

**Environmental  
Resources  
Management**

One Beacon Street, 5<sup>th</sup> Floor  
Boston, MA 02108  
+1 617 646 7800  
+1 617 267 6447 (fax)

<http://www.erm.com>



23 May 2014

Mr. Robert Schelmerdeine  
Wayland Meadows Development Inc.  
145 Rosemary Street, Suite E  
Needham, MA 02494

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

Dear Mr. Schelmerdeine:

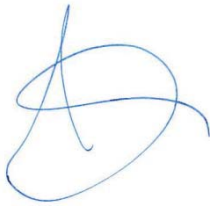
On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of groundwater sample analyses related to the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). These results are submitted pursuant to 310 CMR 40.1403(10)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

Innovative Engineering Solutions, Inc. collected groundwater samples from two wells (MW-263M and MW-264M) within the boundaries of your property on 8 April 2014. The sample was submitted to TestAmerica Laboratories, Inc. of Westfield, Massachusetts. Analytical results are attached to this letter. These analytical data will be provided to the Massachusetts Department of Environmental Protection in the next required MCP submittal.

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, the Wayland Public Library 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,

A handwritten signature in blue ink, appearing to read "John C. Drobinski".

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

A handwritten signature in blue ink, appearing to read "Lyndsey Colburn".

Lyndsey Colburn, P.G.  
*Project Manager*

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

cc: Jonathan Hone, Raytheon Company  
Ben Gould, CMG Environmental  
PIP Repositories



**NOTICE OF ENVIRONMENTAL SAMPLING**

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

**BWSC 123**

This Notice is Related to Release Tracking Number

3 13302

**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: Wayland Meadows Limited Partnership  
2. Street Address: 145 Rosemary Street  
City/Town: Needham Zip Code: 02494

**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: 430 Boston Post Road  
City/Town: Wayland Zip Code: 01778

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

- |   |   |
|---|---|
| <input type="checkbox"/> Immediate Response Action              | <input type="checkbox"/> Phase III Feasibility Evaluation                   |
| <input type="checkbox"/> Release Abatement Measure              | <input type="checkbox"/> Phase IV Remedy Implementation Plan                |
| <input type="checkbox"/> Utility-related Abatement Measure      | <input checked="" type="checkbox"/> Phase V/Remedy Operation Status         |
| <input type="checkbox"/> Phase I Initial Site Investigation     | <input type="checkbox"/> Post-Class C Operation, Maintenance and Monitoring |
| <input type="checkbox"/> Phase II Comprehensive Site Assessment | <input type="checkbox"/> Other _____  |
- (specify)

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

- residential    commercial    industrial    school/playground    Other \_\_\_\_\_
- (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater) 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  
50 Apple Hill Drive  
Street Address: \_\_\_\_\_  
Tewksbury 01876  
City/Town: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
978-858-1885  
Telephone: \_\_\_\_\_ Email: louis\_j\_burkhardt@raytheon.com

## **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 under the Massachusetts Contingency Plan at a property 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/dep/cleanup/oview.htm>. 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://mass.gov/dep/about/region/schedule.htm> if you would like to make an appointment to see these files. 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: 480-57495-1  
Client Project/Site: IDS Wayland

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

Attn: Vicki Pariyar



Authorized for release by:  
4/15/2014 3:47:49 PM  
Rich Emerich, Analyst V  
[rich.emerich@testamericainc.com](mailto:rich.emerich@testamericainc.com)

Designee for  
Becky Mason, Project Manager II  
(413)572-4000  
[becky.mason@testamericainc.com](mailto:becky.mason@testamericainc.com)

Samples MW-263M and MW-264M were collected from wells installed on the Wayland Meadows Property. All other samples collected from other properties have been grayed out for ease of review.

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

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

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

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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# Definitions/Glossary

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

TestAmerica Job ID: 480-57495-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F1	MS and/or MSD Recovery exceeds the control limits
F2	MS/MSD RPD exceeds control limits
*	RPD of the LCS and LCSD exceeds the control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

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

TestAmerica Job ID: 480-57495-1

## Job ID: 480-57495-1

### Laboratory: TestAmerica Buffalo

#### Narrative

##### Receipt

The samples were received on 4/9/2014 at 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.3° C.

##### GC/MS VOA

Method 8260: 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-Butyl Ethyl Ether, tert-Amyl Methyl Ether and Tetrahydrofuran.

Method 8260: Due to the dilutions required, per question G on the MassDEP Analytical Protocol Certification Form, the CAM reporting limits specified in this CAM protocol could not be achieved for some or all samples/analytes.

Method 8260B SIM: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: DupX3-20140408-01 (480-57495-36), MW-261S-20140408-01 (480-57495-3), MW-263M-20140408-01 (480-57495-7), MW-267M-20140405-01 (480-57495-12), MW-267S-20140405-01 (480-57495-11) and MW-552-20140407-01 (480-57495-18). Elevated reporting limits (RLs) are provided.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batches 174684 and 175485 exceeded control limits for the following analyte: Tetrahydrofuran. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-261S-20140408-01 (480-57495-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batches 175074, 175163 and 174949 exceeded control limits for the following analytes: 2-Hexanone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 175074 recovered outside control limits for the following analytes: 1,4-Dioxane.

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 175074 were outside control limits.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-57495-17 MS), (480-57495-17 MSD), DupX2-20140406-01 (480-57495-35), MW-551-20140408-01 (480-57495-17), MW-560-20140407-01 (480-57495-20), MW-561-20140407-01 (480-57495-21), MW-562-20140407-01 (480-57495-22), REW-1-20140406-01 (480-57495-24), (480-57495-33 MS), (480-57495-33 MSD), MW-562-20140407-01 (480-57495-22), MW-563-20140407-01 (480-57495-23), REW-11-20140406-01 (480-57495-32), REW-12-20140406-01 (480-57495-33), REW-6-20140406-01 (480-57495-27), REW-7-20140406-01 (480-57495-28), MW-263M-20140408-01 (480-57495-7), MW-267S-20140405-01 (480-57495-11), MW-268M-20140407 (480-57495-14) and DupX3-20140408-01 (480-57495-36). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: MW-267M-20140405-01 (480-57495-12). Elevated reporting limits (RLs) are provided.

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 174949 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.

Method 8260C: The method blank for batch 175163 contained Carbon Disulfide above the method detection limit. This target analyte concentration was less than the reporting limit (RL) so re-analysis of the associated samples was not performed.



## Case Narrative

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

TestAmerica Job ID: 480-57495-1

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### Job ID: 480-57495-1 (Continued)

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#### Laboratory: TestAmerica Buffalo (Continued)

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 175163 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260C: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for batch 175163 was outside control limits. Sample matrix interference was suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No other analytical or quality issues were noted.

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## MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-57495**

Project Location: **IDS Wayland** RTN:

**This form provides certifications for the data set for the following Laboratory Sample ID Number(s):**  
**480-57495 [1-36]**

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

### CAM Protocols (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

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

<b>A</b>	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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>B</b>	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>C</b>	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>D</b>	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"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>E</b>	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?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>F</b>	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)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

<b>G</b>	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
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**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**

<b>H</b>	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>
<b>I</b>	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

<sup>1</sup> 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:  Position: Technical Director, TestAmerica Westfield  
 Printed Name: Richard Emerich Date: 4/15/14 15:29

This form has been electronically signed and approved.

# Detection Summary

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

TestAmerica Job ID: 480-57495-1

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**Client Sample ID: MW-263M-20140408-01**

**Lab Sample ID: 480-57495-4**

No Detections.

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**Client Sample ID: MW-264M-20140408-01**

**Lab Sample ID: 480-57495-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	12		1.0		ug/L	1		8260C	Total/NA
Tetrachloroethene	2.9		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	14		1.0		ug/L	1		8260C	Total/NA

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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

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

TestAmerica Job ID: 480-57495-1

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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

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

TestAmerica Job ID: 480-57495-1

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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

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

TestAmerica Job ID: 480-57495-1

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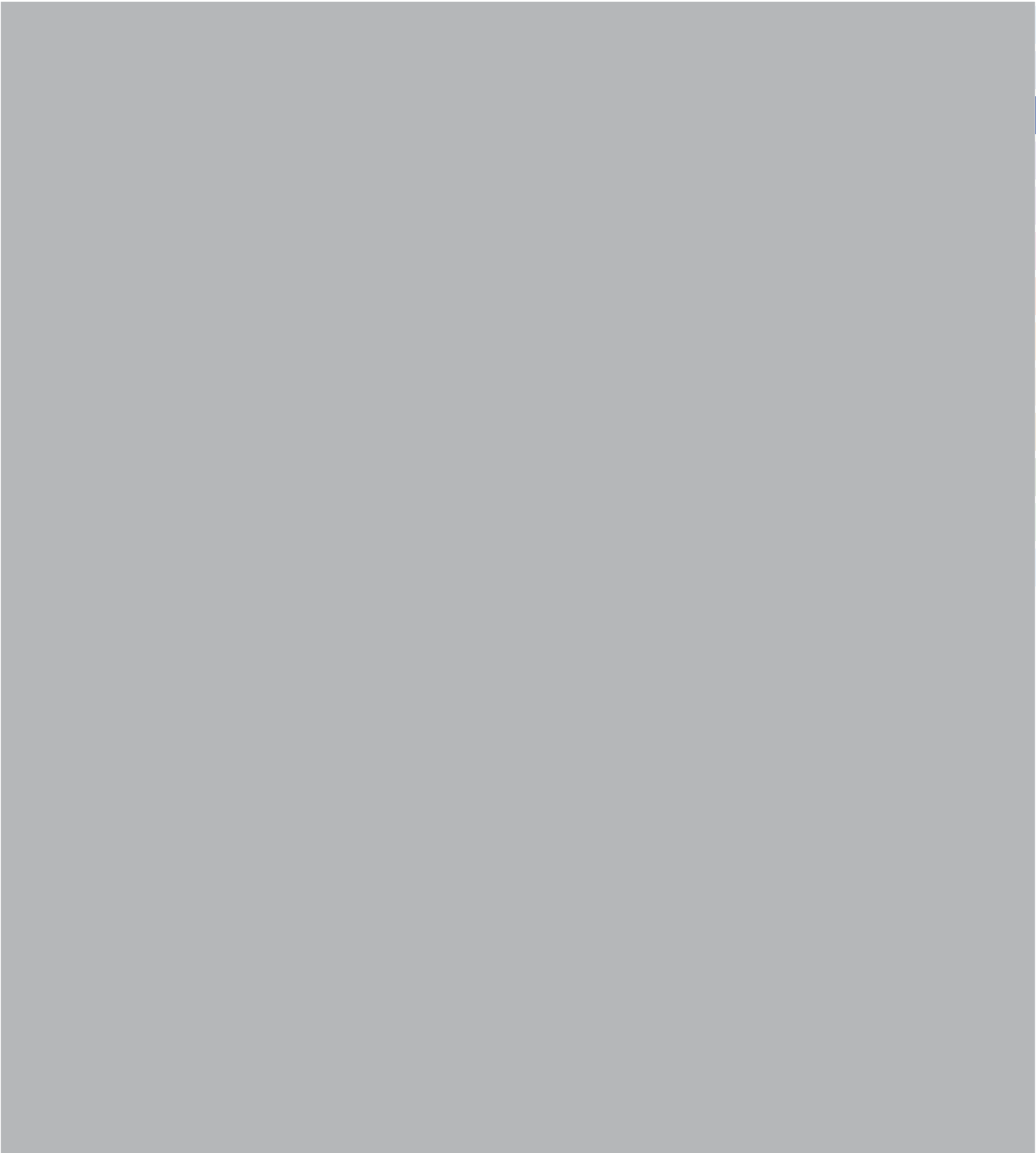
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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

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

TestAmerica Job ID: 480-57495-1

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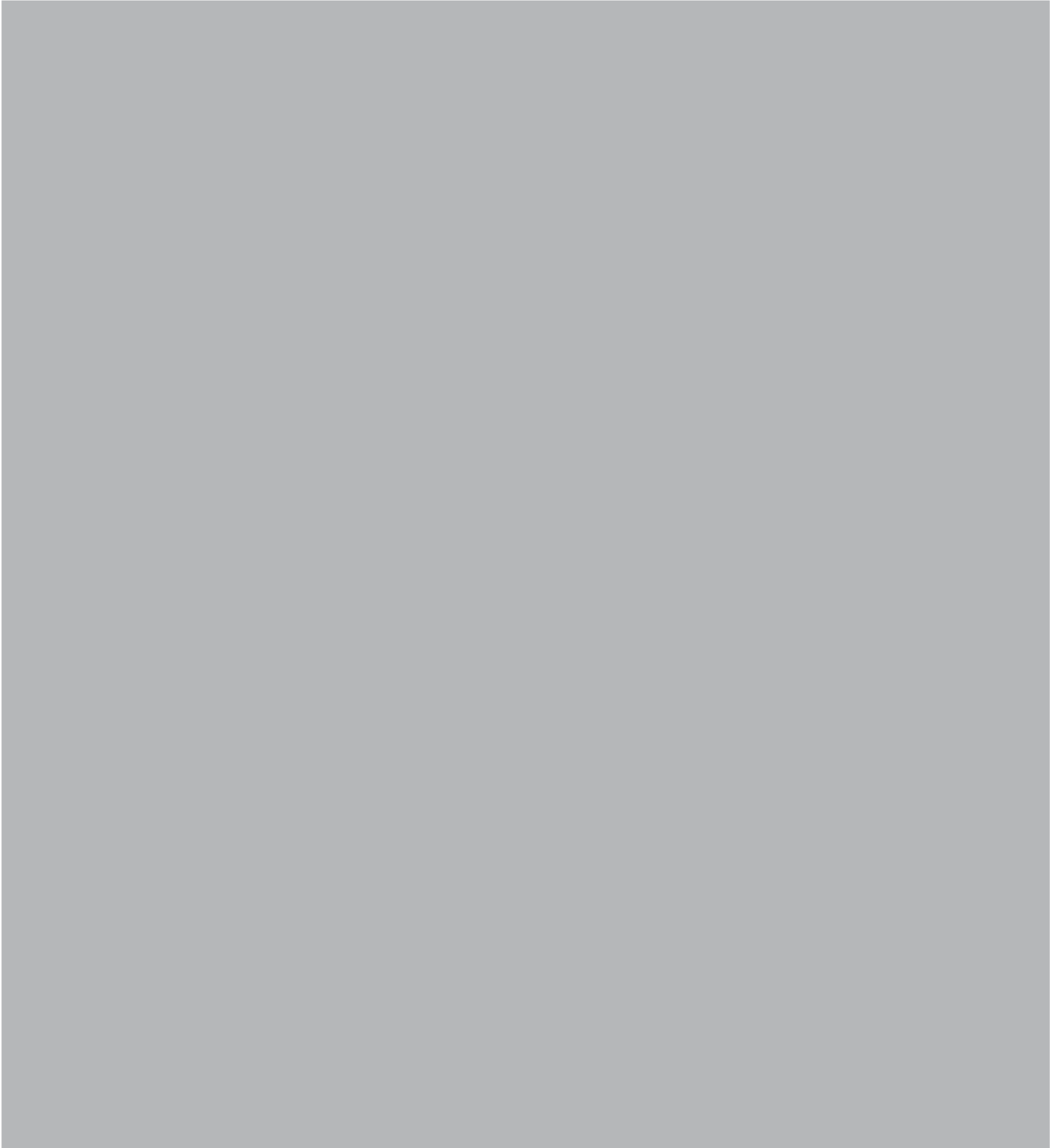
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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

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

TestAmerica Job ID: 480-57495-1

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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

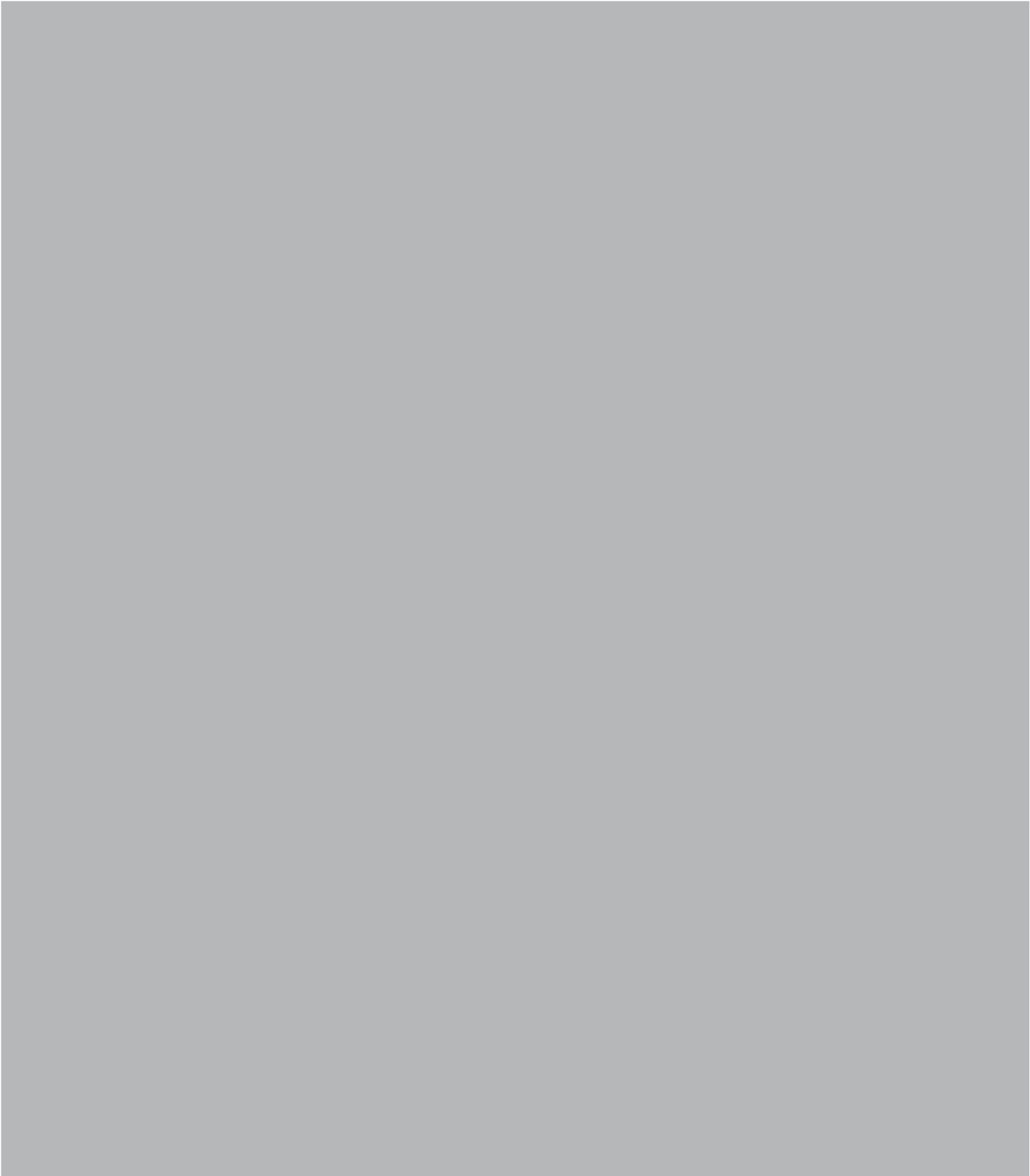


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

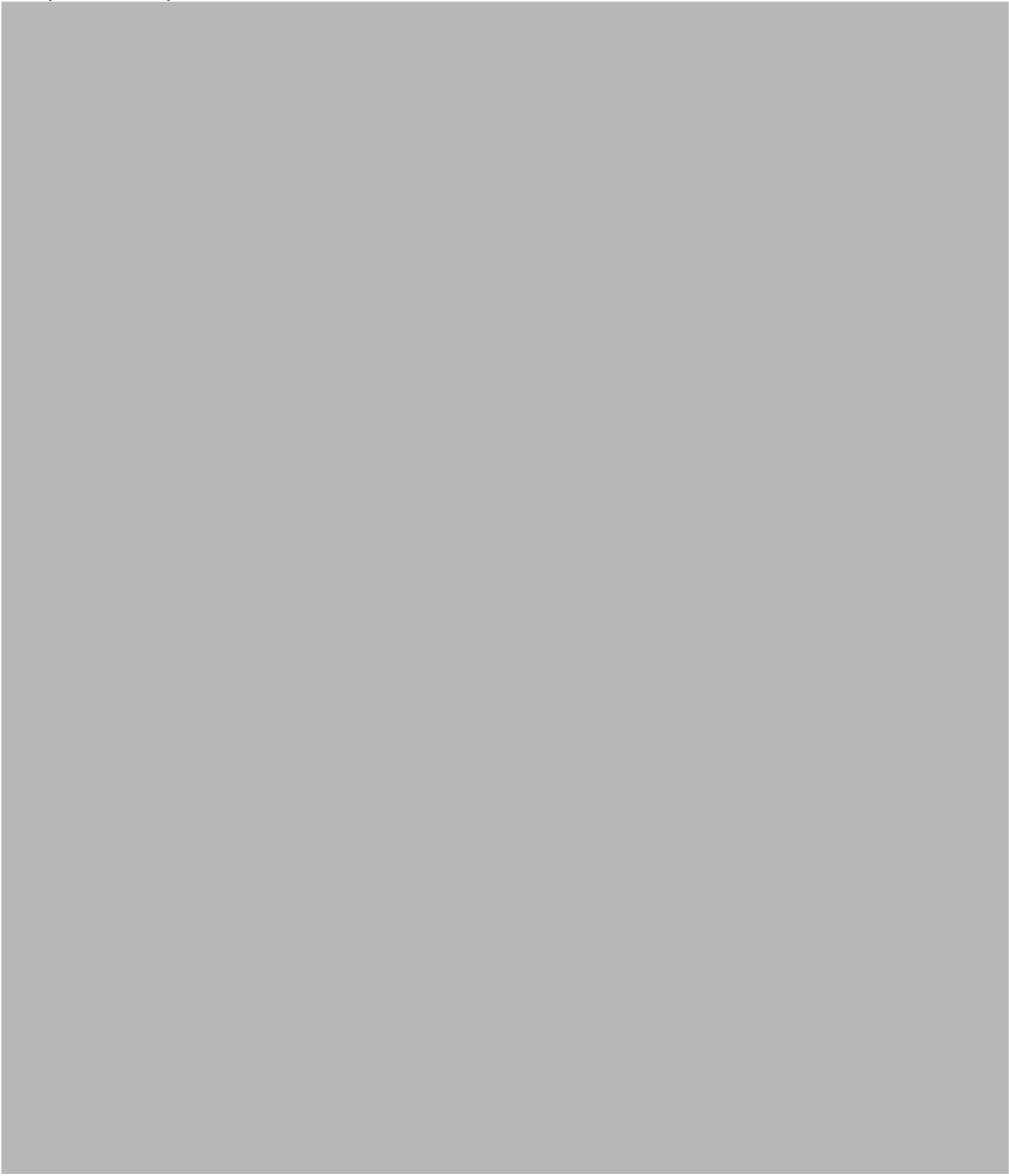


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-263M-20140408-01**

**Lab Sample ID: 480-57495-4**

**Date Collected: 04/08/14 11:45**

**Matrix: Water**

**Date Received: 04/09/14 01:30**

**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			04/09/14 18:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/14 18:37	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/14 18:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/14 18:37	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/14 18:37	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/14 18:37	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/14 18:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/14 18:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/14 18:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/14 18:37	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/14 18:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/14 18:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/14 18:37	1
1,4-Dioxane	ND		50		ug/L			04/09/14 18:37	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/14 18:37	1
2-Butanone (MEK)	ND		10		ug/L			04/09/14 18:37	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/14 18:37	1
2-Hexanone	ND		10		ug/L			04/09/14 18:37	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/14 18:37	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/14 18:37	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/14 18:37	1
Acetone	ND		50		ug/L			04/09/14 18:37	1
Benzene	ND		1.0		ug/L			04/09/14 18:37	1
Bromobenzene	ND		1.0		ug/L			04/09/14 18:37	1
Bromoform	ND		1.0		ug/L			04/09/14 18:37	1
Bromomethane	ND		2.0		ug/L			04/09/14 18:37	1
Carbon disulfide	ND		10		ug/L			04/09/14 18:37	1
Carbon tetrachloride	ND		1.0		ug/L			04/09/14 18:37	1
Chlorobenzene	ND		1.0		ug/L			04/09/14 18:37	1
Chlorobromomethane	ND		1.0		ug/L			04/09/14 18:37	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/14 18:37	1
Chloroethane	ND		2.0		ug/L			04/09/14 18:37	1
Chloroform	ND		1.0		ug/L			04/09/14 18:37	1
Chloromethane	ND		2.0		ug/L			04/09/14 18:37	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-263M-20140408-01**

**Lab Sample ID: 480-57495-4**

Date Collected: 04/08/14 11:45

Matrix: Water

Date Received: 04/09/14 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/14 18:37	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/14 18:37	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/14 18:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/14 18:37	1
Ethyl ether	ND		1.0		ug/L			04/09/14 18:37	1
Ethylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/14 18:37	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/14 18:37	1
Isopropyl ether	ND		10		ug/L			04/09/14 18:37	1
Isopropylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/14 18:37	1
Methylene Chloride	ND		1.0		ug/L			04/09/14 18:37	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/14 18:37	1
Naphthalene	ND		5.0		ug/L			04/09/14 18:37	1
n-Butylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
N-Propylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
o-Xylene	ND		1.0		ug/L			04/09/14 18:37	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
Styrene	ND		1.0		ug/L			04/09/14 18:37	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/14 18:37	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/14 18:37	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/14 18:37	1
Tetrachloroethene	ND		1.0		ug/L			04/09/14 18:37	1
Tetrahydrofuran	ND *		10		ug/L			04/09/14 18:37	1
Toluene	ND		1.0		ug/L			04/09/14 18:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/14 18:37	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/14 18:37	1
Trichloroethene	ND		1.0		ug/L			04/09/14 18:37	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/14 18:37	1
Vinyl chloride	ND		1.0		ug/L			04/09/14 18:37	1
Dibromomethane	ND		1.0		ug/L			04/09/14 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		04/09/14 18:37	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		04/09/14 18:37	1
4-Bromofluorobenzene (Surr)	98		70 - 130		04/09/14 18:37	1

**Client Sample ID: MW-264M-20140408-01**

**Lab Sample ID: 480-57495-5**

Date Collected: 04/08/14 10:30

Matrix: Water

Date Received: 04/09/14 01:30

**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			04/09/14 19:01	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/14 19:01	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/14 19:01	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/14 19:01	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/14 19:01	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/14 19:01	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/14 19:01	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-264M-20140408-01**

**Lab Sample ID: 480-57495-5**

**Date Collected: 04/08/14 10:30**

**Matrix: Water**

**Date Received: 04/09/14 01:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/14 19:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/14 19:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/14 19:01	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/14 19:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/14 19:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/14 19:01	1
1,4-Dioxane	ND		50		ug/L			04/09/14 19:01	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/14 19:01	1
2-Butanone (MEK)	ND		10		ug/L			04/09/14 19:01	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/14 19:01	1
2-Hexanone	ND		10		ug/L			04/09/14 19:01	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/14 19:01	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/14 19:01	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/14 19:01	1
Acetone	ND		50		ug/L			04/09/14 19:01	1
Benzene	ND		1.0		ug/L			04/09/14 19:01	1
Bromobenzene	ND		1.0		ug/L			04/09/14 19:01	1
Bromoform	ND		1.0		ug/L			04/09/14 19:01	1
Bromomethane	ND		2.0		ug/L			04/09/14 19:01	1
Carbon disulfide	ND		10		ug/L			04/09/14 19:01	1
Carbon tetrachloride	ND		1.0		ug/L			04/09/14 19:01	1
Chlorobenzene	ND		1.0		ug/L			04/09/14 19:01	1
Chlorobromomethane	ND		1.0		ug/L			04/09/14 19:01	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/14 19:01	1
Chloroethane	ND		2.0		ug/L			04/09/14 19:01	1
Chloroform	ND		1.0		ug/L			04/09/14 19:01	1
Chloromethane	ND		2.0		ug/L			04/09/14 19:01	1
<b>cis-1,2-Dichloroethene</b>	<b>12</b>		1.0		ug/L			04/09/14 19:01	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/14 19:01	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/14 19:01	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/14 19:01	1
Ethyl ether	ND		1.0		ug/L			04/09/14 19:01	1
Ethylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/14 19:01	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/14 19:01	1
Isopropyl ether	ND		10		ug/L			04/09/14 19:01	1
Isopropylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/14 19:01	1
Methylene Chloride	ND		1.0		ug/L			04/09/14 19:01	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/14 19:01	1
Naphthalene	ND		5.0		ug/L			04/09/14 19:01	1
n-Butylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
N-Propylbenzene	ND		1.0		ug/L			04/09/14 19:01	1

