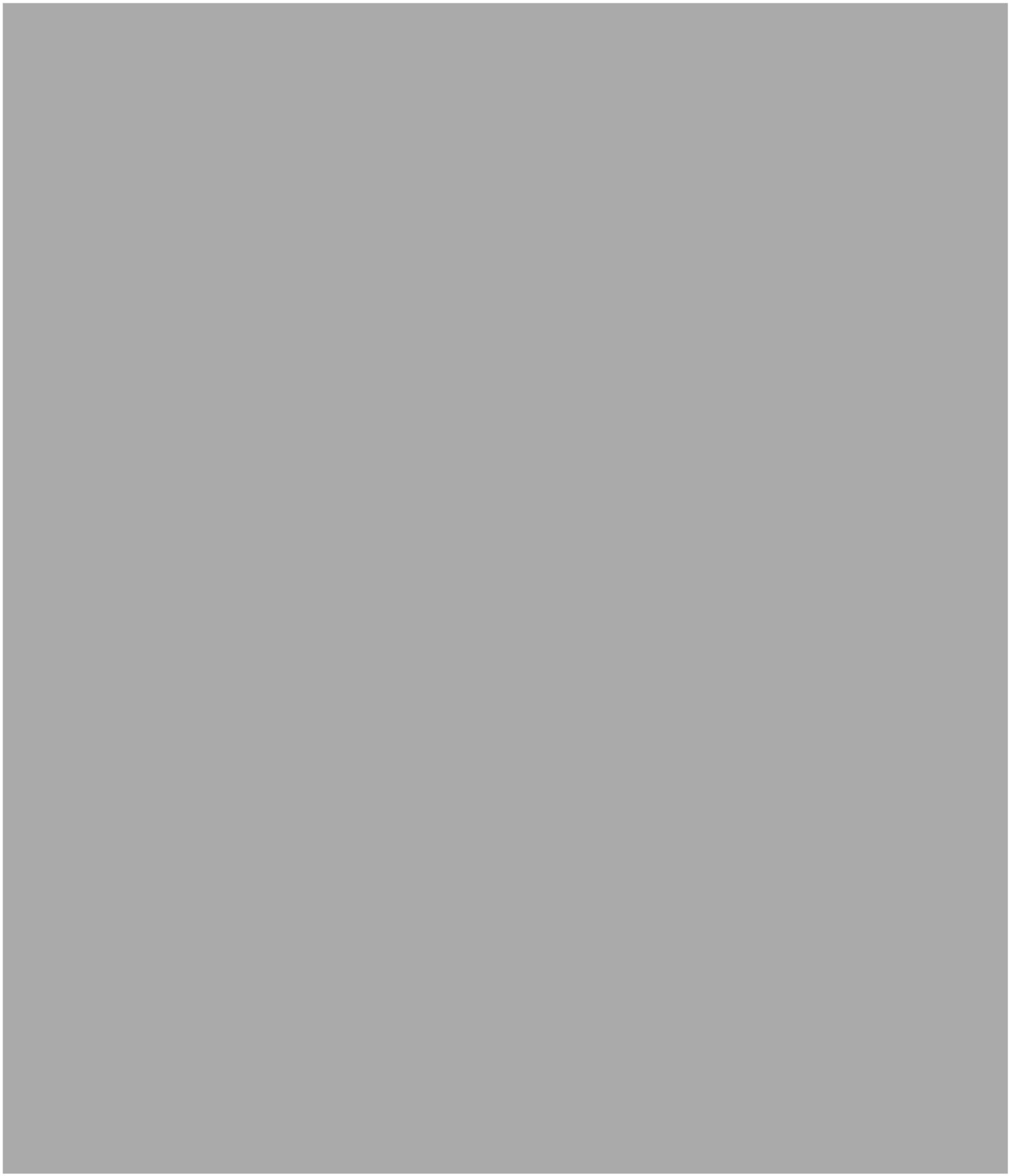
Client Sample ID: DEP-21-20171002
Date Collected: 10/02/17 08:45
Date Received: 10/04/17 02:15

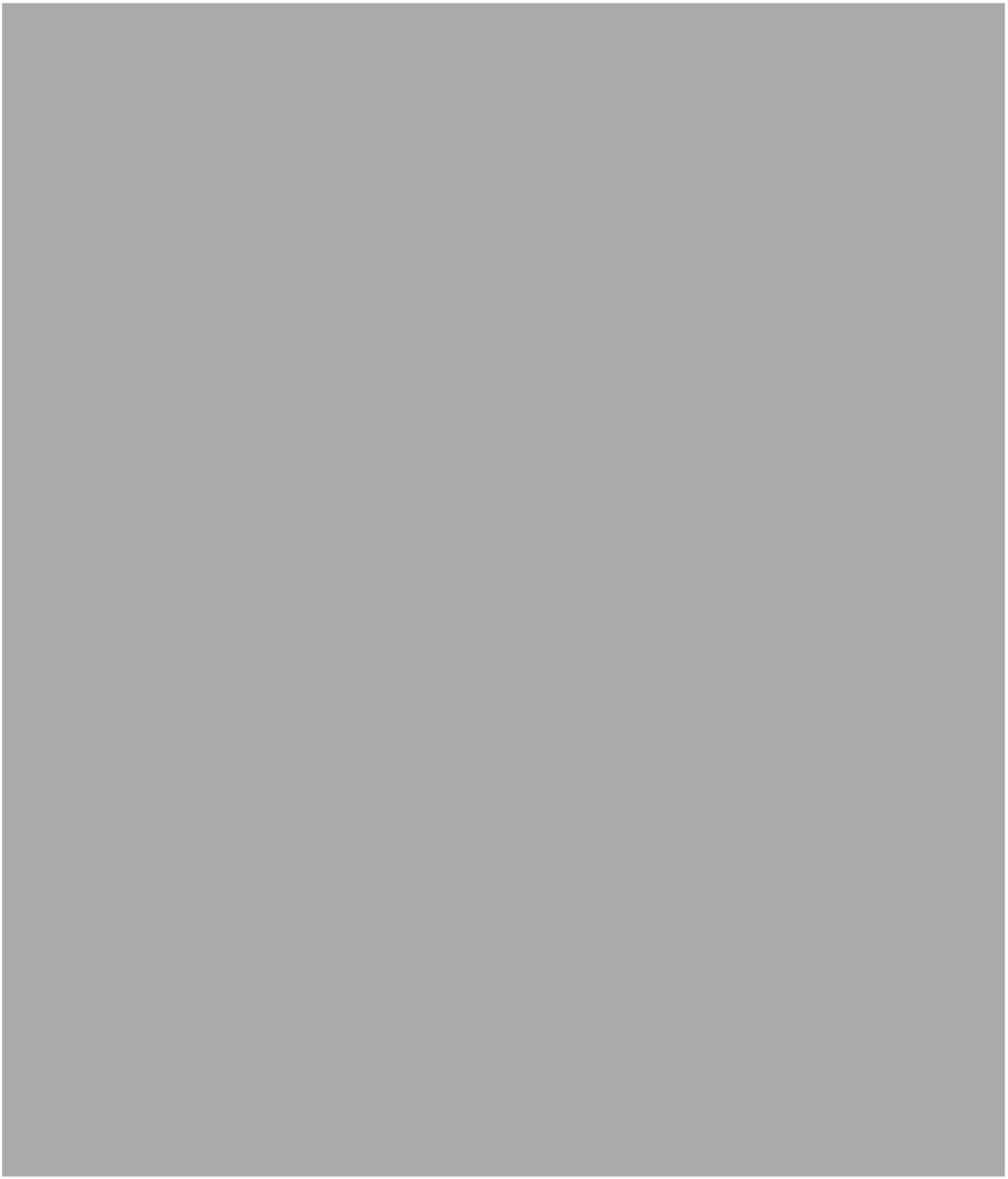
Lab Sample ID: 480-125214-1
Matrix: Water

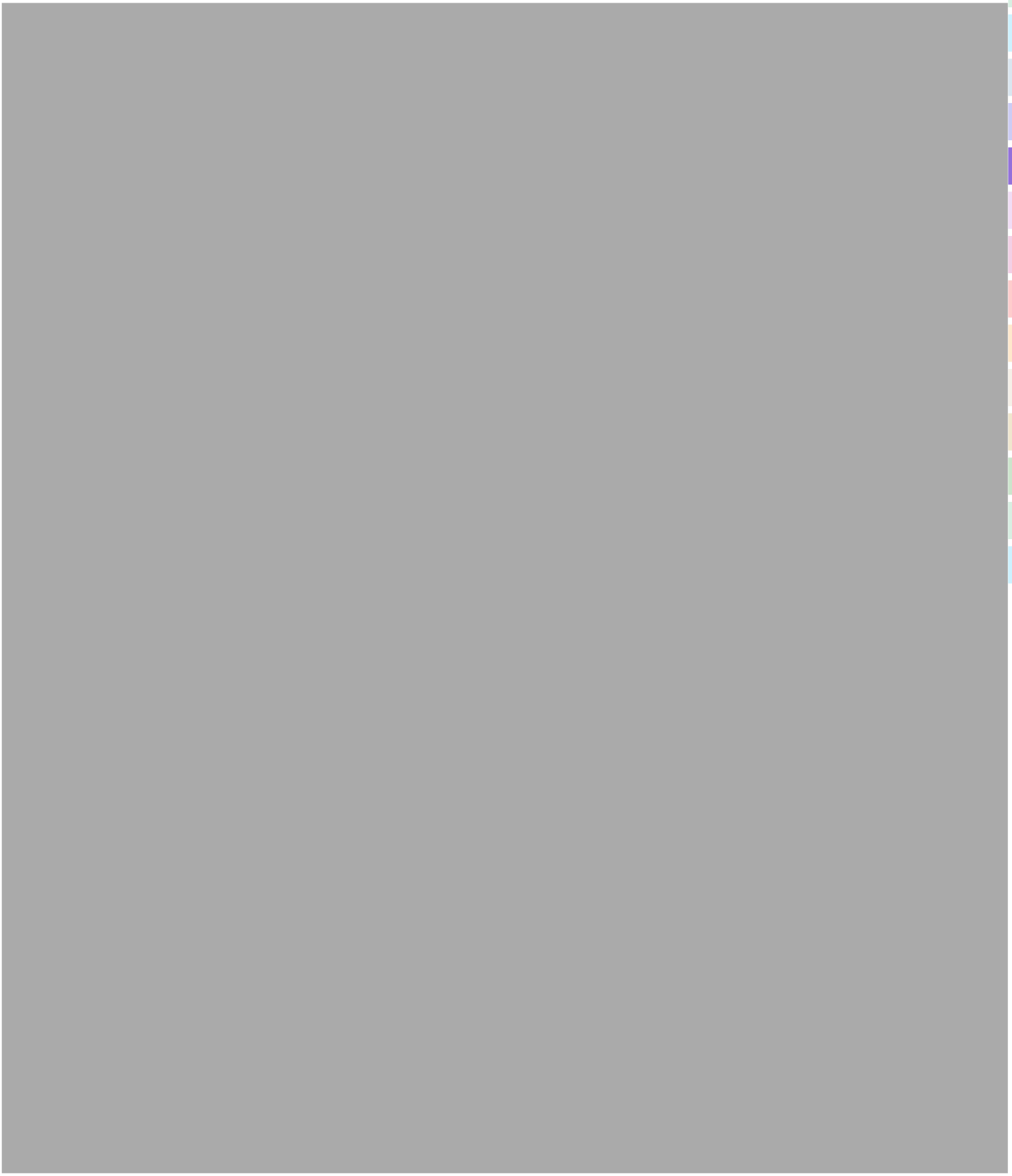
Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

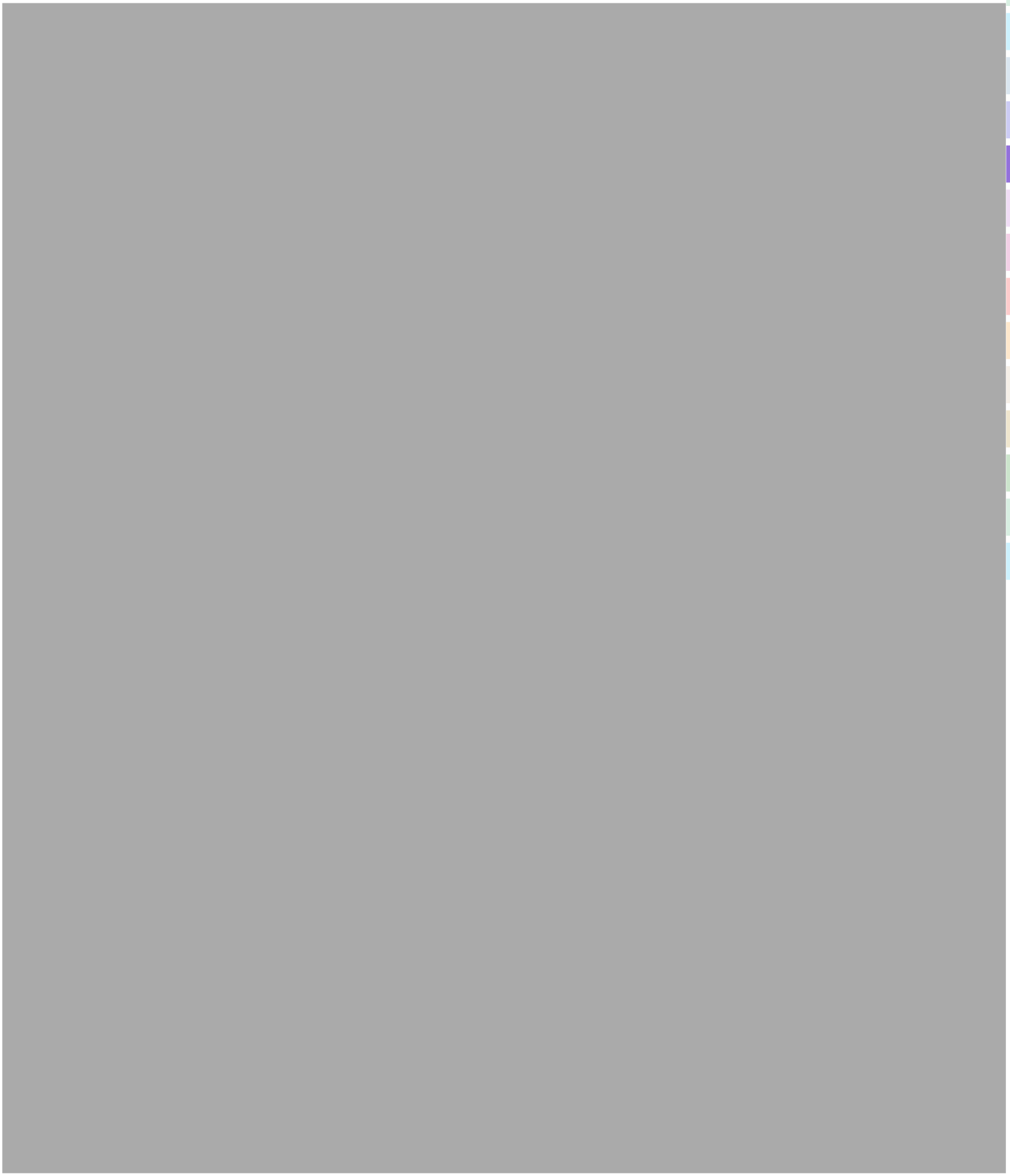
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 15:57	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 15:57	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 15:57	1
Naphthalene	ND		5.0		ug/L			10/09/17 15:57	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
o-Xylene	ND		1.0		ug/L			10/09/17 15:57	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
Styrene	ND		1.0		ug/L			10/09/17 15:57	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 15:57	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 15:57	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 15:57	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 15:57	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 15:57	1
Toluene	ND		1.0		ug/L			10/09/17 15:57	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 15:57	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 15:57	1
Trichloroethene	ND		1.0		ug/L			10/09/17 15:57	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 15:57	1
Vinyl chloride	ND		1.0		ug/L			10/09/17 15:57	1
Dibromomethane	ND		1.0		ug/L			10/09/17 15:57	1

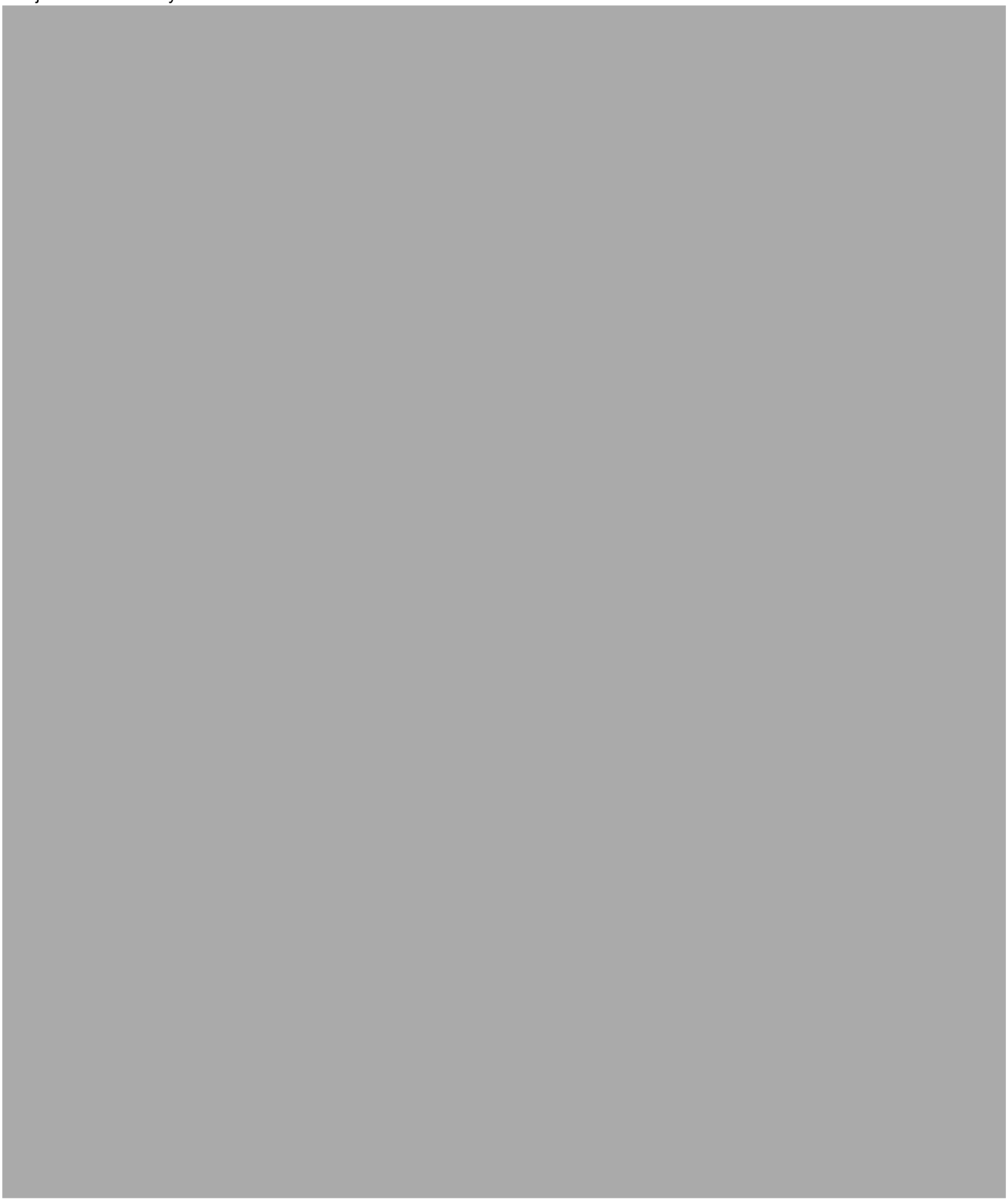
Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*70 - 130*		*10/09/17 15:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*10/09/17 15:57*	*1*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*		*10/09/17 15:57*	*1*

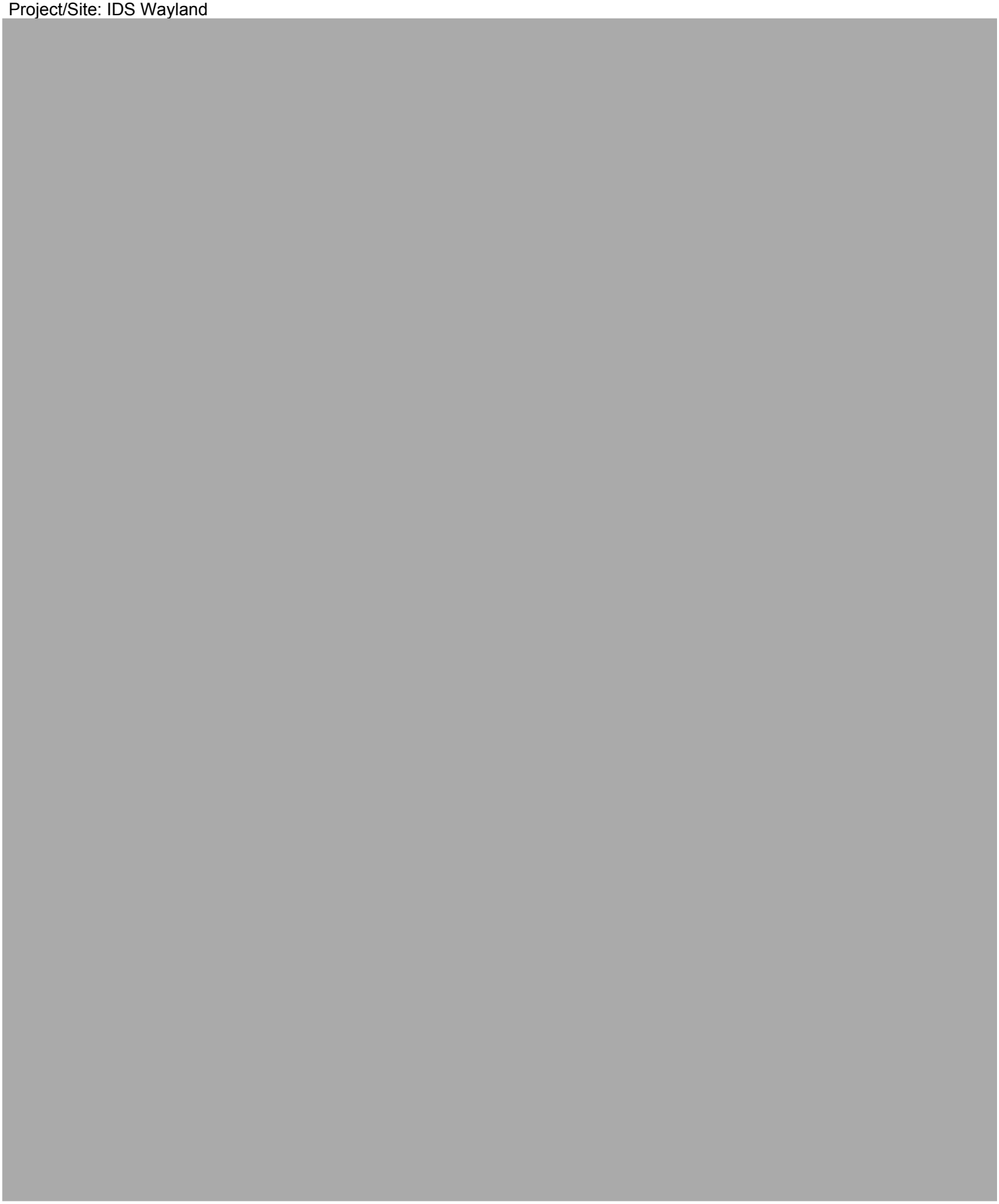


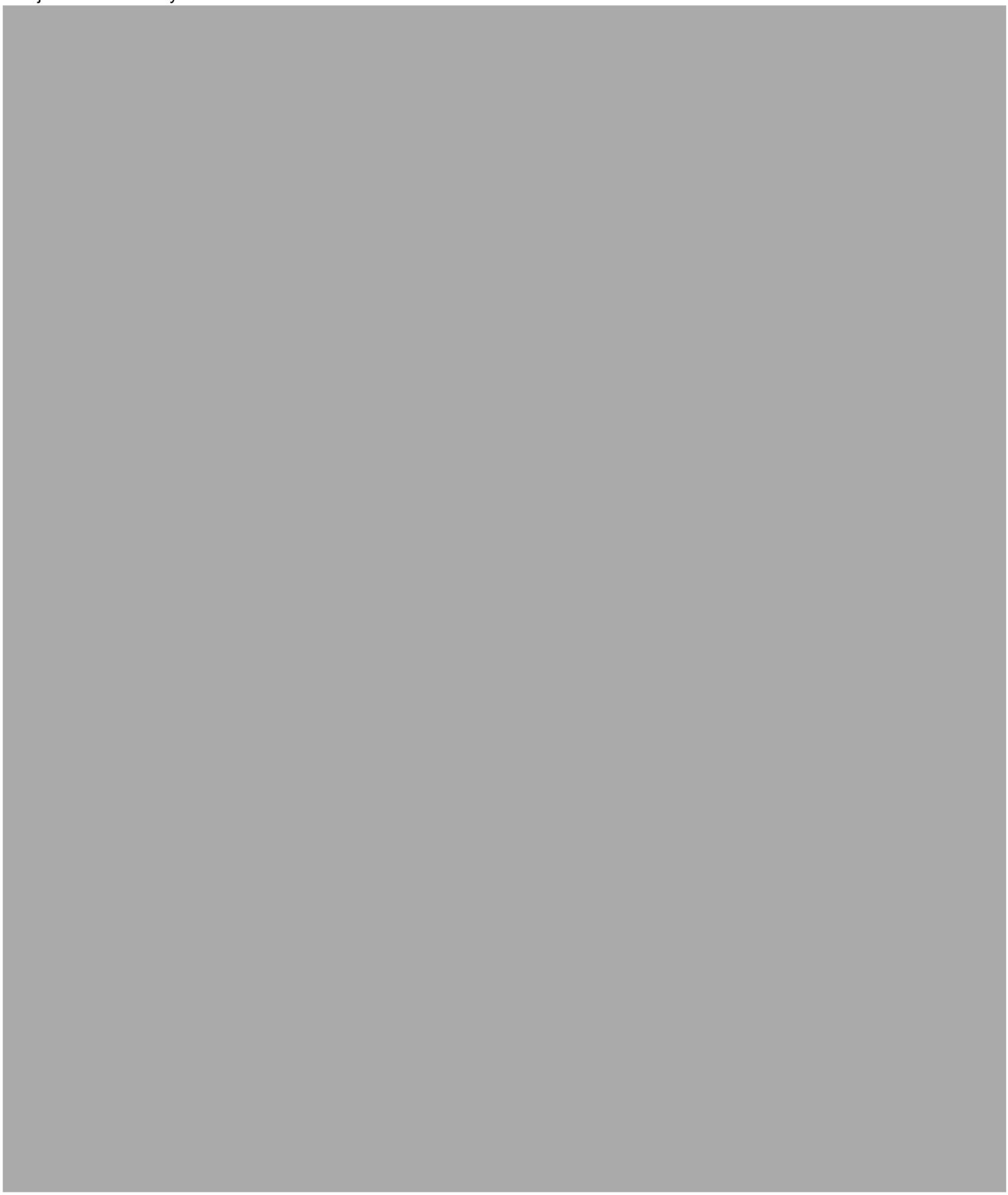


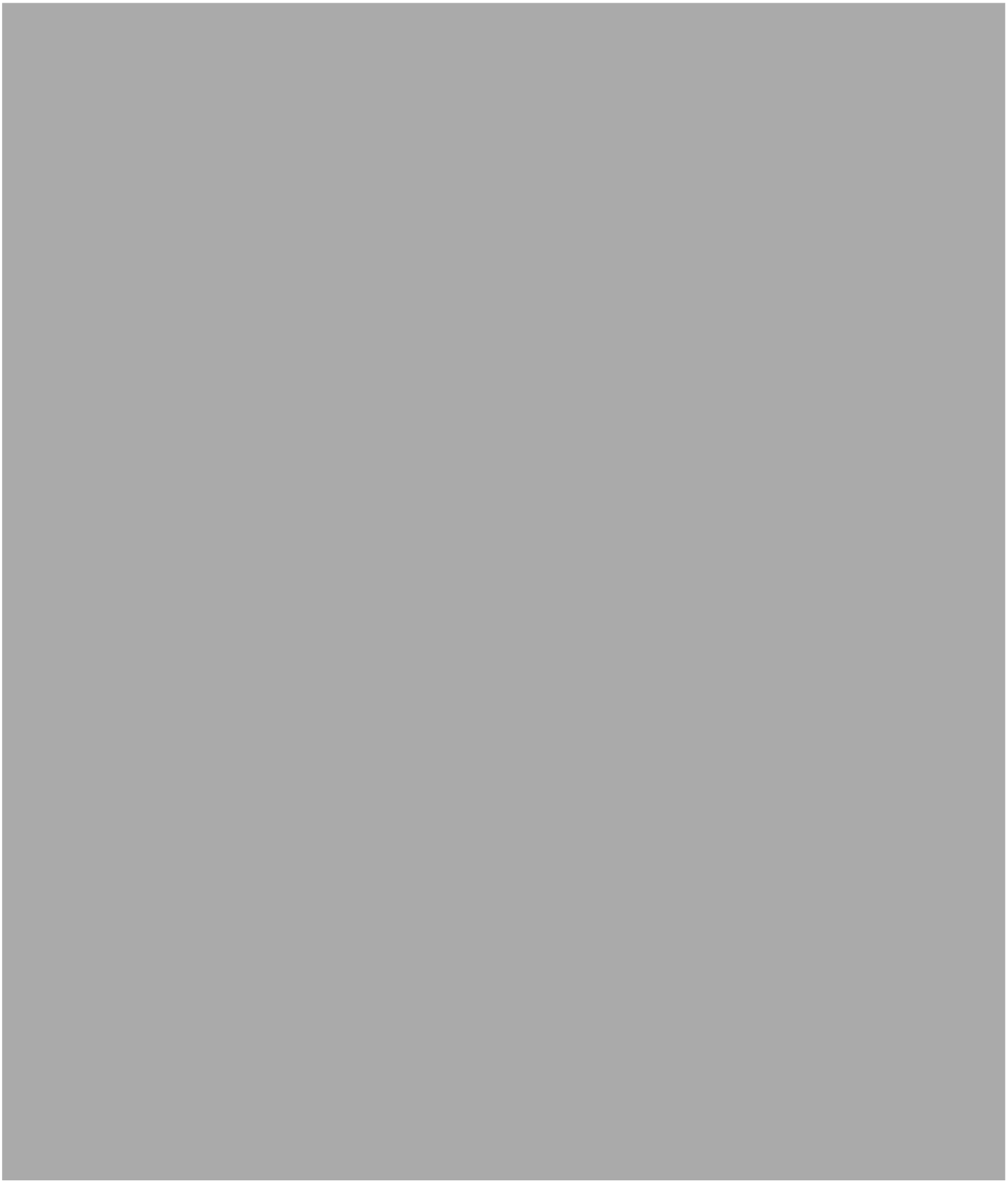


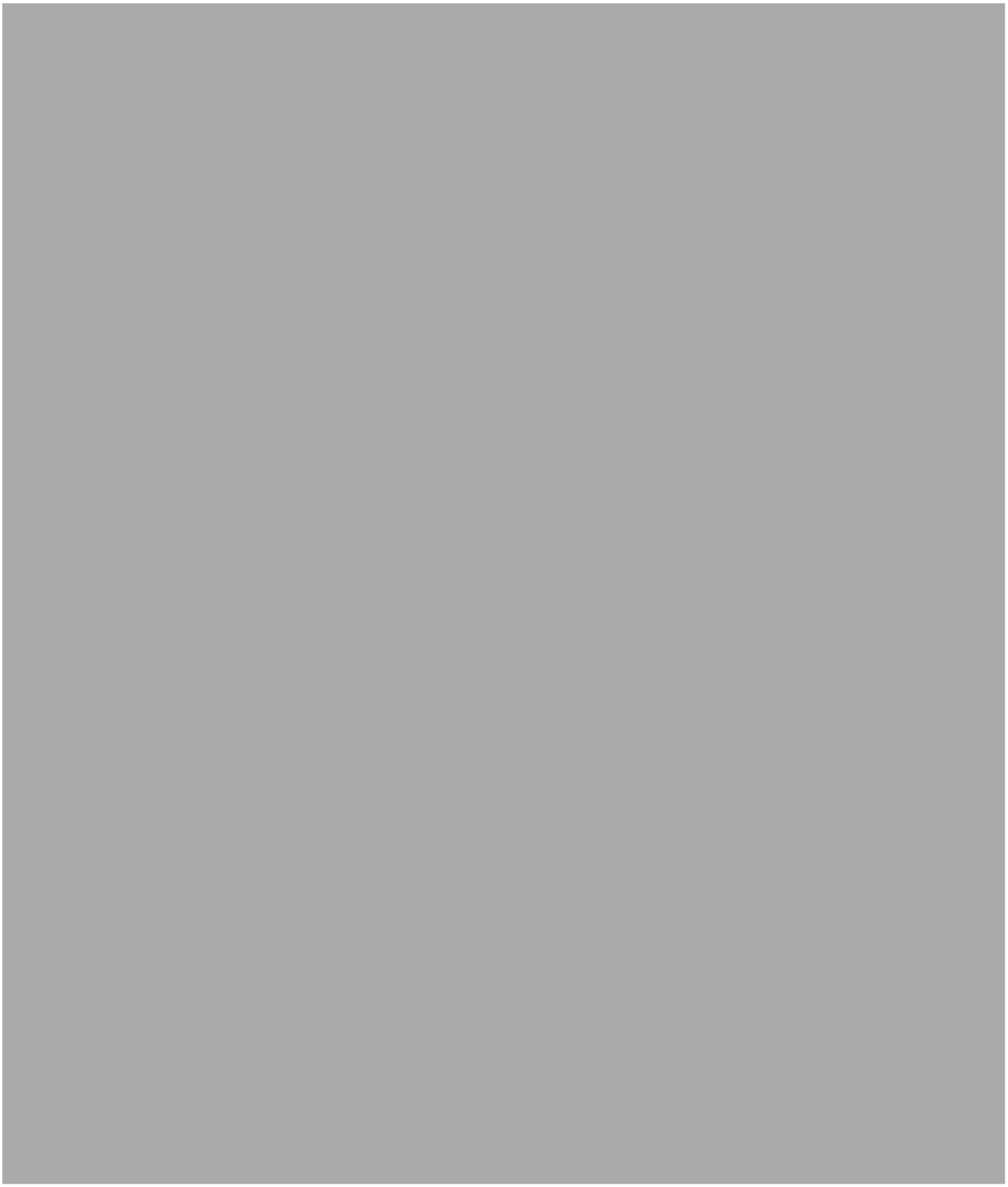


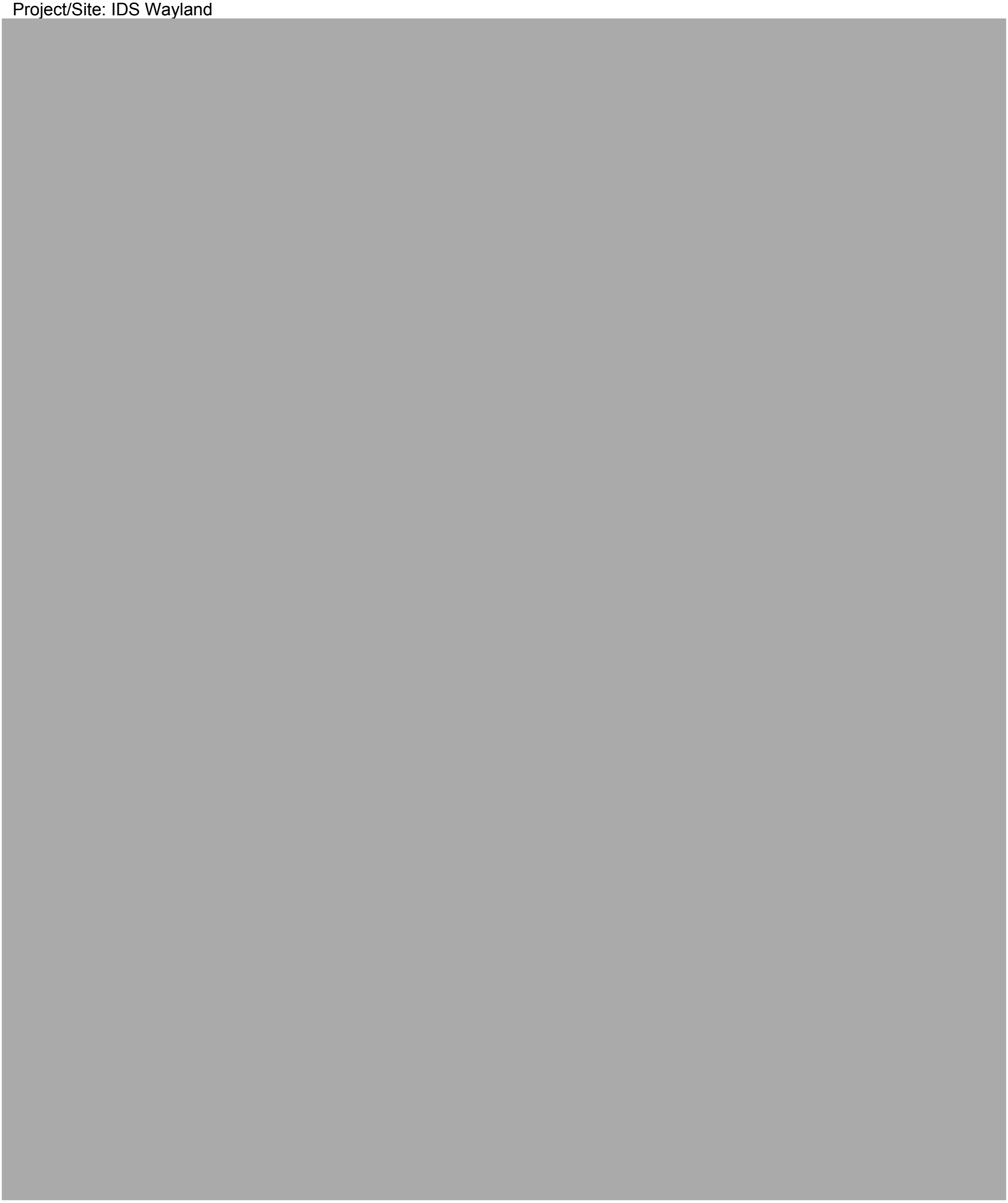


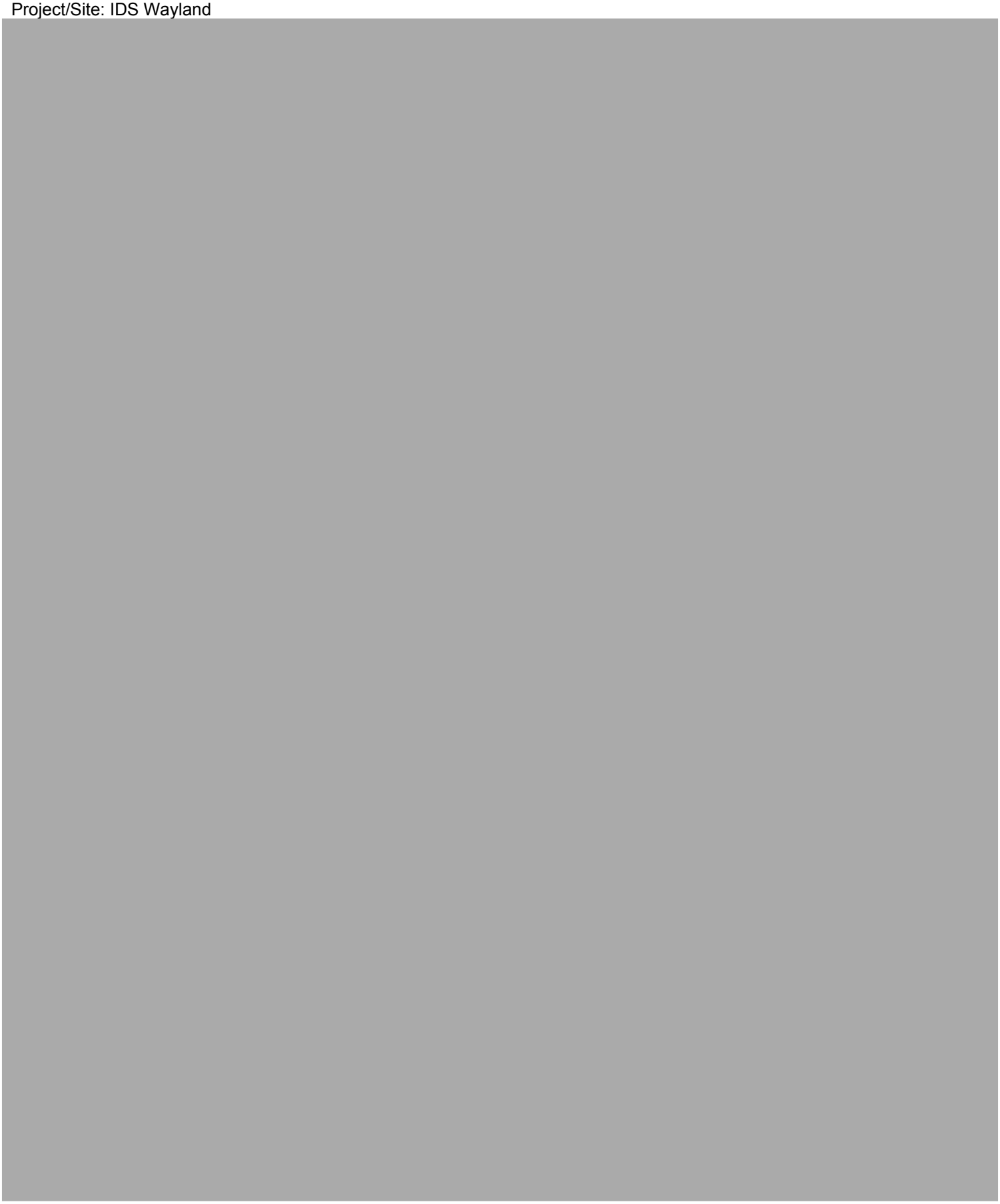


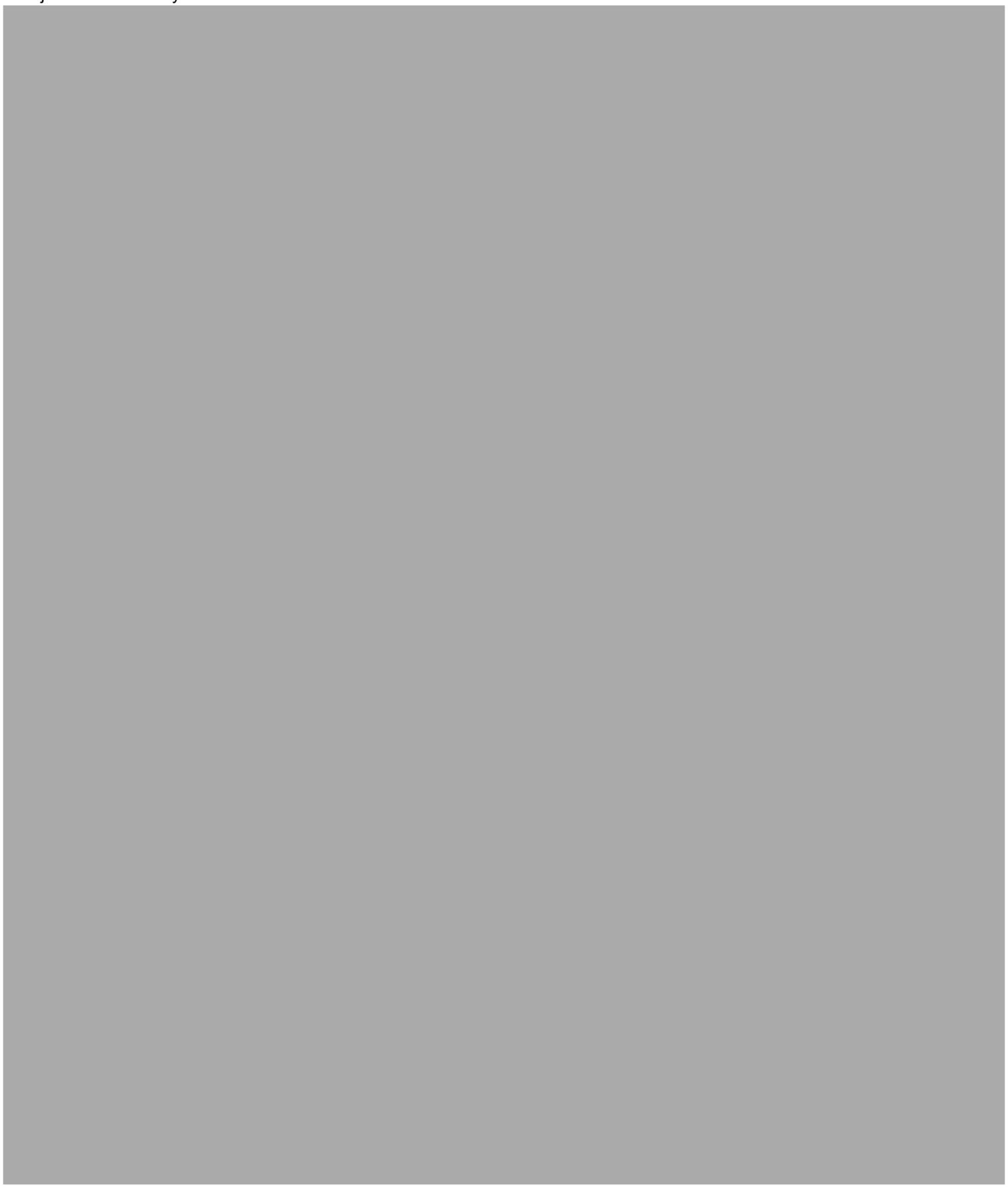












Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	120	^	0.050		mg/L		10/04/17 09:15	10/04/17 23:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36		2.5		mg/L			10/06/17 12:18	5
Sulfate	ND		10		mg/L			10/06/17 12:18	5
Ammonia	1.3		0.20		mg/L		10/04/17 18:10	10/05/17 11:42	1
Nitrate as N	ND		0.050		mg/L			10/04/17 19:30	1
TOC Result 1	62		1.0		mg/L			10/04/17 21:09	1
TOC Result 2	60		1.0		mg/L			10/04/17 21:09	1
Total Organic Carbon - Duplicates	61		1.0		mg/L			10/04/17 21:09	1
Alkalinity, Total	1100		5.0		mg/L			10/04/17 22:47	1
ortho-Phosphate	ND		0.10		mg/L			10/04/17 19:50	5
ortho-Phosphate	ND		0.020		mg/L			10/04/17 21:37	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF	0.1		SU			10/04/17 17:44	1
Temperature	22.0	HF	0.001		Degrees C			10/04/17 17:44	1