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-264M-20140408-01**

**Lab Sample ID: 480-57495-5**

**Date Collected: 04/08/14 10:30**

**Matrix: Water**

**Date Received: 04/09/14 01:30**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0		ug/L			04/09/14 19:01	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
Styrene	ND		1.0		ug/L			04/09/14 19:01	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/14 19:01	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/14 19:01	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/14 19:01	1
<b>Tetrachloroethene</b>	<b>2.9</b>		1.0		ug/L			04/09/14 19:01	1
Tetrahydrofuran	ND	*	10		ug/L			04/09/14 19:01	1
Toluene	ND		1.0		ug/L			04/09/14 19:01	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/14 19:01	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/14 19:01	1
<b>Trichloroethene</b>	<b>14</b>		1.0		ug/L			04/09/14 19:01	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/14 19:01	1
Vinyl chloride	ND		1.0		ug/L			04/09/14 19:01	1
Dibromomethane	ND		1.0		ug/L			04/09/14 19:01	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Toluene-d8 (Surr)	98		70 - 130					04/09/14 19:01	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130					04/09/14 19:01	1
4-Bromofluorobenzene (Surr)	96		70 - 130					04/09/14 19:01	1

# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

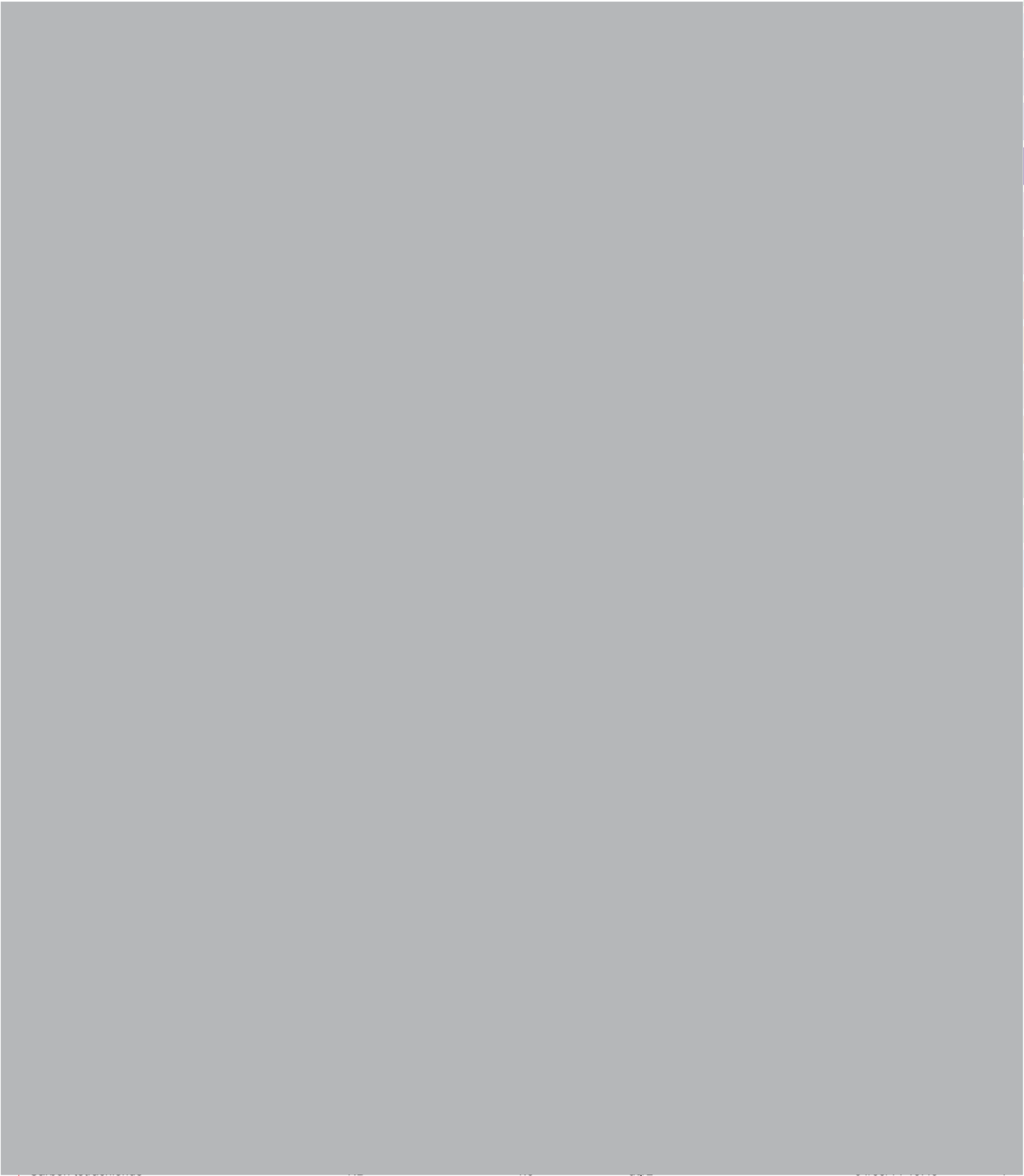


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

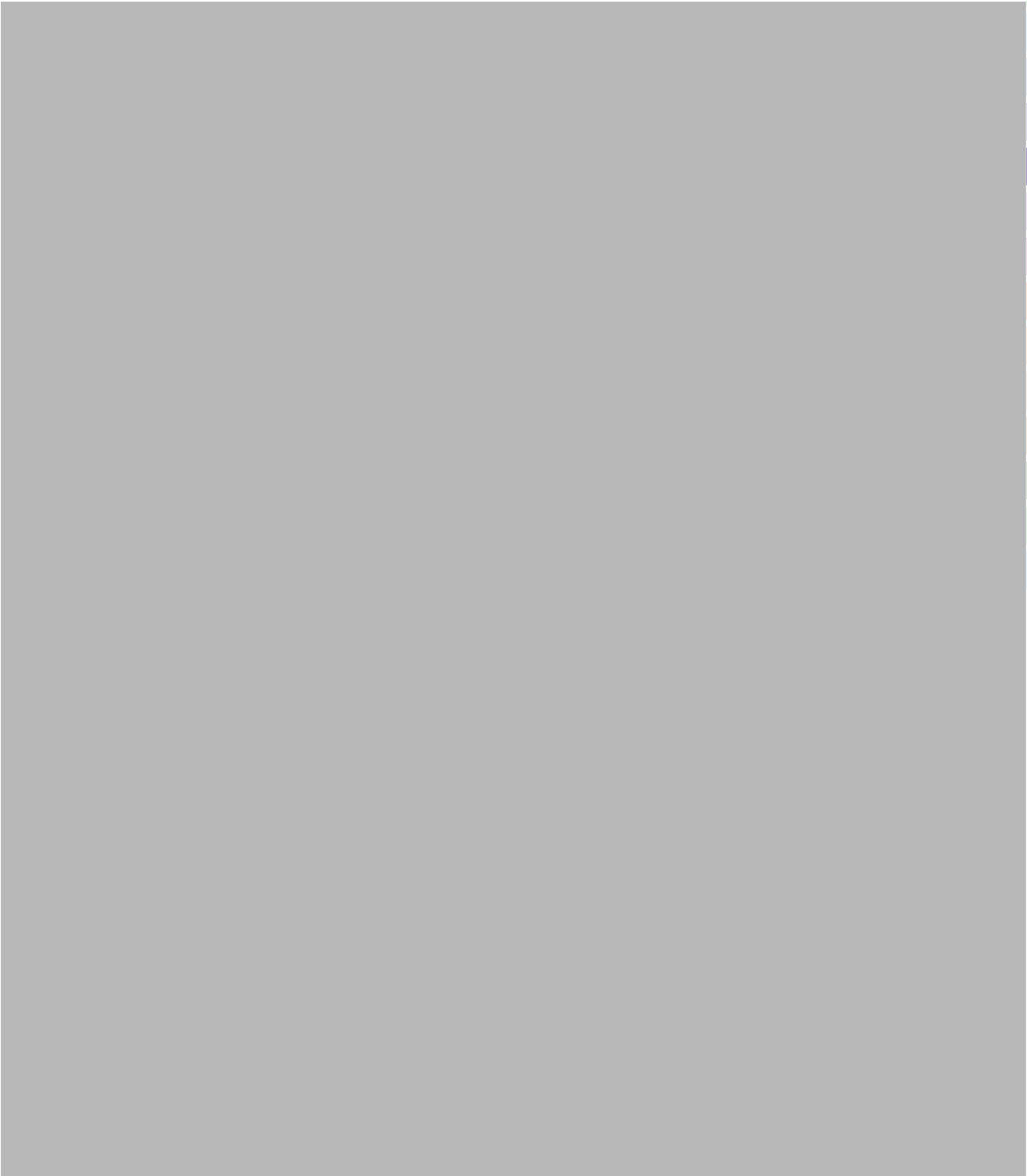


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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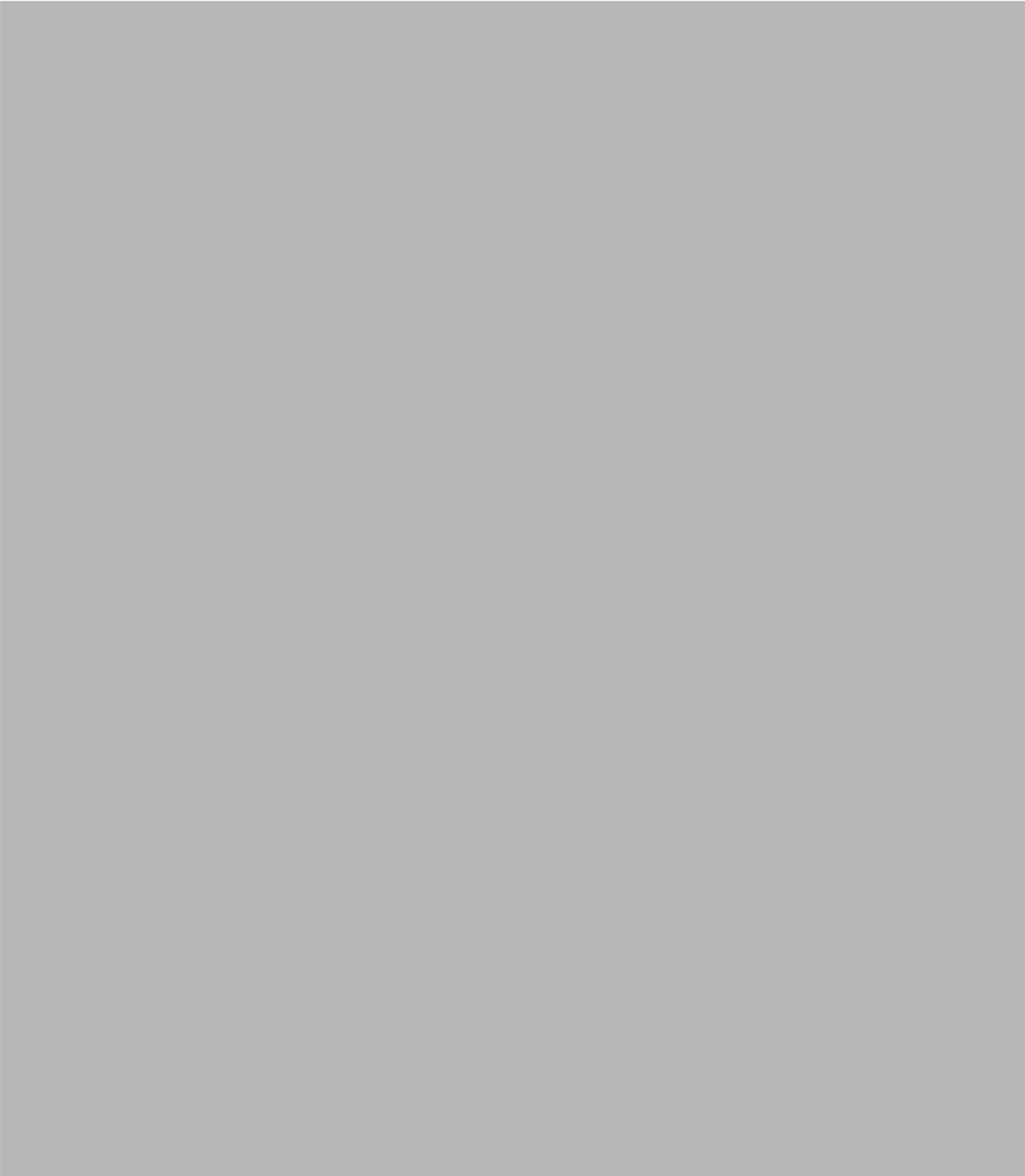
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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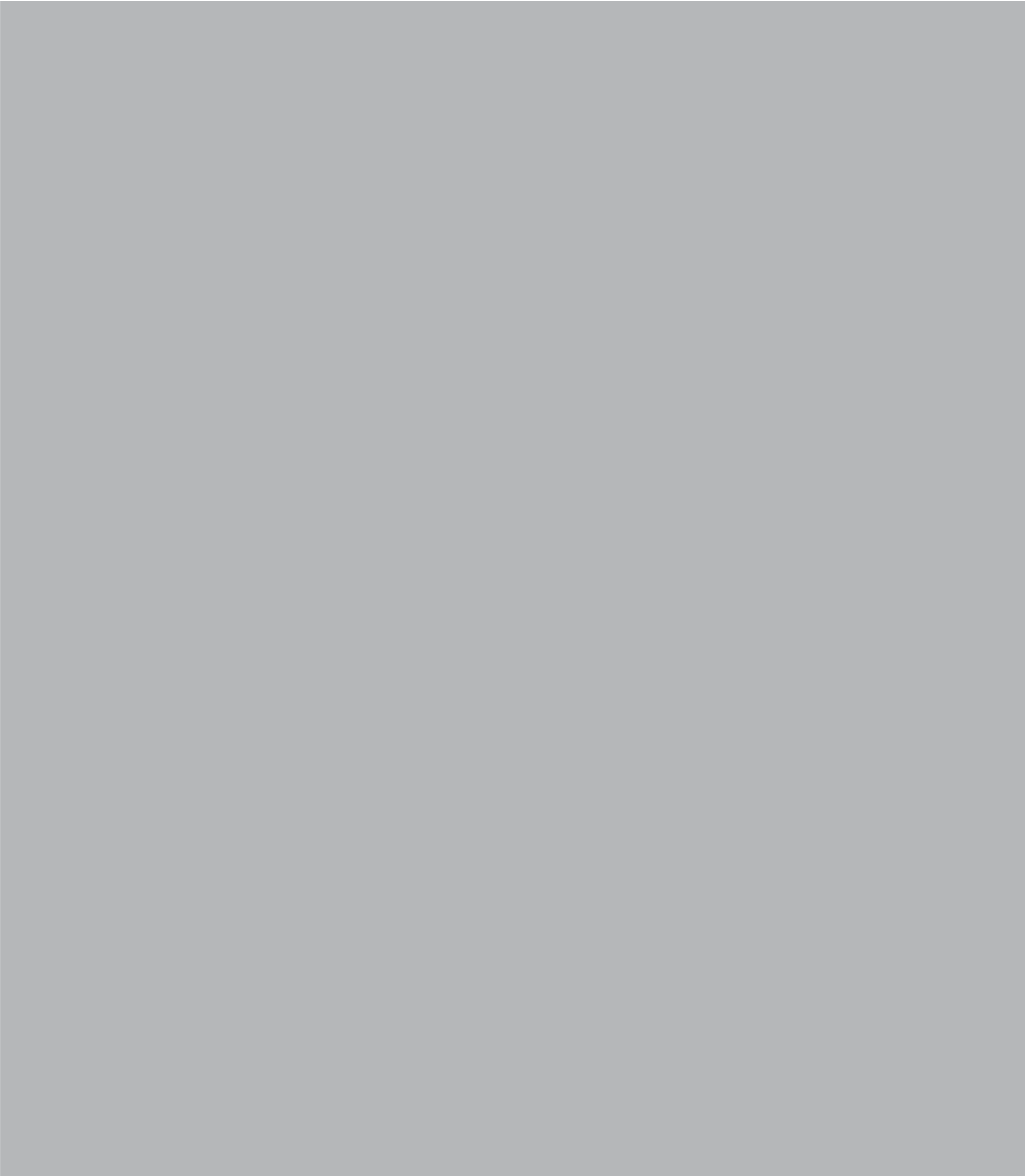
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

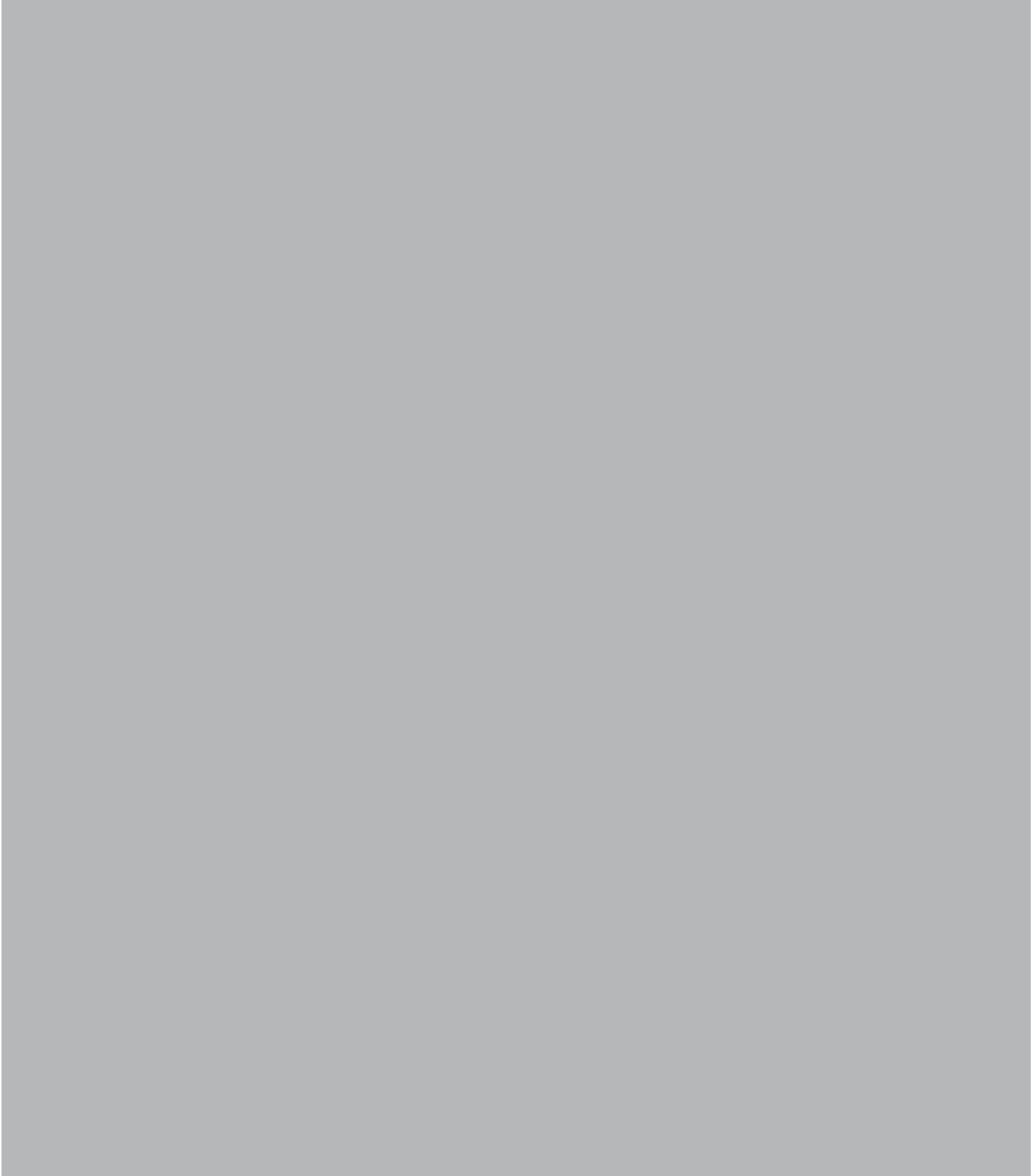


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

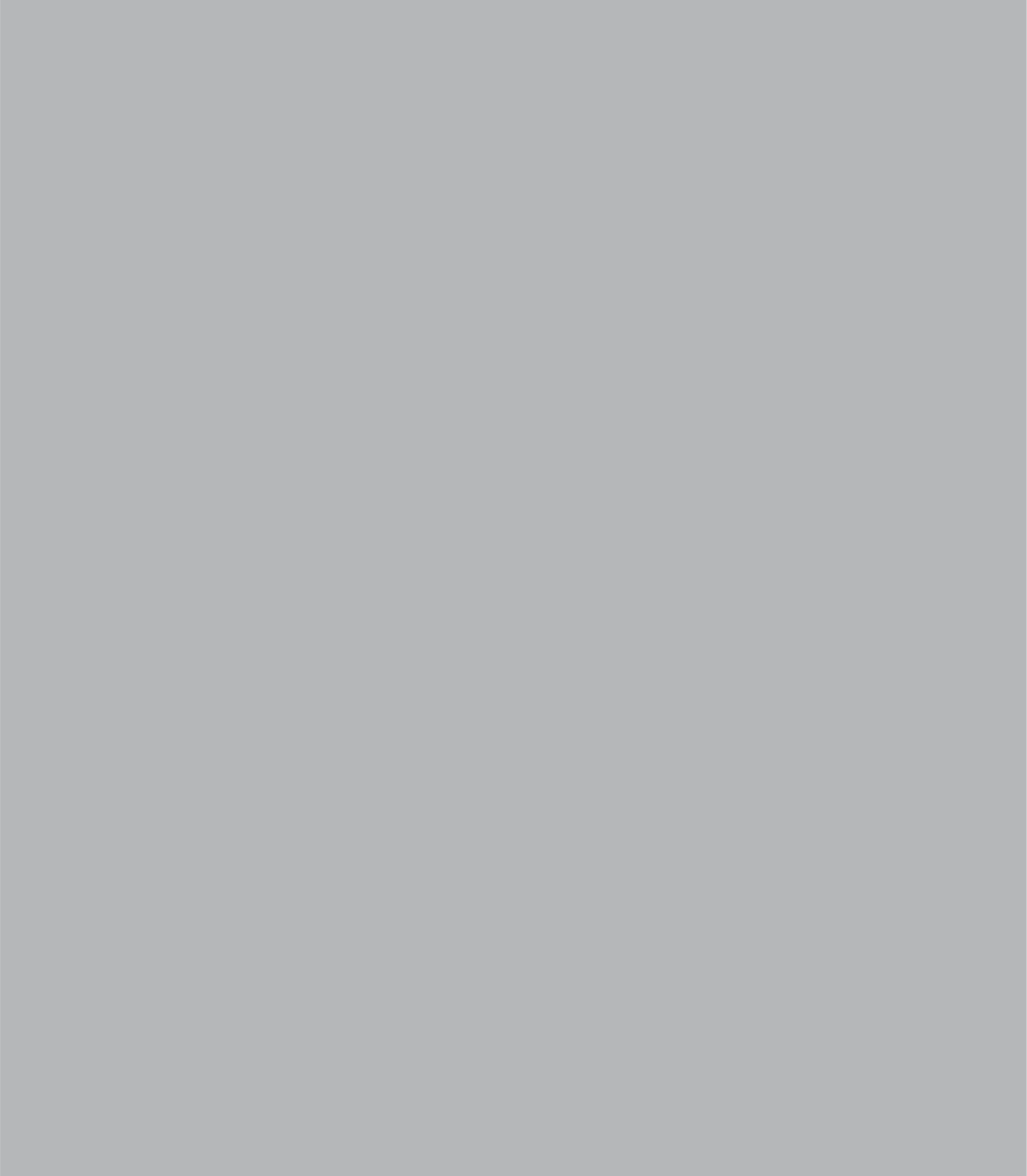


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

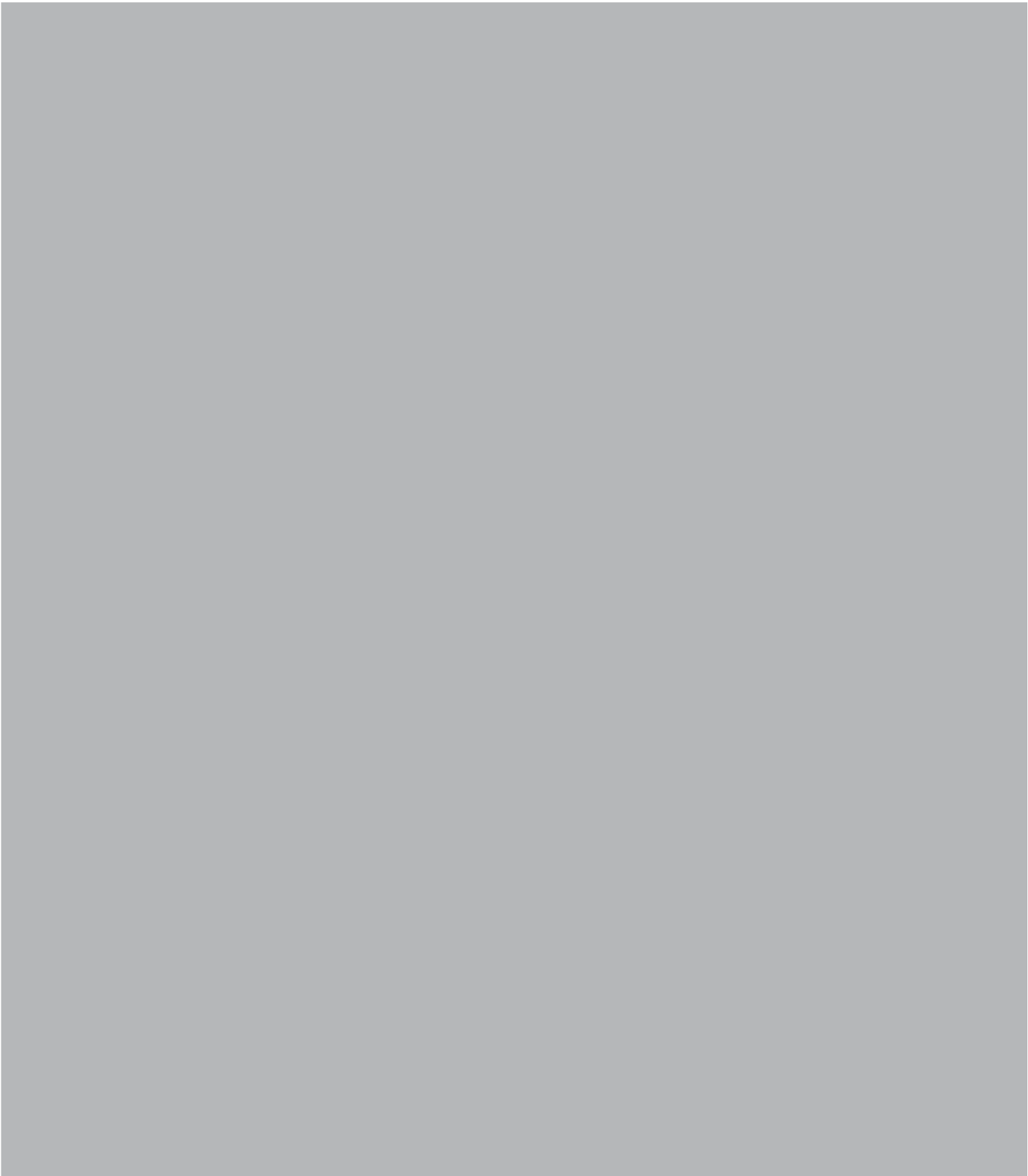


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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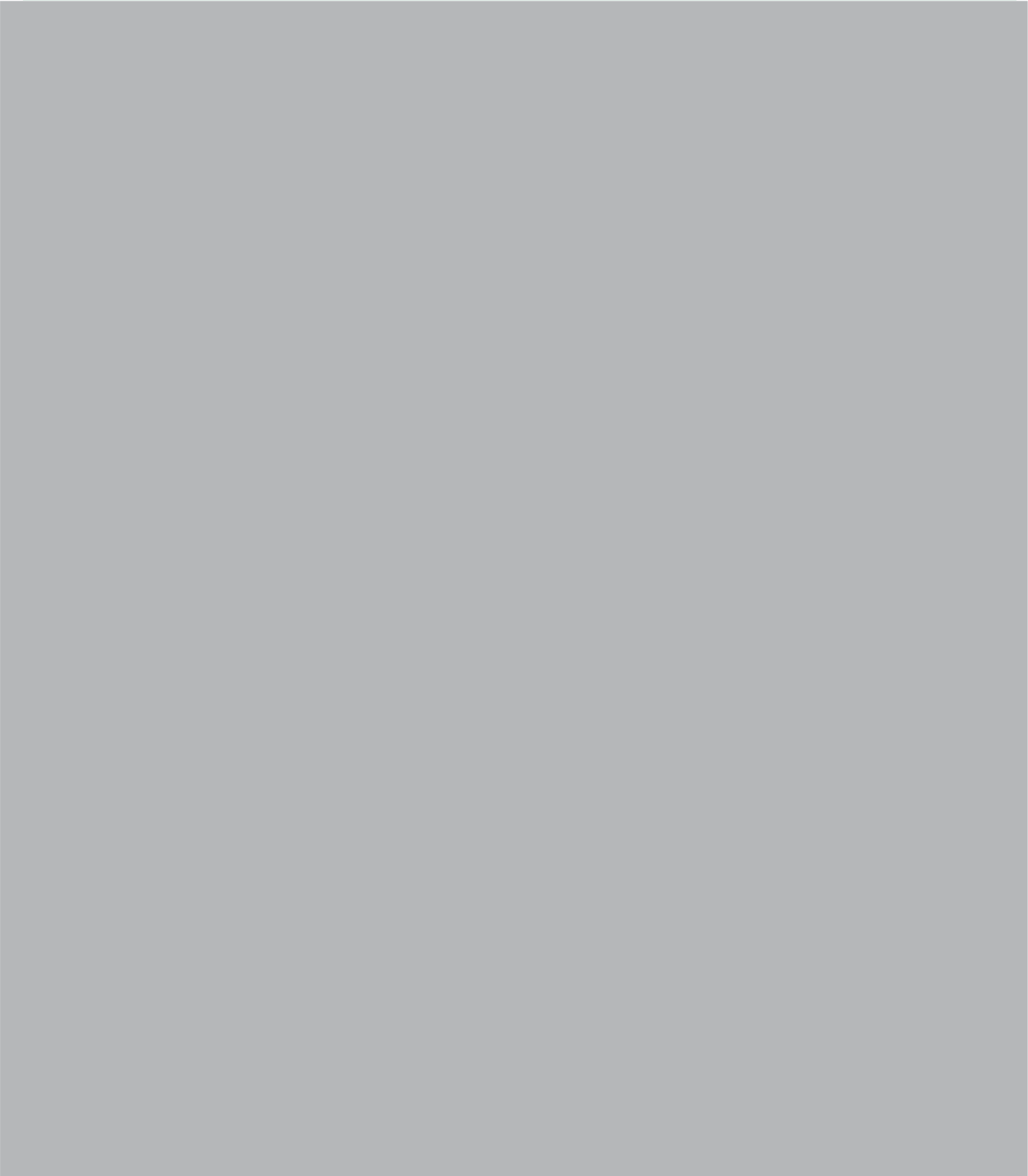
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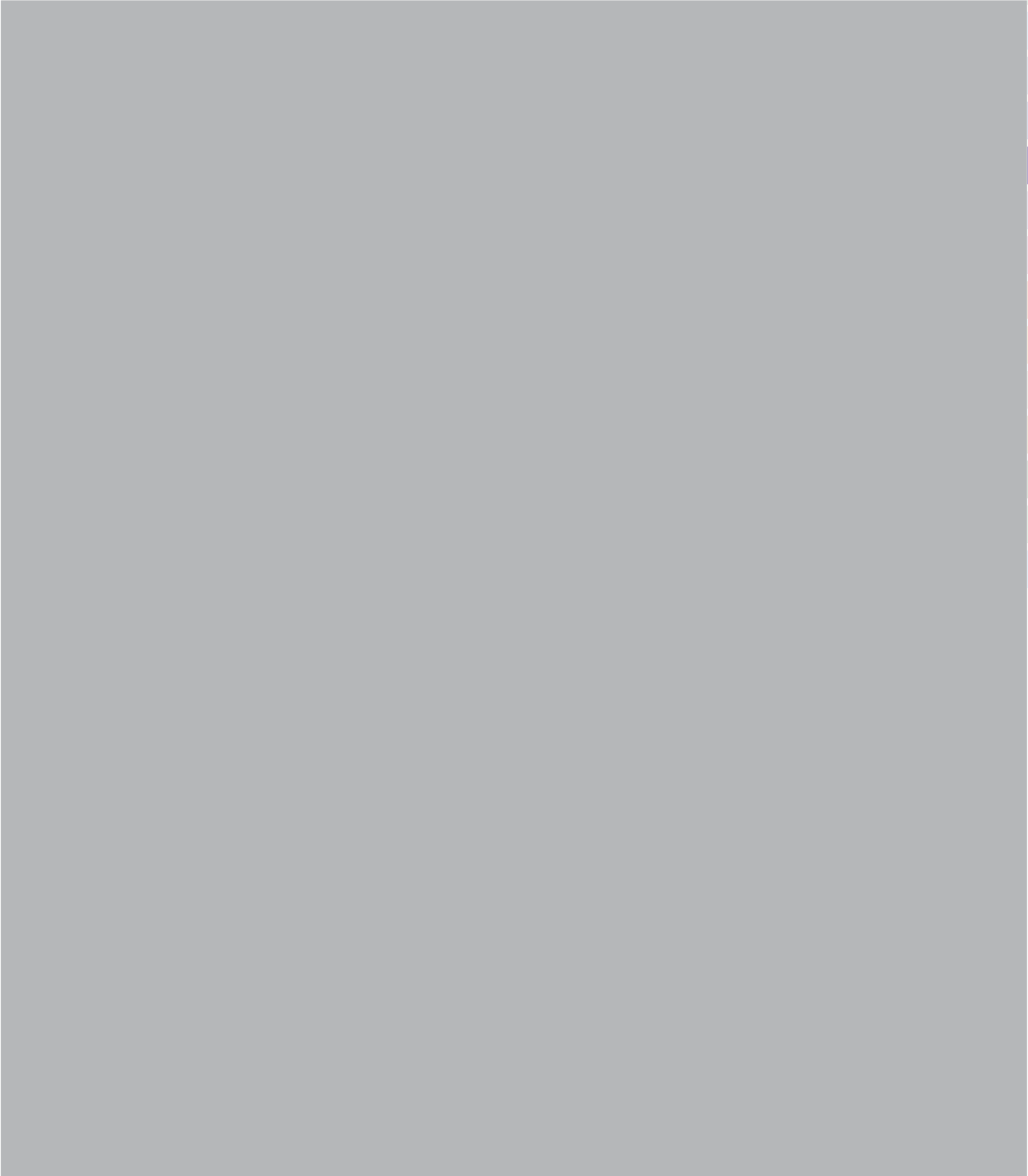
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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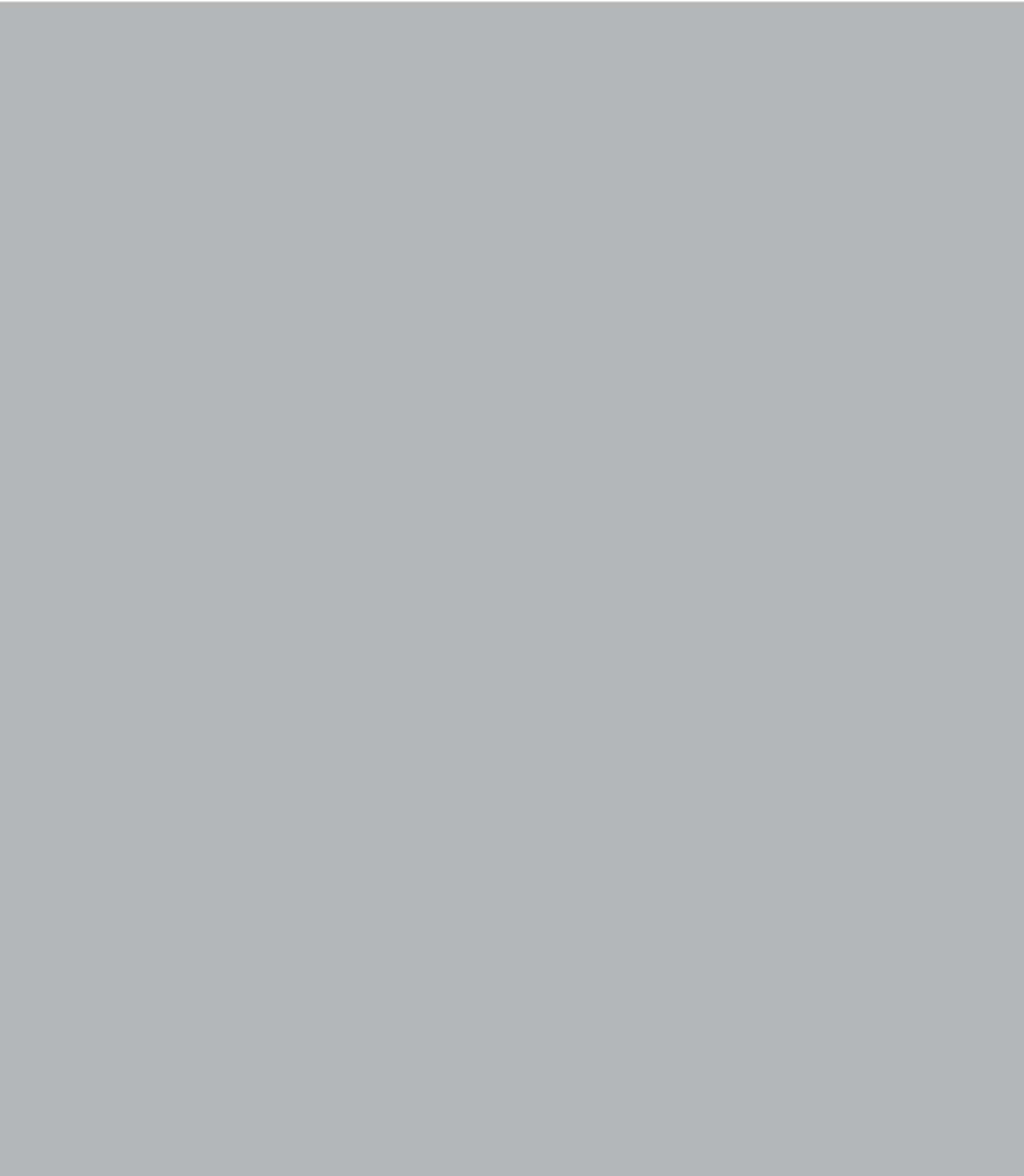
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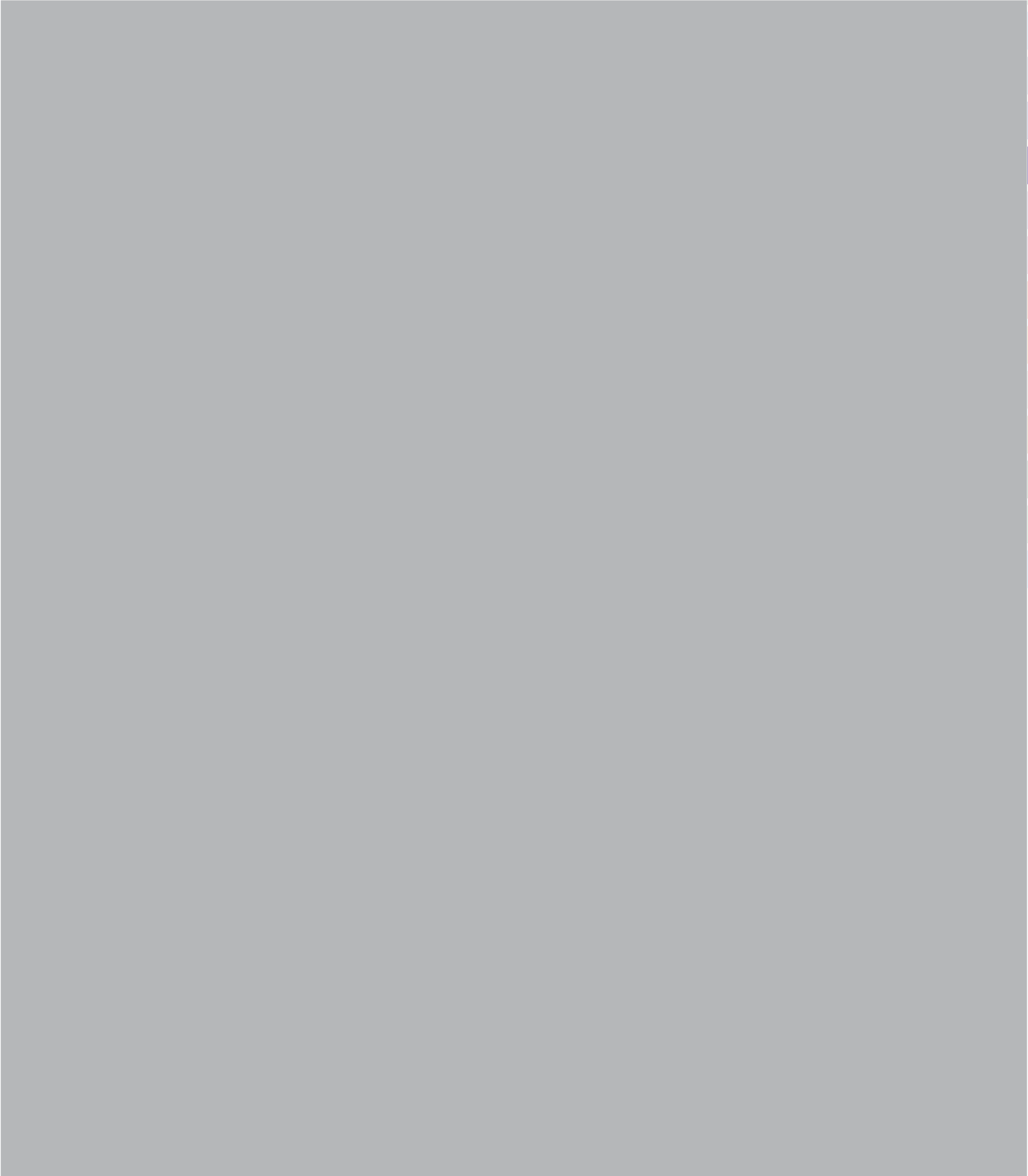




# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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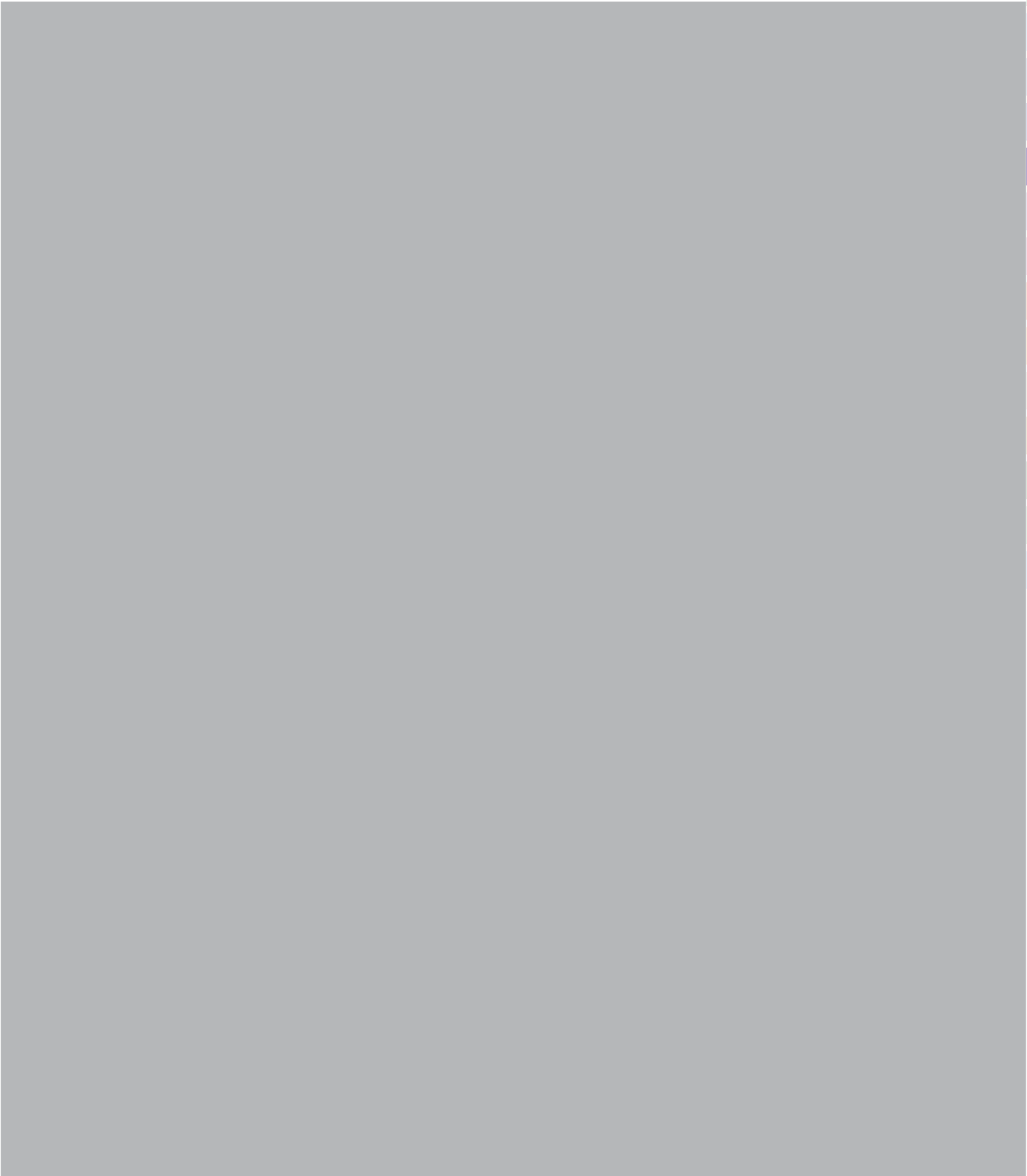
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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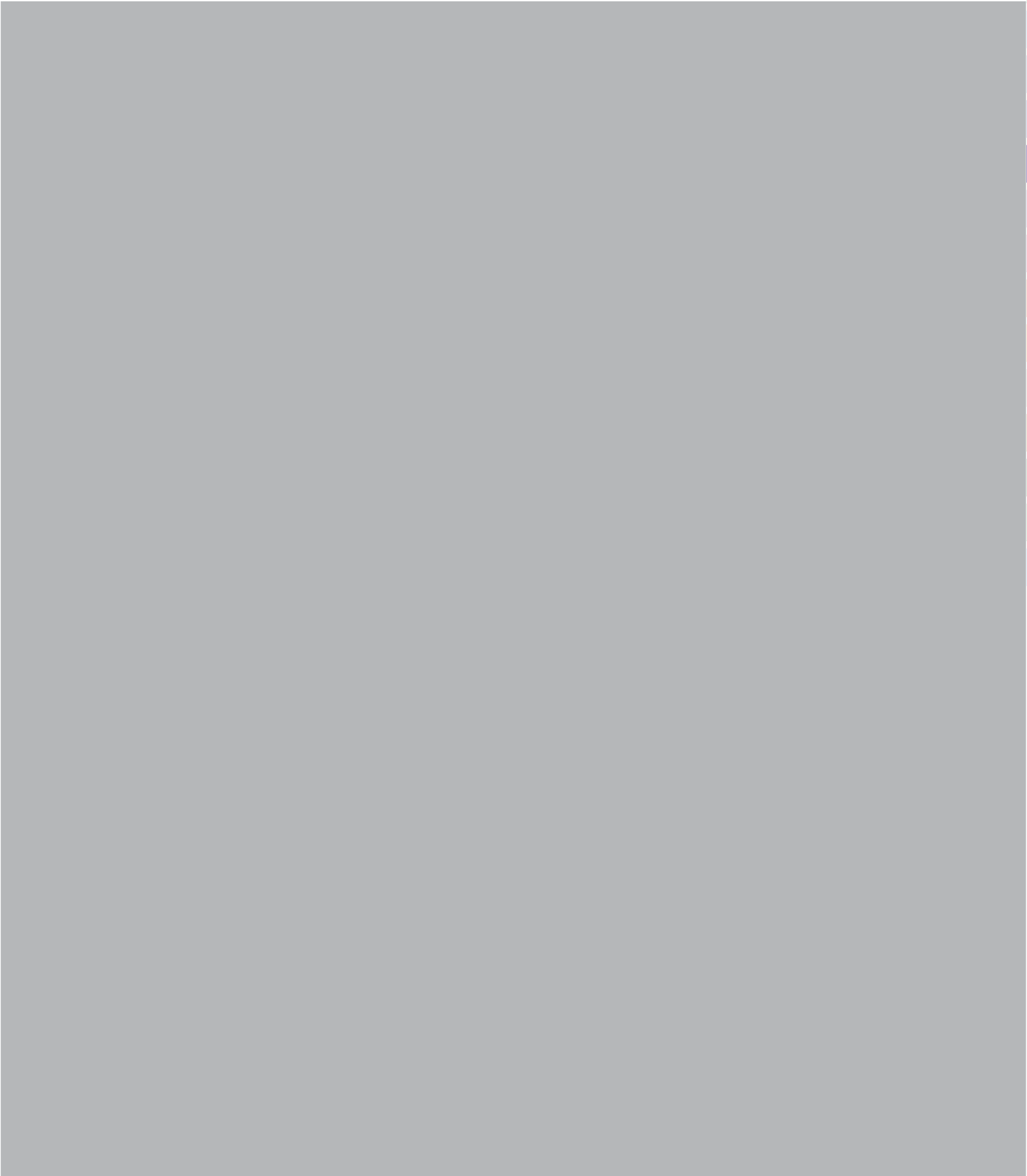
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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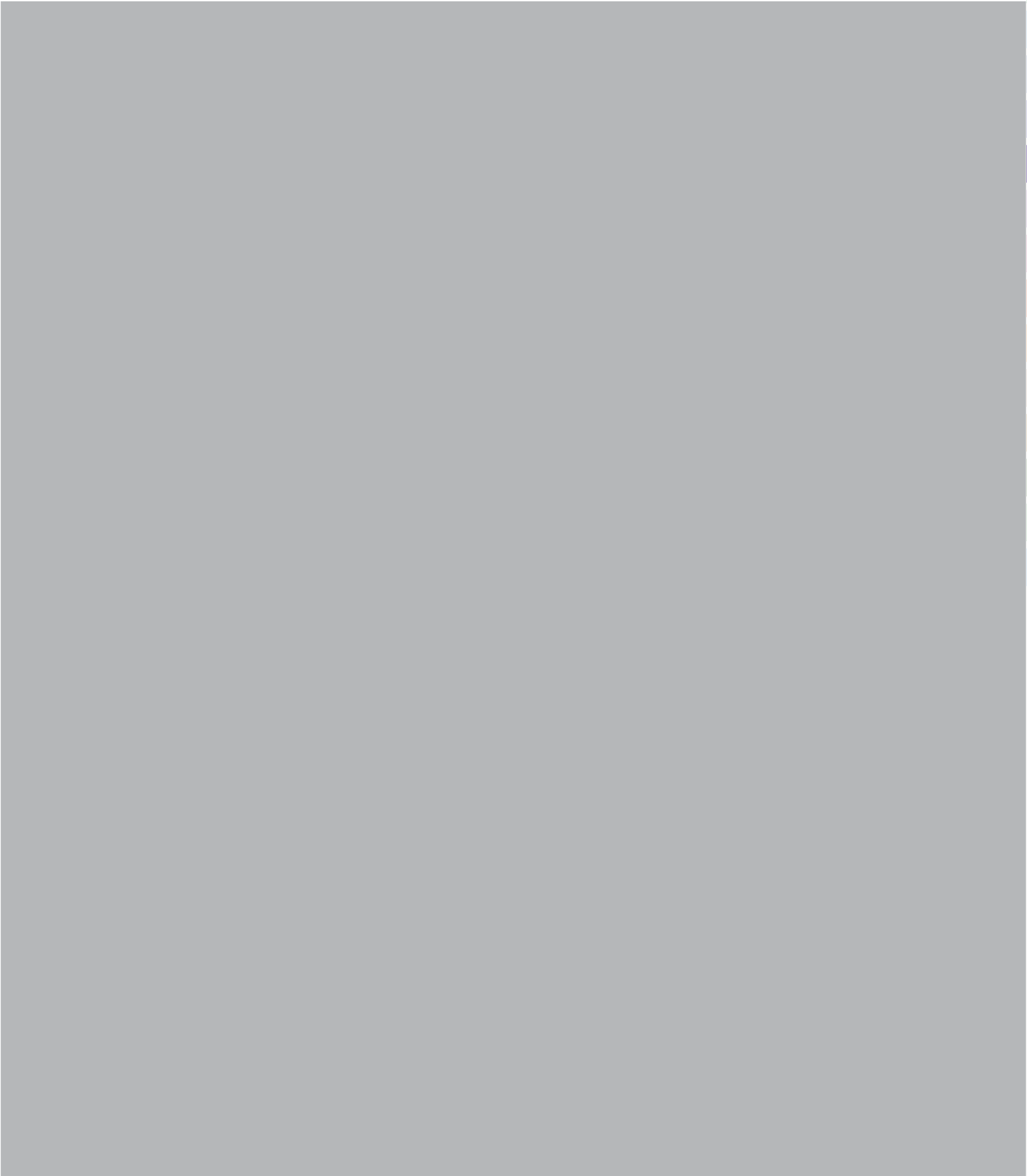
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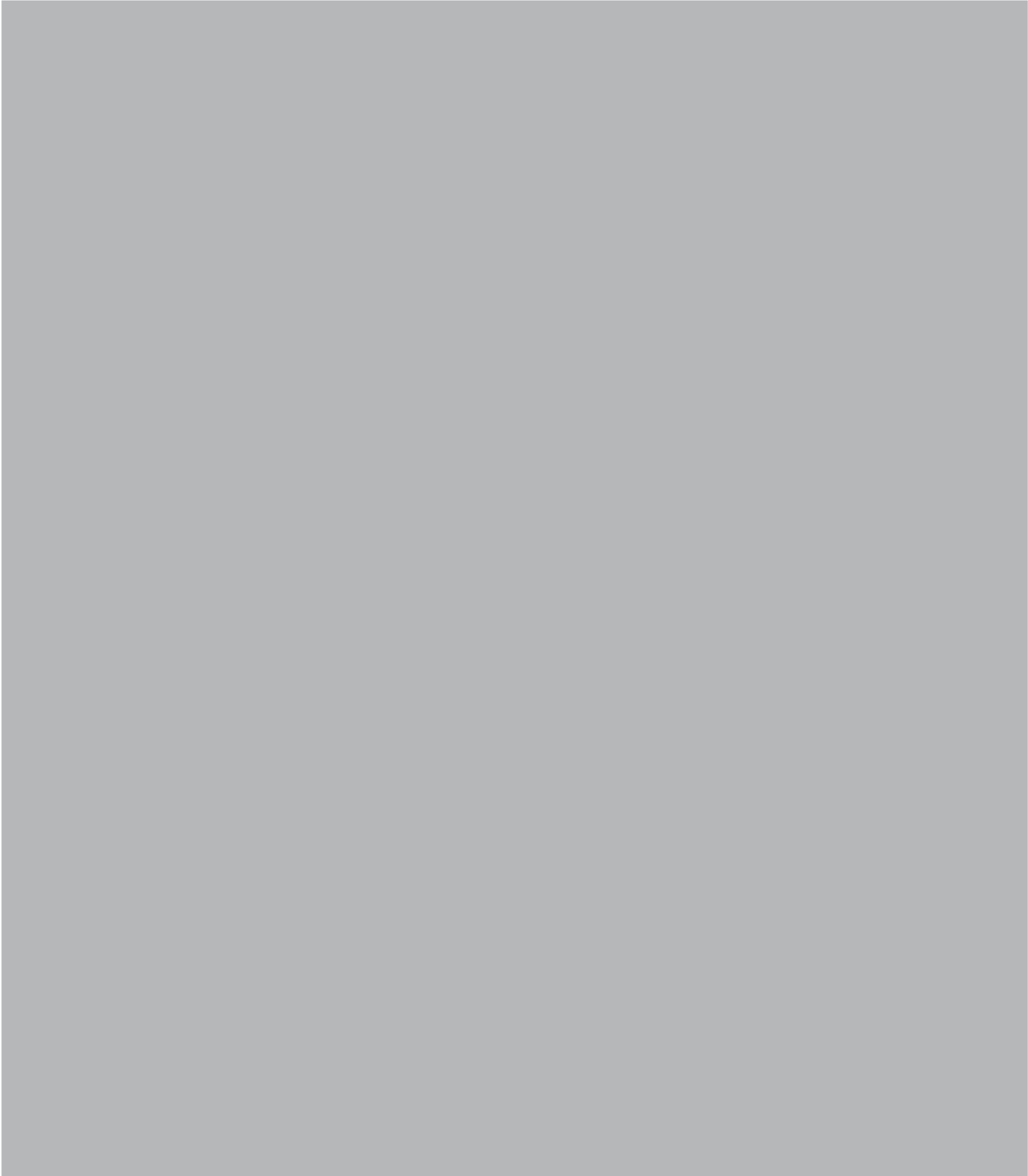
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