Client Sample ID: MW-562-20171003

Lab Sample ID: 480-125214-9

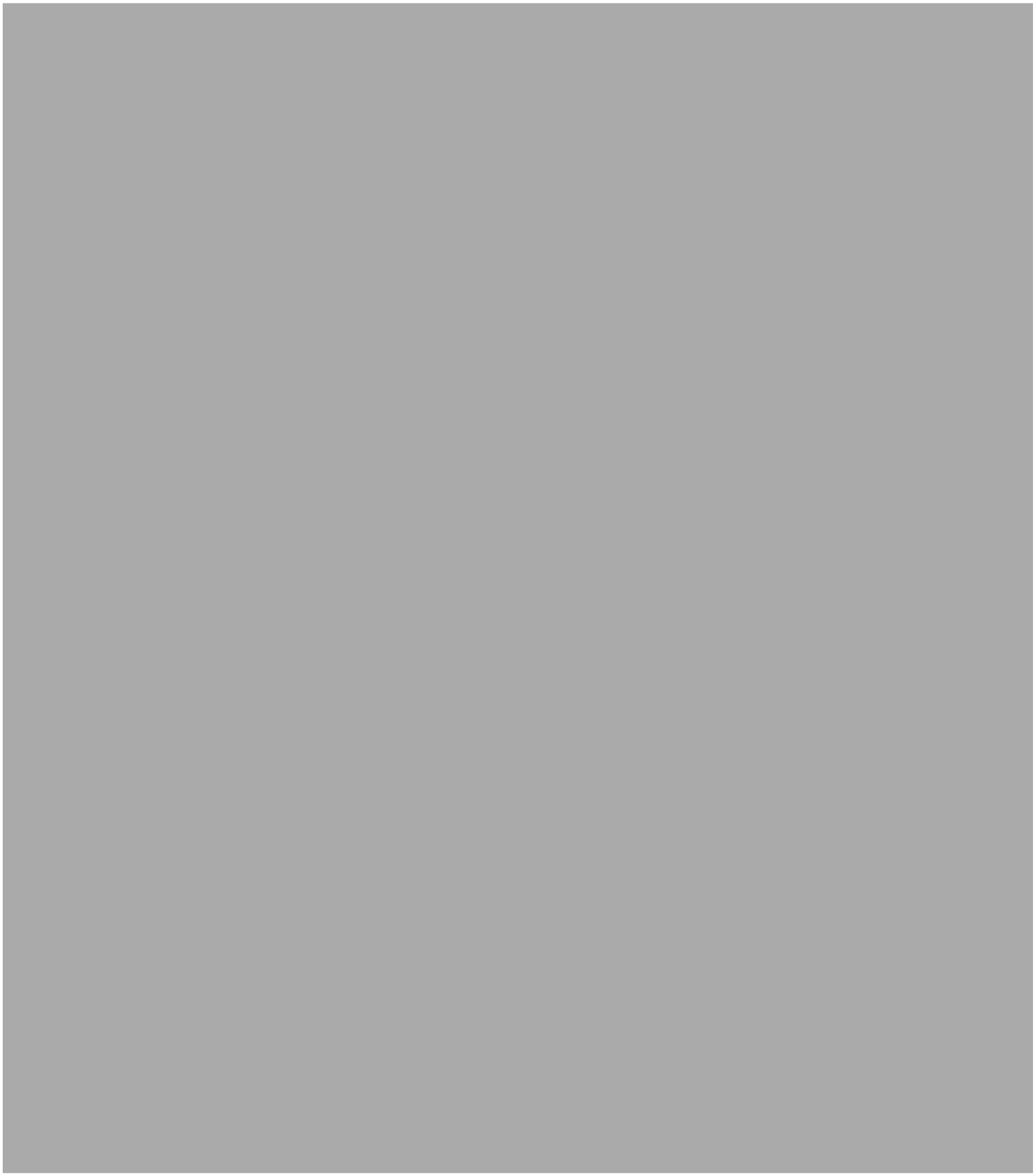
Date Collected: 10/03/17 08:30

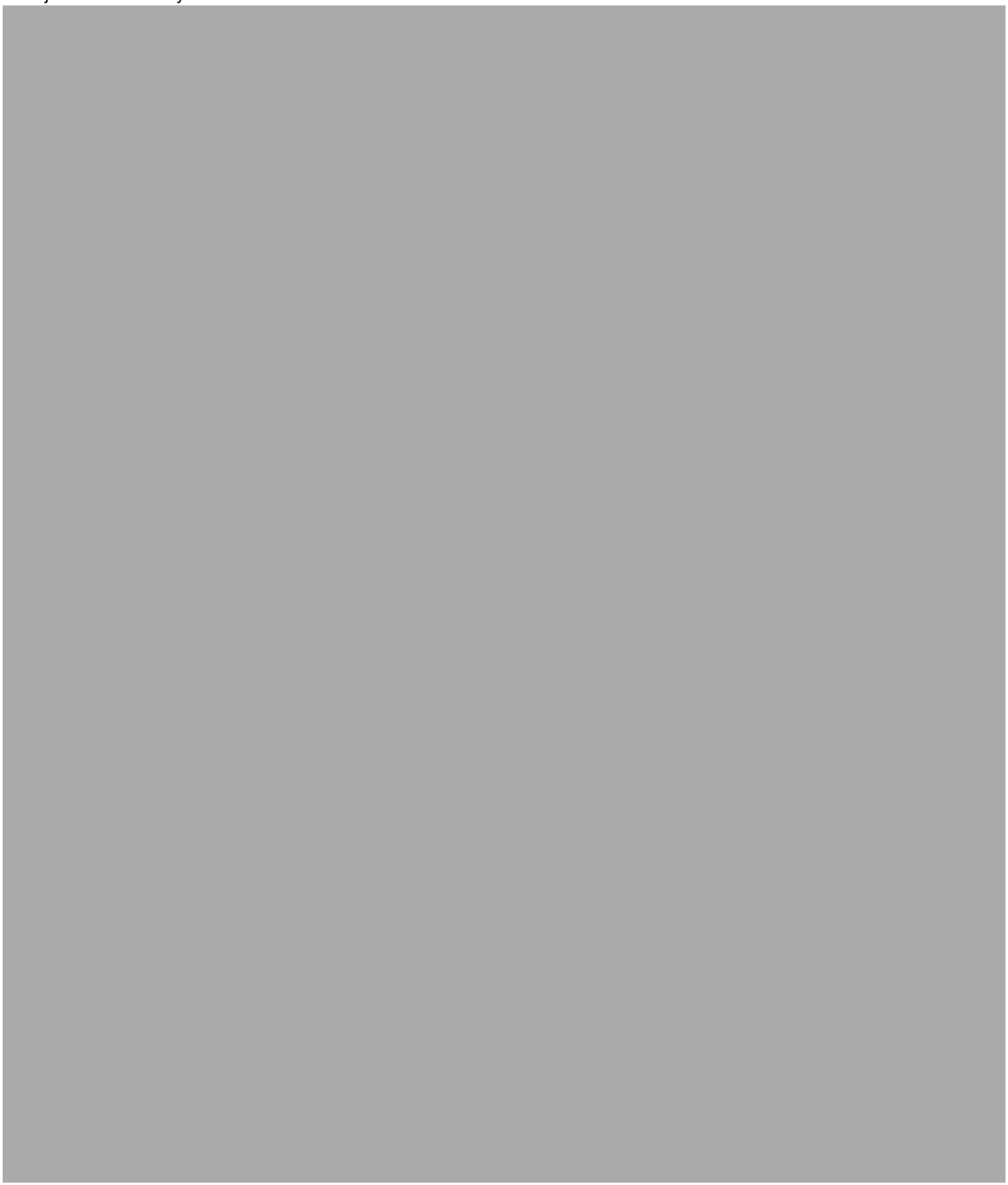
Matrix: Water

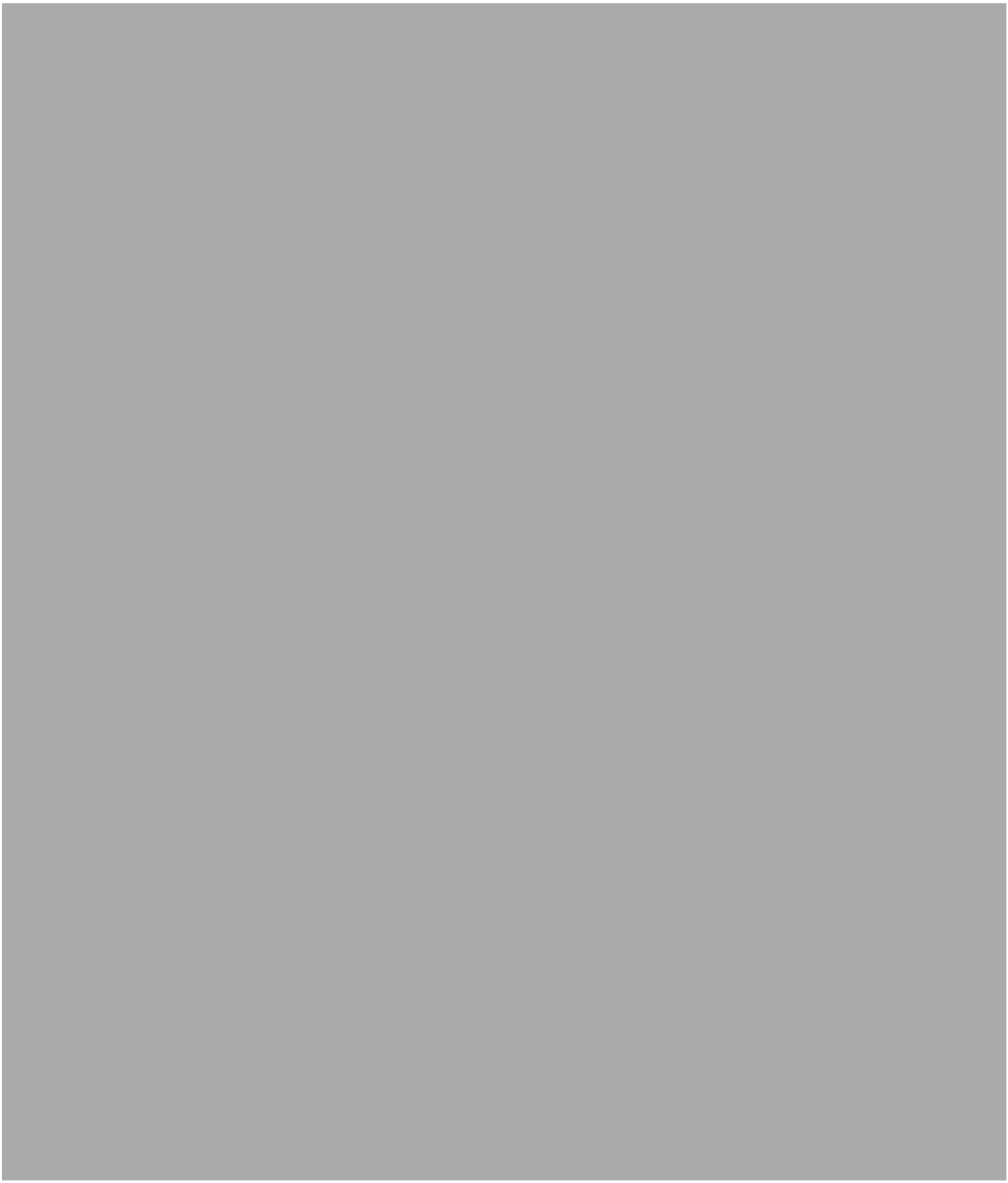
Date Received: 10/04/17 02:15

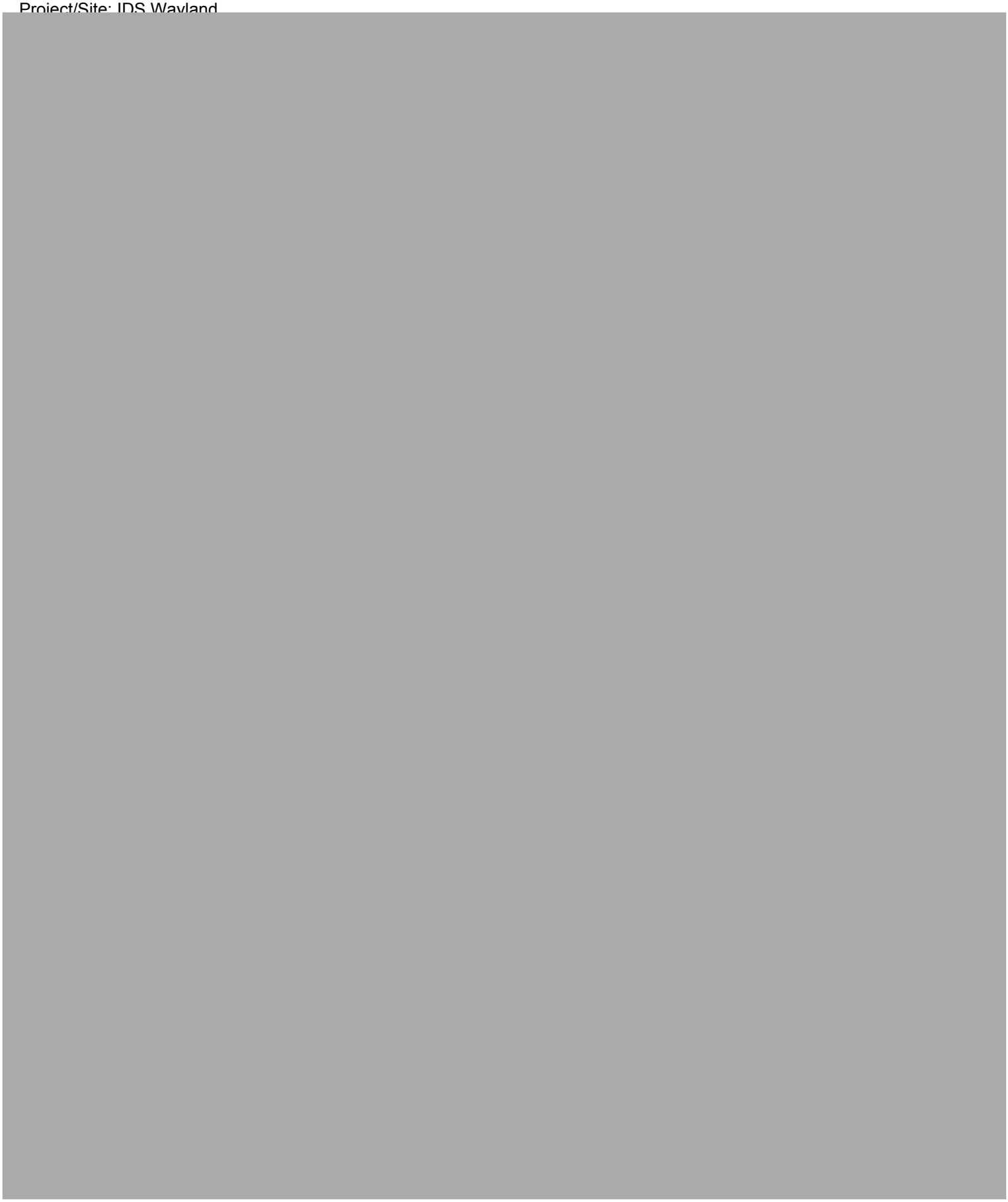
Method: 8260C - Volatile Organic Compounds (GC/MS)

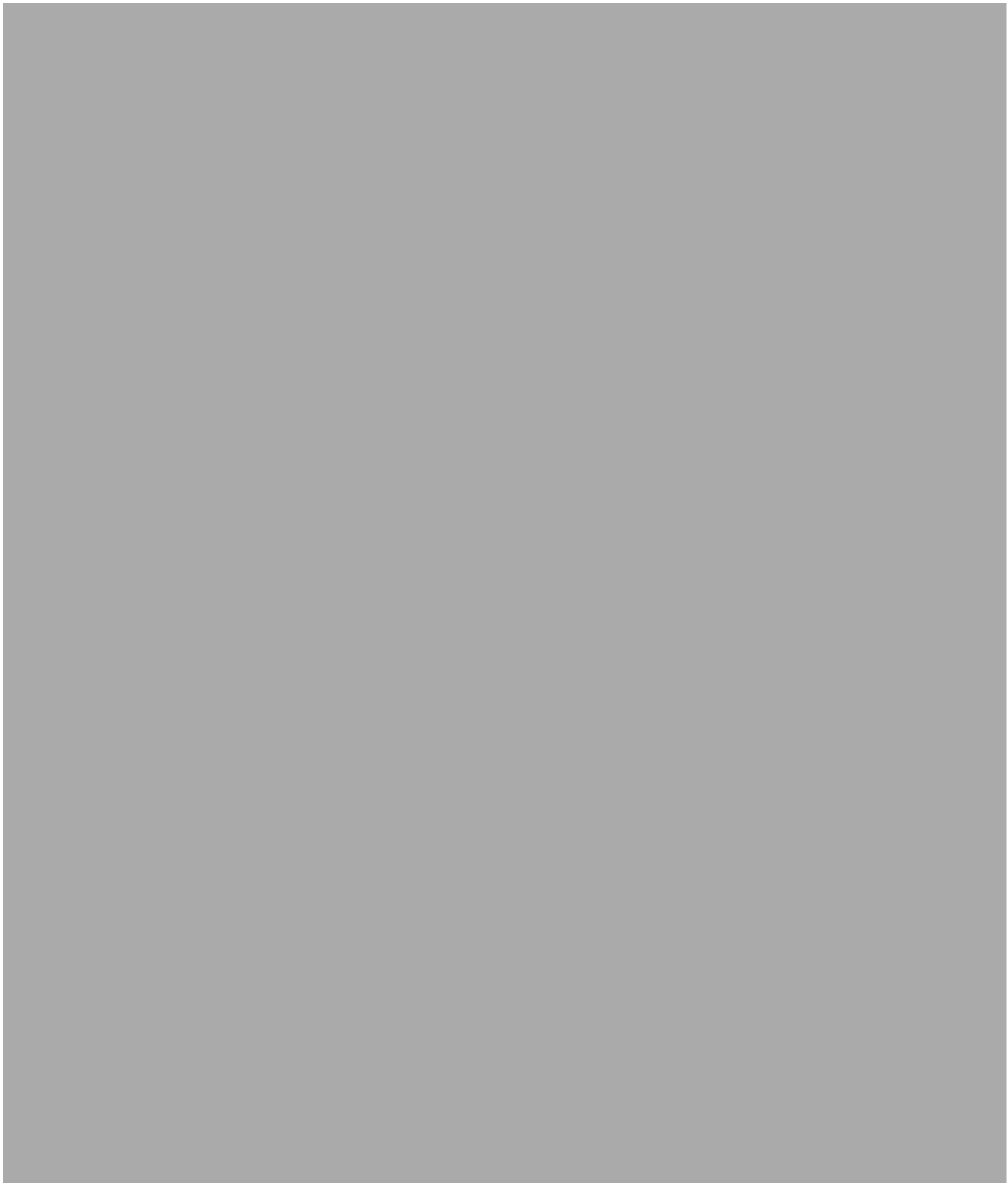
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1,1-Trichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1,2,2-Tetrachloroethane	ND		20		ug/L			10/10/17 01:19	40
1,1,2-Trichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1-Dichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1-Dichloroethene	ND		40		ug/L			10/10/17 01:19	40
1,1-Dichloropropene	ND		40		ug/L			10/10/17 01:19	40
1,2,3-Trichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,2,3-Trichloropropane	ND		40		ug/L			10/10/17 01:19	40
1,2,4-Trichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,2,4-Trimethylbenzene	ND		40		ug/L			10/10/17 01:19	40
1,2-Dibromo-3-Chloropropane	ND		200		ug/L			10/10/17 01:19	40
1,2-Dichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,2-Dichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,2-Dichloropropane	ND		40		ug/L			10/10/17 01:19	40
1,3,5-Trimethylbenzene	ND		40		ug/L			10/10/17 01:19	40
1,3-Dichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,3-Dichloropropane	ND		40		ug/L			10/10/17 01:19	40
1,4-Dichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,4-Dioxane	ND		2000		ug/L			10/10/17 01:19	40
2,2-Dichloropropane	ND		40		ug/L			10/10/17 01:19	40
2-Butanone (MEK)	ND	*	400		ug/L			10/10/17 01:19	40
2-Chlorotoluene	ND		40		ug/L			10/10/17 01:19	40
2-Hexanone	ND		400		ug/L			10/10/17 01:19	40
4-Chlorotoluene	ND		40		ug/L			10/10/17 01:19	40
4-Isopropyltoluene	ND		40		ug/L			10/10/17 01:19	40
4-Methyl-2-pentanone (MIBK)	ND		400		ug/L			10/10/17 01:19	40
Acetone	5500		2000		ug/L			10/10/17 01:19	40
Benzene	ND		40		ug/L			10/10/17 01:19	40

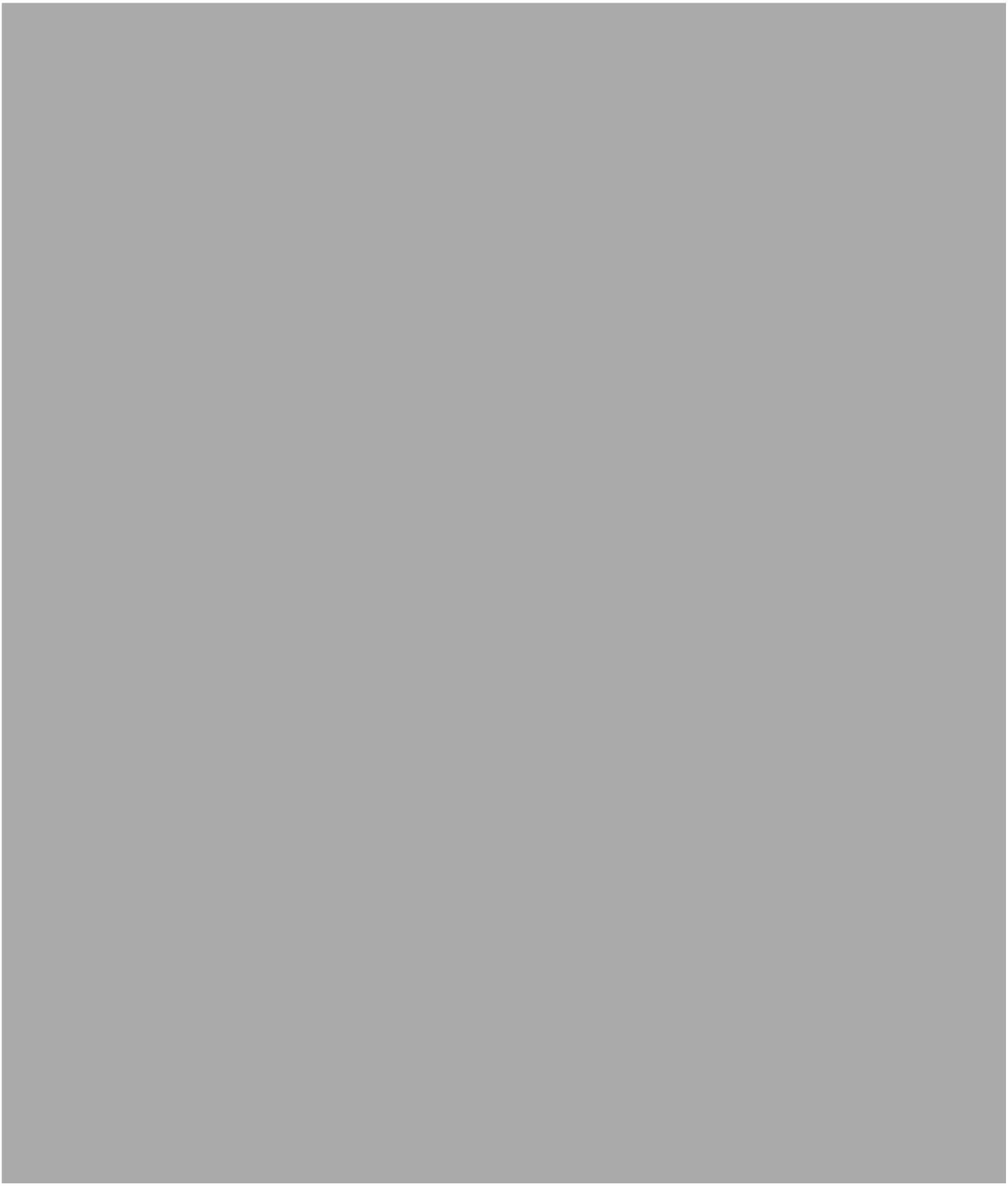


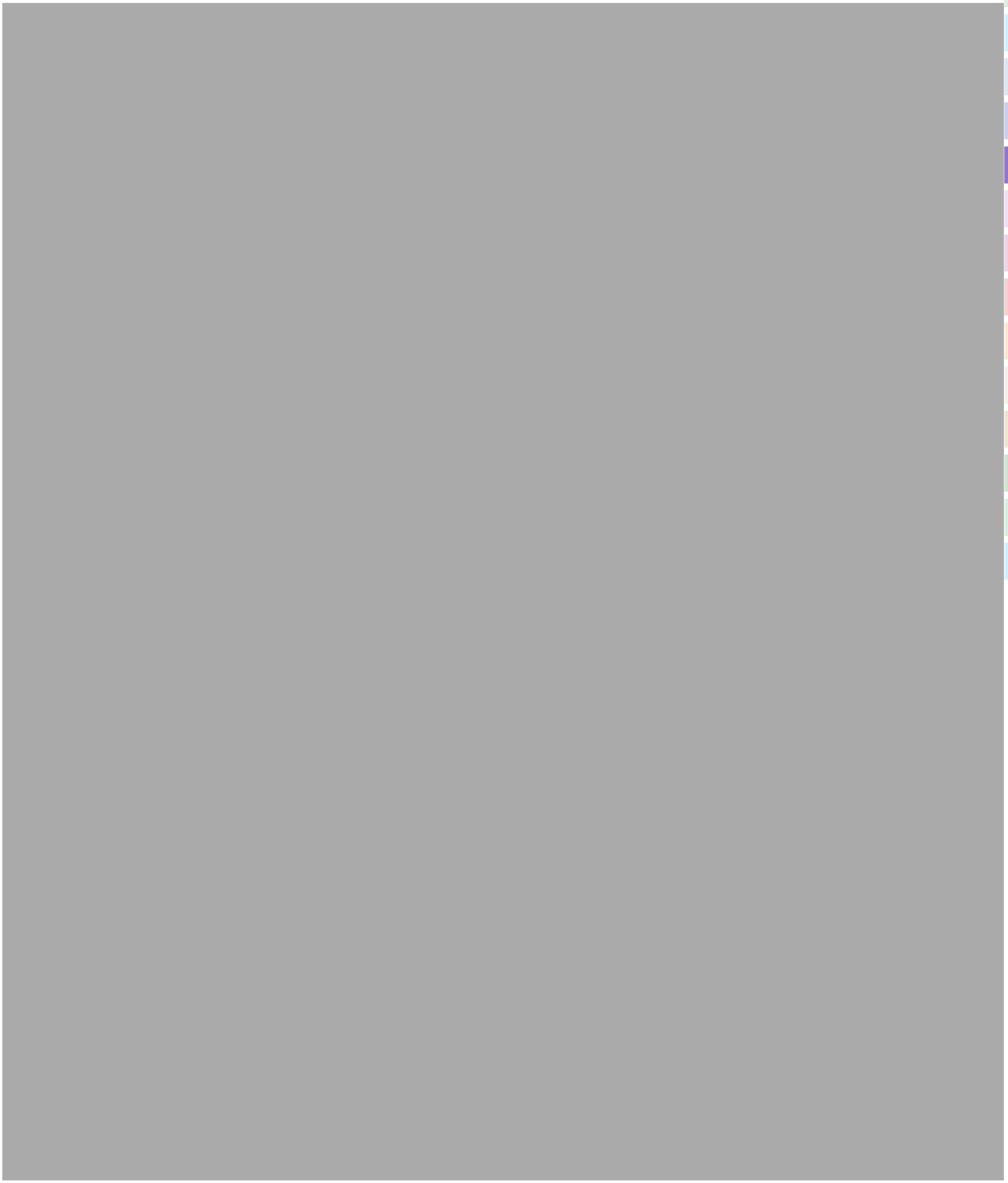


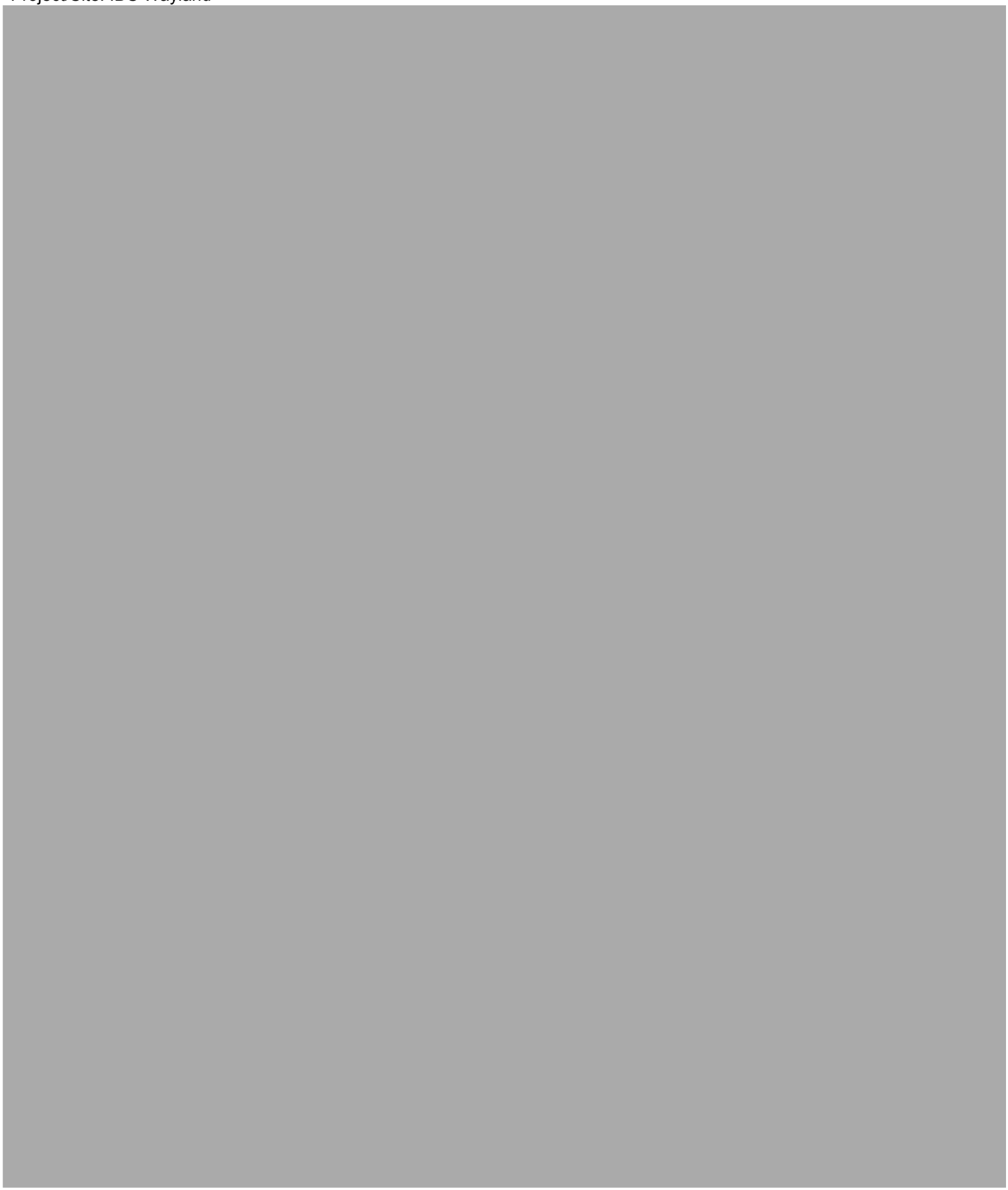


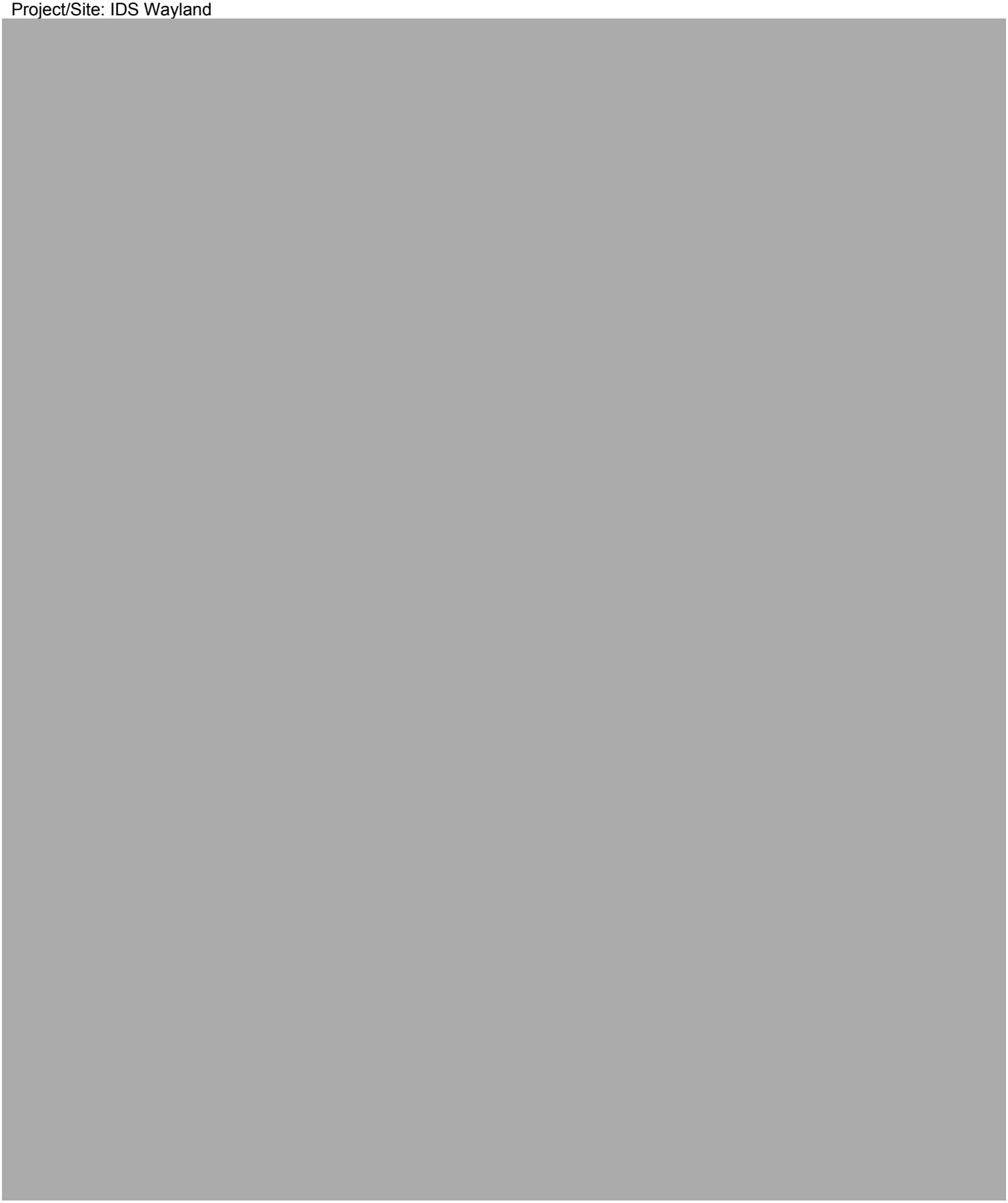


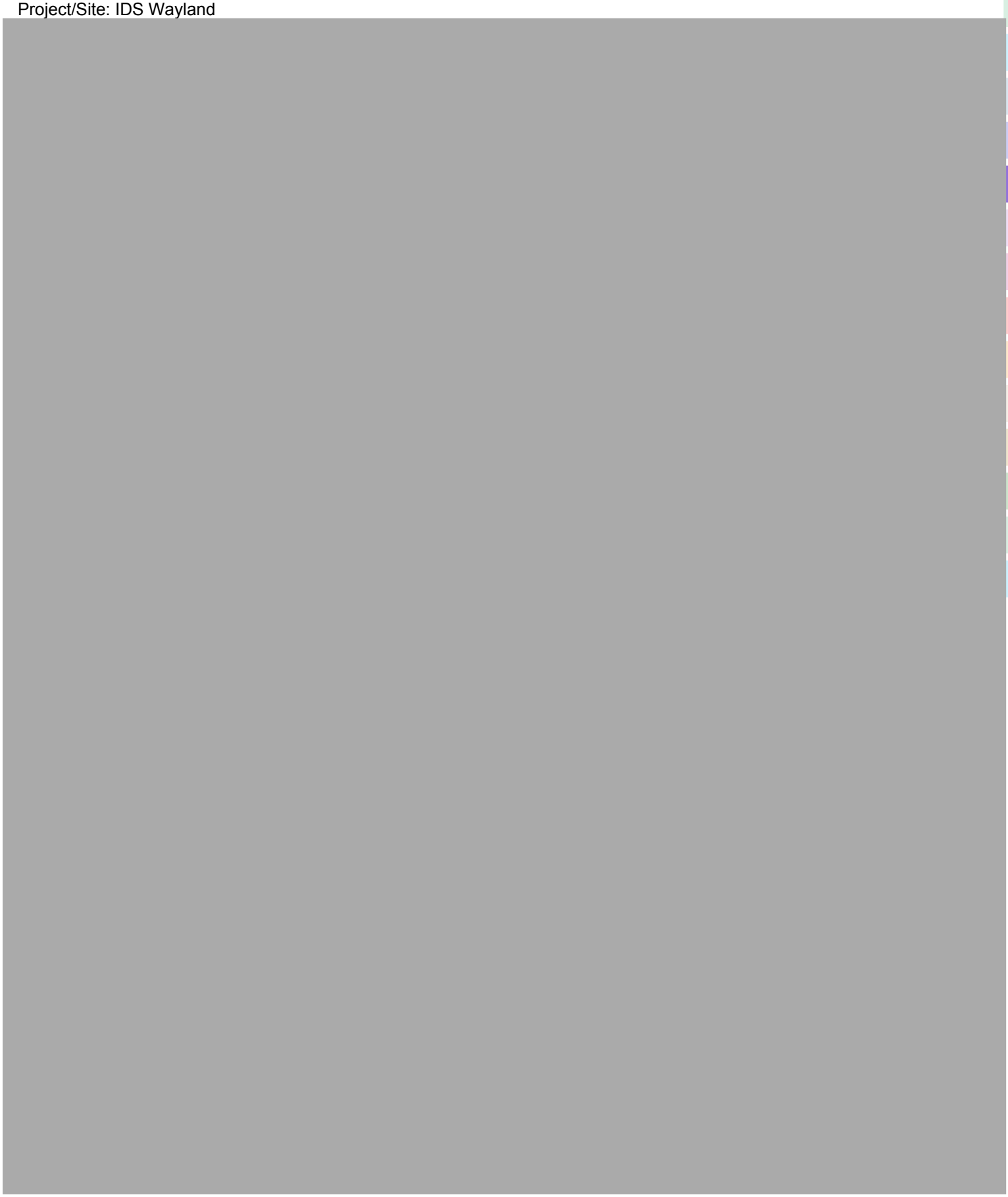


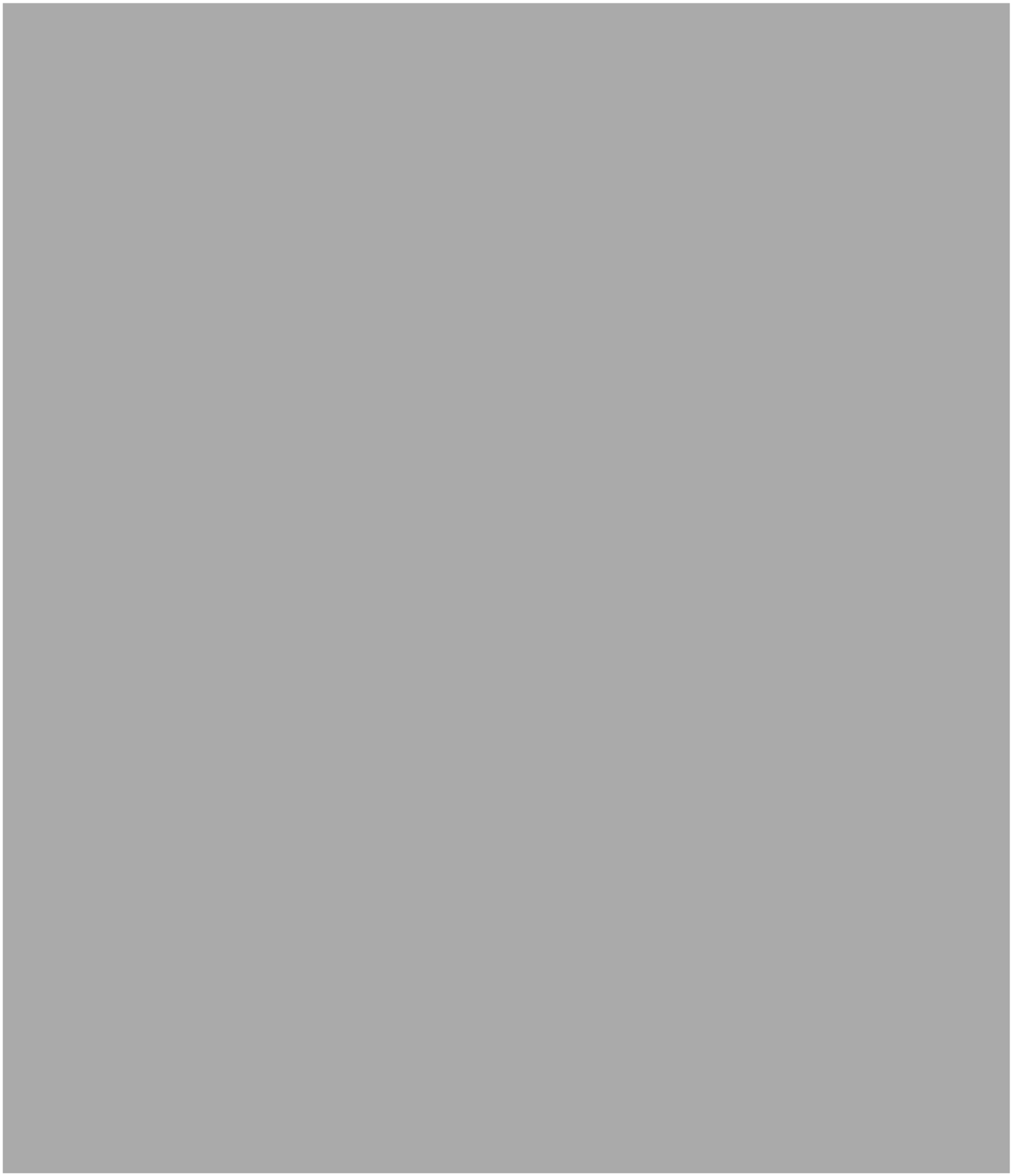


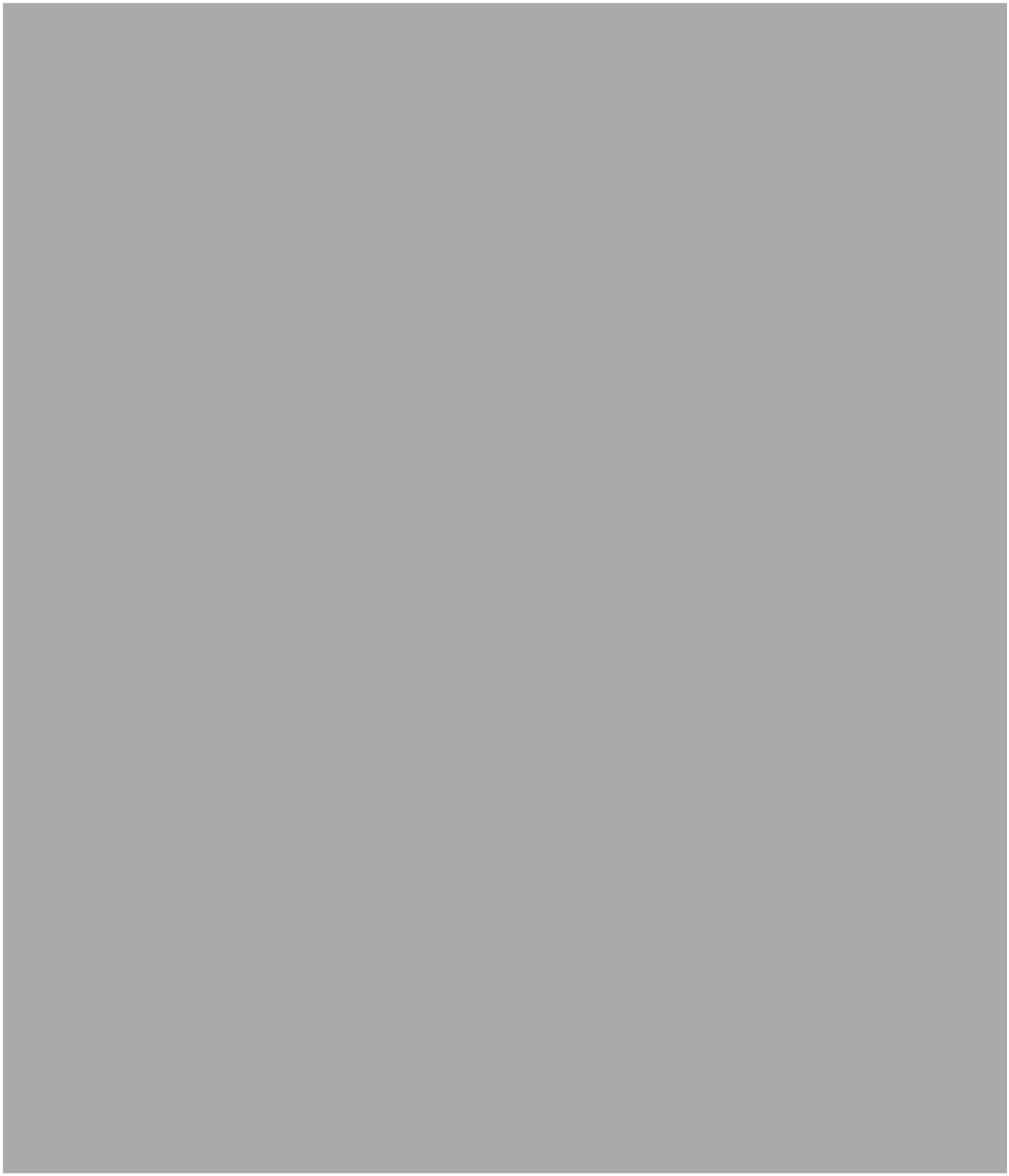


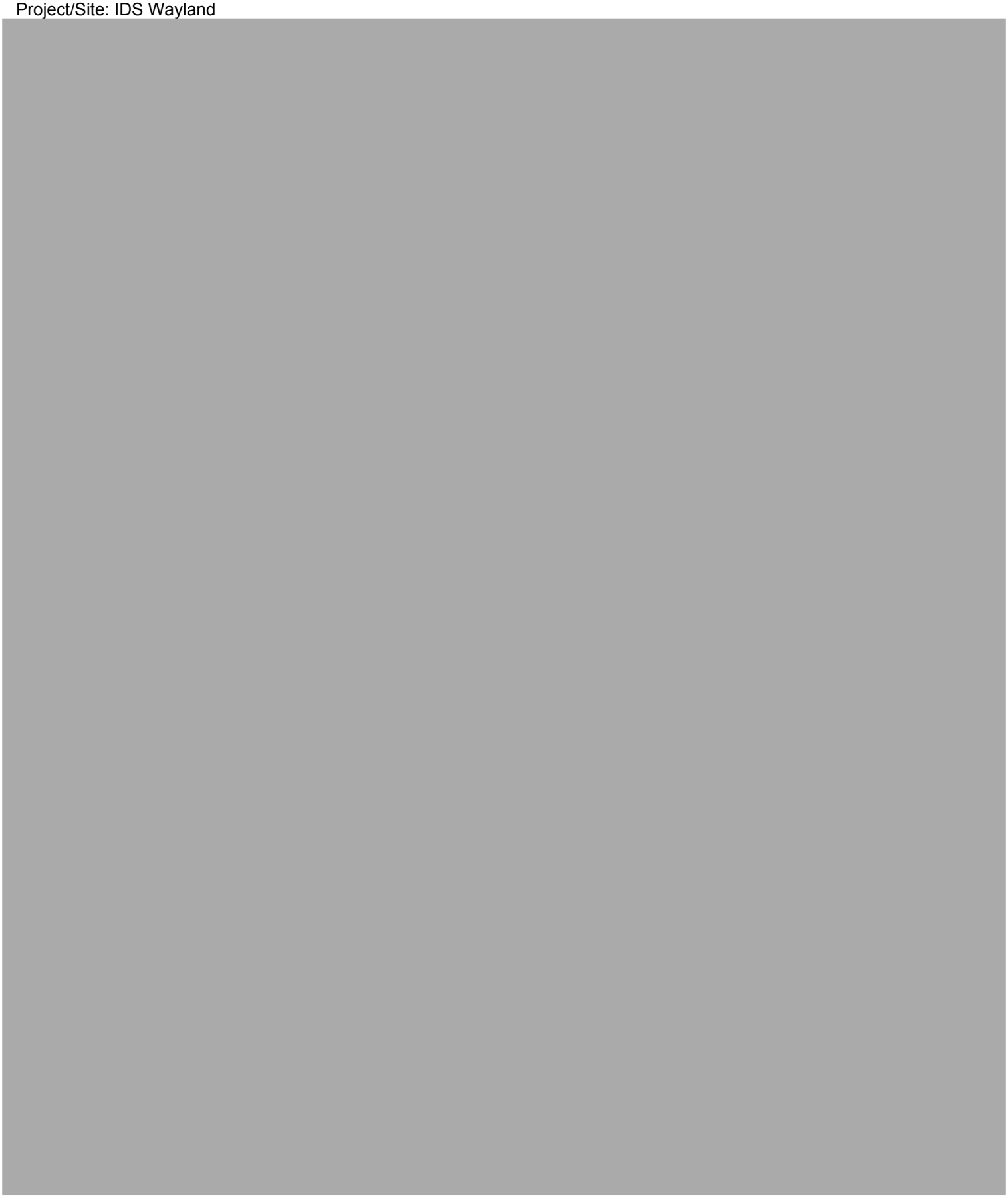












Client Sample ID: TRIP BLANKS
Date Collected: 10/03/17 00:00
Date Received: 10/04/17 02:15

Lab Sample ID: 480-125214-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 04:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 04:04	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 04:04	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,4-Dioxane	ND		50		ug/L			10/10/17 04:04	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
2-Butanone (MEK)	ND	*	10		ug/L			10/10/17 04:04	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 04:04	1
2-Hexanone	ND		10		ug/L			10/10/17 04:04	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 04:04	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 04:04	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 04:04	1
Acetone	ND		50		ug/L			10/10/17 04:04	1
Benzene	ND		1.0		ug/L			10/10/17 04:04	1
Bromobenzene	ND		1.0		ug/L			10/10/17 04:04	1
Bromoform	ND		1.0		ug/L			10/10/17 04:04	1
Bromomethane	ND		2.0		ug/L			10/10/17 04:04	1
Carbon disulfide	ND		10		ug/L			10/10/17 04:04	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 04:04	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 04:04	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 04:04	1
Chloroethane	ND		2.0		ug/L			10/10/17 04:04	1
Chloroform	ND		1.0		ug/L			10/10/17 04:04	1
Chloromethane	ND		2.0		ug/L			10/10/17 04:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 04:04	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 04:04	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 04:04	1
Ethyl ether	ND		1.0		ug/L			10/10/17 04:04	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 04:04	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 04:04	1
Isopropyl ether	ND		10		ug/L			10/10/17 04:04	1