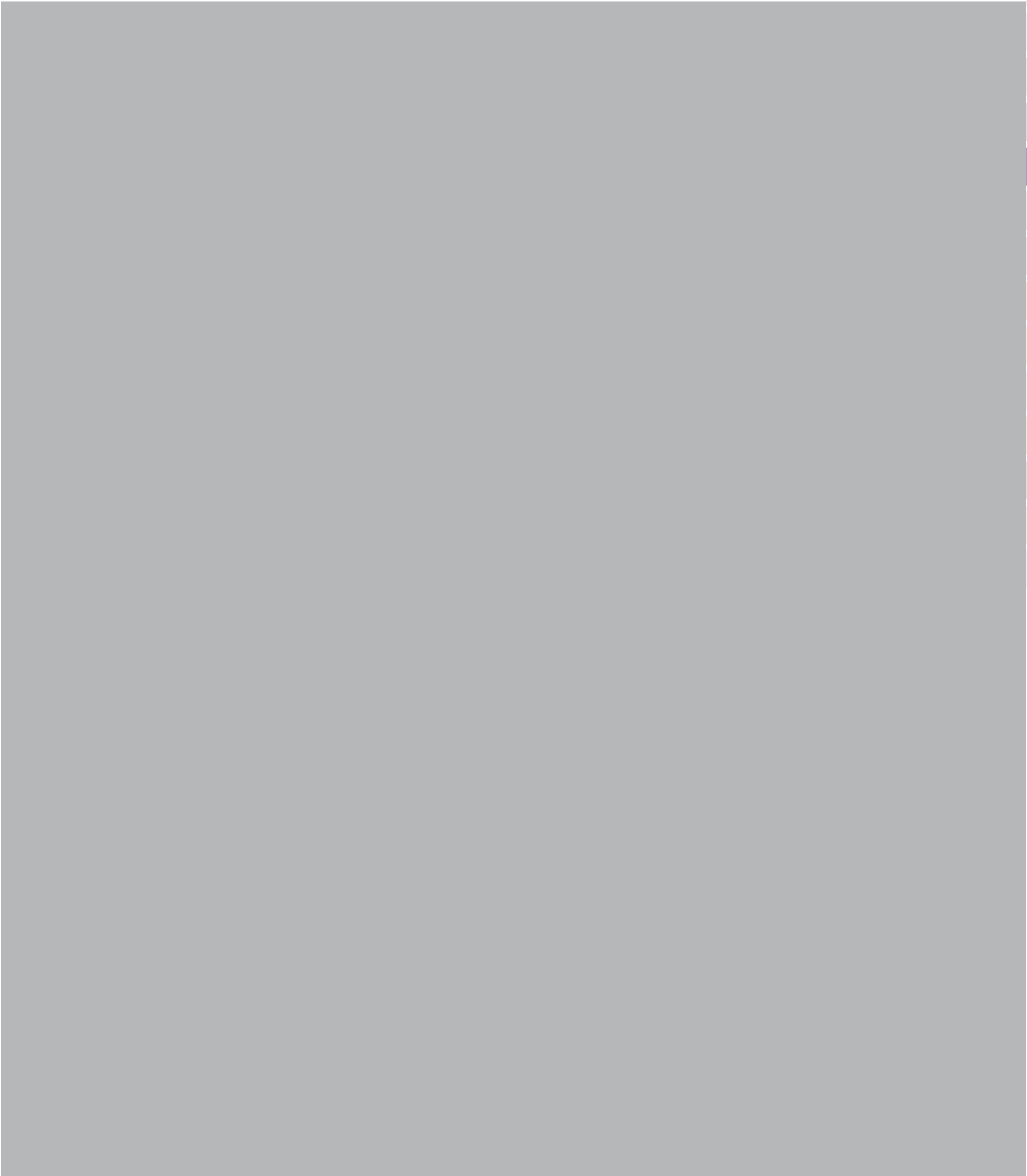


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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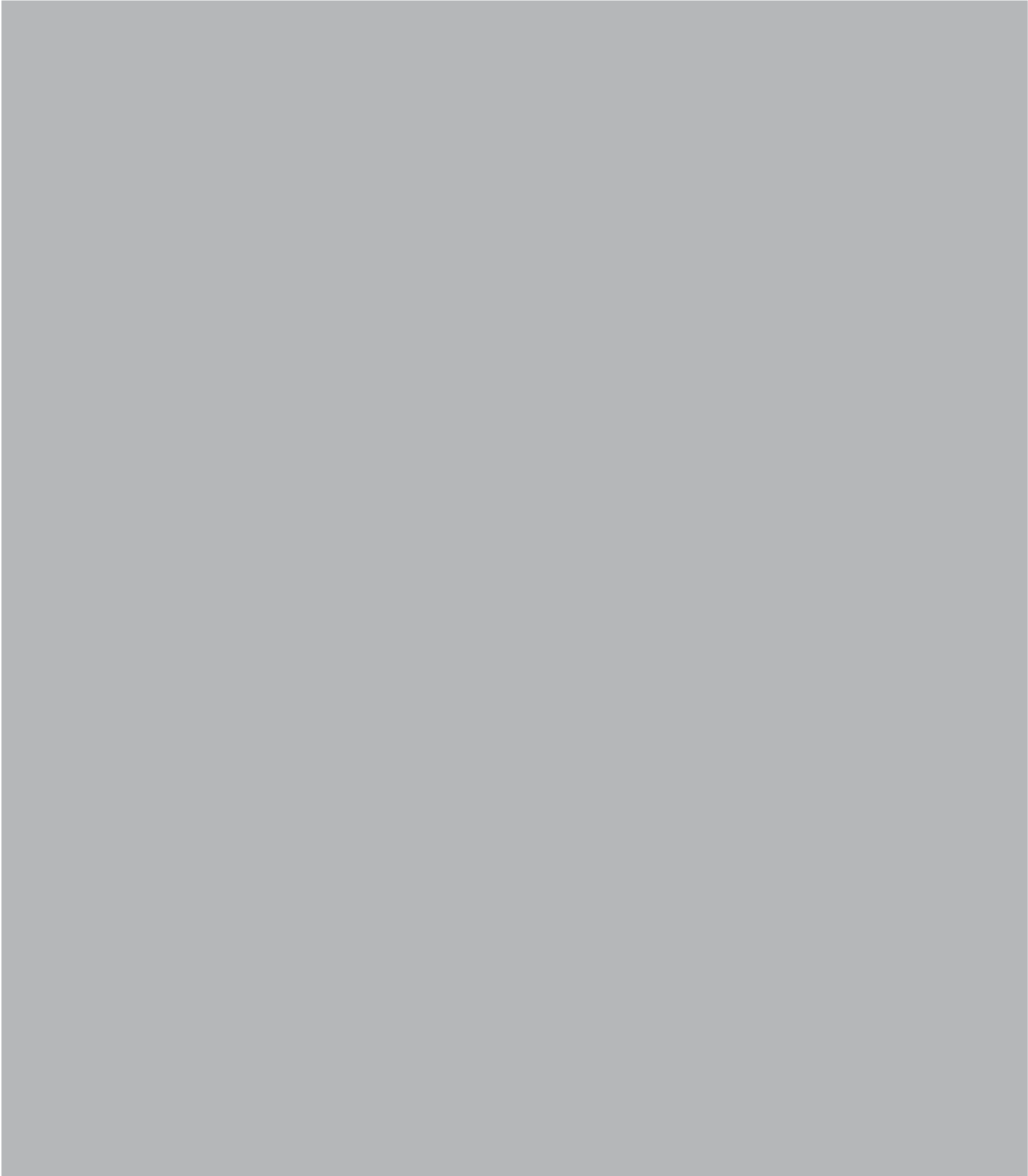
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

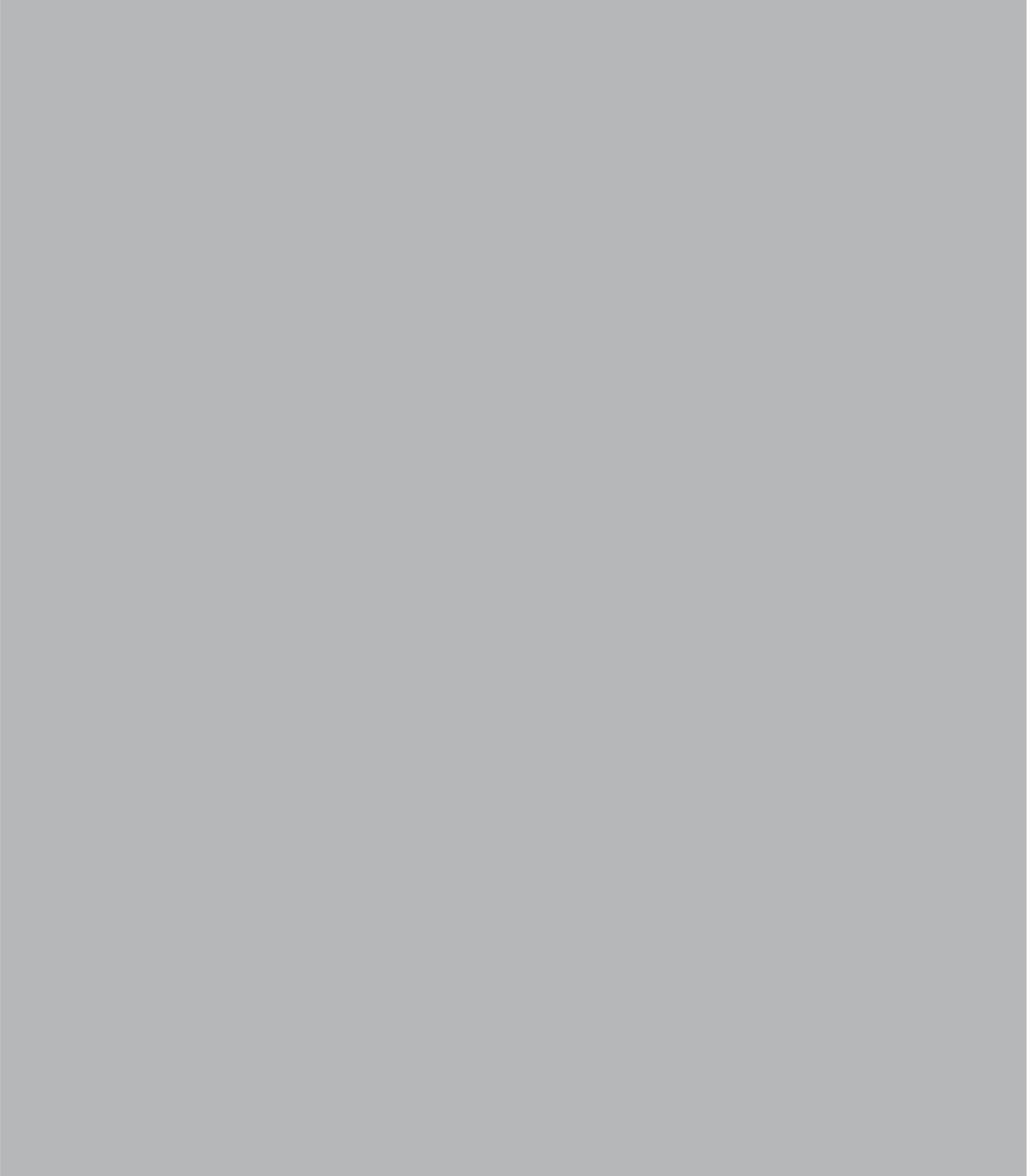


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

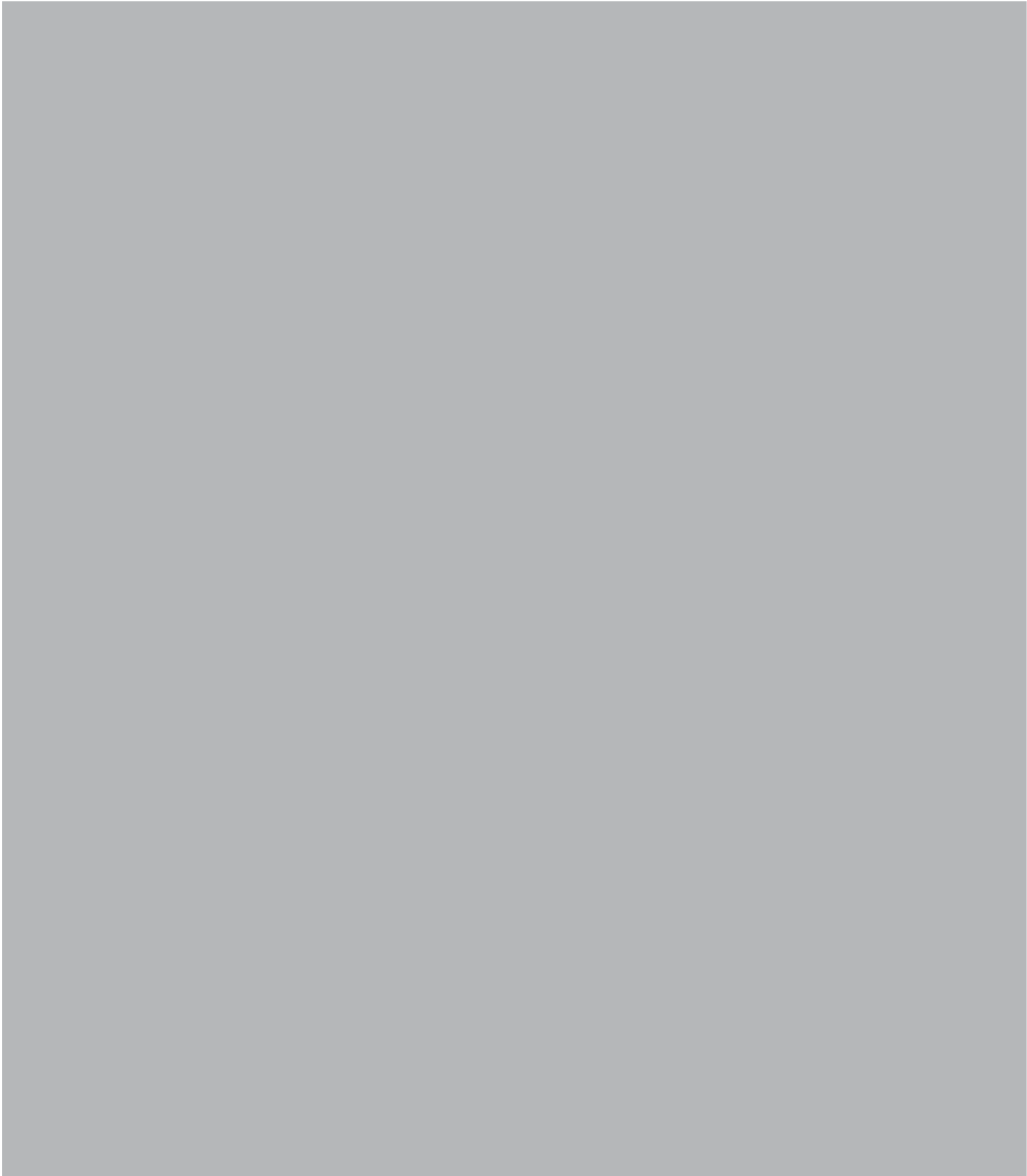


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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

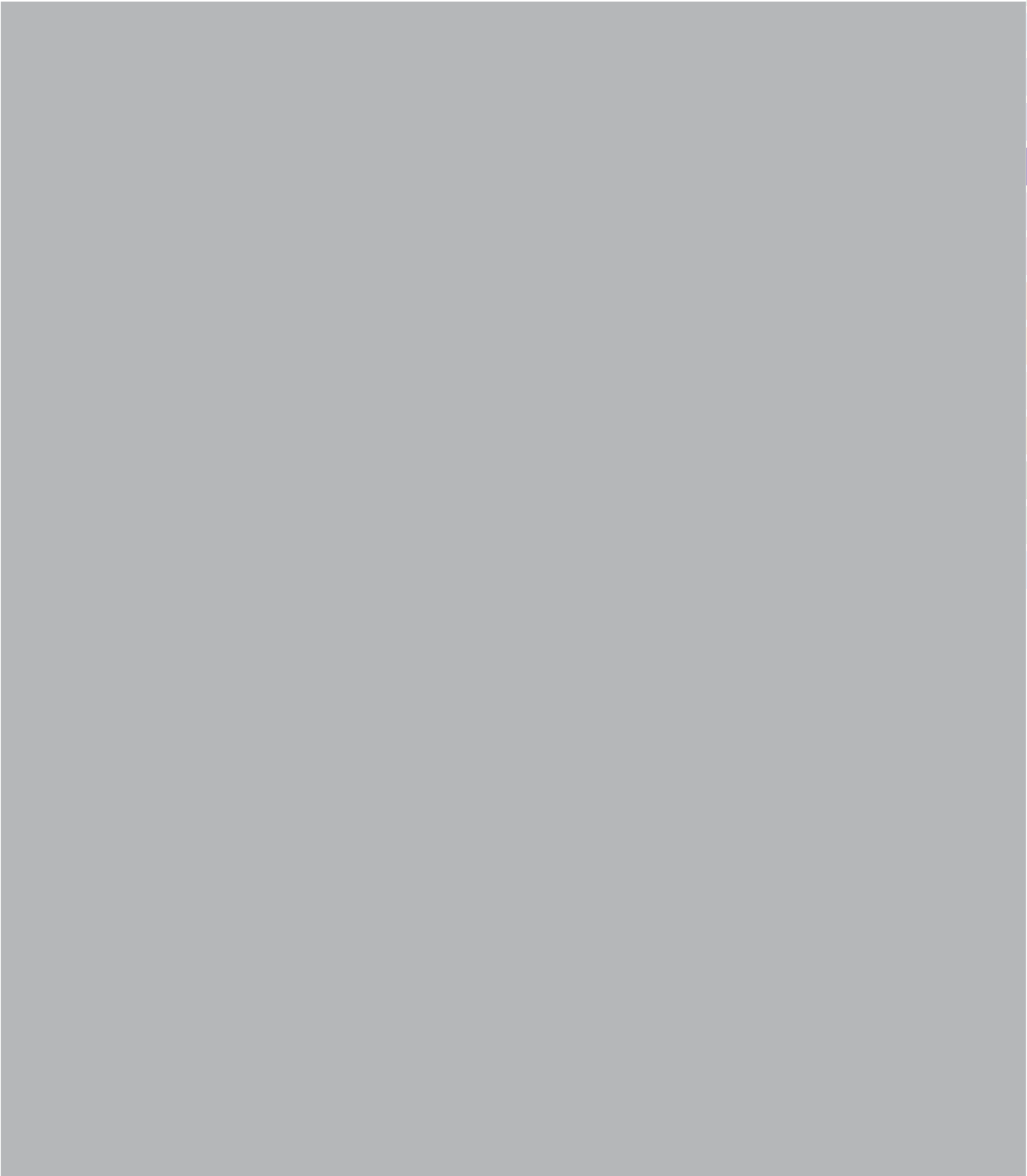


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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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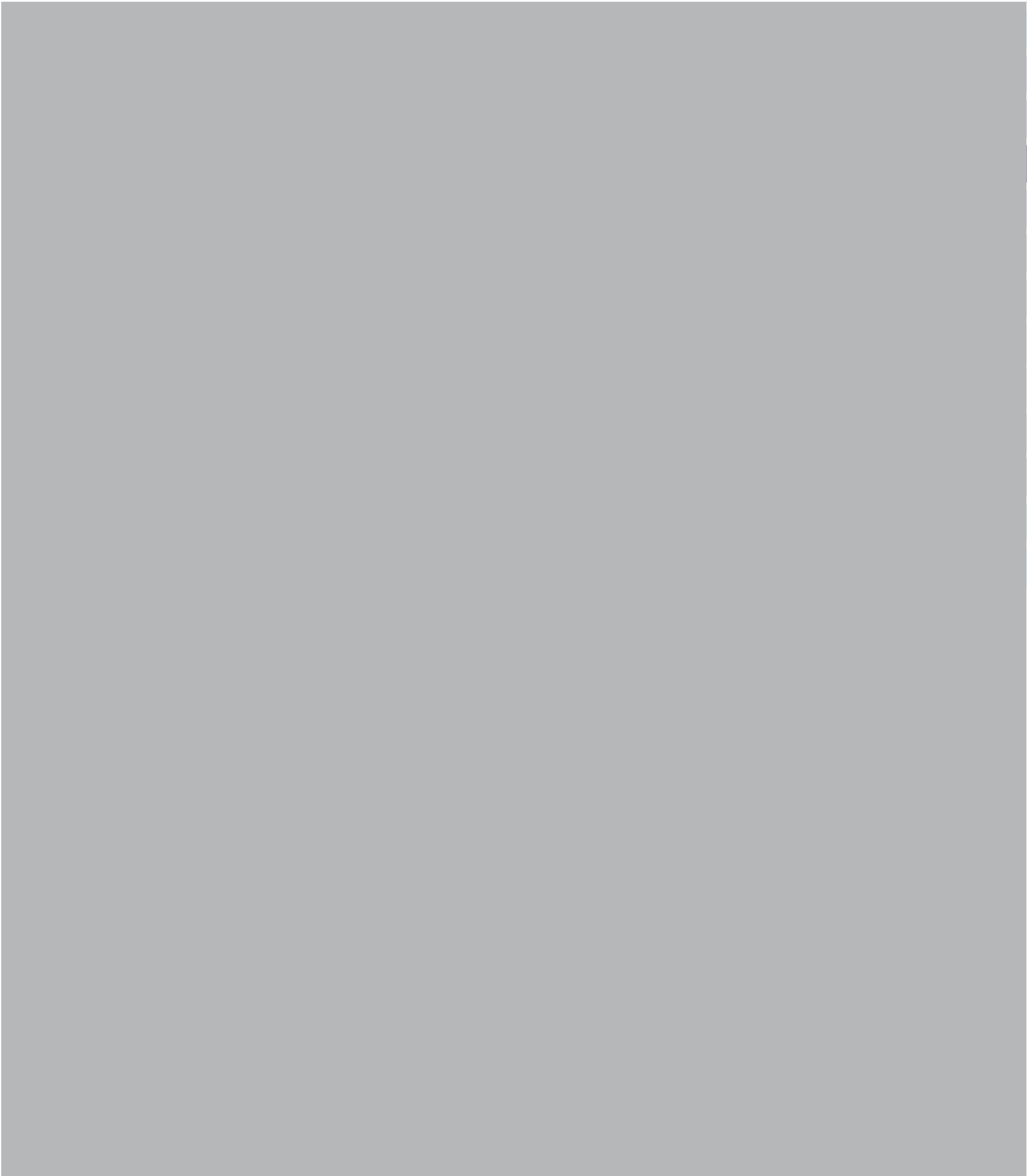
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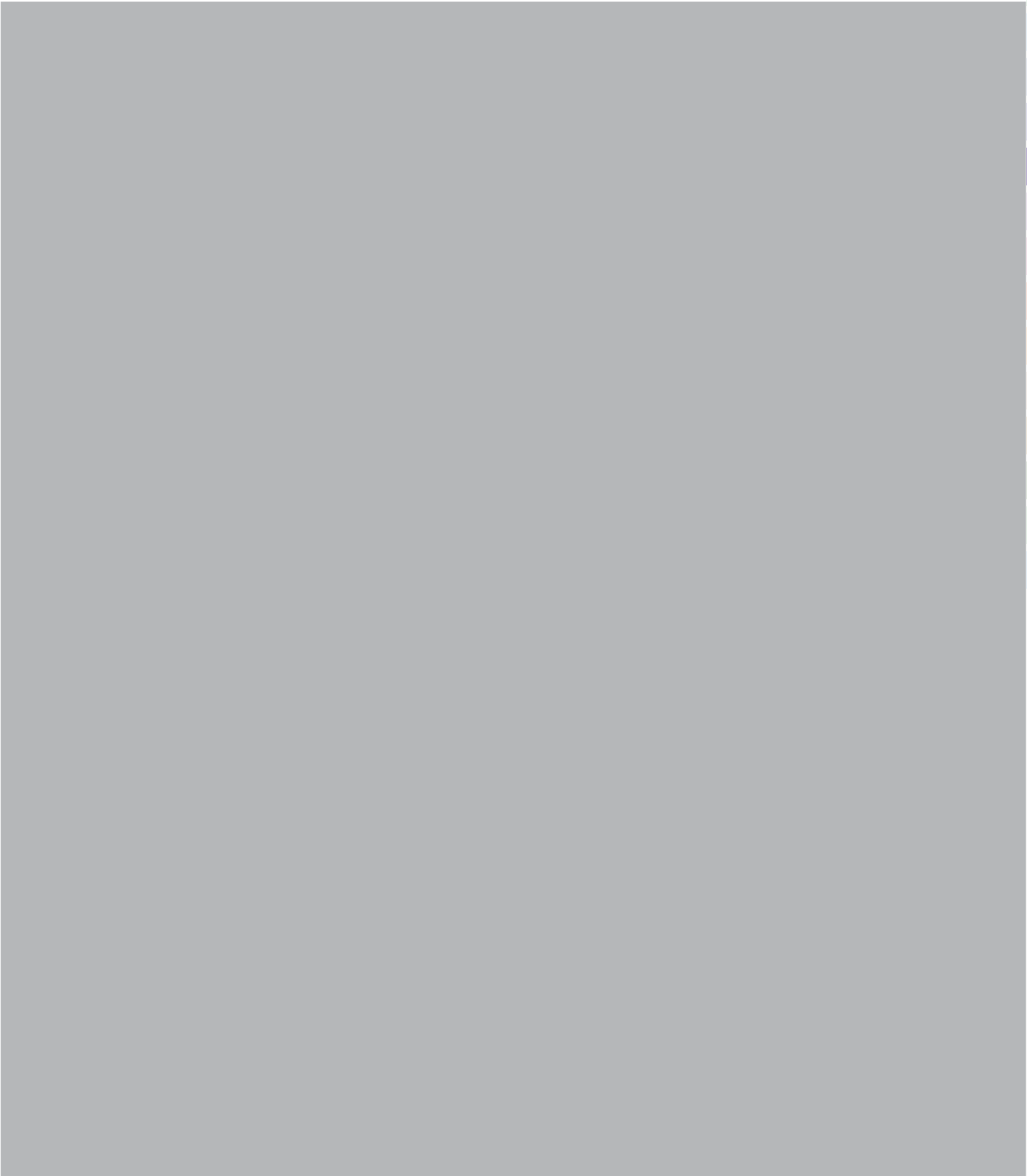
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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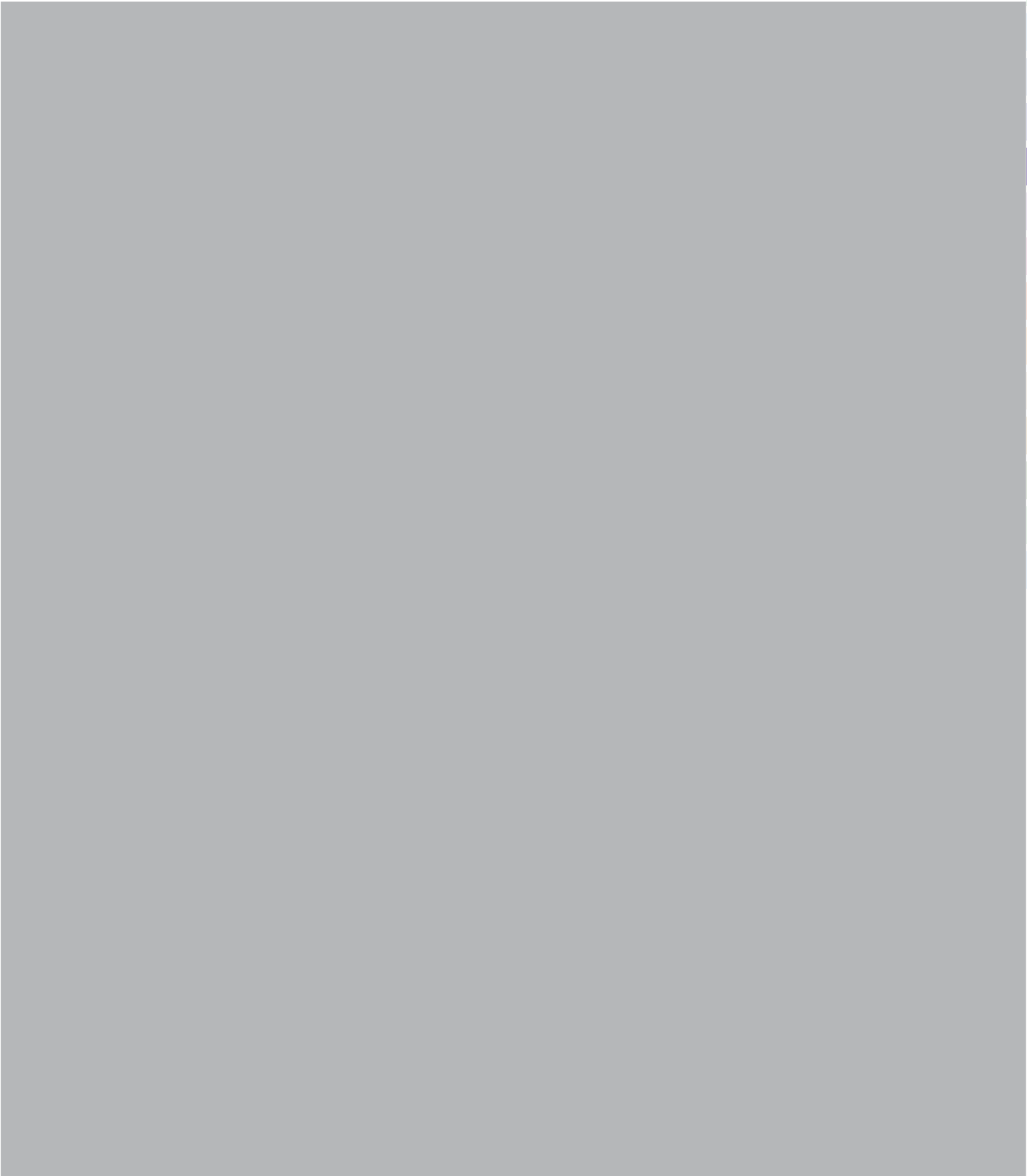
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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1