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

Client Sample ID: TRIP BLANKS
Date Collected: 10/03/17 00:00
Date Received: 10/04/17 02:15

Lab Sample ID: 480-125214-16
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 04:04	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 04:04	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 04:04	1
Naphthalene	ND		5.0		ug/L			10/10/17 04:04	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
o-Xylene	ND		1.0		ug/L			10/10/17 04:04	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Styrene	ND		1.0		ug/L			10/10/17 04:04	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 04:04	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 04:04	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 04:04	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 04:04	1
Toluene	ND		1.0		ug/L			10/10/17 04:04	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 04:04	1
Trichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 04:04	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 04:04	1
Dibromomethane	ND		1.0		ug/L			10/10/17 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*70 - 130*		*10/10/17 04:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*10/10/17 04:04*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*10/10/17 04:04*	*1*

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
480-125214-1	DEP-21-20171002	100	99	80
480-125214-2	MW-264M-20171002	98	87	85
480-125214-3	MW-266MA-20171002	98	94	89
480-125214-4	MW-266MB-20171002	101	96	86
480-125214-5	MW-267M-20171002	100	91	86
480-125214-6	MW-269MA-20171002	100	98	87
480-125214-7	MW-560-20171003	101	97	87
480-125214-8	MW-561-20171003	100	96	87
480-125214-9	MW-562-20171003	99	89	89
480-125214-10	MW-563-20171003	100	95	86
480-125214-11	REW-6-20171003	101	94	86
480-125214-12	REW-7-20171003	100	101	88
480-125214-13	REW-11-20171003	97	95	84
480-125214-14	REW-12-20171003	99	89	87
480-125214-15	DUP1-20171003	97	94	83
480-125214-16	TRIP BLANKS	98	93	85
LCS 480-380799/5	Lab Control Sample	101	96	87
LCS 480-380932/5	Lab Control Sample	98	93	84
LCS 480-381006/4	Lab Control Sample	100	92	84
LCSD 480-380799/6	Lab Control Sample Dup	101	94	93
LCSD 480-380932/6	Lab Control Sample Dup	102	90	88
LCSD 480-381006/5	Lab Control Sample Dup	99	94	83
MB 480-380799/8	Method Blank	99	92	85
MB 480-380932/8	Method Blank	101	93	85
MB 480-381006/7	Method Blank	99	91	83

Surrogate Legend

TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		14DD8
Lab Sample ID	Client Sample ID	(46-130)
480-125214-3	MW-266MA-20171002	66
480-125214-5	MW-267M-20171002	75
480-125214-6	MW-269MA-20171002	69
LCS 200-121935/2-A	Lab Control Sample	90
MB 200-121935/1-A	Method Blank	74

Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

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

Lab Sample ID: MB 480-380799/8
Matrix: Water
Analysis Batch: 380799

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			10/09/17 12:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 12:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 12:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 12:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,4-Dioxane	ND		50		ug/L			10/09/17 12:36	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
2-Butanone (MEK)	ND		10		ug/L			10/09/17 12:36	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 12:36	1
2-Hexanone	ND		10		ug/L			10/09/17 12:36	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 12:36	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 12:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 12:36	1
Acetone	ND		50		ug/L			10/09/17 12:36	1
Benzene	ND		1.0		ug/L			10/09/17 12:36	1
Bromobenzene	ND		1.0		ug/L			10/09/17 12:36	1
Bromoform	ND		1.0		ug/L			10/09/17 12:36	1
Bromomethane	ND		2.0		ug/L			10/09/17 12:36	1
Carbon disulfide	ND		10		ug/L			10/09/17 12:36	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 12:36	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 12:36	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 12:36	1
Chloroethane	ND		2.0		ug/L			10/09/17 12:36	1
Chloroform	ND		1.0		ug/L			10/09/17 12:36	1
Chloromethane	ND		2.0		ug/L			10/09/17 12:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 12:36	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 12:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 12:36	1
Ethyl ether	ND		1.0		ug/L			10/09/17 12:36	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 12:36	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 12:36	1

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

Lab Sample ID: MB 480-380799/8
Matrix: Water
Analysis Batch: 380799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10		ug/L			10/09/17 12:36	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 12:36	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 12:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 12:36	1
Naphthalene	ND		5.0		ug/L			10/09/17 12:36	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
o-Xylene	ND		1.0		ug/L			10/09/17 12:36	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Styrene	ND		1.0		ug/L			10/09/17 12:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 12:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 12:36	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 12:36	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 12:36	1
Toluene	ND		1.0		ug/L			10/09/17 12:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 12:36	1
Trichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 12:36	1
Vinyl chloride	ND		1.0		ug/L			10/09/17 12:36	1
Dibromomethane	ND		1.0		ug/L			10/09/17 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*70 - 130*		*10/09/17 12:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*10/09/17 12:36*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*10/09/17 12:36*	*1*

Lab Sample ID: LCS 480-380799/5
Matrix: Water
Analysis Batch: 380799

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	22.5		ug/L		90	70 - 130
1,1,1-Trichloroethane	25.0	21.8		ug/L		87	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.9		ug/L		115	70 - 130
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	24.0		ug/L		96	70 - 130
1,1-Dichloroethene	25.0	21.5		ug/L		86	70 - 130
1,1-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	25.0	21.7		ug/L		87	70 - 130
1,2,3-Trichloropropane	25.0	25.4		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	25.0	20.8		ug/L		83	70 - 130
1,2,4-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	22.1		ug/L		88	70 - 130

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

Lab Sample ID: LCS 480-380799/5
Matrix: Water
Analysis Batch: 380799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	22.9		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,3-Dichloropropane	25.0	27.9		ug/L		111	70 - 130
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,4-Dioxane	500	423		ug/L		85	70 - 130
2,2-Dichloropropane	25.0	23.2		ug/L		93	70 - 130
2-Butanone (MEK)	125	205	*	ug/L		164	70 - 130
2-Chlorotoluene	25.0	24.4		ug/L		97	70 - 130
2-Hexanone	125	127		ug/L		101	70 - 130
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130
4-Isopropyltoluene	25.0	25.2		ug/L		101	70 - 130
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	70 - 130
Acetone	125	121		ug/L		97	70 - 130
Benzene	25.0	25.0		ug/L		100	70 - 130
Bromobenzene	25.0	21.7		ug/L		87	70 - 130
Bromoform	25.0	21.1		ug/L		84	70 - 130
Bromomethane	25.0	21.3		ug/L		85	70 - 130
Carbon disulfide	25.0	24.7		ug/L		99	70 - 130
Carbon tetrachloride	25.0	20.0		ug/L		80	70 - 130
Chlorobenzene	25.0	23.8		ug/L		95	70 - 130
Chlorobromomethane	25.0	21.0		ug/L		84	70 - 130
Chlorodibromomethane	25.0	21.6		ug/L		86	70 - 130
Chloroethane	25.0	22.9		ug/L		91	70 - 130
Chloroform	25.0	22.7		ug/L		91	70 - 130
Chloromethane	25.0	23.4		ug/L		94	70 - 130
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	70 - 130
cis-1,3-Dichloropropene	25.0	21.9		ug/L		87	70 - 130
Dichlorobromomethane	25.0	22.7		ug/L		91	70 - 130
Dichlorodifluoromethane	25.0	27.9		ug/L		112	70 - 130
Ethyl ether	25.0	19.9		ug/L		80	70 - 130
Ethylbenzene	25.0	24.7		ug/L		99	70 - 130
Ethylene Dibromide	25.0	25.6		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	21.7		ug/L		87	70 - 130
Isopropyl ether	25.0	22.5		ug/L		90	70 - 130
Isopropylbenzene	25.0	25.8		ug/L		103	70 - 130
Methyl tert-butyl ether	25.0	23.8		ug/L		95	70 - 130
Methylene Chloride	25.0	20.8		ug/L		83	70 - 130
m-Xylene & p-Xylene	25.0	22.9		ug/L		92	70 - 130
Naphthalene	25.0	25.0		ug/L		100	70 - 130
n-Butylbenzene	25.0	27.3		ug/L		109	70 - 130
N-Propylbenzene	25.0	26.3		ug/L		105	70 - 130
o-Xylene	25.0	22.9		ug/L		92	70 - 130
sec-Butylbenzene	25.0	26.1		ug/L		105	70 - 130
Styrene	25.0	23.8		ug/L		95	70 - 130
Tert-amyl methyl ether	25.0	24.5		ug/L		98	70 - 130
Tert-butyl ethyl ether	25.0	22.8		ug/L		91	70 - 130
tert-Butylbenzene	25.0	24.3		ug/L		97	70 - 130

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

Lab Sample ID: LCS 480-380799/5
Matrix: Water
Analysis Batch: 380799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130
Tetrahydrofuran	50.0	57.2		ug/L		114	70 - 130
Toluene	25.0	24.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 130
Trichloroethene	25.0	22.6		ug/L		90	70 - 130
Trichlorofluoromethane	25.0	23.9		ug/L		96	70 - 130
Vinyl chloride	25.0	23.5		ug/L		94	70 - 130
Dibromomethane	25.0	23.3		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: LCSD 480-380799/6
Matrix: Water
Analysis Batch: 380799

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	24.1		ug/L		96	70 - 130	7	20
1,1,1-Trichloroethane	25.0	23.6		ug/L		94	70 - 130	8	20
1,1,2,2-Tetrachloroethane	25.0	29.3		ug/L		117	70 - 130	1	20
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	1	20
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	6	20
1,1-Dichloroethene	25.0	23.9		ug/L		95	70 - 130	11	20
1,1-Dichloropropene	25.0	27.4		ug/L		110	70 - 130	12	20
1,2,3-Trichlorobenzene	25.0	21.2		ug/L		85	70 - 130	2	20
1,2,3-Trichloropropane	25.0	24.9		ug/L		100	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	20.9		ug/L		84	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		104	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	21.6		ug/L		86	70 - 130	5	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	2	20
1,2-Dichloroethane	25.0	23.7		ug/L		95	70 - 130	7	20
1,2-Dichloropropane	25.0	23.6		ug/L		94	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 130	3	20
1,3-Dichlorobenzene	25.0	24.6		ug/L		99	70 - 130	2	20
1,3-Dichloropropane	25.0	29.3		ug/L		117	70 - 130	5	20
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130	1	20
1,4-Dioxane	500	501		ug/L		100	70 - 130	17	20
2,2-Dichloropropane	25.0	24.6		ug/L		98	70 - 130	6	20
2-Butanone (MEK)	125	203	*	ug/L		162	70 - 130	1	20
2-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130	4	20
2-Hexanone	125	128		ug/L		102	70 - 130	1	20
4-Chlorotoluene	25.0	27.3		ug/L		109	70 - 130	5	20
4-Isopropyltoluene	25.0	25.5		ug/L		102	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	70 - 130	3	20
Acetone	125	121		ug/L		97	70 - 130	0	20

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

Lab Sample ID: LCSD 480-380799/6
Matrix: Water
Analysis Batch: 380799

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			25.0	26.1		ug/L		104	70 - 130	4	20
Bromobenzene			25.0	22.5		ug/L		90	70 - 130	3	20
Bromoform			25.0	21.9		ug/L		88	70 - 130	4	20
Bromomethane			25.0	23.8		ug/L		95	70 - 130	11	20
Carbon disulfide			25.0	26.1		ug/L		104	70 - 130	5	20
Carbon tetrachloride			25.0	21.9		ug/L		88	70 - 130	9	20
Chlorobenzene			25.0	25.6		ug/L		102	70 - 130	7	20
Chlorobromomethane			25.0	22.1		ug/L		89	70 - 130	5	20
Chlorodibromomethane			25.0	23.1		ug/L		93	70 - 130	7	20
Chloroethane			25.0	25.3		ug/L		101	70 - 130	10	20
Chloroform			25.0	23.9		ug/L		96	70 - 130	5	20
Chloromethane			25.0	25.2		ug/L		101	70 - 130	7	20
cis-1,2-Dichloroethene			25.0	24.9		ug/L		99	70 - 130	10	20
cis-1,3-Dichloropropene			25.0	22.7		ug/L		91	70 - 130	4	20
Dichlorobromomethane			25.0	23.3		ug/L		93	70 - 130	3	20
Dichlorodifluoromethane			25.0	30.5		ug/L		122	70 - 130	9	20
Ethyl ether			25.0	21.0		ug/L		84	70 - 130	5	20
Ethylbenzene			25.0	27.1		ug/L		108	70 - 130	9	20
Ethylene Dibromide			25.0	26.6		ug/L		106	70 - 130	4	20
Hexachlorobutadiene			25.0	22.7		ug/L		91	70 - 130	5	20
Isopropyl ether			25.0	23.4		ug/L		94	70 - 130	4	20
Isopropylbenzene			25.0	27.2		ug/L		109	70 - 130	5	20
Methyl tert-butyl ether			25.0	24.4		ug/L		98	70 - 130	3	20
Methylene Chloride			25.0	22.4		ug/L		89	70 - 130	7	20
m-Xylene & p-Xylene			25.0	25.3		ug/L		101	70 - 130	10	20
Naphthalene			25.0	24.6		ug/L		98	70 - 130	2	20
n-Butylbenzene			25.0	28.6		ug/L		114	70 - 130	4	20
N-Propylbenzene			25.0	27.9		ug/L		111	70 - 130	6	20
o-Xylene			25.0	25.4		ug/L		101	70 - 130	10	20
sec-Butylbenzene			25.0	27.5		ug/L		110	70 - 130	5	20
Styrene			25.0	25.4		ug/L		101	70 - 130	7	20
Tert-amyl methyl ether			25.0	24.4		ug/L		97	70 - 130	1	20
Tert-butyl ethyl ether			25.0	23.8		ug/L		95	70 - 130	4	20
tert-Butylbenzene			25.0	25.2		ug/L		101	70 - 130	4	20
Tetrachloroethene			25.0	29.1		ug/L		117	70 - 130	13	20
Tetrahydrofuran			50.0	57.4		ug/L		115	70 - 130	0	20
Toluene			25.0	26.0		ug/L		104	70 - 130	6	20
trans-1,2-Dichloroethene			25.0	24.6		ug/L		98	70 - 130	2	20
trans-1,3-Dichloropropene			25.0	26.7		ug/L		107	70 - 130	6	20
Trichloroethene			25.0	24.3		ug/L		97	70 - 130	8	20
Trichlorofluoromethane			25.0	26.5		ug/L		106	70 - 130	10	20
Vinyl chloride			25.0	25.8		ug/L		103	70 - 130	10	20
Dibromomethane			25.0	22.6		ug/L		90	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: MB 480-380932/8
Matrix: Water
Analysis Batch: 380932

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			10/09/17 23:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 23:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 23:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 23:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,4-Dioxane	ND		50		ug/L			10/09/17 23:36	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
2-Butanone (MEK)	ND		10		ug/L			10/09/17 23:36	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 23:36	1
2-Hexanone	ND		10		ug/L			10/09/17 23:36	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 23:36	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 23:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 23:36	1
Acetone	ND		50		ug/L			10/09/17 23:36	1
Benzene	ND		1.0		ug/L			10/09/17 23:36	1
Bromobenzene	ND		1.0		ug/L			10/09/17 23:36	1
Bromoform	ND		1.0		ug/L			10/09/17 23:36	1
Bromomethane	ND		2.0		ug/L			10/09/17 23:36	1
Carbon disulfide	ND		10		ug/L			10/09/17 23:36	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 23:36	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 23:36	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 23:36	1
Chloroethane	ND		2.0		ug/L			10/09/17 23:36	1
Chloroform	ND		1.0		ug/L			10/09/17 23:36	1
Chloromethane	ND		2.0		ug/L			10/09/17 23:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 23:36	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 23:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 23:36	1
Ethyl ether	ND		1.0		ug/L			10/09/17 23:36	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 23:36	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 23:36	1
Isopropyl ether	ND		10		ug/L			10/09/17 23:36	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 23:36	1

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

Lab Sample ID: MB 480-380932/8
Matrix: Water
Analysis Batch: 380932

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 23:36	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 23:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 23:36	1
Naphthalene	ND		5.0		ug/L			10/09/17 23:36	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
o-Xylene	ND		1.0		ug/L			10/09/17 23:36	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
Styrene	ND		1.0		ug/L			10/09/17 23:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 23:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 23:36	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 23:36	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 23:36	1
Toluene	ND		1.0		ug/L			10/09/17 23:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 23:36	1
Trichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 23:36	1
Vinyl chloride	ND		1.0		ug/L			10/09/17 23:36	1
Dibromomethane	ND		1.0		ug/L			10/09/17 23:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/09/17 23:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*10/09/17 23:36*	*1*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*		*10/09/17 23:36*	*1*

Lab Sample ID: LCS 480-380932/5
Matrix: Water
Analysis Batch: 380932

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	24.8		ug/L		99	70 - 130
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	25.0	29.7		ug/L		119	70 - 130
1,1,2-Trichloroethane	25.0	26.4		ug/L		105	70 - 130
1,1-Dichloroethane	25.0	27.7		ug/L		111	70 - 130
1,1-Dichloroethene	25.0	24.9		ug/L		100	70 - 130
1,1-Dichloropropene	25.0	28.3		ug/L		113	70 - 130
1,2,3-Trichlorobenzene	25.0	22.2		ug/L		89	70 - 130
1,2,3-Trichloropropane	25.0	27.2		ug/L		109	70 - 130
1,2,4-Trichlorobenzene	25.0	22.7		ug/L		91	70 - 130
1,2,4-Trimethylbenzene	25.0	28.4		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	70 - 130
1,2-Dichlorobenzene	25.0	27.4		ug/L		110	70 - 130
1,2-Dichloroethane	25.0	24.7		ug/L		99	70 - 130
1,2-Dichloropropane	25.0	25.4		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130

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

Lab Sample ID: LCS 480-380932/5
Matrix: Water
Analysis Batch: 380932

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	27.4		ug/L		110	70 - 130
1,3-Dichloropropane	25.0	29.5		ug/L		118	70 - 130
1,4-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130
1,4-Dioxane	500	501		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	27.0		ug/L		108	70 - 130
2-Butanone (MEK)	125	230	*	ug/L		184	70 - 130
2-Chlorotoluene	25.0	27.0		ug/L		108	70 - 130
2-Hexanone	125	137		ug/L		109	70 - 130
4-Chlorotoluene	25.0	29.8		ug/L		119	70 - 130
4-Isopropyltoluene	25.0	28.8		ug/L		115	70 - 130
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	70 - 130
Acetone	125	159		ug/L		127	70 - 130
Benzene	25.0	28.7		ug/L		115	70 - 130
Bromobenzene	25.0	25.7		ug/L		103	70 - 130
Bromoform	25.0	20.8		ug/L		83	70 - 130
Bromomethane	25.0	25.2		ug/L		101	70 - 130
Carbon disulfide	25.0	27.7		ug/L		111	70 - 130
Carbon tetrachloride	25.0	23.3		ug/L		93	70 - 130
Chlorobenzene	25.0	26.8		ug/L		107	70 - 130
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130
Chlorodibromomethane	25.0	23.0		ug/L		92	70 - 130
Chloroethane	25.0	26.5		ug/L		106	70 - 130
Chloroform	25.0	26.0		ug/L		104	70 - 130
Chloromethane	25.0	27.0		ug/L		108	70 - 130
cis-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 130
cis-1,3-Dichloropropene	25.0	24.0		ug/L		96	70 - 130
Dichlorobromomethane	25.0	24.6		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	26.9		ug/L		108	70 - 130
Ethyl ether	25.0	22.6		ug/L		91	70 - 130
Ethylbenzene	25.0	27.3		ug/L		109	70 - 130
Ethylene Dibromide	25.0	26.5		ug/L		106	70 - 130
Hexachlorobutadiene	25.0	25.9		ug/L		103	70 - 130
Isopropyl ether	25.0	24.7		ug/L		99	70 - 130
Isopropylbenzene	25.0	29.7		ug/L		119	70 - 130
Methyl tert-butyl ether	25.0	26.1		ug/L		104	70 - 130
Methylene Chloride	25.0	23.1		ug/L		92	70 - 130
m-Xylene & p-Xylene	25.0	26.0		ug/L		104	70 - 130
Naphthalene	25.0	26.9		ug/L		108	70 - 130
n-Butylbenzene	25.0	31.6		ug/L		126	70 - 130
N-Propylbenzene	25.0	30.8		ug/L		123	70 - 130
o-Xylene	25.0	26.4		ug/L		106	70 - 130
sec-Butylbenzene	25.0	29.7		ug/L		119	70 - 130
Styrene	25.0	26.4		ug/L		106	70 - 130
Tert-amyl methyl ether	25.0	25.7		ug/L		103	70 - 130
Tert-butyl ethyl ether	25.0	25.1		ug/L		100	70 - 130
tert-Butylbenzene	25.0	27.8		ug/L		111	70 - 130
Tetrachloroethene	25.0	25.7		ug/L		103	70 - 130
Tetrahydrofuran	50.0	58.5		ug/L		117	70 - 130

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

Lab Sample ID: LCS 480-380932/5
Matrix: Water
Analysis Batch: 380932

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	25.0	27.3		ug/L		109	70 - 130
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
trans-1,3-Dichloropropene	25.0	27.1		ug/L		108	70 - 130
Trichloroethene	25.0	25.4		ug/L		102	70 - 130
Trichlorofluoromethane	25.0	26.3		ug/L		105	70 - 130
Vinyl chloride	25.0	26.5		ug/L		106	70 - 130
Dibromomethane	25.0	24.0		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 480-380932/6
Matrix: Water
Analysis Batch: 380932

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	23.9		ug/L		96	70 - 130	4	20
1,1,1-Trichloroethane	25.0	22.6		ug/L		90	70 - 130	10	20
1,1,2,2-Tetrachloroethane	25.0	31.3		ug/L		125	70 - 130	5	20
1,1,2-Trichloroethane	25.0	26.8		ug/L		107	70 - 130	2	20
1,1-Dichloroethane	25.0	24.6		ug/L		99	70 - 130	12	20
1,1-Dichloroethene	25.0	22.8		ug/L		91	70 - 130	9	20
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	8	20
1,2,3-Trichlorobenzene	25.0	22.9		ug/L		92	70 - 130	3	20
1,2,3-Trichloropropane	25.0	27.9		ug/L		112	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		89	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	70 - 130	0	20
1,2-Dichlorobenzene	25.0	28.3		ug/L		113	70 - 130	3	20
1,2-Dichloroethane	25.0	22.6		ug/L		90	70 - 130	9	20
1,2-Dichloropropane	25.0	22.8		ug/L		91	70 - 130	11	20
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	0	20
1,3-Dichlorobenzene	25.0	26.9		ug/L		108	70 - 130	2	20
1,3-Dichloropropane	25.0	30.2		ug/L		121	70 - 130	2	20
1,4-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130	1	20
1,4-Dioxane	500	543		ug/L		109	70 - 130	8	20
2,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	6	20
2-Butanone (MEK)	125	215	*	ug/L		172	70 - 130	7	20
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130	2	20
2-Hexanone	125	142		ug/L		114	70 - 130	4	20
4-Chlorotoluene	25.0	29.6		ug/L		118	70 - 130	0	20
4-Isopropyltoluene	25.0	27.9		ug/L		111	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	136		ug/L		109	70 - 130	5	20
Acetone	125	151		ug/L		121	70 - 130	5	20
Benzene	25.0	26.1		ug/L		104	70 - 130	10	20
Bromobenzene	25.0	24.3		ug/L		97	70 - 130	6	20