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TestAmerica Job ID: 480-57495-1

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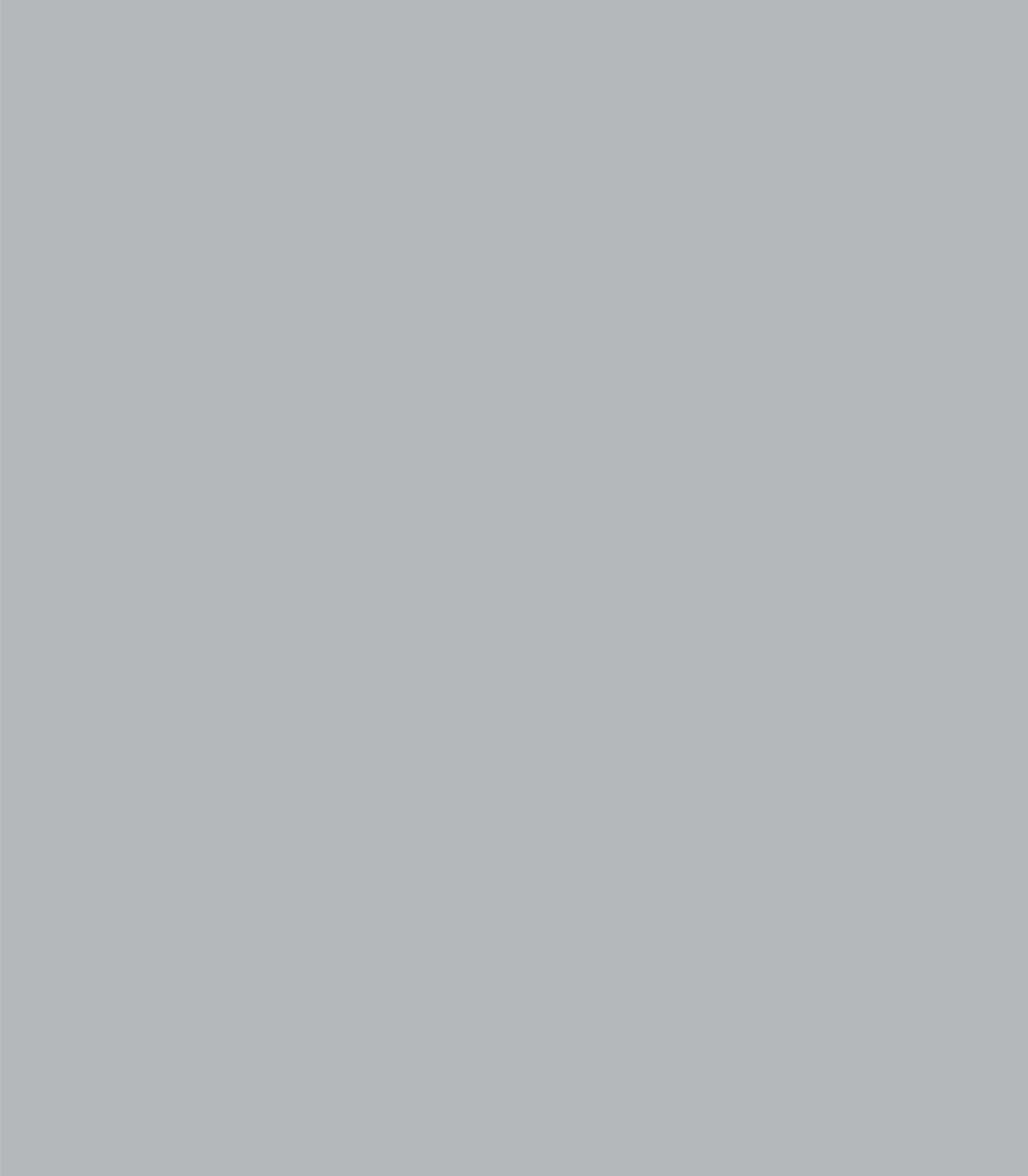
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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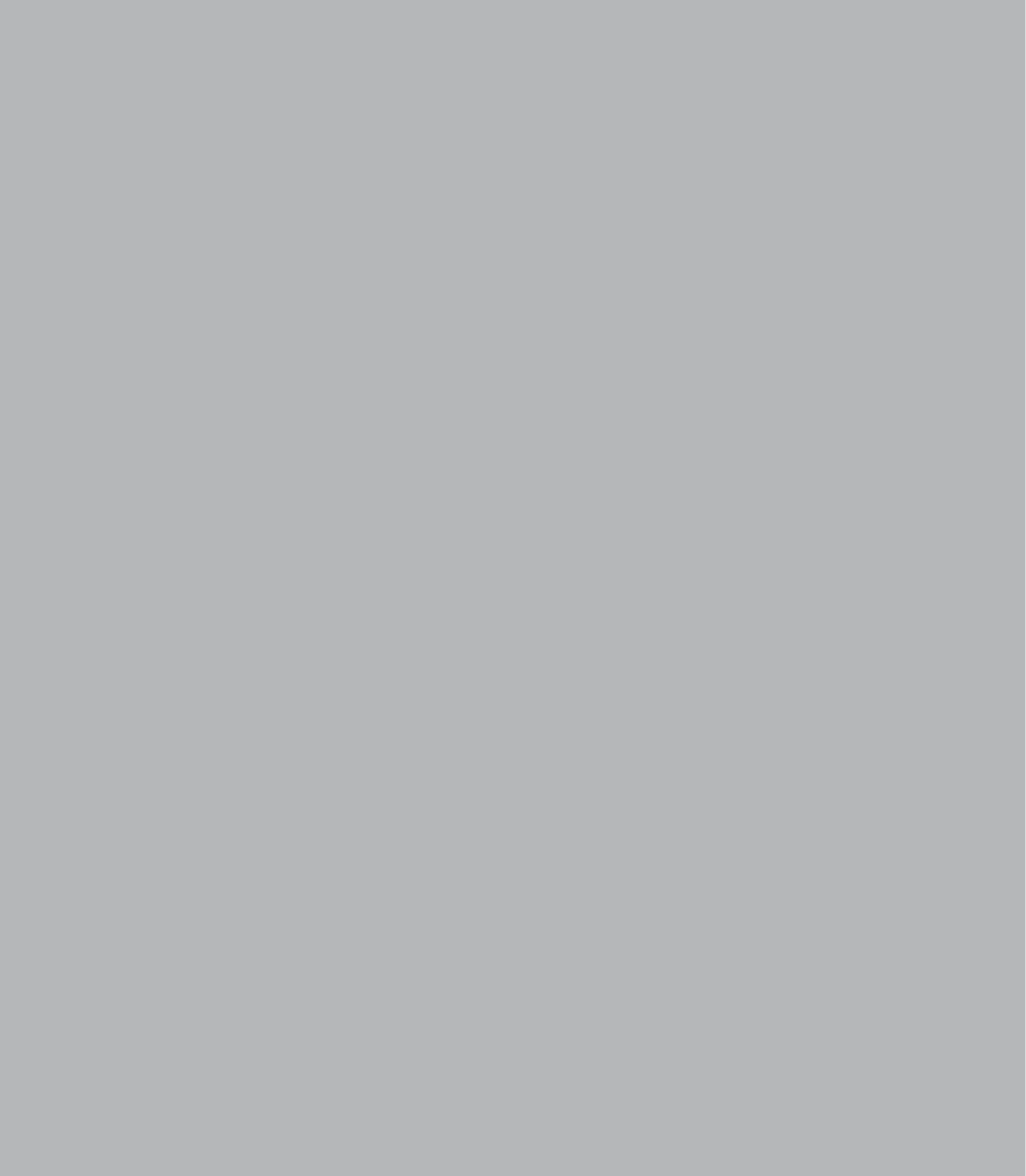
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# Client Sample Results

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

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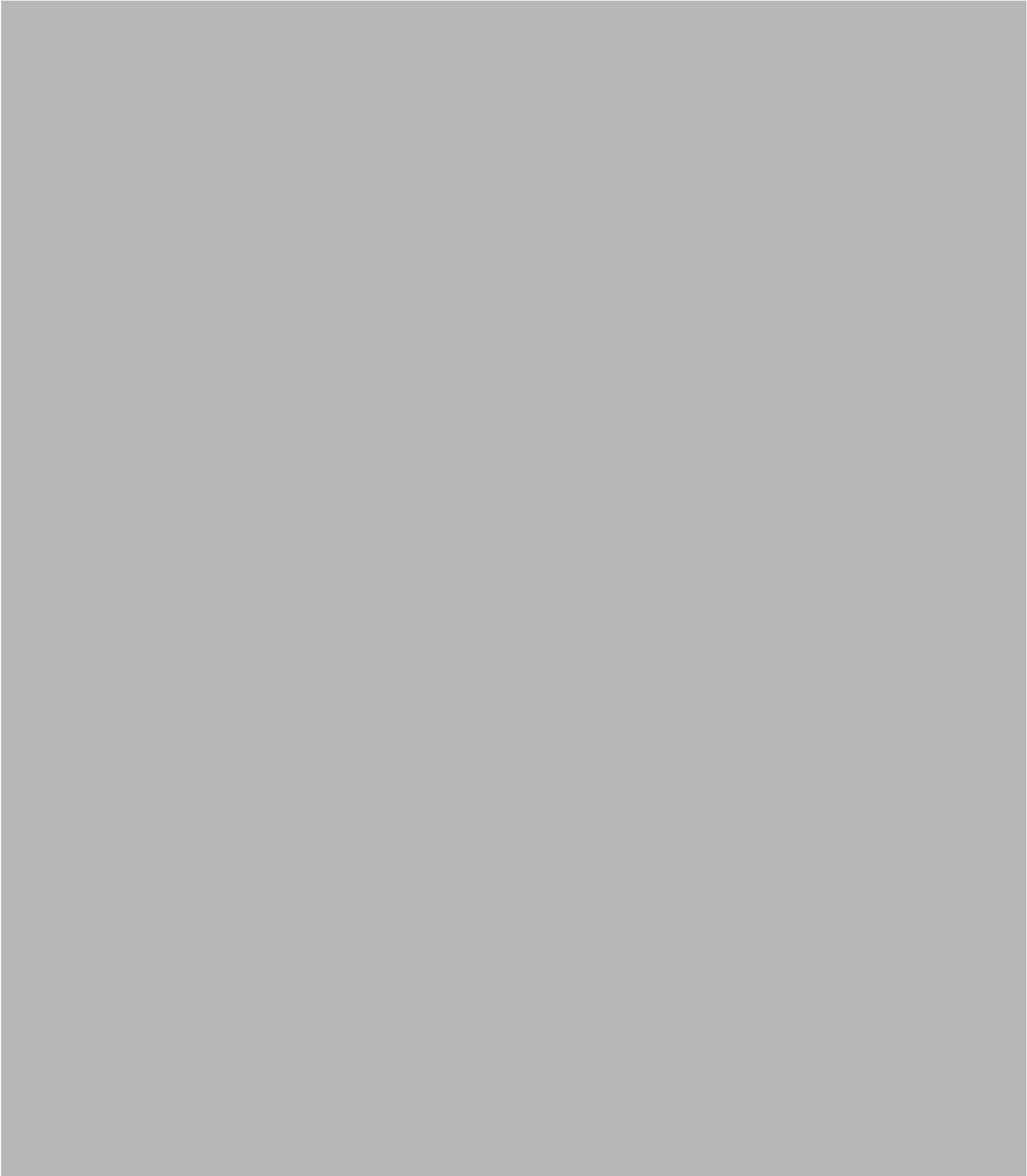


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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1



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TestAmerica Job ID: 480-57495-1

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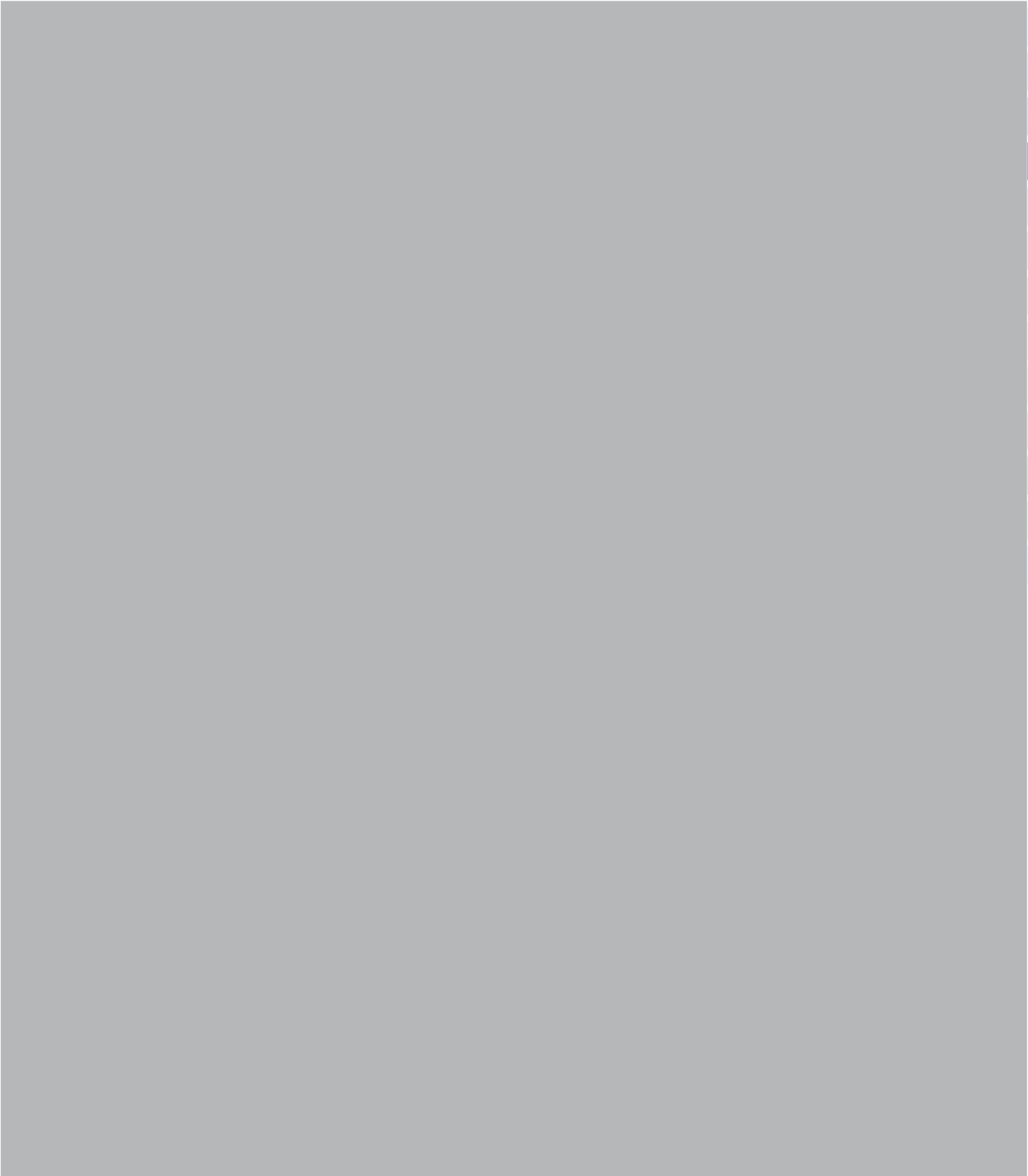
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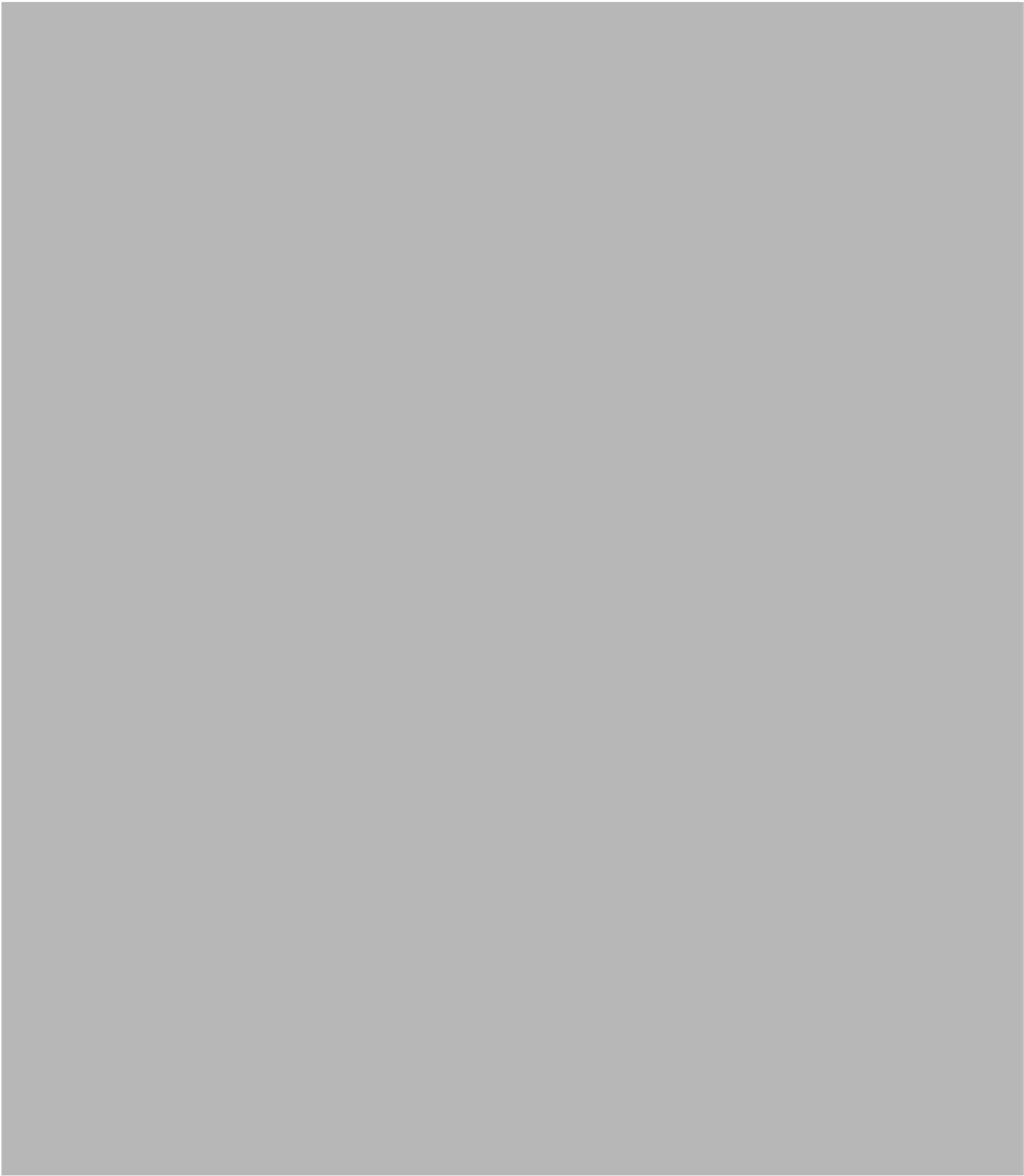
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



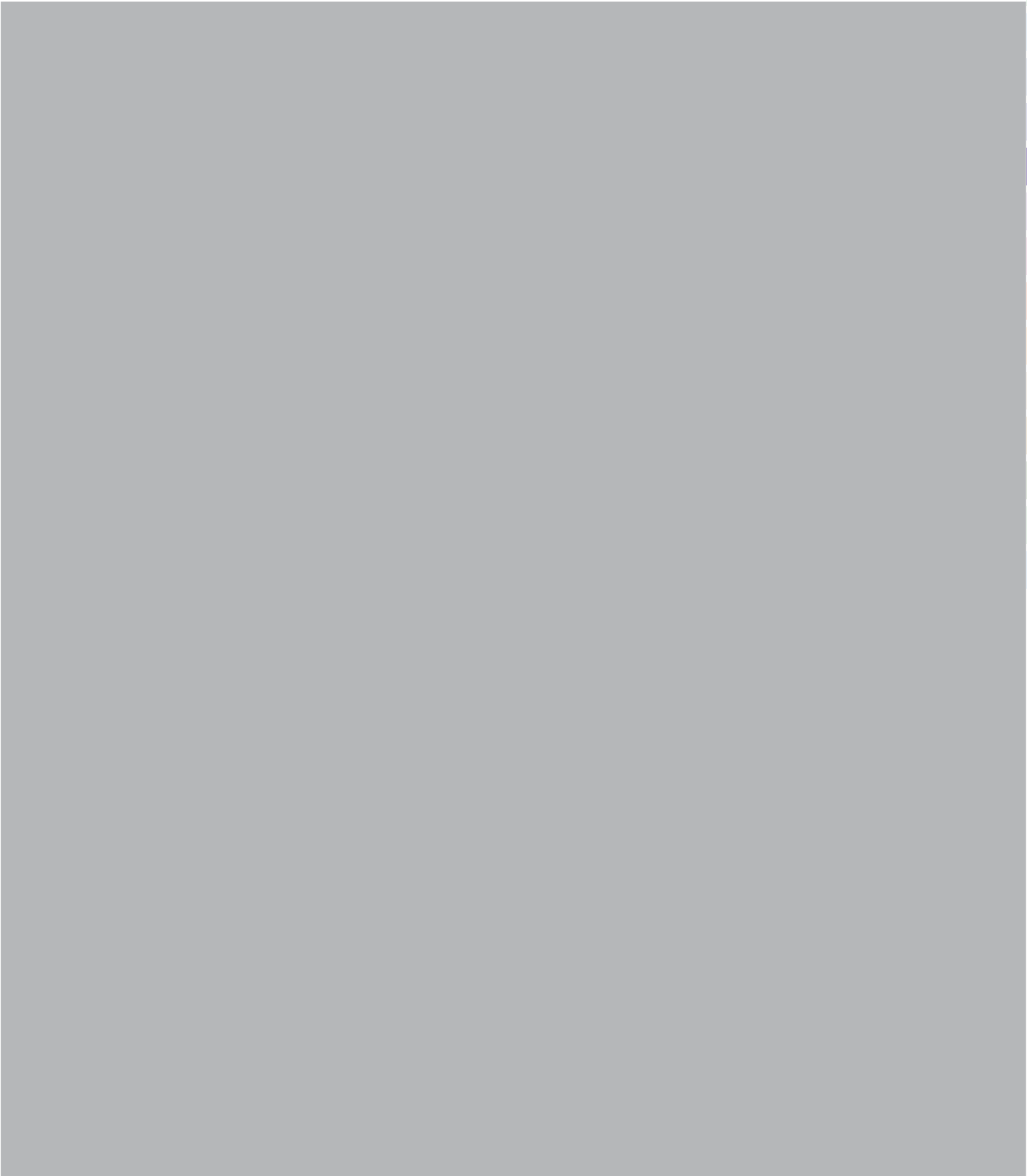
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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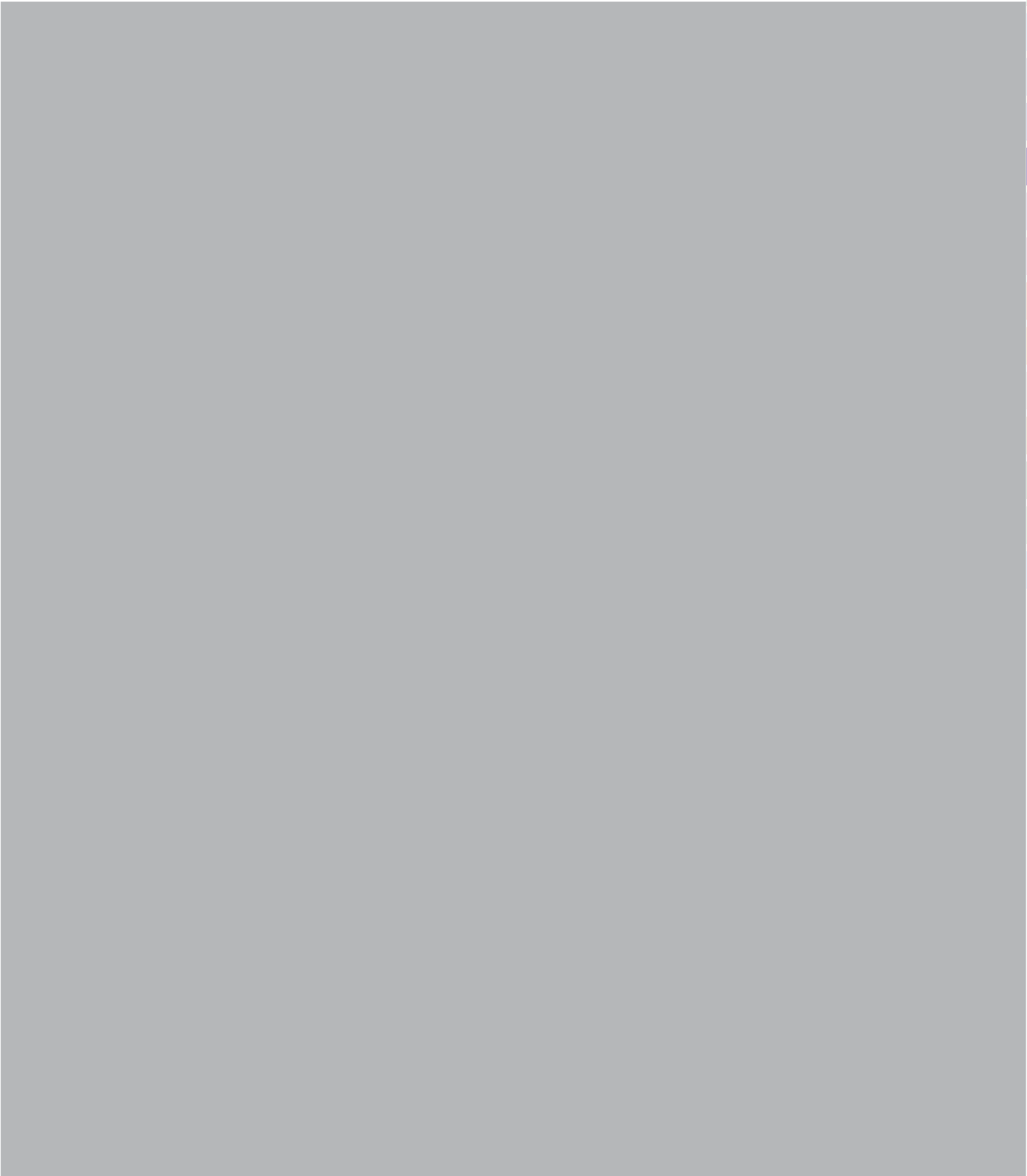
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

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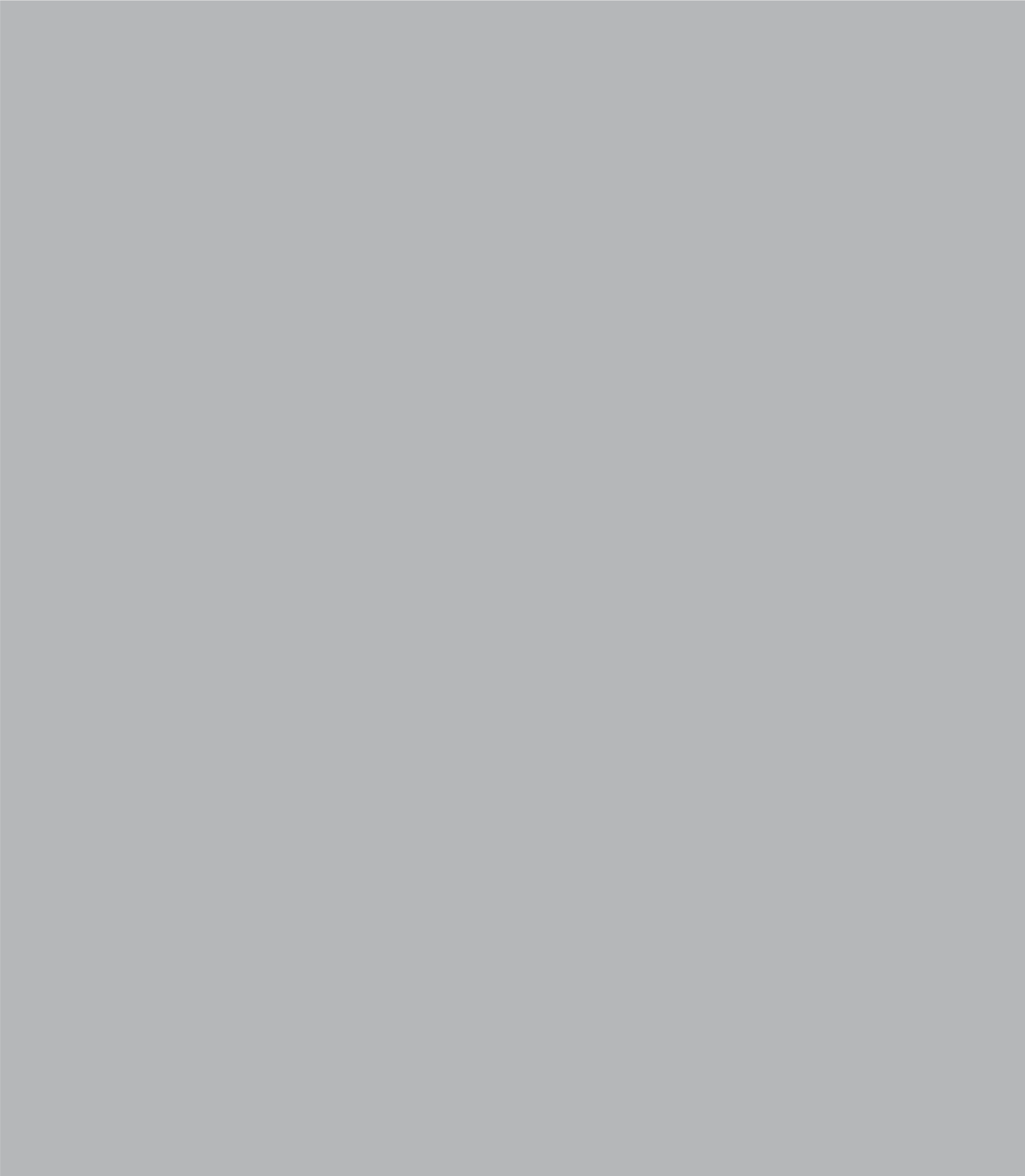
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Client Sample Results

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Project/Site: IDS Wayland

TestAmerica Job ID: 480-57495-1

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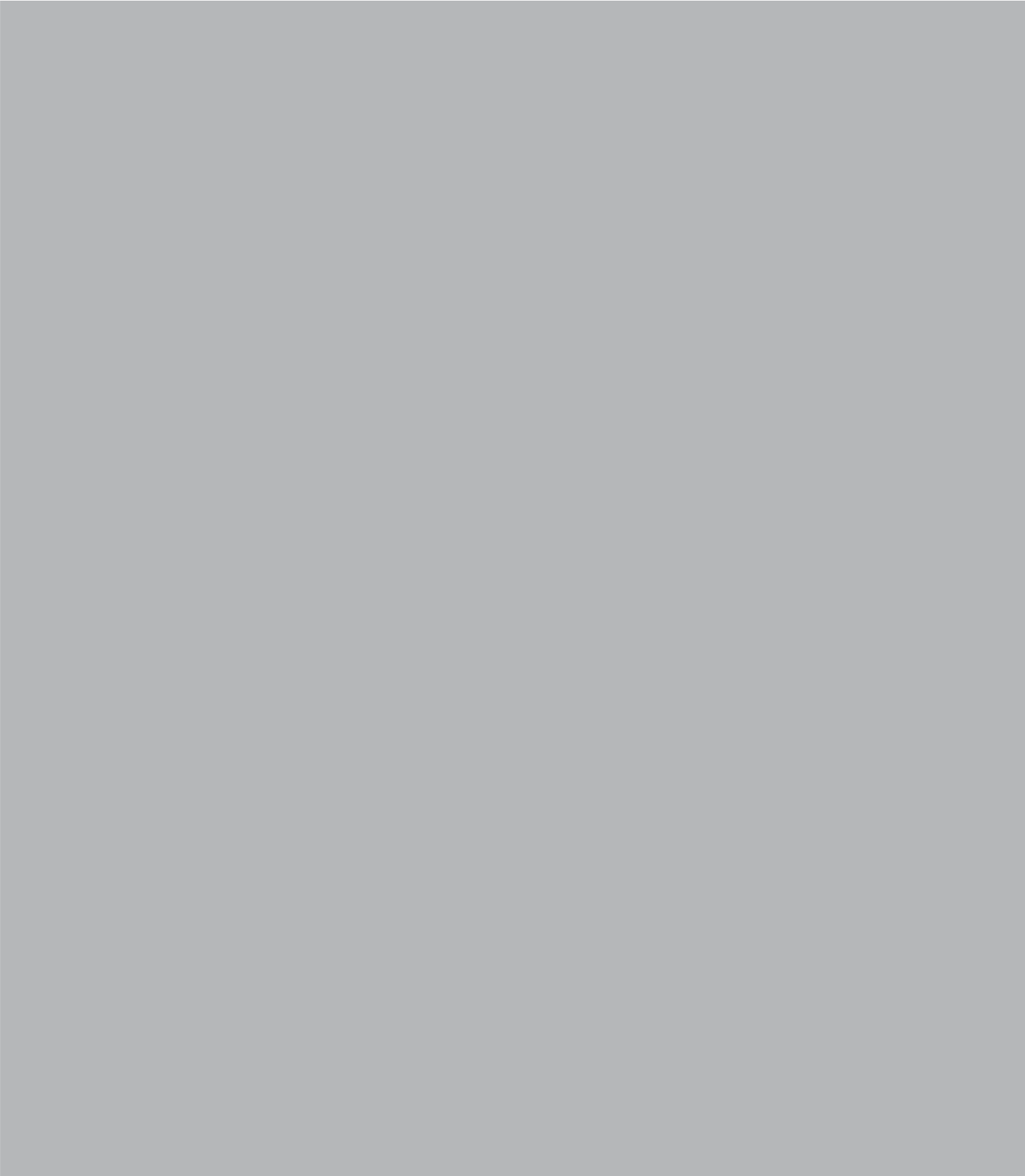
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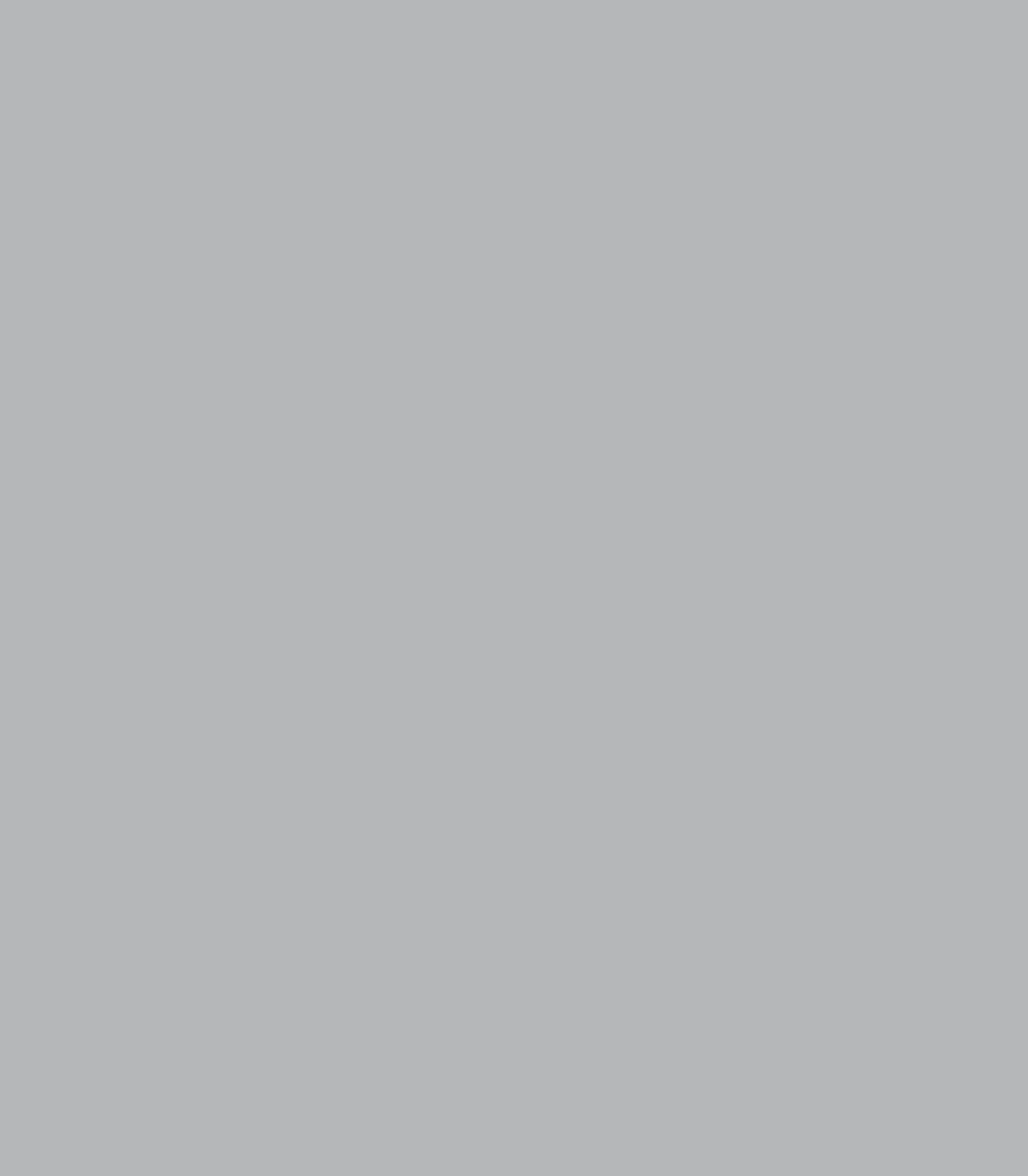
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# Client Sample Results

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

TestAmerica Job ID: 480-57495-1

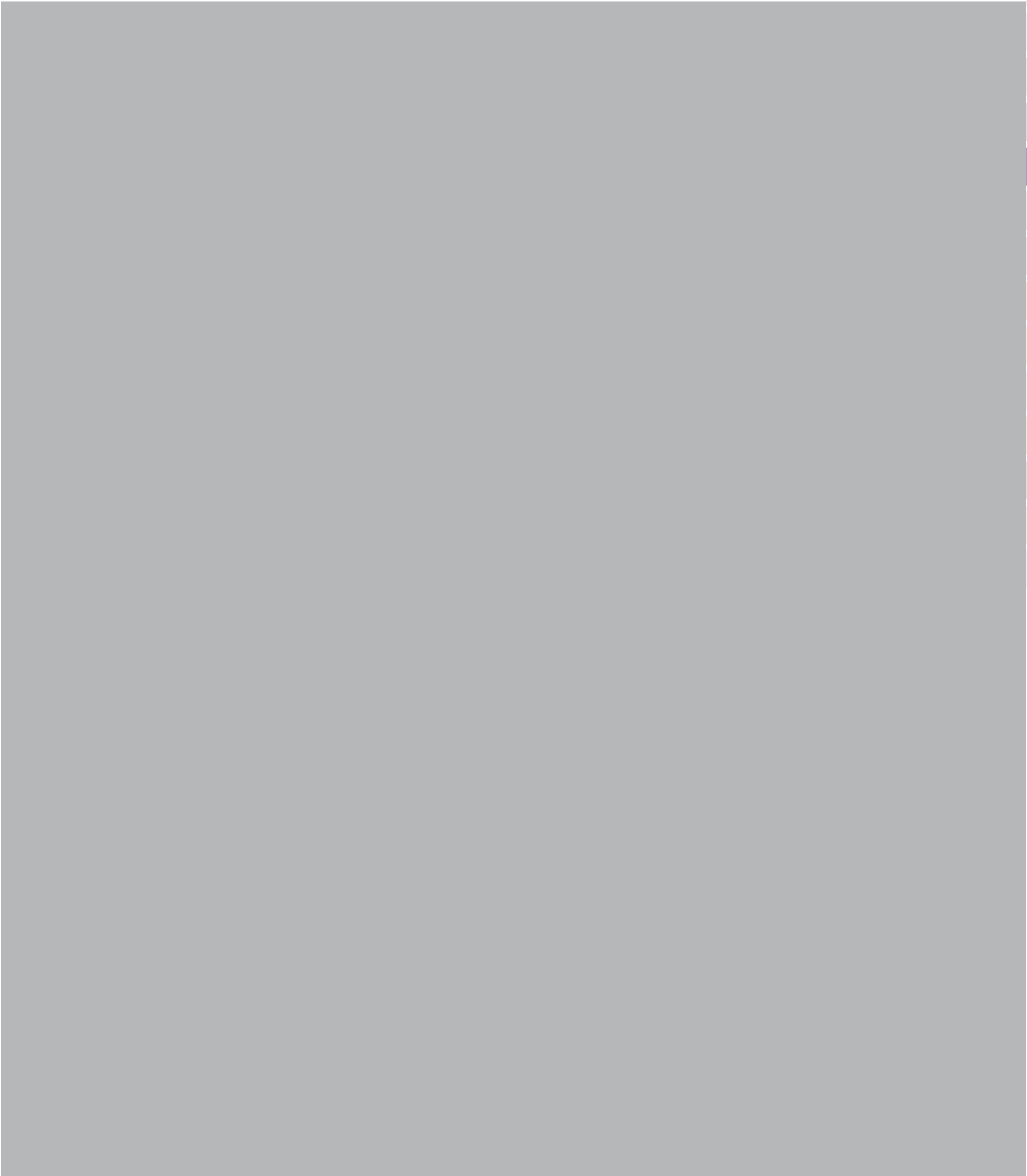


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Client: Innovative Engineering Solutions, Inc  
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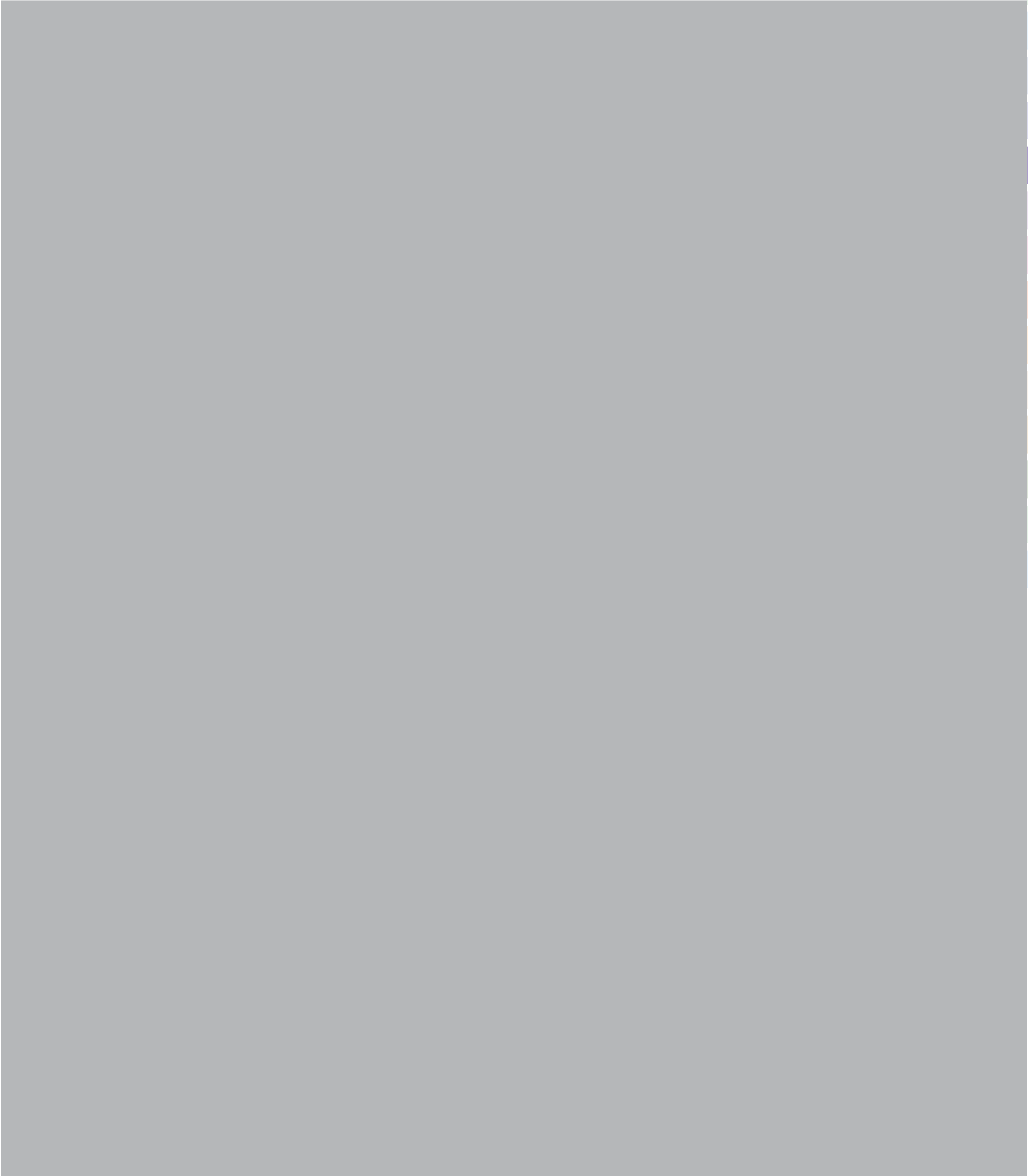


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TestAmerica Job ID: 480-57495-1



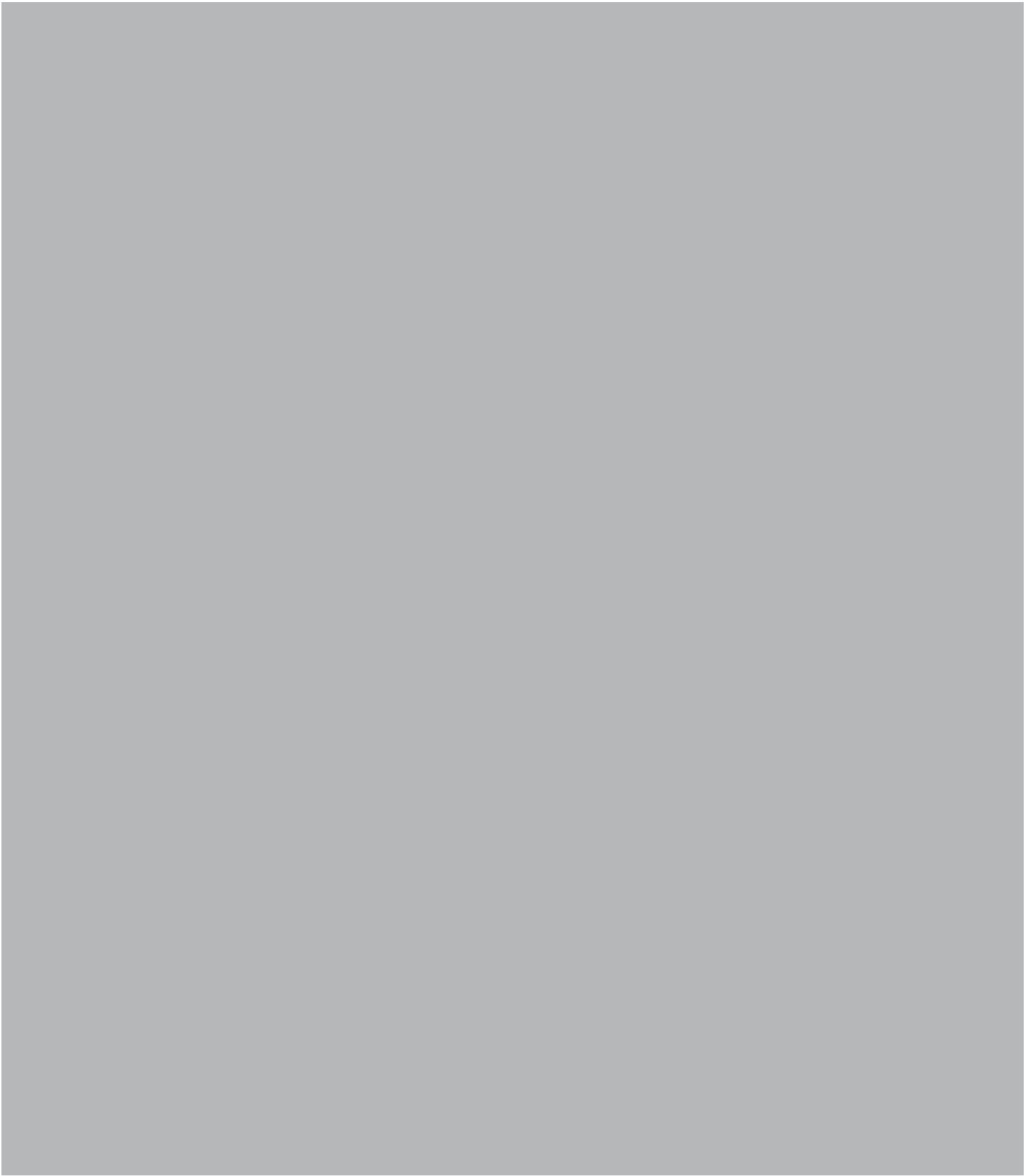
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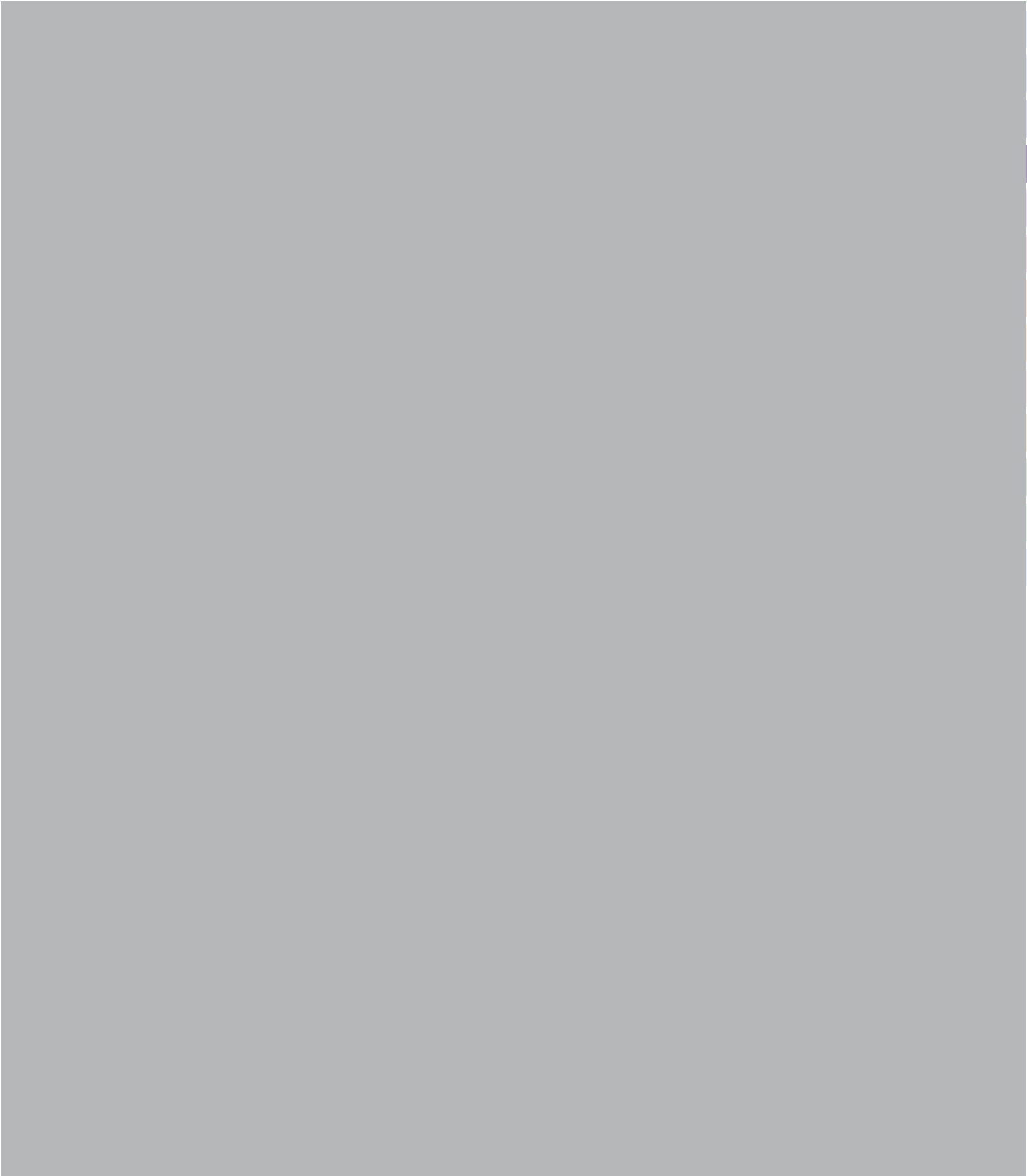


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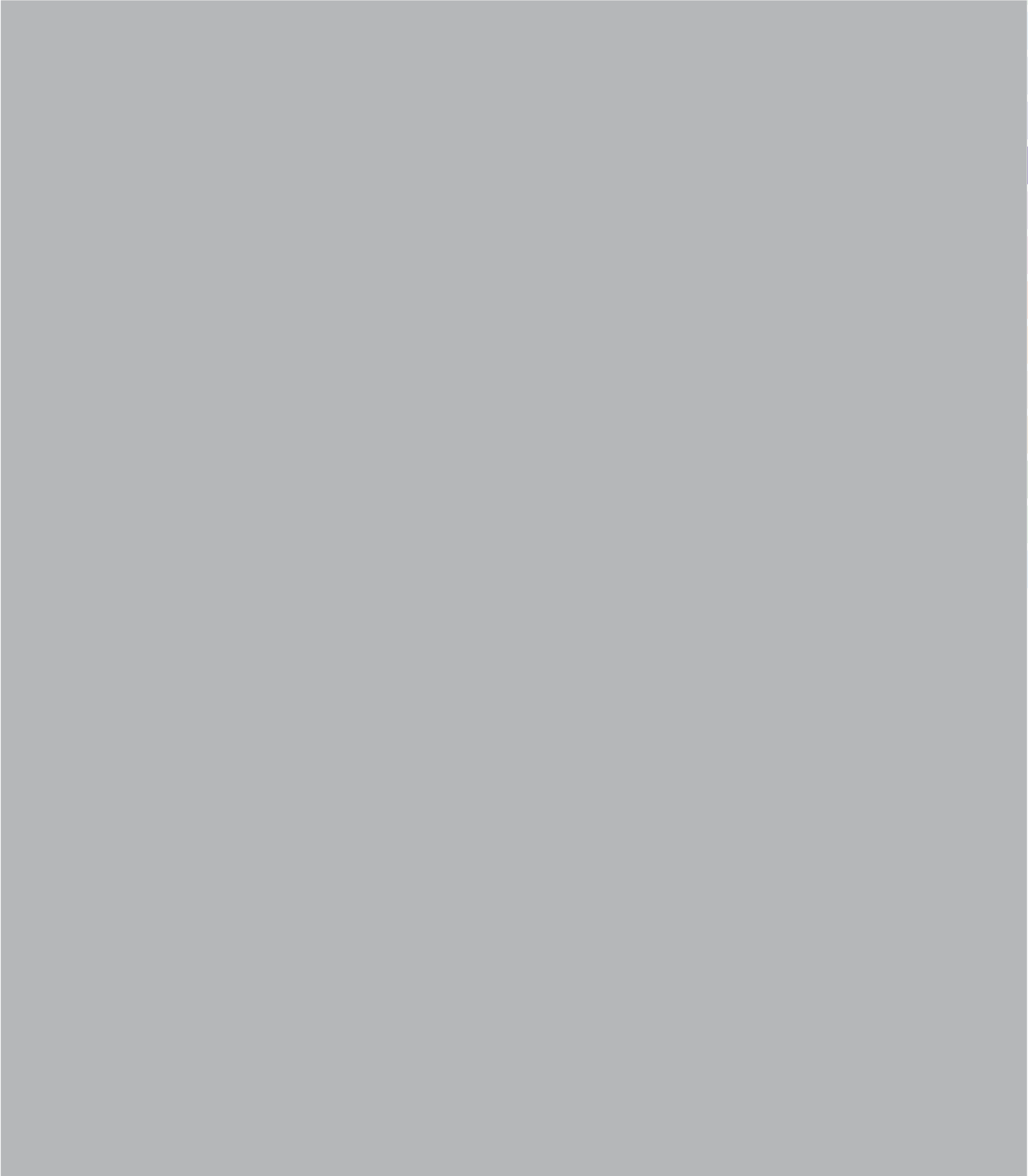