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

Lab Sample ID: LCSD 480-380932/6
Matrix: Water
Analysis Batch: 380932

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromoform			25.0	22.8		ug/L		91	70 - 130	9	20
Bromomethane			25.0	22.5		ug/L		90	70 - 130	11	20
Carbon disulfide			25.0	24.6		ug/L		99	70 - 130	12	20
Carbon tetrachloride			25.0	20.7		ug/L		83	70 - 130	12	20
Chlorobenzene			25.0	25.7		ug/L		103	70 - 130	4	20
Chlorobromomethane			25.0	22.8		ug/L		91	70 - 130	3	20
Chlorodibromomethane			25.0	23.3		ug/L		93	70 - 130	1	20
Chloroethane			25.0	25.0		ug/L		100	70 - 130	6	20
Chloroform			25.0	23.8		ug/L		95	70 - 130	9	20
Chloromethane			25.0	24.7		ug/L		99	70 - 130	9	20
cis-1,2-Dichloroethene			25.0	22.4		ug/L		90	70 - 130	14	20
cis-1,3-Dichloropropene			25.0	22.0		ug/L		88	70 - 130	9	20
Dichlorobromomethane			25.0	23.5		ug/L		94	70 - 130	4	20
Dichlorodifluoromethane			25.0	27.5		ug/L		110	70 - 130	2	20
Ethyl ether			25.0	19.9		ug/L		80	70 - 130	13	20
Ethylbenzene			25.0	27.6		ug/L		111	70 - 130	1	20
Ethylene Dibromide			25.0	26.9		ug/L		107	70 - 130	1	20
Hexachlorobutadiene			25.0	24.4		ug/L		98	70 - 130	6	20
Isopropyl ether			25.0	22.7		ug/L		91	70 - 130	8	20
Isopropylbenzene			25.0	28.5		ug/L		114	70 - 130	4	20
Methyl tert-butyl ether			25.0	23.4		ug/L		94	70 - 130	11	20
Methylene Chloride			25.0	21.6		ug/L		86	70 - 130	7	20
m-Xylene & p-Xylene			25.0	25.7		ug/L		103	70 - 130	1	20
Naphthalene			25.0	26.9		ug/L		107	70 - 130	0	20
n-Butylbenzene			25.0	30.4		ug/L		121	70 - 130	4	20
N-Propylbenzene			25.0	30.2		ug/L		121	70 - 130	2	20
o-Xylene			25.0	25.9		ug/L		104	70 - 130	2	20
sec-Butylbenzene			25.0	29.1		ug/L		116	70 - 130	2	20
Styrene			25.0	25.7		ug/L		103	70 - 130	3	20
Tert-amyl methyl ether			25.0	24.2		ug/L		97	70 - 130	6	20
Tert-butyl ethyl ether			25.0	23.1		ug/L		92	70 - 130	8	20
tert-Butylbenzene			25.0	26.9		ug/L		108	70 - 130	3	20
Tetrachloroethene			25.0	26.5		ug/L		106	70 - 130	3	20
Tetrahydrofuran			50.0	56.2		ug/L		112	70 - 130	4	20
Toluene			25.0	27.5		ug/L		110	70 - 130	1	20
trans-1,2-Dichloroethene			25.0	24.7		ug/L		99	70 - 130	6	20
trans-1,3-Dichloropropene			25.0	27.5		ug/L		110	70 - 130	2	20
Trichloroethene			25.0	22.8		ug/L		91	70 - 130	11	20
Trichlorofluoromethane			25.0	24.2		ug/L		97	70 - 130	8	20
Vinyl chloride			25.0	24.5		ug/L		98	70 - 130	8	20
Dibromomethane			25.0	22.7		ug/L		91	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 480-381006/7
Matrix: Water
Analysis Batch: 381006

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			10/10/17 11:05	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 11:05	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 11:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 11:05	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,4-Dioxane	ND		50		ug/L			10/10/17 11:05	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
2-Butanone (MEK)	ND		10		ug/L			10/10/17 11:05	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 11:05	1
2-Hexanone	ND		10		ug/L			10/10/17 11:05	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 11:05	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 11:05	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 11:05	1
Acetone	ND		50		ug/L			10/10/17 11:05	1
Benzene	ND		1.0		ug/L			10/10/17 11:05	1
Bromobenzene	ND		1.0		ug/L			10/10/17 11:05	1
Bromoform	ND		1.0		ug/L			10/10/17 11:05	1
Bromomethane	ND		2.0		ug/L			10/10/17 11:05	1
Carbon disulfide	ND		10		ug/L			10/10/17 11:05	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 11:05	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 11:05	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 11:05	1
Chloroethane	ND		2.0		ug/L			10/10/17 11:05	1
Chloroform	ND		1.0		ug/L			10/10/17 11:05	1
Chloromethane	ND		2.0		ug/L			10/10/17 11:05	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 11:05	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 11:05	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 11:05	1
Ethyl ether	ND		1.0		ug/L			10/10/17 11:05	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 11:05	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 11:05	1

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

Lab Sample ID: MB 480-381006/7
Matrix: Water
Analysis Batch: 381006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10		ug/L			10/10/17 11:05	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 11:05	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 11:05	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 11:05	1
Naphthalene	ND		5.0		ug/L			10/10/17 11:05	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
o-Xylene	ND		1.0		ug/L			10/10/17 11:05	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Styrene	ND		1.0		ug/L			10/10/17 11:05	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 11:05	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 11:05	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 11:05	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 11:05	1
Toluene	ND		1.0		ug/L			10/10/17 11:05	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 11:05	1
Trichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 11:05	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 11:05	1
Dibromomethane	ND		1.0		ug/L			10/10/17 11:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*70 - 130*		*10/10/17 11:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*10/10/17 11:05*	*1*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*		*10/10/17 11:05*	*1*

Lab Sample ID: LCS 480-381006/4
Matrix: Water
Analysis Batch: 381006

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	24.1		ug/L		96	70 - 130
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	25.0	29.6		ug/L		118	70 - 130
1,1,2-Trichloroethane	25.0	26.9		ug/L		107	70 - 130
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130
1,1-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	27.6		ug/L		111	70 - 130
1,2,3-Trichlorobenzene	25.0	21.5		ug/L		86	70 - 130
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	70 - 130
1,2,4-Trichlorobenzene	25.0	21.0		ug/L		84	70 - 130
1,2,4-Trimethylbenzene	25.0	27.4		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,2-Dichloroethane	25.0	24.0		ug/L		96	70 - 130

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

Lab Sample ID: LCS 480-381006/4
Matrix: Water
Analysis Batch: 381006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	24.3		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	27.0		ug/L		108	70 - 130
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	25.0	29.5		ug/L		118	70 - 130
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dioxane	500	498		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	25.7		ug/L		103	70 - 130
2-Butanone (MEK)	125	218	*	ug/L		174	70 - 130
2-Chlorotoluene	25.0	27.2		ug/L		109	70 - 130
2-Hexanone	125	134		ug/L		107	70 - 130
4-Chlorotoluene	25.0	27.9		ug/L		112	70 - 130
4-Isopropyltoluene	25.0	27.3		ug/L		109	70 - 130
4-Methyl-2-pentanone (MIBK)	125	132		ug/L		105	70 - 130
Acetone	125	154		ug/L		123	70 - 130
Benzene	25.0	26.6		ug/L		106	70 - 130
Bromobenzene	25.0	23.4		ug/L		94	70 - 130
Bromoform	25.0	22.0		ug/L		88	70 - 130
Bromomethane	25.0	20.1		ug/L		80	70 - 130
Carbon disulfide	25.0	27.4		ug/L		109	70 - 130
Carbon tetrachloride	25.0	21.8		ug/L		87	70 - 130
Chlorobenzene	25.0	26.5		ug/L		106	70 - 130
Chlorobromomethane	25.0	22.8		ug/L		91	70 - 130
Chlorodibromomethane	25.0	22.4		ug/L		90	70 - 130
Chloroethane	25.0	23.8		ug/L		95	70 - 130
Chloroform	25.0	23.8		ug/L		95	70 - 130
Chloromethane	25.0	24.1		ug/L		96	70 - 130
cis-1,2-Dichloroethene	25.0	23.4		ug/L		94	70 - 130
cis-1,3-Dichloropropene	25.0	22.3		ug/L		89	70 - 130
Dichlorobromomethane	25.0	23.3		ug/L		93	70 - 130
Dichlorodifluoromethane	25.0	29.0		ug/L		116	70 - 130
Ethyl ether	25.0	21.9		ug/L		88	70 - 130
Ethylbenzene	25.0	27.1		ug/L		108	70 - 130
Ethylene Dibromide	25.0	27.2		ug/L		109	70 - 130
Hexachlorobutadiene	25.0	23.1		ug/L		92	70 - 130
Isopropyl ether	25.0	23.5		ug/L		94	70 - 130
Isopropylbenzene	25.0	28.4		ug/L		114	70 - 130
Methyl tert-butyl ether	25.0	24.7		ug/L		99	70 - 130
Methylene Chloride	25.0	21.6		ug/L		86	70 - 130
m-Xylene & p-Xylene	25.0	25.3		ug/L		101	70 - 130
Naphthalene	25.0	25.6		ug/L		102	70 - 130
n-Butylbenzene	25.0	30.0		ug/L		120	70 - 130
N-Propylbenzene	25.0	28.7		ug/L		115	70 - 130
o-Xylene	25.0	25.6		ug/L		102	70 - 130
sec-Butylbenzene	25.0	28.3		ug/L		113	70 - 130
Styrene	25.0	25.5		ug/L		102	70 - 130
Tert-amyl methyl ether	25.0	24.6		ug/L		98	70 - 130
Tert-butyl ethyl ether	25.0	23.5		ug/L		94	70 - 130
tert-Butylbenzene	25.0	25.3		ug/L		101	70 - 130

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

Lab Sample ID: LCS 480-381006/4
Matrix: Water
Analysis Batch: 381006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	25.0	27.8		ug/L		111	70 - 130
Tetrahydrofuran	50.0	55.6		ug/L		111	70 - 130
Toluene	25.0	27.7		ug/L		111	70 - 130
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	27.7		ug/L		111	70 - 130
Trichloroethene	25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	24.1		ug/L		96	70 - 130
Vinyl chloride	25.0	23.3		ug/L		93	70 - 130
Dibromomethane	25.0	23.0		ug/L		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: LCSD 480-381006/5
Matrix: Water
Analysis Batch: 381006

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	22.6		ug/L		91	70 - 130	6	20
1,1,1-Trichloroethane	25.0	24.4		ug/L		97	70 - 130	5	20
1,1,2,2-Tetrachloroethane	25.0	30.3		ug/L		121	70 - 130	2	20
1,1,2-Trichloroethane	25.0	28.4		ug/L		114	70 - 130	6	20
1,1-Dichloroethane	25.0	26.5		ug/L		106	70 - 130	4	20
1,1-Dichloroethene	25.0	25.5		ug/L		102	70 - 130	6	20
1,1-Dichloropropene	25.0	27.1		ug/L		109	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	22.7		ug/L		91	70 - 130	6	20
1,2,3-Trichloropropane	25.0	26.5		ug/L		106	70 - 130	4	20
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		89	70 - 130	6	20
1,2,4-Trimethylbenzene	25.0	28.9		ug/L		116	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	70 - 130	4	20
1,2-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130	1	20
1,2-Dichloroethane	25.0	23.5		ug/L		94	70 - 130	2	20
1,2-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	5	20
1,3-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130	5	20
1,3-Dichloropropane	25.0	28.8		ug/L		115	70 - 130	2	20
1,4-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	4	20
1,4-Dioxane	500	508		ug/L		102	70 - 130	2	20
2,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 130	1	20
2-Butanone (MEK)	125	218	*	ug/L		174	70 - 130	0	20
2-Chlorotoluene	25.0	27.6		ug/L		111	70 - 130	1	20
2-Hexanone	125	135		ug/L		108	70 - 130	1	20
4-Chlorotoluene	25.0	29.6		ug/L		118	70 - 130	6	20
4-Isopropyltoluene	25.0	29.2		ug/L		117	70 - 130	7	20
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130	1	20
Acetone	125	145		ug/L		116	70 - 130	6	20

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

Lab Sample ID: LCSD 480-381006/5
Matrix: Water
Analysis Batch: 381006

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			25.0	27.4		ug/L		109	70 - 130	3	20
Bromobenzene			25.0	24.3		ug/L		97	70 - 130	3	20
Bromoform			25.0	20.5		ug/L		82	70 - 130	7	20
Bromomethane			25.0	21.7		ug/L		87	70 - 130	8	20
Carbon disulfide			25.0	28.4		ug/L		114	70 - 130	4	20
Carbon tetrachloride			25.0	22.9		ug/L		92	70 - 130	5	20
Chlorobenzene			25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane			25.0	21.6		ug/L		86	70 - 130	5	20
Chlorodibromomethane			25.0	22.5		ug/L		90	70 - 130	0	20
Chloroethane			25.0	24.0		ug/L		96	70 - 130	1	20
Chloroform			25.0	24.5		ug/L		98	70 - 130	3	20
Chloromethane			25.0	25.4		ug/L		102	70 - 130	5	20
cis-1,2-Dichloroethene			25.0	25.5		ug/L		102	70 - 130	8	20
cis-1,3-Dichloropropene			25.0	23.6		ug/L		94	70 - 130	6	20
Dichlorobromomethane			25.0	23.8		ug/L		95	70 - 130	2	20
Dichlorodifluoromethane			25.0	31.2		ug/L		125	70 - 130	7	20
Ethyl ether			25.0	22.1		ug/L		88	70 - 130	1	20
Ethylbenzene			25.0	28.1		ug/L		112	70 - 130	4	20
Ethylene Dibromide			25.0	25.8		ug/L		103	70 - 130	5	20
Hexachlorobutadiene			25.0	26.1		ug/L		104	70 - 130	12	20
Isopropyl ether			25.0	23.5		ug/L		94	70 - 130	0	20
Isopropylbenzene			25.0	30.1		ug/L		121	70 - 130	6	20
Methyl tert-butyl ether			25.0	24.9		ug/L		100	70 - 130	1	20
Methylene Chloride			25.0	22.2		ug/L		89	70 - 130	3	20
m-Xylene & p-Xylene			25.0	25.7		ug/L		103	70 - 130	2	20
Naphthalene			25.0	27.2		ug/L		109	70 - 130	6	20
n-Butylbenzene			25.0	32.1		ug/L		128	70 - 130	7	20
N-Propylbenzene			25.0	31.1		ug/L		124	70 - 130	8	20
o-Xylene			25.0	25.6		ug/L		102	70 - 130	0	20
sec-Butylbenzene			25.0	30.2		ug/L		121	70 - 130	7	20
Styrene			25.0	26.2		ug/L		105	70 - 130	3	20
Tert-amyl methyl ether			25.0	25.2		ug/L		101	70 - 130	3	20
Tert-butyl ethyl ether			25.0	23.7		ug/L		95	70 - 130	1	20
tert-Butylbenzene			25.0	27.5		ug/L		110	70 - 130	8	20
Tetrachloroethene			25.0	28.0		ug/L		112	70 - 130	1	20
Tetrahydrofuran			50.0	57.0		ug/L		114	70 - 130	3	20
Toluene			25.0	27.2		ug/L		109	70 - 130	2	20
trans-1,2-Dichloroethene			25.0	25.8		ug/L		103	70 - 130	4	20
trans-1,3-Dichloropropene			25.0	26.9		ug/L		108	70 - 130	3	20
Trichloroethene			25.0	24.3		ug/L		97	70 - 130	0	20
Trichlorofluoromethane			25.0	25.8		ug/L		103	70 - 130	7	20
Vinyl chloride			25.0	25.3		ug/L		101	70 - 130	8	20
Dibromomethane			25.0	23.0		ug/L		92	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*

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

Lab Sample ID: MB 200-121935/1-A
Matrix: Water
Analysis Batch: 121975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 121935

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

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*74*		*46 - 130*	*10/09/17 19:17*	*10/10/17 19:11*	*1*

Lab Sample ID: LCS 200-121935/2-A
Matrix: Water
Analysis Batch: 121975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 121935

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			0.200	0.233		ug/L		117	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*90*		*46 - 130*

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-380098/1-A
Matrix: Water
Analysis Batch: 380329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 380098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		10/04/17 09:15	10/04/17 23:24	1

Lab Sample ID: LCS 480-380098/2-A
Matrix: Water
Analysis Batch: 380329

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 380098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron			10.0	9.85		mg/L		98	80 - 120		

Lab Sample ID: LCSD 480-380098/3-A
Matrix: Water
Analysis Batch: 380329

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 380098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron			10.0	9.83		mg/L		98	80 - 120	0	20

Lab Sample ID: 480-125214-9 MS
Matrix: Water
Analysis Batch: 380329

Client Sample ID: MW-562-20171003
Prep Type: Total/NA
Prep Batch: 380098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Iron	260	^	10.0	279	4	mg/L		151	75 - 125		

Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-125214-9 MSD — **Client Sample ID: MW-562-20171003**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 380329 — **Prep Batch: 380098**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	260	^	10.0	268	4	mg/L		41	75 - 125	4	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-380430/28 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 380430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			10/06/17 13:07	1
Sulfate	ND		2.0		mg/L			10/06/17 13:07	1

Lab Sample ID: MB 480-380430/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 380430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			10/06/17 09:52	1
Sulfate	ND		2.0		mg/L			10/06/17 09:52	1

Lab Sample ID: LCS 480-380430/27 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 380430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.4		mg/L		103	90 - 110
Sulfate	50.0	52.0		mg/L		104	90 - 110

Lab Sample ID: LCS 480-380430/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 380430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.6		mg/L		103	90 - 110
Sulfate	50.0	52.9		mg/L		106	90 - 110

Lab Sample ID: 480-125214-7 MS — **Client Sample ID: MW-560-20171003**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 380430

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30	F1	200	131	F1	mg/L		51	81 - 120
Sulfate	4.8	F1	200	109	F1	mg/L		52	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-125214-9 MS
Matrix: Water
Analysis Batch: 380430

Client Sample ID: MW-562-20171003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	14		500	547	E	mg/L		107	81 - 120
Sulfate	ND		500	564	E	mg/L		113	80 - 120

Lab Sample ID: MB 480-380519/4
Matrix: Water
Analysis Batch: 380519

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			10/06/17 11:46	1
Sulfate	ND		2.0		mg/L			10/06/17 11:46	1

Lab Sample ID: LCS 480-380519/3
Matrix: Water
Analysis Batch: 380519

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	49.5		mg/L		99	90 - 110
Sulfate	50.0	48.5		mg/L		97	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-380254/2-A
Matrix: Water
Analysis Batch: 380385

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 380254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		10/04/17 18:10	10/05/17 11:21	1

Lab Sample ID: LCS 480-380254/1-A
Matrix: Water
Analysis Batch: 380385

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 380254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.08		mg/L		108	90 - 110

Lab Sample ID: MB 480-380879/2-A
Matrix: Water
Analysis Batch: 380900

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 380879

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		10/09/17 14:20	10/09/17 14:46	1

Lab Sample ID: LCS 480-380879/1-A
Matrix: Water
Analysis Batch: 380900

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 380879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.09		mg/L		109	90 - 110

Method: 9040C - pH

Lab Sample ID: 480-125214-12 DU
Matrix: Water
Analysis Batch: 380259

Client Sample ID: REW-7-20171003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.3	HF	7.3		SU		0.5	5
Temperature	22.0	HF	22.1		Degrees C		0.4	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-380348/28
Matrix: Water
Analysis Batch: 380348

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND		1.0		mg/L			10/05/17 04:40	1
TOC Result 2	ND		1.0		mg/L			10/05/17 04:40	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/05/17 04:40	1

Lab Sample ID: MB 480-380348/4
Matrix: Water
Analysis Batch: 380348

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND		1.0		mg/L			10/04/17 18:03	1
TOC Result 2	ND		1.0		mg/L			10/04/17 18:03	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/04/17 18:03	1

Lab Sample ID: LCS 480-380348/29
Matrix: Water
Analysis Batch: 380348

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	56.5		mg/L		94	90 - 110
TOC Result 2	60.0	57.9		mg/L		97	90 - 110
Total Organic Carbon - Duplicates	60.0	57.2		mg/L		95	90 - 110

Lab Sample ID: LCS 480-380348/5
Matrix: Water
Analysis Batch: 380348

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.2		mg/L		95	90 - 110
TOC Result 2	60.0	57.6		mg/L		96	90 - 110
Total Organic Carbon - Duplicates	60.0	57.4		mg/L		96	90 - 110

Lab Sample ID: MB 480-380726/4
Matrix: Water
Analysis Batch: 380726

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND		1.0		mg/L			10/05/17 19:31	1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: MB 480-380726/4
Matrix: Water
Analysis Batch: 380726

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 2	ND		1.0		mg/L			10/05/17 19:31	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/05/17 19:31	1

Lab Sample ID: LCS 480-380726/5
Matrix: Water
Analysis Batch: 380726

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.7		mg/L		96	90 - 110
TOC Result 2	60.0	58.3		mg/L		97	90 - 110
Total Organic Carbon - Duplicates	60.0	58.0		mg/L		97	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-380338/30
Matrix: Water
Analysis Batch: 380338

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		5.0		mg/L			10/04/17 23:38	1

Lab Sample ID: MB 480-380338/7
Matrix: Water
Analysis Batch: 380338

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		5.0		mg/L			10/04/17 21:02	1

Lab Sample ID: LCS 480-380338/31
Matrix: Water
Analysis Batch: 380338

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	95.5		mg/L		96	90 - 110

Lab Sample ID: LCS 480-380338/8
Matrix: Water
Analysis Batch: 380338

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	94.6		mg/L		95	90 - 110

Lab Sample ID: 480-125214-14 MS
Matrix: Water
Analysis Batch: 380338

Client Sample ID: REW-12-20171003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	430		100	471	4	mg/L		45	60 - 140

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 480-125214-13 DU
Matrix: Water
Analysis Batch: 380338

Client Sample ID: REW-11-20171003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity, Total	730			724		mg/L				0.9	20

Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 480-380266/3
Matrix: Water
Analysis Batch: 380266

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ortho-Phosphate	ND		0.020		mg/L			10/04/17 19:50	1

Lab Sample ID: LCS 480-380266/4
Matrix: Water
Analysis Batch: 380266

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
ortho-Phosphate			0.200	0.206		mg/L		103	90 - 110		

Lab Sample ID: 480-125214-12 MS
Matrix: Water
Analysis Batch: 380266

Client Sample ID: REW-7-20171003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
ortho-Phosphate	0.082		0.500	0.562		mg/L		96	49 - 138		

Lab Sample ID: 480-125214-12 MSD
Matrix: Water
Analysis Batch: 380266

Client Sample ID: REW-7-20171003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.082		0.500	0.551		mg/L		94	49 - 138	2	20

GC/MS VOA

Analysis Batch: 380799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-1	DEP-21-20171002	Total/NA	Water	8260C	
480-125214-2	MW-264M-20171002	Total/NA	Water	8260C	
480-125214-3	MW-266MA-20171002	Total/NA	Water	8260C	
480-125214-4	MW-266MB-20171002	Total/NA	Water	8260C	
480-125214-5	MW-267M-20171002	Total/NA	Water	8260C	
MB 480-380799/8	Method Blank	Total/NA	Water	8260C	
LCS 480-380799/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-380799/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 380932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-6	MW-269MA-20171002	Total/NA	Water	8260C	
480-125214-7	MW-560-20171003	Total/NA	Water	8260C	
480-125214-8	MW-561-20171003	Total/NA	Water	8260C	
480-125214-9	MW-562-20171003	Total/NA	Water	8260C	
480-125214-10	MW-563-20171003	Total/NA	Water	8260C	
480-125214-11	REW-6-20171003	Total/NA	Water	8260C	
480-125214-12	REW-7-20171003	Total/NA	Water	8260C	
480-125214-13	REW-11-20171003	Total/NA	Water	8260C	
480-125214-14	REW-12-20171003	Total/NA	Water	8260C	
480-125214-16	TRIP BLANKS	Total/NA	Water	8260C	
MB 480-380932/8	Method Blank	Total/NA	Water	8260C	
LCS 480-380932/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-380932/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 381006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-15	DUP1-20171003	Total/NA	Water	8260C	
MB 480-381006/7	Method Blank	Total/NA	Water	8260C	
LCS 480-381006/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-381006/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 121935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-3	MW-266MA-20171002	Total/NA	Water	3535A	
480-125214-5	MW-267M-20171002	Total/NA	Water	3535A	
480-125214-6	MW-269MA-20171002	Total/NA	Water	3535A	
MB 200-121935/1-A	Method Blank	Total/NA	Water	3535A	
LCS 200-121935/2-A	Lab Control Sample	Total/NA	Water	3535A	

Analysis Batch: 121975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-3	MW-266MA-20171002	Total/NA	Water	522	121935
480-125214-5	MW-267M-20171002	Total/NA	Water	522	121935
480-125214-6	MW-269MA-20171002	Total/NA	Water	522	121935
MB 200-121935/1-A	Method Blank	Total/NA	Water	522	121935
LCS 200-121935/2-A	Lab Control Sample	Total/NA	Water	522	121935

Metals

Prep Batch: 380098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	3005A	
480-125214-8	MW-561-20171003	Total/NA	Water	3005A	
480-125214-9	MW-562-20171003	Total/NA	Water	3005A	
480-125214-10	MW-563-20171003	Total/NA	Water	3005A	
480-125214-11	REW-6-20171003	Total/NA	Water	3005A	
480-125214-12	REW-7-20171003	Total/NA	Water	3005A	
480-125214-13	REW-11-20171003	Total/NA	Water	3005A	
480-125214-14	REW-12-20171003	Total/NA	Water	3005A	
MB 480-380098/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-380098/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-380098/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-125214-9 MS	MW-562-20171003	Total/NA	Water	3005A	
480-125214-9 MSD	MW-562-20171003	Total/NA	Water	3005A	