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Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1



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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1

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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1

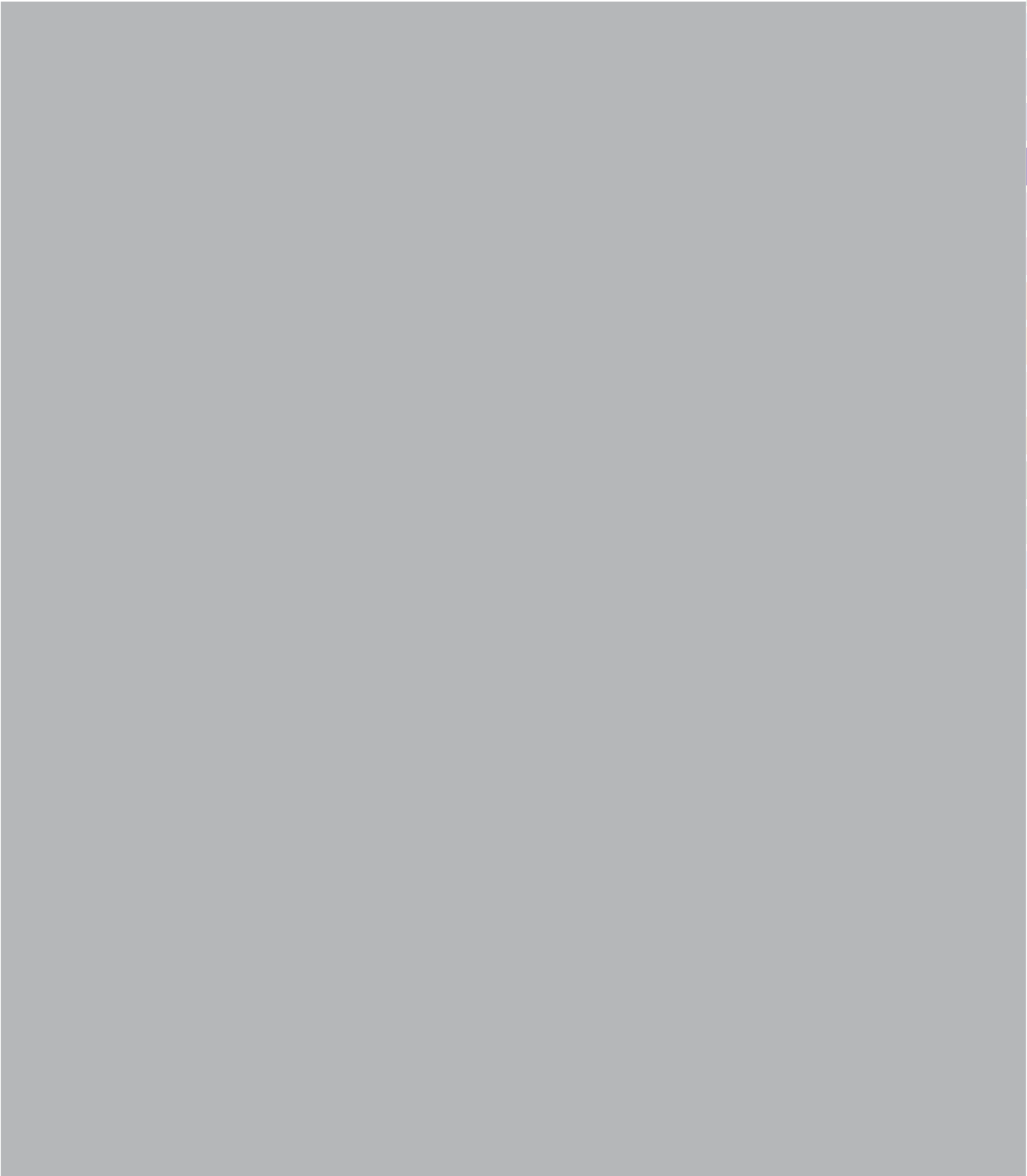


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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1



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# Client Sample Results

Client: Innovative Engineering Solutions, Inc  
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TestAmerica Job ID: 480-57495-1

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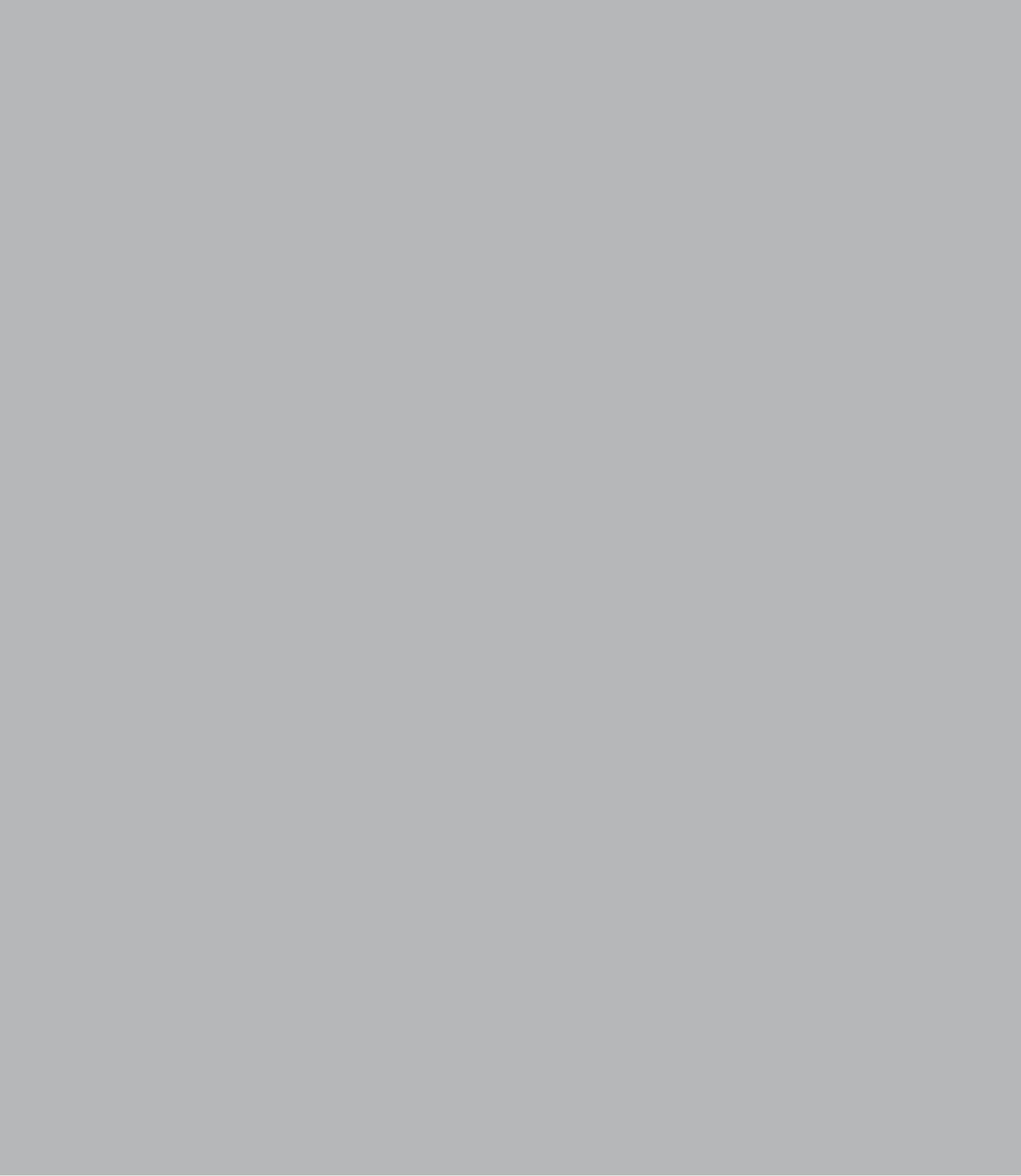
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# Client Sample Results

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

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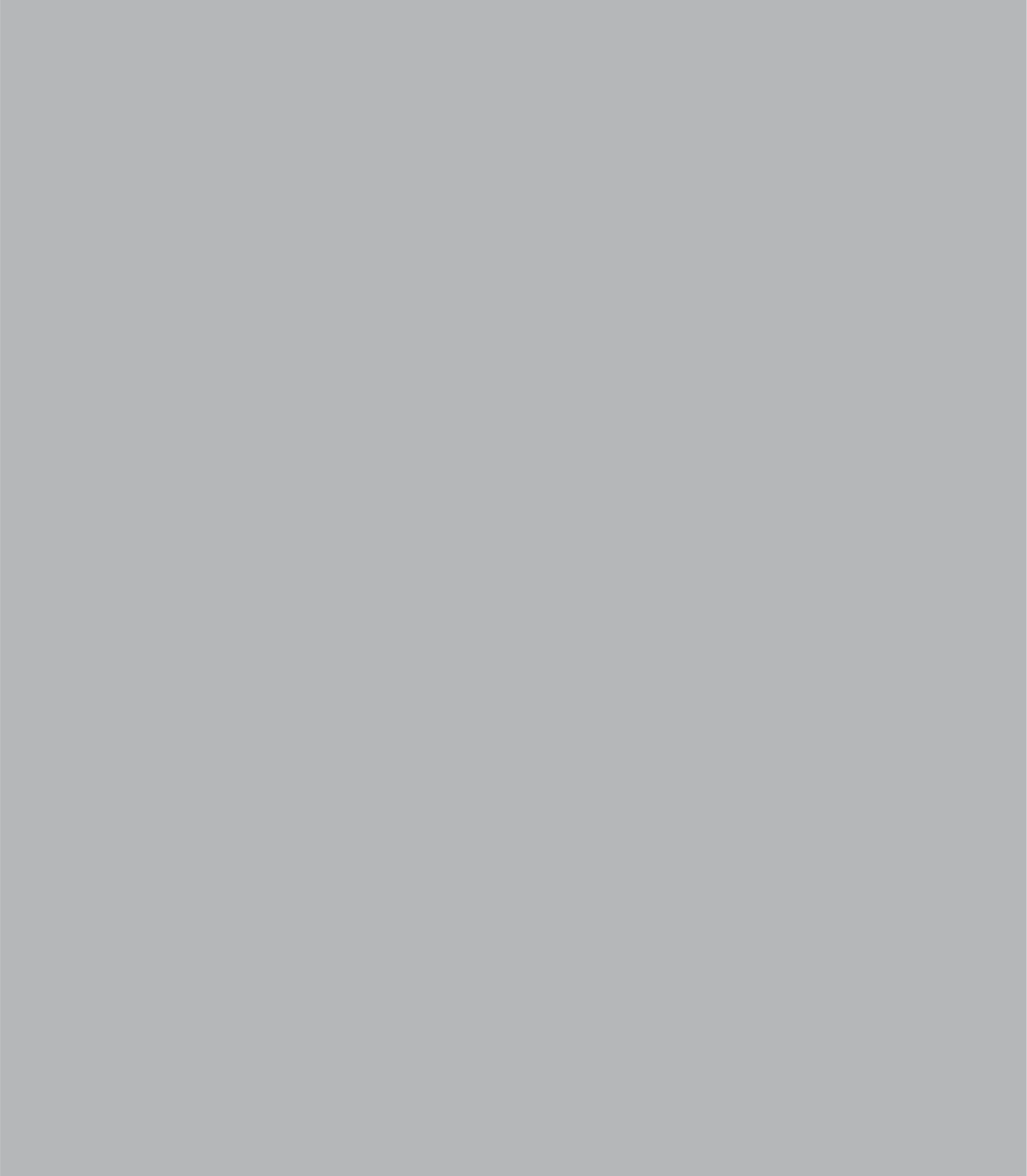




# Client Sample Results

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

TestAmerica Job ID: 480-57495-1



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# Surrogate Summary

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

TestAmerica Job ID: 480-57495-1

## Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BA-d9 (Sur) (50-150)	DBFM (50-150)
480-57495-3	MW-261S-20140408-01	144	85
480-57495-7	MW-263M-20140408-01	136	86
480-57495-9	MW-266Ma-20140405-01	120	92
480-57495-11	MW-267S-20140405-01	137	85
480-57495-12	MW-267M-20140405-01	118	86
480-57495-13	MW-268S-20140407	112	90
480-57495-14	MW-268M-20140407	80	83
480-57495-16	MW-269Ma-20140405	111	92
480-57495-18	MW-552-20140407-01	117	88
480-57495-36	DupX3-20140408-01	134	86
LCS 480-175364/4	Lab Control Sample	97	84
LCSD 480-175364/5	Lab Control Sample Dup	104	84
MB 480-175364/6	Method Blank	122	91

**Surrogate Legend**

TBA-d9 (Surr) = TBA-d9 (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	12DCE (70-130)	BFB (70-130)
480-57495-1	DEP-19M-20140405-01	98	103	98
480-57495-2	DEP-21-20140405-01	101	102	100
480-57495-3	MW-261S-20140408-01	101	101	97
480-57495-4	MW-263M-20140408-01	101	103	98
480-57495-5	MW-264M-20140408-01	98	103	96
480-57495-6	MW-265S-20140408-01	99	102	97
480-57495-7	MW-263M-20140408-01	100	97	99
480-57495-7 - DL	MW-263M-20140408-01	96	94	102
480-57495-8	MW-265D-20140408-01	95	97	98
480-57495-9	MW-266Ma-20140405-01	99	102	97
480-57495-10	MW-266Mb-20140405-01	98	103	95
480-57495-11	MW-267S-20140405-01	98	93	99
480-57495-12	MW-267M-20140405-01	95	94	98
480-57495-13	MW-268S-20140407	99	94	101
480-57495-14	MW-268M-20140407	98	94	99
480-57495-15	MW-268D-20140405	95	95	97
480-57495-16	MW-269Ma-20140405	96	96	99
480-57495-17	MW-551-20140408-01	96	96	100
480-57495-17 MS	MW-551-20140408-01	99	103	102
480-57495-17 MSD	MW-551-20140408-01	99	99	105
480-57495-18	MW-552-20140407-01	96	94	100
480-57495-19	MW-553-20140407-01	98	95	104
480-57495-20	MW-560-20140407-01	99	94	101
480-57495-20 - DL	MW-560-20140407-01	98	94	102
480-57495-21	MW-561-20140407-01	96	95	98

TestAmerica Buffalo

# Surrogate Summary

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

TestAmerica Job ID: 480-57495-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	12DCE (70-130)	BFB (70-130)
480-57495-22	MW-562-20140407-01	99	94	104
480-57495-22 - DL	MW-562-20140407-01	98	97	102
480-57495-23	MW-563-20140407-01	97	94	100
480-57495-24	REW-1-20140406-01	96	97	99
480-57495-25	REW-4-20140406-01	94	92	97
480-57495-26	REW-5-20140406-01	96	95	100
480-57495-27	REW-6-20140406-01	98	95	99
480-57495-28	REW-7-20140406-01	99	94	99
480-57495-29	REW-8-20140406-01	97	97	102
480-57495-30	REW-9-20140406-01	98	93	100
480-57495-31	REW-10-20140406-01	97	98	98
480-57495-32	REW-11-20140406-01	98	98	100
480-57495-33	REW-12-20140406-01	96	97	97
480-57495-33 MS	REW-12-20140406-01	100	103	101
480-57495-33 MSD	REW-12-20140406-01	97	95	102
480-57495-34	DupX1-20140405-01	98	95	99
480-57495-35	DupX2-20140406-01	101	93	100
480-57495-35 - DL	DupX2-20140406-01	97	95	99
480-57495-36	DupX3-20140408-01	96	95	104
480-57495-36 - DL	DupX3-20140408-01	99	106	96
480-57495-37	Trip Blanks	97	95	101
LCS 480-174684/6	Lab Control Sample	100	102	102
LCS 480-174949/5	Lab Control Sample	100	105	104
LCS 480-175074/5	Lab Control Sample	99	106	103
LCS 480-175163/5	Lab Control Sample	101	103	103
LCS 480-175485/6	Lab Control Sample	98	105	99
LCSD 480-174684/7	Lab Control Sample Dup	101	101	103
LCSD 480-174949/6	Lab Control Sample Dup	97	103	101
LCSD 480-175074/6	Lab Control Sample Dup	99	104	102
LCSD 480-175163/6	Lab Control Sample Dup	100	103	104
LCSD 480-175485/7	Lab Control Sample Dup	96	106	96
MB 480-174684/9	Method Blank	100	101	96
MB 480-174949/8	Method Blank	95	94	99
MB 480-175074/8	Method Blank	97	95	99
MB 480-175163/8	Method Blank	97	92	101
MB 480-175485/9	Method Blank	99	105	96

### Surrogate Legend

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

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

## Method: 8260B SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-175364/6

Matrix: Water

Analysis Batch: 175364

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		1.6		ug/L			04/11/14 23:06	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
TBA-d9 (Surr)	122		50 - 150					04/11/14 23:06	1
Dibromofluoromethane (Surr)	91		50 - 150					04/11/14 23:06	1

Lab Sample ID: LCS 480-175364/4

Matrix: Water

Analysis Batch: 175364

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	16.0	16.0		ug/L		100	50 - 150
Surrogate	%Recovery	LCS Qualifier	Limits				
TBA-d9 (Surr)	97		50 - 150				
Dibromofluoromethane (Surr)	84		50 - 150				

Lab Sample ID: LCSD 480-175364/5

Matrix: Water

Analysis Batch: 175364

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
1,4-Dioxane	16.0	17.0		ug/L		106	50 - 150	6	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
TBA-d9 (Surr)	104		50 - 150						
Dibromofluoromethane (Surr)	84		50 - 150						

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

Lab Sample ID: MB 480-174684/9

Matrix: Water

Analysis Batch: 174684

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			04/09/14 12:40	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/09/14 12:40	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/09/14 12:40	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/09/14 12:40	1
1,1-Dichloroethane	ND		1.0		ug/L			04/09/14 12:40	1
1,1-Dichloroethene	ND		1.0		ug/L			04/09/14 12:40	1
1,1-Dichloropropene	ND		1.0		ug/L			04/09/14 12:40	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/09/14 12:40	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/09/14 12:40	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: MB 480-174684/9**

**Matrix: Water**

**Analysis Batch: 174684**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichlorobenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,2-Dichloroethane	ND		1.0		ug/L			04/09/14 12:40	1
1,2-Dichloropropane	ND		1.0		ug/L			04/09/14 12:40	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,3-Dichloropropane	ND		1.0		ug/L			04/09/14 12:40	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/09/14 12:40	1
1,4-Dioxane	ND		50		ug/L			04/09/14 12:40	1
2,2-Dichloropropane	ND		1.0		ug/L			04/09/14 12:40	1
2-Butanone (MEK)	ND		10		ug/L			04/09/14 12:40	1
2-Chlorotoluene	ND		1.0		ug/L			04/09/14 12:40	1
2-Hexanone	ND		10		ug/L			04/09/14 12:40	1
4-Chlorotoluene	ND		1.0		ug/L			04/09/14 12:40	1
4-Isopropyltoluene	ND		1.0		ug/L			04/09/14 12:40	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/09/14 12:40	1
Acetone	ND		50		ug/L			04/09/14 12:40	1
Benzene	ND		1.0		ug/L			04/09/14 12:40	1
Bromobenzene	ND		1.0		ug/L			04/09/14 12:40	1
Bromoform	ND		1.0		ug/L			04/09/14 12:40	1
Bromomethane	ND		2.0		ug/L			04/09/14 12:40	1
Carbon disulfide	ND		10		ug/L			04/09/14 12:40	1
Carbon tetrachloride	ND		1.0		ug/L			04/09/14 12:40	1
Chlorobenzene	ND		1.0		ug/L			04/09/14 12:40	1
Chlorobromomethane	ND		1.0		ug/L			04/09/14 12:40	1
Chlorodibromomethane	ND		0.50		ug/L			04/09/14 12:40	1
Chloroethane	ND		2.0		ug/L			04/09/14 12:40	1
Chloroform	ND		1.0		ug/L			04/09/14 12:40	1
Chloromethane	ND		2.0		ug/L			04/09/14 12:40	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/09/14 12:40	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/09/14 12:40	1
Dichlorobromomethane	ND		0.50		ug/L			04/09/14 12:40	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/09/14 12:40	1
Ethyl ether	ND		1.0		ug/L			04/09/14 12:40	1
Ethylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
Ethylene Dibromide	ND		1.0		ug/L			04/09/14 12:40	1
Hexachlorobutadiene	ND		0.40		ug/L			04/09/14 12:40	1
Isopropyl ether	ND		10		ug/L			04/09/14 12:40	1
Isopropylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/09/14 12:40	1
Methylene Chloride	ND		1.0		ug/L			04/09/14 12:40	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/09/14 12:40	1
Naphthalene	ND		5.0		ug/L			04/09/14 12:40	1
n-Butylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
N-Propylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
o-Xylene	ND		1.0		ug/L			04/09/14 12:40	1
sec-Butylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
Styrene	ND		1.0		ug/L			04/09/14 12:40	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/09/14 12:40	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: MB 480-174684/9

Matrix: Water

Analysis Batch: 174684

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-butyl ethyl ether	ND		5.0		ug/L			04/09/14 12:40	1
tert-Butylbenzene	ND		1.0		ug/L			04/09/14 12:40	1
Tetrachloroethene	ND		1.0		ug/L			04/09/14 12:40	1
Tetrahydrofuran	ND		10		ug/L			04/09/14 12:40	1
Toluene	ND		1.0		ug/L			04/09/14 12:40	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/09/14 12:40	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/09/14 12:40	1
Trichloroethene	ND		1.0		ug/L			04/09/14 12:40	1
Trichlorofluoromethane	ND		1.0		ug/L			04/09/14 12:40	1
Vinyl chloride	ND		1.0		ug/L			04/09/14 12:40	1
Dibromomethane	ND		1.0		ug/L			04/09/14 12:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		04/09/14 12:40	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		04/09/14 12:40	1
4-Bromofluorobenzene (Surr)	96		70 - 130		04/09/14 12:40	1

Lab Sample ID: LCS 480-174684/6

Matrix: Water

Analysis Batch: 174684

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	26.9		ug/L		108	70 - 130
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,2-Trichloroethane	25.0	26.3		ug/L		105	70 - 130
1,1-Dichloroethane	25.0	25.8		ug/L		103	70 - 130
1,1-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	25.0	27.0		ug/L		108	70 - 130
1,2,3-Trichloropropene	25.0	25.7		ug/L		103	70 - 130
1,2,4-Trichlorobenzene	25.0	27.1		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.6		ug/L		106	70 - 130
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	26.3		ug/L		105	70 - 130
1,2-Dichloropropane	25.0	26.6		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichloropropane	25.0	25.8		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dioxane	500	510		ug/L		102	70 - 130
2,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
2-Butanone (MEK)	125	138		ug/L		111	70 - 130
2-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
2-Hexanone	125	133		ug/L		107	70 - 130
4-Chlorotoluene	25.0	23.9		ug/L		96	70 - 130
4-Isopropyltoluene	25.0	26.7		ug/L		107	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-174684/6

Matrix: Water

Analysis Batch: 174684

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	70 - 130
Acetone	125	129		ug/L		103	70 - 130
Benzene	25.0	26.3		ug/L		105	70 - 130
Bromobenzene	25.0	25.8		ug/L		103	70 - 130
Bromoform	25.0	24.0		ug/L		96	70 - 130
Bromomethane	25.0	26.8		ug/L		107	70 - 130
Carbon disulfide	25.0	25.7		ug/L		103	70 - 130
Carbon tetrachloride	25.0	27.0		ug/L		108	70 - 130
Chlorobenzene	25.0	26.0		ug/L		104	70 - 130
Chlorobromomethane	25.0	26.1		ug/L		104	70 - 130
Chlorodibromomethane	24.5	26.2		ug/L		107	70 - 130
Chloroethane	25.0	26.3		ug/L		105	70 - 130
Chloroform	25.0	25.9		ug/L		104	70 - 130
Chloromethane	25.0	25.1		ug/L		100	70 - 130
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130
cis-1,3-Dichloropropene	25.0	26.6		ug/L		106	70 - 130
Dichlorobromomethane	25.0	26.5		ug/L		106	70 - 130
Dichlorodifluoromethane	25.0	27.1		ug/L		108	70 - 130
Ethyl ether	25.0	26.6		ug/L		106	70 - 130
Ethylbenzene	25.0	25.9		ug/L		104	70 - 130
Ethylene Dibromide	25.0	26.1		ug/L		105	70 - 130
Hexachlorobutadiene	25.0	28.6		ug/L		114	70 - 130
Isopropyl ether	25.0	26.0		ug/L		104	70 - 130
Isopropylbenzene	25.0	26.2		ug/L		105	70 - 130
Methyl tert-butyl ether	25.0	25.6		ug/L		102	70 - 130
Methylene Chloride	25.0	25.7		ug/L		103	70 - 130
m-Xylene & p-Xylene	25.0	26.1		ug/L		104	70 - 130
Naphthalene	25.0	27.5		ug/L		110	70 - 130
n-Butylbenzene	25.0	27.1		ug/L		108	70 - 130
N-Propylbenzene	25.0	25.5		ug/L		102	70 - 130
o-Xylene	25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	25.0	26.5		ug/L		106	70 - 130
Styrene	25.0	26.3		ug/L		105	70 - 130
Tert-amyl methyl ether	25.0	25.9		ug/L		104	70 - 130
Tert-butyl ethyl ether	25.0	25.4		ug/L		101	70 - 130
tert-Butylbenzene	25.0	25.6		ug/L		103	70 - 130
Tetrachloroethene	25.0	29.5		ug/L		118	70 - 130
Tetrahydrofuran	50.0	67.3 *		ug/L		135	70 - 130
Toluene	25.0	25.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	25.0	25.9		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	25.9		ug/L		104	70 - 130
Trichloroethene	25.0	26.1		ug/L		105	70 - 130
Trichlorofluoromethane	25.0	27.3		ug/L		109	70 - 130
Vinyl chloride	25.0	24.7		ug/L		99	70 - 130
Dibromomethane	25.0	26.4		ug/L		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-174684/6

Matrix: Water

Analysis Batch: 174684

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 480-174684/7

Matrix: Water

Analysis Batch: 174684

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130	2	20	
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	4	20	
1,1,1,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	2	20	
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	70 - 130	1	20	
1,1-Dichloroethane	25.0	25.4		ug/L		102	70 - 130	2	20	
1,1-Dichloroethene	25.0	27.2		ug/L		109	70 - 130	3	20	
1,1-Dichloropropene	25.0	25.6		ug/L		103	70 - 130	3	20	
1,2,3-Trichlorobenzene	25.0	26.7		ug/L		107	70 - 130	1	20	
1,2,3-Trichloropropane	25.0	26.6		ug/L		106	70 - 130	3	20	
1,2,4-Trichlorobenzene	25.0	26.8		ug/L		107	70 - 130	1	20	
1,2,4-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130	2	20	
1,2-Dibromo-3-Chloropropane	25.0	25.1		ug/L		101	70 - 130	5	20	
1,2-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130	1	20	
1,2-Dichloroethane	25.0	26.0		ug/L		104	70 - 130	1	20	
1,2-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	3	20	
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 130	1	20	
1,3-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	2	20	
1,3-Dichloropropane	25.0	26.0		ug/L		104	70 - 130	1	20	
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	1	20	
1,4-Dioxane	500	514		ug/L		103	70 - 130	1	20	
2,2-Dichloropropane	25.0	24.0		ug/L		96	70 - 130	5	20	
2-Butanone (MEK)	125	141		ug/L		113	70 - 130	2	20	
2-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130	3	20	
2-Hexanone	125	131		ug/L		105	70 - 130	1	20	
4-Chlorotoluene	25.0	23.5		ug/L		94	70 - 130	2	20	
4-Isopropyltoluene	25.0	26.0		ug/L		104	70 - 130	2	20	
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		104	70 - 130	0	20	
Acetone	125	125		ug/L		100	70 - 130	3	20	
Benzene	25.0	25.5		ug/L		102	70 - 130	3	20	
Bromobenzene	25.0	25.5		ug/L		102	70 - 130	1	20	
Bromoform	25.0	23.8		ug/L		95	70 - 130	1	20	
Bromomethane	25.0	26.0		ug/L		104	70 - 130	3	20	
Carbon disulfide	25.0	24.8		ug/L		99	70 - 130	4	20	
Carbon tetrachloride	25.0	26.0		ug/L		104	70 - 130	4	20	
Chlorobenzene	25.0	25.8		ug/L		103	70 - 130	1	20	
Chlorobromomethane	25.0	25.6		ug/L		102	70 - 130	2	20	
Chlorodibromomethane	24.5	25.9		ug/L		106	70 - 130	1	20	
Chloroethane	25.0	25.2		ug/L		101	70 - 130	4	20	
Chloroform	25.0	25.4		ug/L		101	70 - 130	2	20	
Chloromethane	25.0	24.6		ug/L		98	70 - 130	2	20	