Analysis Batch: 380329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	6010	380098
480-125214-8	MW-561-20171003	Total/NA	Water	6010	380098
480-125214-9	MW-562-20171003	Total/NA	Water	6010	380098
480-125214-10	MW-563-20171003	Total/NA	Water	6010	380098
480-125214-11	REW-6-20171003	Total/NA	Water	6010	380098
480-125214-12	REW-7-20171003	Total/NA	Water	6010	380098
480-125214-13	REW-11-20171003	Total/NA	Water	6010	380098
480-125214-14	REW-12-20171003	Total/NA	Water	6010	380098
MB 480-380098/1-A	Method Blank	Total/NA	Water	6010	380098
LCS 480-380098/2-A	Lab Control Sample	Total/NA	Water	6010	380098
LCSD 480-380098/3-A	Lab Control Sample Dup	Total/NA	Water	6010	380098
480-125214-9 MS	MW-562-20171003	Total/NA	Water	6010	380098
480-125214-9 MSD	MW-562-20171003	Total/NA	Water	6010	380098

General Chemistry

Analysis Batch: 380251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	353.2	
480-125214-10	MW-563-20171003	Total/NA	Water	353.2	
480-125214-12	REW-7-20171003	Total/NA	Water	353.2	

Prep Batch: 380254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-8	MW-561-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-9	MW-562-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-10	MW-563-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-11	REW-6-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-12	REW-7-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-14	REW-12-20171003	Total/NA	Water	Distill/Ammonia	
MB 480-380254/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-380254/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

General Chemistry (Continued)

Analysis Batch: 380259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	9040C	
480-125214-8	MW-561-20171003	Total/NA	Water	9040C	
480-125214-9	MW-562-20171003	Total/NA	Water	9040C	
480-125214-10	MW-563-20171003	Total/NA	Water	9040C	
480-125214-11	REW-6-20171003	Total/NA	Water	9040C	
480-125214-12	REW-7-20171003	Total/NA	Water	9040C	
480-125214-13	REW-11-20171003	Total/NA	Water	9040C	
480-125214-14	REW-12-20171003	Total/NA	Water	9040C	
LCS 480-380259/1	Lab Control Sample	Total/NA	Water	9040C	
LCS 480-380259/23	Lab Control Sample	Total/NA	Water	9040C	
480-125214-12 DU	REW-7-20171003	Total/NA	Water	9040C	

Analysis Batch: 380265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-8	MW-561-20171003	Total/NA	Water	353.2	
480-125214-9	MW-562-20171003	Total/NA	Water	353.2	
480-125214-11	REW-6-20171003	Total/NA	Water	353.2	
480-125214-13	REW-11-20171003	Total/NA	Water	353.2	
480-125214-14	REW-12-20171003	Total/NA	Water	353.2	

Analysis Batch: 380266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	SM 4500 P E	
480-125214-7	MW-560-20171003	Total/NA	Water	SM 4500 P E	
480-125214-8	MW-561-20171003	Total/NA	Water	SM 4500 P E	
480-125214-8	MW-561-20171003	Total/NA	Water	SM 4500 P E	
480-125214-9	MW-562-20171003	Total/NA	Water	SM 4500 P E	
480-125214-10	MW-563-20171003	Total/NA	Water	SM 4500 P E	
480-125214-11	REW-6-20171003	Total/NA	Water	SM 4500 P E	
480-125214-12	REW-7-20171003	Total/NA	Water	SM 4500 P E	
480-125214-13	REW-11-20171003	Total/NA	Water	SM 4500 P E	
480-125214-14	REW-12-20171003	Total/NA	Water	SM 4500 P E	
MB 480-380266/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-380266/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-125214-12 MS	REW-7-20171003	Total/NA	Water	SM 4500 P E	
480-125214-12 MSD	REW-7-20171003	Total/NA	Water	SM 4500 P E	

Analysis Batch: 380338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	SM 2320B	
480-125214-8	MW-561-20171003	Total/NA	Water	SM 2320B	
480-125214-9	MW-562-20171003	Total/NA	Water	SM 2320B	
480-125214-10	MW-563-20171003	Total/NA	Water	SM 2320B	
480-125214-11	REW-6-20171003	Total/NA	Water	SM 2320B	
480-125214-12	REW-7-20171003	Total/NA	Water	SM 2320B	
480-125214-13	REW-11-20171003	Total/NA	Water	SM 2320B	
480-125214-14	REW-12-20171003	Total/NA	Water	SM 2320B	
MB 480-380338/30	Method Blank	Total/NA	Water	SM 2320B	
MB 480-380338/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-380338/31	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-380338/8	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 380338 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-14 MS	REW-12-20171003	Total/NA	Water	SM 2320B	
480-125214-13 DU	REW-11-20171003	Total/NA	Water	SM 2320B	

Analysis Batch: 380348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	9060A	
480-125214-8	MW-561-20171003	Total/NA	Water	9060A	
480-125214-10	MW-563-20171003	Total/NA	Water	9060A	
480-125214-11	REW-6-20171003	Total/NA	Water	9060A	
480-125214-12	REW-7-20171003	Total/NA	Water	9060A	
MB 480-380348/28	Method Blank	Total/NA	Water	9060A	
MB 480-380348/4	Method Blank	Total/NA	Water	9060A	
LCS 480-380348/29	Lab Control Sample	Total/NA	Water	9060A	
LCS 480-380348/5	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 380385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	350.1	380254
480-125214-8	MW-561-20171003	Total/NA	Water	350.1	380254
480-125214-9	MW-562-20171003	Total/NA	Water	350.1	380254
480-125214-10	MW-563-20171003	Total/NA	Water	350.1	380254
480-125214-11	REW-6-20171003	Total/NA	Water	350.1	380254
480-125214-12	REW-7-20171003	Total/NA	Water	350.1	380254
480-125214-14	REW-12-20171003	Total/NA	Water	350.1	380254
MB 480-380254/2-A	Method Blank	Total/NA	Water	350.1	380254
LCS 480-380254/1-A	Lab Control Sample	Total/NA	Water	350.1	380254

Analysis Batch: 380430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	300.0	
480-125214-8	MW-561-20171003	Total/NA	Water	300.0	
480-125214-9	MW-562-20171003	Total/NA	Water	300.0	
480-125214-10	MW-563-20171003	Total/NA	Water	300.0	
MB 480-380430/28	Method Blank	Total/NA	Water	300.0	
MB 480-380430/4	Method Blank	Total/NA	Water	300.0	
LCS 480-380430/27	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-380430/3	Lab Control Sample	Total/NA	Water	300.0	
480-125214-7 MS	MW-560-20171003	Total/NA	Water	300.0	
480-125214-9 MS	MW-562-20171003	Total/NA	Water	300.0	

Analysis Batch: 380519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-11	REW-6-20171003	Total/NA	Water	300.0	
480-125214-12	REW-7-20171003	Total/NA	Water	300.0	
480-125214-13	REW-11-20171003	Total/NA	Water	300.0	
480-125214-14	REW-12-20171003	Total/NA	Water	300.0	
MB 480-380519/4	Method Blank	Total/NA	Water	300.0	
LCS 480-380519/3	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 380726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-9	MW-562-20171003	Total/NA	Water	9060A	
480-125214-13	REW-11-20171003	Total/NA	Water	9060A	
480-125214-14	REW-12-20171003	Total/NA	Water	9060A	
MB 480-380726/4	Method Blank	Total/NA	Water	9060A	
LCS 480-380726/5	Lab Control Sample	Total/NA	Water	9060A	

Prep Batch: 380879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-13	REW-11-20171003	Total/NA	Water	Distill/Ammonia	
MB 480-380879/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-380879/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 380900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-380879/2-A	Method Blank	Total/NA	Water	350.1	380879
LCS 480-380879/1-A	Lab Control Sample	Total/NA	Water	350.1	380879

Analysis Batch: 380901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-13	REW-11-20171003	Total/NA	Water	350.1	380879

Lab Chronicle

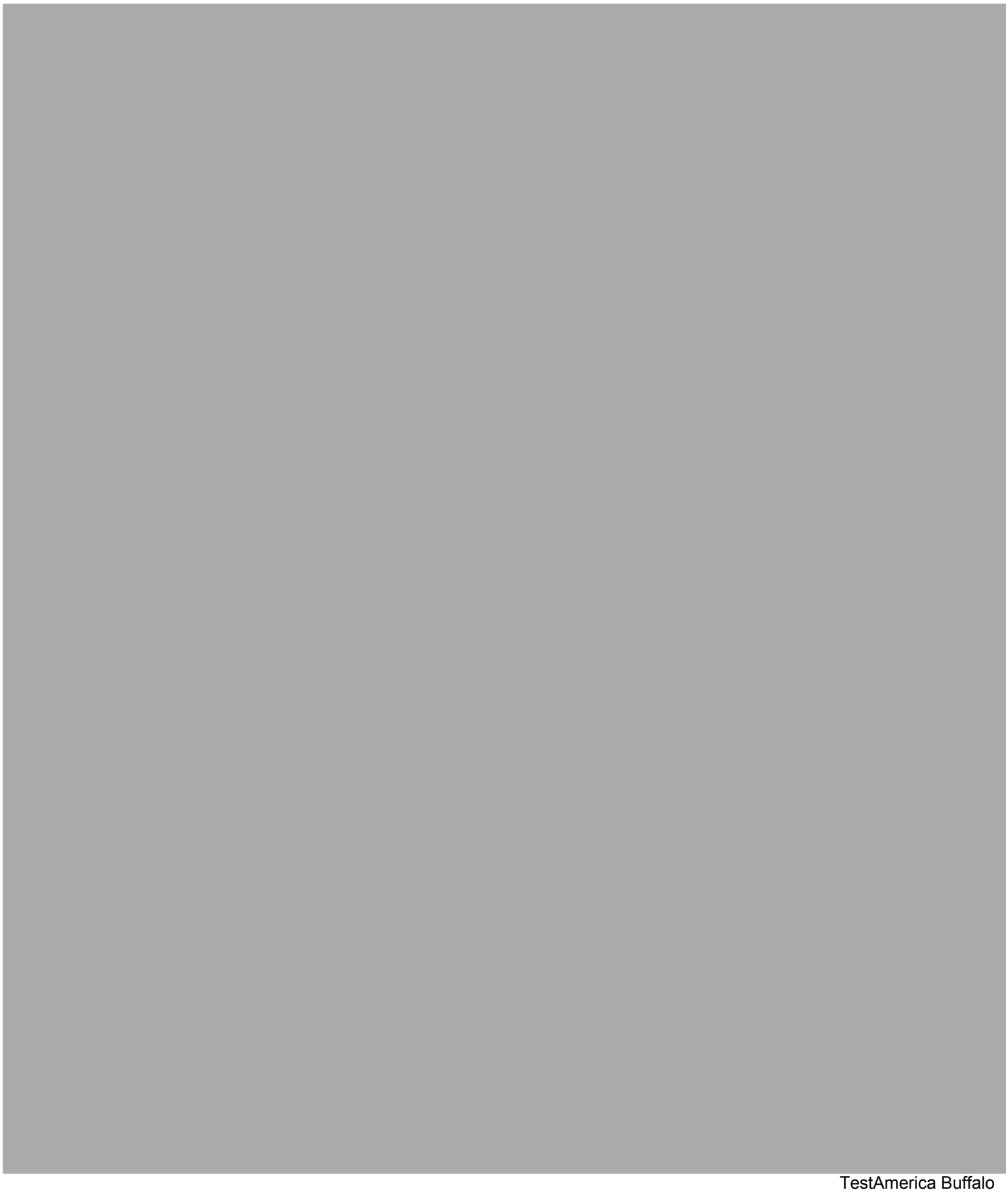
Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

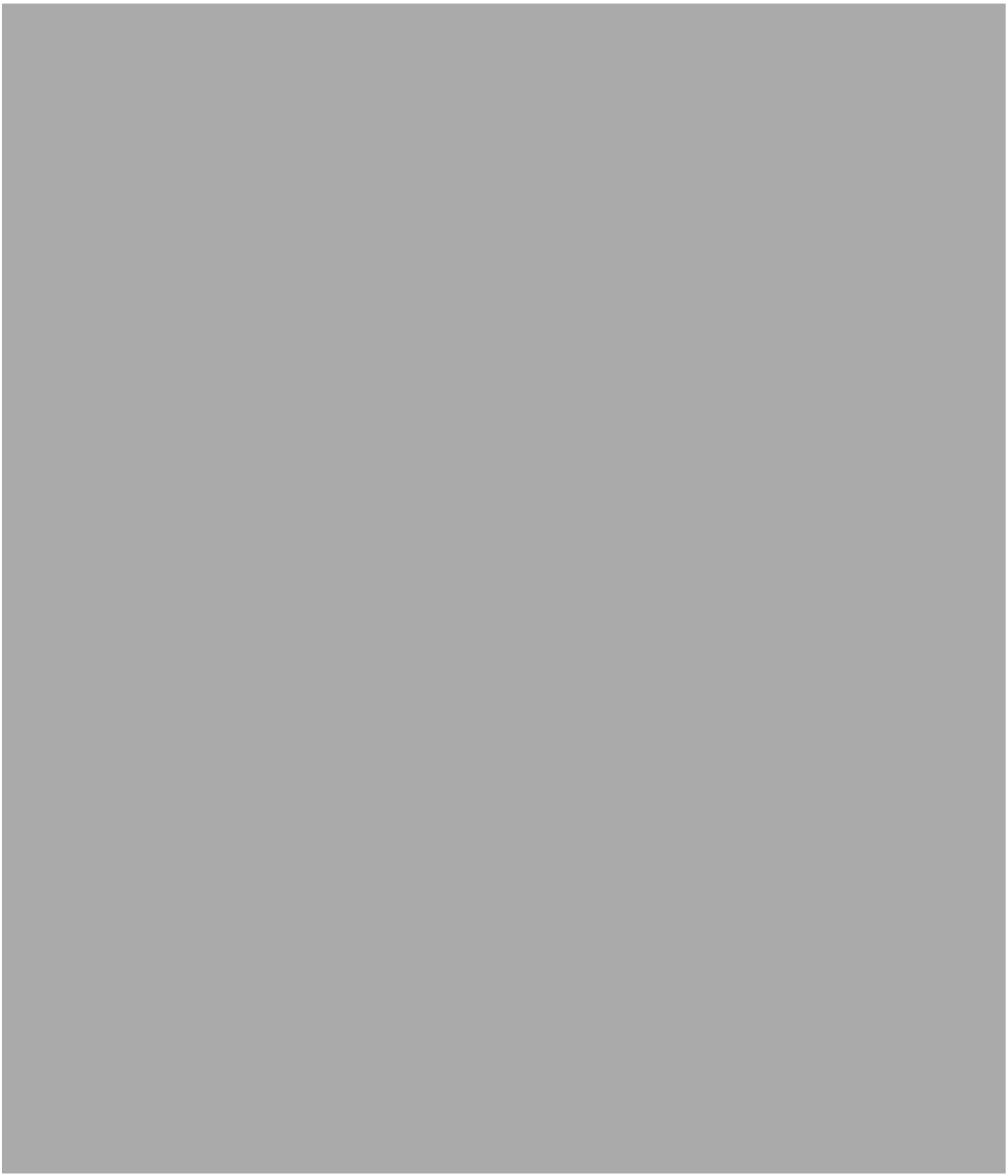
TestAmerica Job ID: 480-125214-1

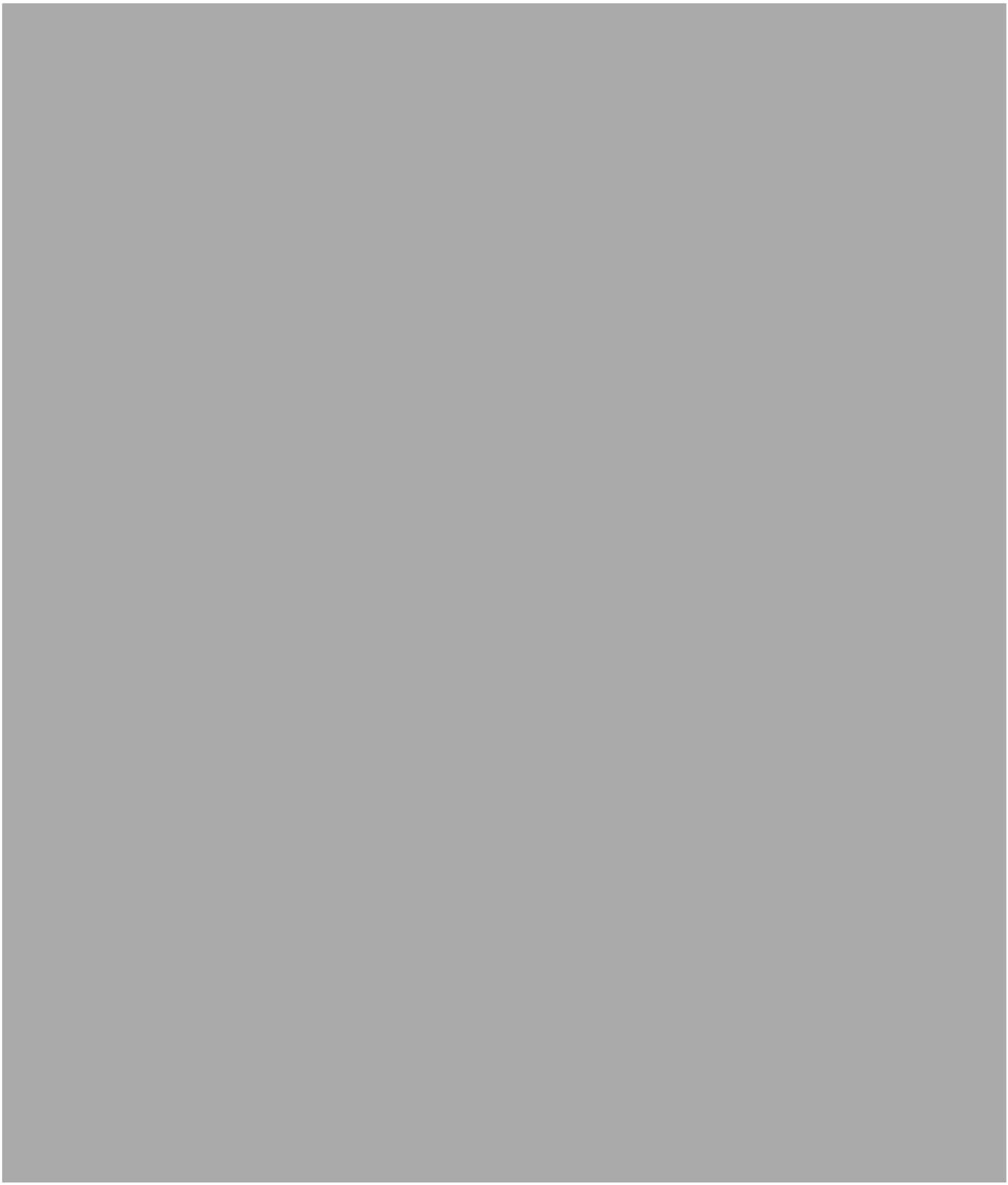
Client Sample ID: DEP-21-20171002
Date Collected: 10/02/17 08:45
Date Received: 10/04/17 02:15

Lab Sample ID: 480-125214-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380799	10/09/17 15:57	KMN	TAL BUF







Client Sample ID: TRIP BLANKS — **Lab Sample ID: 480-125214-16**

Date Collected: 10/03/17 00:00 — **Matrix: Water**

Date Received: 10/04/17 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 04:04	RRS	TAL BUF

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-18
California	State Program	9	2931	09-30-17 *
Connecticut	State Program	1	PH-0568	09-30-18
Florida	NELAP	4	E87672	06-30-18
Georgia	State Program	4	10026 (NY)	03-31-18
Georgia	State Program	4	956	03-31-18
Illinois	NELAP	5	200003	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-18
Kentucky (DW)	State Program	4	90029	12-31-17
Kentucky (UST)	State Program	4	30	03-31-18
Kentucky (WW)	State Program	4	90029	12-31-17
Louisiana	NELAP	6	02031	06-30-18
Maine	State Program	1	NY00044	12-04-18
Maryland	State Program	3	294	03-31-18
Massachusetts	State Program	1	M-NY044	06-30-18
Michigan	State Program	5	9937	04-01-09 *
Minnesota	NELAP	5	036-999-337	12-31-17
New Hampshire	NELAP	1	2973	09-11-18
New Jersey	NELAP	2	NY455	06-30-18
New York	NELAP	2	10026	03-31-18
North Dakota	State Program	8	R-176	03-31-18
Oklahoma	State Program	6	9421	08-31-18
Oregon	NELAP	10	NY200003	06-09-18
Pennsylvania	NELAP	3	68-00281	07-31-18
Rhode Island	State Program	1	LAO00328	12-30-17
Tennessee	State Program	4	TN02970	03-31-18
Texas	NELAP	6	T104704412-15-6	07-31-18
USDA	Federal		P330-11-00386	11-26-17 *
Virginia	NELAP	3	460185	09-14-18
Washington	State Program	10	C784	02-10-18
Wisconsin	State Program	5	998310390	08-31-18

Laboratory: TestAmerica Burlington

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-17 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-18
Florida	NELAP	4	E87467	06-30-18
L-A-B	DoD ELAP		L2336	02-25-20
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-17
New Hampshire	NELAP	1	2006	12-18-17
New Jersey	NELAP	2	VT972	06-30-18
New York	NELAP	2	10391	04-01-18
Pennsylvania	NELAP	3	68-00489	04-30-18
Rhode Island	State Program	1	LAO00298	12-30-17
US Fish & Wildlife	Federal		LE-058448-0	10-31-17
USDA	Federal		P330-11-00093	12-05-19

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

Laboratory: TestAmerica Burlington (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Vermont	State Program	1	VT-4000	12-31-17
Virginia	NELAP	3	460209	12-14-17

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
6010	Metals (ICP)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
9040C	pH	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 4500 P E	Orthophosphate	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency
MA DEP = Massachusetts Department Of Environmental Protection
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-125214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-125214-1	DEP-21-20171002	Water	10/02/17 08:45	10/04/17 02:15
480-125214-2	MW-264M-20171002	Water	10/02/17 11:45	10/04/17 02:15
480-125214-3	MW-266MA-20171002	Water	10/02/17 10:05	10/04/17 02:15
480-125214-4	MW-266MB-20171002	Water	10/02/17 10:40	10/04/17 02:15
480-125214-5	MW-267M-20171002	Water	10/02/17 09:30	10/04/17 02:15
480-125214-6	MW-269MA-20171002	Water	10/02/17 12:30	10/04/17 02:15
480-125214-7	MW-560-20171003	Water	10/03/17 10:15	10/04/17 02:15
480-125214-8	MW-561-20171003	Water	10/03/17 09:15	10/04/17 02:15
480-125214-9	MW-562-20171003	Water	10/03/17 08:30	10/04/17 02:15
480-125214-10	MW-563-20171003	Water	10/03/17 10:53	10/04/17 02:15
480-125214-11	REW-6-20171003	Water	10/03/17 12:55	10/04/17 02:15
480-125214-12	REW-7-20171003	Water	10/03/17 12:15	10/04/17 02:15
480-125214-13	REW-11-20171003	Water	10/03/17 13:30	10/04/17 02:15
480-125214-14	REW-12-20171003	Water	10/03/17 11:30	10/04/17 02:15
480-125214-15	DUP1-20171003	Water	10/03/17 00:00	10/04/17 02:15
480-125214-16	TRIP BLANKS	Water	10/03/17 00:00	10/04/17 02:15

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-125214-1

Login Number: 125214
List Number: 1
Creator: Williams, Christopher S

List Source: TestAmerica Buffalo

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

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-125214-1

Login Number: 125214
List Number: 2
Creator: Lavigne, Scott M

List Source: TestAmerica Burlington
List Creation: 10/04/17 08:51 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	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	3.9ºC,1.5ºC,1.1ºC,2.2ºC,1.3ºC,2.7ºC
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Westfield
501 Southampton Road
Westfield MA 01085
Phone: (413) 572-4000 Fax: (303) 467-7247

TestAmerica Boston
240 Bear Hill Road -- Suite 104
Waltham MA 02451
Phone: (781) 466-6900 Fax: (781) 466-6901

360325 Boston 360325-Boston 360325-Boston

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

480-125214 COC

COC No: 37387
Page: 1 of 2

Client Information:	Sample Collector's Name (Please Print Neatly): Deany Jones	Lab PM:	Lab C
Client Contact: Vicki Perrigan	Sample Collector's Phone: 508-404-3196	E-Mail:	
Company: Innovative Engineering Solutions Inc			Job #:
Address: 23 Spring St	Due Date Requested: 10/11/17		
City: Walpole	Turnaround Time (TAT) Requested (business days): 5 days		
State and Zip: MA 02081			
Client's Phone: 508-668-0033	Quote # or Project #:		
Client's Contact Email: v.perrigan@IESIonline.com	PO #: RA-008		
Client's Project Name/Number: Raytheon Wayland RA-008	WO #:		
Sample Collection Site Name & Location: Wayland MA	PWS ID #:		

Analysis Reques

Preservation Codes:
A - Hydrochloric Acid; B - Sodium Hydroxide; C - Zinc Acetate; D - Nitric Acid; E - Sodium Bisulfite; F - Methanol; H - Ascorbic Acid; J - Deionized Water; M - Hexane; N - No Preservative; P - Sodium Sulfate; Q - Sodium Sulfite; R - Sodium Thiosulfate; S - Sulfuric Acid; Z - other (specify)

Regulatory Programs:
MCP ☐ GW1/S1 ☐
RCP ☐ CT RSR ☐
DEP Form ☐ EDD Required ☐
eDEP Filing ☐ NPDES ☐

SUBCONTRACT POLICY: Unless you provide in-structions to the contrary, or specify which sub-contract labs are or are not to be used, you agree in advance to permit Test-America to use certified, subcontract labs, without any additional notification made by us, as necessary to fulfill your work order.

Sample Identification	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	8260 MRP	537 14 Dioxane	9060A TOC	6010 mcp Total Iron	350.1 NH3	8320B Alkalinity	300.0 Sulfate	4500-P_E Ortho PO4, NO3	353.2 NO3	Total Number of Containers (enter total for each line)	Special Instructions & Notes:
Preservation Codes =>					A	A	A	D	S	N	N	N		↓	
DEP-31 - 20171002	10/2/17	0845	G	W	X									3	CLP-3 Requirements
MW-26M - 20171002	10/2/17	1145	G	W	X									3	
MW-26M_D - 20171002	10/2/17	1005	G	W	X	X								4	
MW-26Dmb - 20171002	10/2/17	1040	G	W	X									3	
MW-27M - 20171002	10/2/17	0930	G	W	X	X								4	
MW-29M_D - 20171002	10/2/17	1230	G	W	X	X								4	
MW-360-20171003	10/3/17	1015	G	W	X		X	X	X	X	X	X		10	
MW-361-20171003	10/3/17	0915	G	W	X		X	X	X	X	X	X		10	
MW-362-20171003	10/3/17	0830	G	W	X		X	X	X	X	X	X		10	
MW-363-20171003	10/3/17	1053	G	W	X		X	X	X	X	X	X		10	

Possible Hazard Identification (please check off each that may apply):
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal Requirements (A fee may be assessed if samples are retained longer than 1 month) :
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

** **Matrix Types**: A=Air S=Solid/Soil W=Water O=Oil X=Waste (non-water) Z=Other: _____

► NOTE!! ALL SAMPLES MUST BE TRANSPORTED IN A COOLER, ON ICE !! ◄

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/3/17 1425	IEST		10-3-17 1445	TK
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10-3-17 1800	IES		10-4-17 0215	TMS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 2.6, 2.7 #1

TestAmerica Westfield
501 Southampton Road
Westfield MA 01085
Phone: (413) 572-4000 Fax: (303) 467-7247

TestAmerica Boston
240 Bear Hill Road -- Suite 104
Waltham MA 02451
Phone: (781) 466-6900 Fax: (781) 466-6901

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information:	Sample Collector's Name (Please Print Neatly): Dave Sandro	Lab PM:	Lab COC Barcode Label	COC No: 37388
Client Contact: Vicki Poerner	Sample Collector's Phone: 508-404-3196	E-Mail:		Page: 2 of 2
Company: Innovative Engineering Solutions Inc				Job #:
Address: 25 Spring St	Due Date Requested: 10/11/17			
City: Walpole	Turnaround Time (TAT) Requested (business days): 5 days			
State and Zip: MA 02081				
Client's Phone: 508-668-0033	Quote # or Project #:			
Client's Contact Email: V.Poerner@IESonline.com	PO #: RA-008			
Client's Project Name/Number: Brothers Wayland RA-008	WO #:			
Sample Collection Site Name & Location: Wayland MA	PWS ID #:			

Analysis Requested

Preservation Codes:
A - Hydrochloric Acid; B - Sodium Hydroxide; C - Zinc Acetate; D - Nitric Acid; E - Sodium Bisulfite; F - Methanol; H - Ascorbic Acid; J - Deionized Water; M - Hexane; N - No Preservative; P - Sodium Sulfate; Q - Sodium Sulfite; R - Sodium Thiosulfate; S - Sulfuric Acid; Z - other (specify)

Regulatory Programs:
MCP ☐ GW1/S1 ☐ RCP ☐ CT RSR ☐ DEP Form ☐ EDD Required ☐ eDEP Filing ☐ NPDES ☐

SUBCONTRACT POLICY: Unless you provide instructions to the contrary, or specify which sub-contract labs are or are not to be used, you agree in advance to permit TestAmerica to use certified, subcontract labs, without any additional notification made by us, as necessary to fulfill your work order.

Sample Identification	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	8260 MCP	524.2 1,4 Dioxane	9060A TOC	6010 MCP Total Iron	350.1 NH3	2320B Alkalinity	300.0-9250 SO4 Cl 9056C-pH	4500-F-C Ortho PO4 353.2 NO3	Total Number of Containers (enter total for each line)	Special Instructions & Notes:
			Preservation Codes =▶		A	A	A	D	S	N	N	N	↓	
REW-6-20171003	10/3/17	1355	G	W	X		X	X	X	X	X	X	10	G20-3
REW-7-20171003	10/3/17	1215	G	W	X		X	X	X	X	X	X	10	
REW-11-20171003	10/3/17	1330	G	W	X		X	X	X	X	X	X	10	
REW-12-20171003	10/3/17	1130	G	W	X		X	X	X	X	X	X	10	
Dupl-20171003	10/3/17	—	G	W	X								3	
Trip Blanks	—	—	—	W	X								2	

Possible Hazard Identification (please check off each that may apply):
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal Requirements (A fee may be assessed if samples are retained longer than 1 month) :
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

** **Matrix Types**: A=Air S=Solid/Soil W=Water O=Oil X=Waste (non-water) Z=Other: _____

▶ **NOTE!! ALL SAMPLES MUST BE TRANSPORTED IN A COOLER, ON ICE !!** ◀

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/3/17 1425	IESI		10-3-17 1450	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10-3-17 1810			10-4-17 0215	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 2.6, 2.7 #1

TestAmerica Westfield
501 Southampton Road
Westfield MA 01085
Phone: (413) 572-4000 Fax: (303) 467-7247

TestAmerica Boston
240 Bear Hill Road -- Suite 104
Waltham MA 02451
Phone: (781) 466-6900 Fax: (781) 466-6901

360325-Boston

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

COC No: 37387
Page: 1 of 2
Job #:
Lab PM:
E-Mail:
Lab COC Barcode Label

Client Information:

Client Contact: Vicki Perrigan
Company: Innovative Engineering Solutions Inc.
Address: 23 Spring St
City: Walpole
State and Zip: MA 02081
Client's Phone: 508-668-0033
Client's Contact Email: v.phillips@IESInc.com
Client's Project Name/Number: Raytheon Wayland RA-008
Sample Collection Site Name & Location: Wayland MA

Sample Collector's Name (Please Print Neatly): Denny Souza
Sample Collector's Phone: 508-404-3186
Due Date Requested: 10/11/17
Turnaround Time (TAT) Requested (business days): 5 days
Quote # or Project #:
PO #: RA-008
WO #:
PWS ID #:

Analysis Requested

Sample Identification	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	8260 MCP	522 1,4 Dioxane	9060A TOC	6010 MCP Total Iron	350.1 NH3	2320B Alkalinity	300.0 SO4/Cl	4500-P-E ortho-Phos NO3 353.2	Total Number of Containers	Special Instructions & Notes
Preservation Code					A	A	A	D	S	N	N	N		
DEP-21-20171002	10/2/17	0845	G	W	X								3	CLO-3 Requirements
MW-214M-20171002	10/2/17	1145	G	W	X								3	
MW-214Ma-20171002	10/2/17	1005	G	W	X	X							4	
MW-266Mb-20171002	10/2/17	1040	G	W	X								3	522-1,4-Dioxane
MW-267M-20171002	10/2/17	0930	G	W	X	X							4	To Burlington
MW-269Ma-20171002	10/2/17	1230	G	W	X	X							4	
MW-360-20171003	10/3/17	1015	G	W	X		X	X	X	X	X	X	10	
MW-361-20171003	10/3/17	0915	G	W	X		X	X	X	X	X	X	10	
MW-362-20171003	10/3/17	0830	G	W	X		X	X	X	X	X	X	10	
MW-363-20171003	10/3/17	1055	G	W	X		X	X	X	X	X	X	10	

480-125214 Chain of Custody

Preservation Codes:
A - Hydrochloric Acid; B - Sodium Hydroxide; C - Zinc Acetate; D - Nitric Acid; E - Sodium Bisulfite; F - Methanol; H - Ascorbic Acid; J - Deionized Water; M - Hexane; N - No Preservative; P - Sodium Sulfate; Q - Sodium Sulfite; R - Sodium Thiosulfate; S - Sulfuric Acid; Z - other (specify)

Regulatory Programs:
☐ MCP ☐ RCP ☐ DEP Form ☐ eDEP Filing ☐ GW1/S1 ☐ CT RSR ☐ EDD Required ☐ NPDES

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Possible Hazard Identification (please check off each that may apply):
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal Requirements (A fee may be assessed if samples are retained longer than 1 month):
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

** **Matrix Types:** A=Air S=Solid/Soil W=Water O=Oil X=Waste (non-water) Z=Other:

▶ **NOTE!! ALL SAMPLES MUST BE TRANSPORTED IN A COOLER, ON ICE !!** ◀

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
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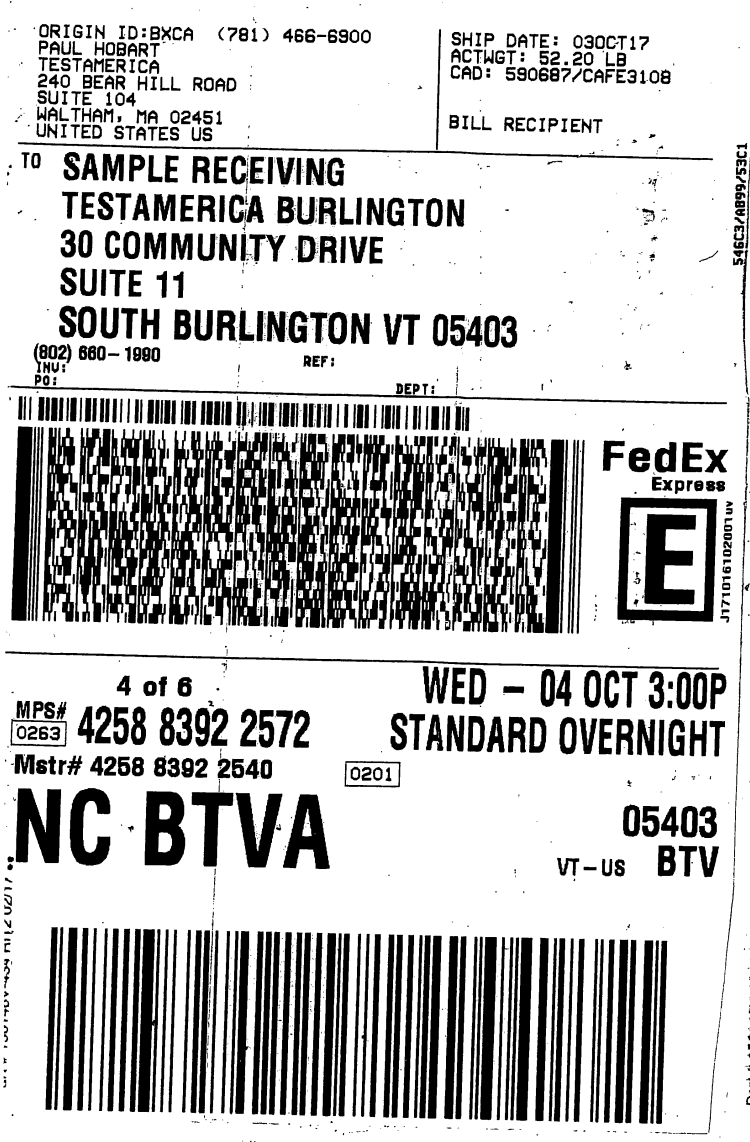
[signature]	10-3-17 1800	TA	V. [signature]	10/4/17 1025	TA BUR

Custody Seals Intact: ☒ Yes Δ No
Custody Seal No.: no #s
Cooler Temperature(s) °C and Other Remarks: 3.9, 1.5, 1.1, 2.2, 1.3, 2.7

WI-QA-010 rev 8
Revised 10/29/2014
TAL-8245-360R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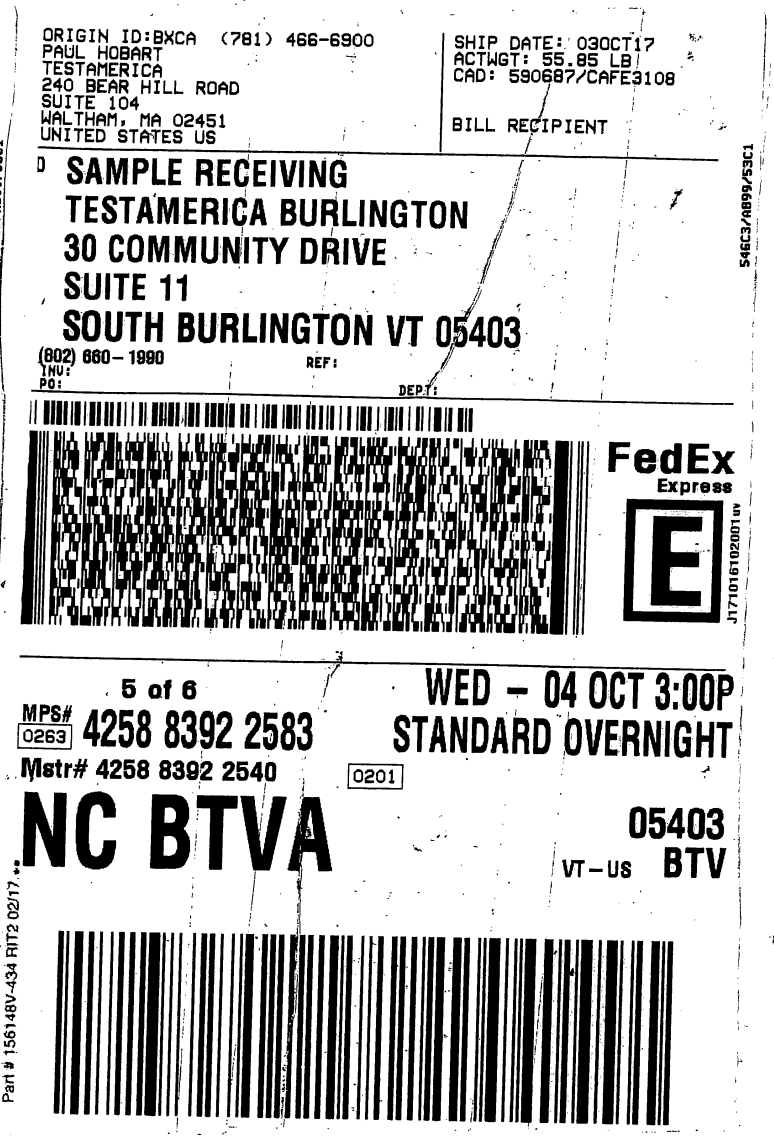
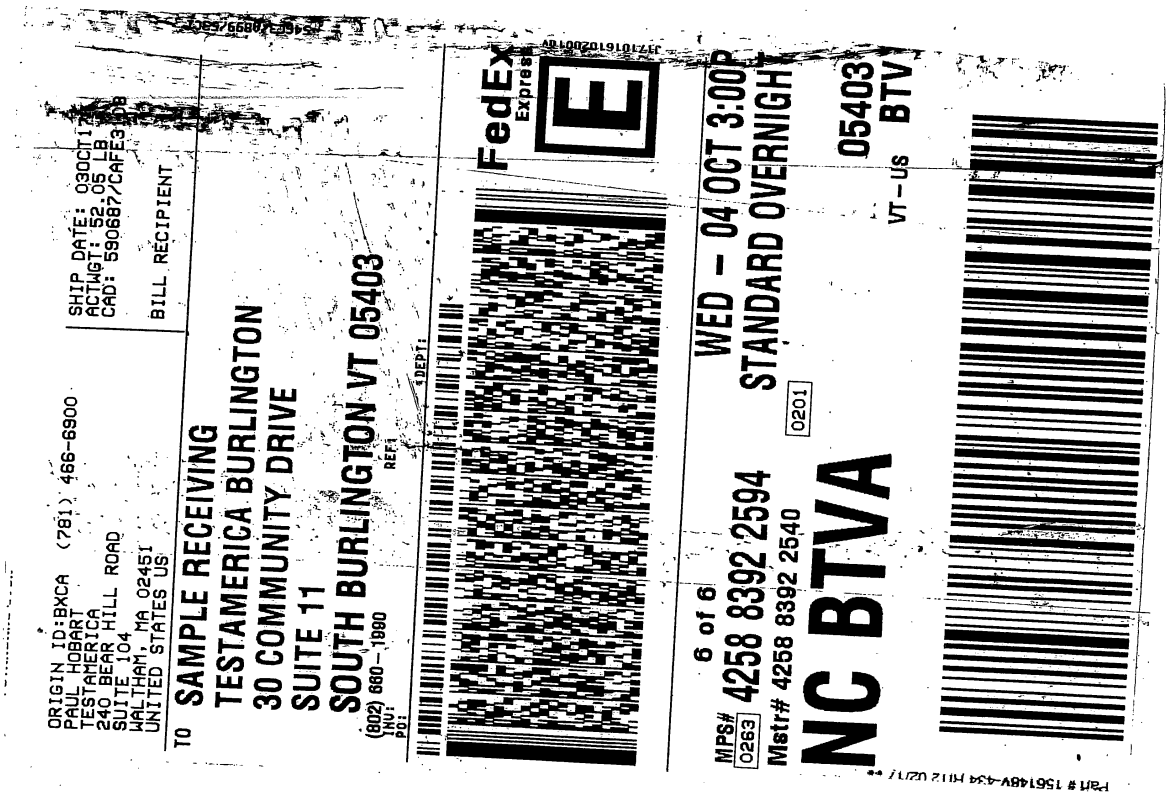
PAUL HOBART
TESTAMERICA
240 BEAR HILL ROAD
SUITE 104
WALTHAM, MA 02451
UNITED STATES US
SHIP DATE: 030CT17
ACTWGT: 52.20 LB
CAD: 590687/CAFE3108
BILL RECIPIENT
TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
INV:
PO:
REF:
DEPT:
FedEx Express
4 of 6
MPS# 0263 4258 8392 2572
Mstr# 4258 8392 2540
WED - 04 OCT 3:00P
STANDARD OVERNIGHT
0201
NC BTVA
05403
VT-US BTV


ORIGIN ID:BXCA (781) 466-6900
PAUL HOBART
TESTAMERICA
240 BEAR HILL ROAD
SUITE 104
WALTHAM, MA 02451
UNITED STATES US
SHIP DATE: 030CT17
ACTWGT: 55.85 LB
CAD: 590687/CAFE3108
BILL RECIPIENT
SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
INV:
PO:
REF:
DEPT:
FedEx Express
5 of 6
MPS# 0263 4258 8392 2583
Mstr# 4258 8392 2540
WED - 04 OCT 3:00P
STANDARD OVERNIGHT
0201
NC BTVA
05403
VT-US BTV


ORIGIN ID:BXCA (781) 466-6900
PAUL HOBART
TESTAMERICA
240 BEAR HILL ROAD
SUITE 104
WALTHAM, MA 02451
UNITED STATES US
SHIP DATE: 030CT17
ACTWGT: 52.05 LB
CAD: 590687/CAFE3108
BILL RECIPIENT
TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
INV:
PO:
REF:
DEPT:
FedEx Express
6 of 6
MPS# 0263 4258 8392 2594
Mstr# 4258 8392 2540
WED - 04 OCT 3:00P
STANDARD OVERNIGHT
0201
NC BTVA
05403
VT-US BTV

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

SHIP DATE: 030CT17
ACTWGT: 54.05 LB
CAD: 590687/CAFE3108

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

1 of 6
TRK# 0201 4258 8392 2540
MASTER

WED - 04 OCT 3:00P
STANDARD OVERNIGHT

NC BTVA

05403
VT-US BTV

546C3/0899/53C1
J1710161020001uv
Part # 156148V-434 RIT2 02/17

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

SHIP DATE: 030CT17
ACTWGT: 53.95 LB
CAD: 590687/CAFE3108

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

2 of 6
MPS# 0263 4258 8392 2550
Mstr# 4258 8392 2540

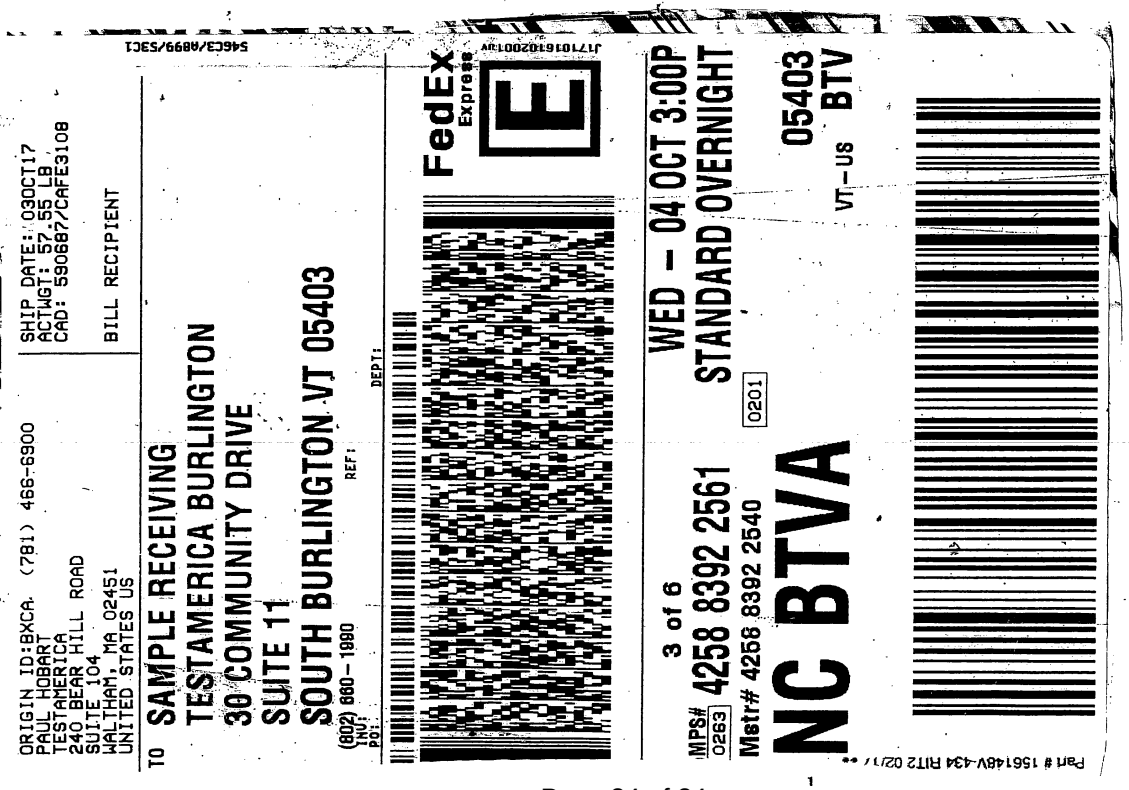
WED - 04 OCT 3:00P
STANDARD OVERNIGHT

0201

NC BTVA

05403
VT-US BTV

546C3/0899/53C1
J1710161020001uv
Part # 156148V-434 RIT2 02/17



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

SHIP DATE: 030CT17
ACTWGT: 57.55 LB
CAD: 590687/CAFE3108

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
INV:
PO:
REF:
DEPT:

FedEx Express

3 of 6
MPS# 0263 4258 8392 2561
Mstr# 4258 8392 2540

WED - 04 OCT 3:00P
STANDARD OVERNIGHT

0201

NC BTVA

05403
VT-US BTV

546C3/0899/53C1
J1710161020001uv
Part # 156148V-434 RIT2 02/17