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: LCSD 480-174684/7**

**Matrix: Water**

**Analysis Batch: 174684**

**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		
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	70 - 130	4	20	
cis-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 130	1	20	
Dichlorobromomethane	25.0	25.7		ug/L		103	70 - 130	3	20	
Dichlorodifluoromethane	25.0	25.5		ug/L		102	70 - 130	6	20	
Ethyl ether	25.0	25.9		ug/L		104	70 - 130	3	20	
Ethylbenzene	25.0	26.0		ug/L		104	70 - 130	0	20	
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	1	20	
Hexachlorobutadiene	25.0	27.3		ug/L		109	70 - 130	4	20	
Isopropyl ether	25.0	25.2		ug/L		101	70 - 130	3	20	
Isopropylbenzene	25.0	25.3		ug/L		101	70 - 130	3	20	
Methyl tert-butyl ether	25.0	25.1		ug/L		101	70 - 130	2	20	
Methylene Chloride	25.0	24.6		ug/L		98	70 - 130	5	20	
m-Xylene & p-Xylene	25.0	25.8		ug/L		103	70 - 130	1	20	
Naphthalene	25.0	27.2		ug/L		109	70 - 130	1	20	
n-Butylbenzene	25.0	26.4		ug/L		106	70 - 130	2	20	
N-Propylbenzene	25.0	25.6		ug/L		102	70 - 130	0	20	
o-Xylene	25.0	25.5		ug/L		102	70 - 130	1	20	
sec-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	4	20	
Styrene	25.0	26.3		ug/L		105	70 - 130	0	20	
Tert-amyl methyl ether	25.0	25.4		ug/L		102	70 - 130	2	20	
Tert-butyl ethyl ether	25.0	25.2		ug/L		101	70 - 130	1	20	
tert-Butylbenzene	25.0	26.1		ug/L		104	70 - 130	2	20	
Tetrachloroethene	25.0	29.9		ug/L		120	70 - 130	2	20	
Tetrahydrofuran	50.0	64.6		ug/L		129	70 - 130	4	20	
Toluene	25.0	25.6		ug/L		102	70 - 130	0	20	
trans-1,2-Dichloroethene	25.0	24.9		ug/L		99	70 - 130	4	20	
trans-1,3-Dichloropropene	25.0	25.8		ug/L		103	70 - 130	0	20	
Trichloroethene	25.0	25.4		ug/L		101	70 - 130	3	20	
Trichlorofluoromethane	25.0	25.7		ug/L		103	70 - 130	6	20	
Vinyl chloride	25.0	24.1		ug/L		96	70 - 130	3	20	
Dibromomethane	25.0	26.2		ug/L		105	70 - 130	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

**Lab Sample ID: MB 480-174949/8**

**Matrix: Water**

**Analysis Batch: 174949**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L		04/10/14 13:25	1	
1,1,1-Trichloroethane	ND		1.0		ug/L		04/10/14 13:25	1	
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L		04/10/14 13:25	1	
1,1,2-Trichloroethane	ND		1.0		ug/L		04/10/14 13:25	1	
1,1-Dichloroethane	ND		1.0		ug/L		04/10/14 13:25	1	
1,1-Dichloroethene	ND		1.0		ug/L		04/10/14 13:25	1	

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: MB 480-174949/8**

**Matrix: Water**

**Analysis Batch: 174949**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0		ug/L			04/10/14 13:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/10/14 13:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/10/14 13:25	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,2-Dichloroethane	ND		1.0		ug/L			04/10/14 13:25	1
1,2-Dichloropropane	ND		1.0		ug/L			04/10/14 13:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,3-Dichloropropane	ND		1.0		ug/L			04/10/14 13:25	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/10/14 13:25	1
1,4-Dioxane	ND		50		ug/L			04/10/14 13:25	1
2,2-Dichloropropane	ND		1.0		ug/L			04/10/14 13:25	1
2-Butanone (MEK)	ND		10		ug/L			04/10/14 13:25	1
2-Chlorotoluene	ND		1.0		ug/L			04/10/14 13:25	1
2-Hexanone	ND		10		ug/L			04/10/14 13:25	1
4-Chlorotoluene	ND		1.0		ug/L			04/10/14 13:25	1
4-Isopropyltoluene	ND		1.0		ug/L			04/10/14 13:25	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/10/14 13:25	1
Acetone	ND		50		ug/L			04/10/14 13:25	1
Benzene	ND		1.0		ug/L			04/10/14 13:25	1
Bromobenzene	ND		1.0		ug/L			04/10/14 13:25	1
Bromoform	ND		1.0		ug/L			04/10/14 13:25	1
Bromomethane	ND		2.0		ug/L			04/10/14 13:25	1
Carbon disulfide	ND		10		ug/L			04/10/14 13:25	1
Carbon tetrachloride	ND		1.0		ug/L			04/10/14 13:25	1
Chlorobenzene	ND		1.0		ug/L			04/10/14 13:25	1
Chlorobromomethane	ND		1.0		ug/L			04/10/14 13:25	1
Chlorodibromomethane	ND		0.50		ug/L			04/10/14 13:25	1
Chloroethane	ND		2.0		ug/L			04/10/14 13:25	1
Chloroform	ND		1.0		ug/L			04/10/14 13:25	1
Chloromethane	ND		2.0		ug/L			04/10/14 13:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/10/14 13:25	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/10/14 13:25	1
Dichlorobromomethane	ND		0.50		ug/L			04/10/14 13:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/10/14 13:25	1
Ethyl ether	ND		1.0		ug/L			04/10/14 13:25	1
Ethylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
Ethylene Dibromide	ND		1.0		ug/L			04/10/14 13:25	1
Hexachlorobutadiene	ND		0.40		ug/L			04/10/14 13:25	1
Isopropyl ether	ND		10		ug/L			04/10/14 13:25	1
Isopropylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/10/14 13:25	1
Methylene Chloride	ND		1.0		ug/L			04/10/14 13:25	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/10/14 13:25	1
Naphthalene	ND		5.0		ug/L			04/10/14 13:25	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: MB 480-174949/8

Matrix: Water

Analysis Batch: 174949

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
N-Propylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
o-Xylene	ND		1.0		ug/L			04/10/14 13:25	1
sec-Butylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
Styrene	ND		1.0		ug/L			04/10/14 13:25	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/10/14 13:25	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/10/14 13:25	1
tert-Butylbenzene	ND		1.0		ug/L			04/10/14 13:25	1
Tetrachloroethene	ND		1.0		ug/L			04/10/14 13:25	1
Tetrahydrofuran	ND		10		ug/L			04/10/14 13:25	1
Toluene	ND		1.0		ug/L			04/10/14 13:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/10/14 13:25	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/10/14 13:25	1
Trichloroethene	ND		1.0		ug/L			04/10/14 13:25	1
Trichlorofluoromethane	ND		1.0		ug/L			04/10/14 13:25	1
Vinyl chloride	ND		1.0		ug/L			04/10/14 13:25	1
Dibromomethane	ND		1.0		ug/L			04/10/14 13:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130		04/10/14 13:25	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		04/10/14 13:25	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/10/14 13:25	1

Lab Sample ID: LCS 480-174949/5

Matrix: Water

Analysis Batch: 174949

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	26.5		ug/L		106	70 - 130
1,1,1-Trichloroethane	25.0	24.0		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.3		ug/L		101	70 - 130
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1-Dichloroethene	25.0	24.0		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	24.9		ug/L		99	70 - 130
1,2,3-Trichlorobenzene	25.0	25.8		ug/L		103	70 - 130
1,2,3-Trichloropropane	25.0	25.5		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	25.0	25.3		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	25.0	27.0		ug/L		108	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	26.7		ug/L		107	70 - 130
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	22.9		ug/L		92	70 - 130
1,2-Dichloropropane	25.0	25.0		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	25.6		ug/L		103	70 - 130
1,3-Dichloropropane	25.0	25.3		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130
1,4-Dioxane	500	440		ug/L		88	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-174949/5

Matrix: Water

Analysis Batch: 174949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	25.6		ug/L		102	70 - 130
2-Butanone (MEK)	125	167	*	ug/L		134	70 - 130
2-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130
2-Hexanone	125	190	*	ug/L		152	70 - 130
4-Chlorotoluene	25.0	28.0		ug/L		112	70 - 130
4-Isopropyltoluene	25.0	27.1		ug/L		108	70 - 130
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130
Acetone	125	108		ug/L		87	70 - 130
Benzene	25.0	24.6		ug/L		98	70 - 130
Bromobenzene	25.0	25.4		ug/L		101	70 - 130
Bromoform	25.0	24.6		ug/L		99	70 - 130
Bromomethane	25.0	21.4		ug/L		86	70 - 130
Carbon disulfide	25.0	25.5		ug/L		102	70 - 130
Carbon tetrachloride	25.0	25.2		ug/L		101	70 - 130
Chlorobenzene	25.0	25.6		ug/L		102	70 - 130
Chlorobromomethane	25.0	25.5		ug/L		102	70 - 130
Chlorodibromomethane	24.5	26.7		ug/L		109	70 - 130
Chloroethane	25.0	22.5		ug/L		90	70 - 130
Chloroform	25.0	23.8		ug/L		95	70 - 130
Chloromethane	25.0	22.4		ug/L		90	70 - 130
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130
cis-1,3-Dichloropropene	25.0	25.6		ug/L		102	70 - 130
Dichlorobromomethane	25.0	24.9		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	23.0		ug/L		92	70 - 130
Ethyl ether	25.0	24.9		ug/L		100	70 - 130
Ethylbenzene	25.0	25.6		ug/L		102	70 - 130
Ethylene Dibromide	25.0	25.4		ug/L		101	70 - 130
Hexachlorobutadiene	25.0	28.5		ug/L		114	70 - 130
Isopropyl ether	25.0	23.0		ug/L		92	70 - 130
Isopropylbenzene	25.0	25.8		ug/L		103	70 - 130
Methyl tert-butyl ether	25.0	24.2		ug/L		97	70 - 130
Methylene Chloride	25.0	24.2		ug/L		97	70 - 130
m-Xylene & p-Xylene	25.0	26.2		ug/L		105	70 - 130
Naphthalene	25.0	24.8		ug/L		99	70 - 130
n-Butylbenzene	25.0	26.1		ug/L		105	70 - 130
N-Propylbenzene	25.0	25.5		ug/L		102	70 - 130
o-Xylene	25.0	26.3		ug/L		105	70 - 130
sec-Butylbenzene	25.0	25.9		ug/L		104	70 - 130
Styrene	25.0	26.1		ug/L		104	70 - 130
Tert-amyl methyl ether	25.0	23.0		ug/L		92	70 - 130
Tert-butyl ethyl ether	25.0	22.4		ug/L		90	70 - 130
tert-Butylbenzene	25.0	26.5		ug/L		106	70 - 130
Tetrachloroethene	25.0	26.3		ug/L		105	70 - 130
Tetrahydrofuran	50.0	49.8		ug/L		100	70 - 130
Toluene	25.0	26.1		ug/L		104	70 - 130
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	70 - 130
trans-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 130
Trichloroethene	25.0	25.2		ug/L		101	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-174949/5

Matrix: Water

Analysis Batch: 174949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	25.0	21.3		ug/L		85	70 - 130
Vinyl chloride	25.0	21.9		ug/L		88	70 - 130
Dibromomethane	25.0	23.5		ug/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 480-174949/6

Matrix: Water

Analysis Batch: 174949

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	26.1		ug/L		105	70 - 130	1	20
1,1,1-Trichloroethane	25.0	23.1		ug/L		93	70 - 130	4	20
1,1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		101	70 - 130	1	20
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	70 - 130	1	20
1,1-Dichloroethane	25.0	24.2		ug/L		97	70 - 130	3	20
1,1-Dichloroethene	25.0	22.9		ug/L		92	70 - 130	5	20
1,1-Dichloropropene	25.0	23.6		ug/L		94	70 - 130	5	20
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	70 - 130	2	20
1,2,3-Trichloropropane	25.0	25.4		ug/L		101	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	26.0		ug/L		104	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	26.5		ug/L		106	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	26.3		ug/L		105	70 - 130	1	20
1,2-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	0	20
1,2-Dichloroethane	25.0	22.6		ug/L		90	70 - 130	1	20
1,2-Dichloropropane	25.0	24.3		ug/L		97	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	26.1		ug/L		105	70 - 130	2	20
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	0	20
1,3-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	2	20
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130	1	20
1,4-Dioxane	500	495		ug/L		99	70 - 130	12	20
2,2-Dichloropropane	25.0	24.8		ug/L		99	70 - 130	3	20
2-Butanone (MEK)	125	161		ug/L		129	70 - 130	4	20
2-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130	1	20
2-Hexanone	125	186 *		ug/L		149	70 - 130	2	20
4-Chlorotoluene	25.0	27.6		ug/L		110	70 - 130	2	20
4-Isopropyltoluene	25.0	26.6		ug/L		106	70 - 130	2	20
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		102	70 - 130	2	20
Acetone	125	106		ug/L		85	70 - 130	3	20
Benzene	25.0	23.6		ug/L		94	70 - 130	4	20
Bromobenzene	25.0	25.4		ug/L		102	70 - 130	0	20
Bromoform	25.0	24.3		ug/L		97	70 - 130	2	20
Bromomethane	25.0	20.3		ug/L		81	70 - 130	5	20
Carbon disulfide	25.0	23.6		ug/L		94	70 - 130	8	20
Carbon tetrachloride	25.0	24.2		ug/L		97	70 - 130	4	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCSD 480-174949/6

Matrix: Water

Analysis Batch: 174949

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Chlorobenzene	25.0	24.7		ug/L		99	70 - 130	3	20
Chlorobromomethane	25.0	24.6		ug/L		99	70 - 130	4	20
Chlorodibromomethane	24.5	26.3		ug/L		107	70 - 130	2	20
Chloroethane	25.0	21.4		ug/L		86	70 - 130	5	20
Chloroform	25.0	23.2		ug/L		93	70 - 130	2	20
Chloromethane	25.0	21.0		ug/L		84	70 - 130	6	20
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	70 - 130	4	20
cis-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130	2	20
Dichlorobromomethane	25.0	24.5		ug/L		98	70 - 130	2	20
Dichlorodifluoromethane	25.0	21.8		ug/L		87	70 - 130	5	20
Ethyl ether	25.0	24.2		ug/L		97	70 - 130	3	20
Ethylbenzene	25.0	24.7		ug/L		99	70 - 130	3	20
Ethylene Dibromide	25.0	24.8		ug/L		99	70 - 130	2	20
Hexachlorobutadiene	25.0	28.5		ug/L		114	70 - 130	0	20
Isopropyl ether	25.0	22.5		ug/L		90	70 - 130	2	20
Isopropylbenzene	25.0	25.6		ug/L		102	70 - 130	1	20
Methyl tert-butyl ether	25.0	23.7		ug/L		95	70 - 130	2	20
Methylene Chloride	25.0	23.5		ug/L		94	70 - 130	3	20
m-Xylene & p-Xylene	25.0	25.6		ug/L		102	70 - 130	2	20
Naphthalene	25.0	25.9		ug/L		103	70 - 130	4	20
n-Butylbenzene	25.0	25.7		ug/L		103	70 - 130	2	20
N-Propylbenzene	25.0	25.2		ug/L		101	70 - 130	1	20
o-Xylene	25.0	25.7		ug/L		103	70 - 130	3	20
sec-Butylbenzene	25.0	25.6		ug/L		102	70 - 130	1	20
Styrene	25.0	25.6		ug/L		103	70 - 130	2	20
Tert-amyl methyl ether	25.0	22.8		ug/L		91	70 - 130	1	20
Tert-butyl ethyl ether	25.0	22.1		ug/L		88	70 - 130	2	20
tert-Butylbenzene	25.0	26.2		ug/L		105	70 - 130	1	20
Tetrachloroethene	25.0	26.1		ug/L		104	70 - 130	1	20
Tetrahydrofuran	50.0	48.5		ug/L		97	70 - 130	3	20
Toluene	25.0	24.9		ug/L		100	70 - 130	5	20
trans-1,2-Dichloroethene	25.0	23.8		ug/L		95	70 - 130	4	20
trans-1,3-Dichloropropene	25.0	26.4		ug/L		105	70 - 130	0	20
Trichloroethene	25.0	24.8		ug/L		99	70 - 130	2	20
Trichlorofluoromethane	25.0	20.0		ug/L		80	70 - 130	6	20
Vinyl chloride	25.0	20.5		ug/L		82	70 - 130	6	20
Dibromomethane	25.0	22.9		ug/L		91	70 - 130	3	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: MB 480-175074/8**

**Matrix: Water**

**Analysis Batch: 175074**

**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			04/11/14 01:02	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/14 01:02	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/11/14 01:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/14 01:02	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/14 01:02	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/14 01:02	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/14 01:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/14 01:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/11/14 01:02	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/14 01:02	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/14 01:02	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/14 01:02	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/14 01:02	1
1,4-Dioxane	ND		50		ug/L			04/11/14 01:02	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/14 01:02	1
2-Butanone (MEK)	ND		10		ug/L			04/11/14 01:02	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/14 01:02	1
2-Hexanone	ND		10		ug/L			04/11/14 01:02	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/14 01:02	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/14 01:02	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/14 01:02	1
Acetone	ND		50		ug/L			04/11/14 01:02	1
Benzene	ND		1.0		ug/L			04/11/14 01:02	1
Bromobenzene	ND		1.0		ug/L			04/11/14 01:02	1
Bromoform	ND		1.0		ug/L			04/11/14 01:02	1
Bromomethane	ND		2.0		ug/L			04/11/14 01:02	1
Carbon disulfide	ND		10		ug/L			04/11/14 01:02	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/14 01:02	1
Chlorobenzene	ND		1.0		ug/L			04/11/14 01:02	1
Chlorobromomethane	ND		1.0		ug/L			04/11/14 01:02	1
Chlorodibromomethane	ND		0.50		ug/L			04/11/14 01:02	1
Chloroethane	ND		2.0		ug/L			04/11/14 01:02	1
Chloroform	ND		1.0		ug/L			04/11/14 01:02	1
Chloromethane	ND		2.0		ug/L			04/11/14 01:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/14 01:02	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/11/14 01:02	1
Dichlorobromomethane	ND		0.50		ug/L			04/11/14 01:02	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/14 01:02	1
Ethyl ether	ND		1.0		ug/L			04/11/14 01:02	1
Ethylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/14 01:02	1
Hexachlorobutadiene	ND		0.40		ug/L			04/11/14 01:02	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: MB 480-175074/8

Matrix: Water

Analysis Batch: 175074

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			04/11/14 01:02	1
Isopropylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/14 01:02	1
Methylene Chloride	ND		1.0		ug/L			04/11/14 01:02	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/14 01:02	1
Naphthalene	ND		5.0		ug/L			04/11/14 01:02	1
n-Butylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
N-Propylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
o-Xylene	ND		1.0		ug/L			04/11/14 01:02	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
Styrene	ND		1.0		ug/L			04/11/14 01:02	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/11/14 01:02	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/11/14 01:02	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/14 01:02	1
Tetrachloroethene	ND		1.0		ug/L			04/11/14 01:02	1
Tetrahydrofuran	ND		10		ug/L			04/11/14 01:02	1
Toluene	ND		1.0		ug/L			04/11/14 01:02	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/14 01:02	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/11/14 01:02	1
Trichloroethene	ND		1.0		ug/L			04/11/14 01:02	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/14 01:02	1
Vinyl chloride	ND		1.0		ug/L			04/11/14 01:02	1
Dibromomethane	ND		1.0		ug/L			04/11/14 01:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		04/11/14 01:02	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		04/11/14 01:02	1
4-Bromofluorobenzene (Surr)	99		70 - 130		04/11/14 01:02	1

Lab Sample ID: LCS 480-175074/5

Matrix: Water

Analysis Batch: 175074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.5		ug/L		102	70 - 130
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	70 - 130
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloroethane	25.0	22.8		ug/L		91	70 - 130
1,1-Dichloropropene	25.0	23.6		ug/L		94	70 - 130
1,2,3-Trichlorobenzene	25.0	24.4		ug/L		98	70 - 130
1,2,3-Trichloropropane	25.0	23.6		ug/L		94	70 - 130
1,2,4-Trichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,2,4-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.5		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	24.4		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	21.9		ug/L		88	70 - 130

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-175074/5

Matrix: Water

Analysis Batch: 175074

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	24.1		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	24.6		ug/L		98	70 - 130
1,3-Dichloropropane	25.0	23.8		ug/L		95	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,4-Dioxane	500	360		ug/L		72	70 - 130
2,2-Dichloropropane	25.0	23.8		ug/L		95	70 - 130
2-Butanone (MEK)	125	127		ug/L		102	70 - 130
2-Chlorotoluene	25.0	25.3		ug/L		101	70 - 130
2-Hexanone	125	177 *		ug/L		142	70 - 130
4-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
4-Isopropyltoluene	25.0	25.7		ug/L		103	70 - 130
4-Methyl-2-pentanone (MIBK)	125	120		ug/L		96	70 - 130
Acetone	125	99.6		ug/L		80	70 - 130
Benzene	25.0	23.6		ug/L		94	70 - 130
Bromobenzene	25.0	24.4		ug/L		98	70 - 130
Bromoform	25.0	23.2		ug/L		93	70 - 130
Bromomethane	25.0	20.9		ug/L		84	70 - 130
Carbon disulfide	25.0	24.1		ug/L		96	70 - 130
Carbon tetrachloride	25.0	24.1		ug/L		97	70 - 130
Chlorobenzene	25.0	24.3		ug/L		97	70 - 130
Chlorobromomethane	25.0	24.3		ug/L		97	70 - 130
Chlorodibromomethane	24.5	25.1		ug/L		103	70 - 130
Chloroethane	25.0	22.4		ug/L		89	70 - 130
Chloroform	25.0	22.9		ug/L		92	70 - 130
Chloromethane	25.0	21.8		ug/L		87	70 - 130
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
cis-1,3-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
Dichlorobromomethane	25.0	23.7		ug/L		95	70 - 130
Dichlorodifluoromethane	25.0	22.6		ug/L		90	70 - 130
Ethyl ether	25.0	23.9		ug/L		96	70 - 130
Ethylbenzene	25.0	24.1		ug/L		96	70 - 130
Ethylene Dibromide	25.0	24.1		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	27.1		ug/L		108	70 - 130
Isopropyl ether	25.0	23.0		ug/L		92	70 - 130
Isopropylbenzene	25.0	24.7		ug/L		99	70 - 130
Methyl tert-butyl ether	25.0	23.0		ug/L		92	70 - 130
Methylene Chloride	25.0	23.4		ug/L		94	70 - 130
m-Xylene & p-Xylene	25.0	25.1		ug/L		100	70 - 130
Naphthalene	25.0	23.5		ug/L		94	70 - 130
n-Butylbenzene	25.0	25.2		ug/L		101	70 - 130
N-Propylbenzene	25.0	24.3		ug/L		97	70 - 130
o-Xylene	25.0	24.7		ug/L		99	70 - 130
sec-Butylbenzene	25.0	24.8		ug/L		99	70 - 130
Styrene	25.0	24.7		ug/L		99	70 - 130
Tert-amyl methyl ether	25.0	22.8		ug/L		91	70 - 130
Tert-butyl ethyl ether	25.0	22.2		ug/L		89	70 - 130
tert-Butylbenzene	25.0	25.7		ug/L		103	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-175074/5

Matrix: Water

Analysis Batch: 175074

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	26.5		ug/L		106	70 - 130
Tetrahydrofuran	50.0	47.2		ug/L		94	70 - 130
Toluene	25.0	24.5		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	24.9		ug/L		100	70 - 130
Trichloroethene	25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	20.9		ug/L		84	70 - 130
Vinyl chloride	25.0	21.3		ug/L		85	70 - 130
Dibromomethane	25.0	22.8		ug/L		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 480-175074/6

Matrix: Water

Analysis Batch: 175074

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	25.4		ug/L		102	70 - 130	0	20
1,1,1-Trichloroethane	25.0	22.5		ug/L		90	70 - 130	1	20
1,1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 130	0	20
1,1,1,2-Trichloroethane	25.0	24.1		ug/L		96	70 - 130	1	20
1,1-Dichloroethane	25.0	23.5		ug/L		94	70 - 130	2	20
1,1-Dichloroethene	25.0	22.4		ug/L		90	70 - 130	2	20
1,1-Dichloropropene	25.0	23.3		ug/L		93	70 - 130	1	20
1,2,3-Trichlorobenzene	25.0	24.9		ug/L		100	70 - 130	2	20
1,2,3-Trichloropropane	25.0	24.1		ug/L		96	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	24.5		ug/L		98	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	25.4		ug/L		102	70 - 130	4	20
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130	1	20
1,2-Dichloroethane	25.0	21.9		ug/L		88	70 - 130	0	20
1,2-Dichloropropane	25.0	23.7		ug/L		95	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130	3	20
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130	2	20
1,3-Dichloropropane	25.0	23.6		ug/L		94	70 - 130	1	20
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130	1	20
1,4-Dioxane	500	462	*	ug/L		92	70 - 130	25	20
2,2-Dichloropropane	25.0	23.1		ug/L		92	70 - 130	3	20
2-Butanone (MEK)	125	154		ug/L		123	70 - 130	19	20
2-Chlorotoluene	25.0	24.9		ug/L		99	70 - 130	2	20
2-Hexanone	125	181	*	ug/L		145	70 - 130	2	20
4-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130	4	20
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	123		ug/L		98	70 - 130	2	20
Acetone	125	103		ug/L		82	70 - 130	3	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCSD 480-175074/6

Matrix: Water

Analysis Batch: 175074

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	22.9		ug/L		92	70 - 130	3	20	
Bromobenzene	25.0	24.1		ug/L		97	70 - 130	1	20	
Bromoform	25.0	23.4		ug/L		94	70 - 130	1	20	
Bromomethane	25.0	20.3		ug/L		81	70 - 130	3	20	
Carbon disulfide	25.0	23.1		ug/L		92	70 - 130	4	20	
Carbon tetrachloride	25.0	23.7		ug/L		95	70 - 130	2	20	
Chlorobenzene	25.0	23.9		ug/L		96	70 - 130	1	20	
Chlorobromomethane	25.0	24.2		ug/L		97	70 - 130	1	20	
Chlorodibromomethane	24.5	24.9		ug/L		102	70 - 130	1	20	
Chloroethane	25.0	21.6		ug/L		86	70 - 130	4	20	
Chloroform	25.0	22.5		ug/L		90	70 - 130	2	20	
Chloromethane	25.0	21.3		ug/L		85	70 - 130	2	20	
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	70 - 130	2	20	
cis-1,3-Dichloropropene	25.0	24.0		ug/L		96	70 - 130	0	20	
Dichlorobromomethane	25.0	23.5		ug/L		94	70 - 130	1	20	
Dichlorodifluoromethane	25.0	22.1		ug/L		88	70 - 130	2	20	
Ethyl ether	25.0	23.5		ug/L		94	70 - 130	2	20	
Ethylbenzene	25.0	23.6		ug/L		94	70 - 130	2	20	
Ethylene Dibromide	25.0	23.7		ug/L		95	70 - 130	2	20	
Hexachlorobutadiene	25.0	26.5		ug/L		106	70 - 130	2	20	
Isopropyl ether	25.0	22.7		ug/L		91	70 - 130	2	20	
Isopropylbenzene	25.0	24.0		ug/L		96	70 - 130	3	20	
Methyl tert-butyl ether	25.0	23.4		ug/L		94	70 - 130	2	20	
Methylene Chloride	25.0	22.7		ug/L		91	70 - 130	3	20	
m-Xylene & p-Xylene	25.0	24.2		ug/L		97	70 - 130	3	20	
Naphthalene	25.0	24.4		ug/L		98	70 - 130	4	20	
n-Butylbenzene	25.0	24.0		ug/L		96	70 - 130	5	20	
N-Propylbenzene	25.0	23.5		ug/L		94	70 - 130	3	20	
o-Xylene	25.0	24.6		ug/L		98	70 - 130	0	20	
sec-Butylbenzene	25.0	23.9		ug/L		96	70 - 130	3	20	
Styrene	25.0	24.8		ug/L		99	70 - 130	0	20	
Tert-amyl methyl ether	25.0	22.9		ug/L		91	70 - 130	0	20	
Tert-butyl ethyl ether	25.0	22.3		ug/L		89	70 - 130	0	20	
tert-Butylbenzene	25.0	24.8		ug/L		99	70 - 130	4	20	
Tetrachloroethene	25.0	27.0		ug/L		108	70 - 130	2	20	
Tetrahydrofuran	50.0	45.9		ug/L		92	70 - 130	3	20	
Toluene	25.0	24.3		ug/L		97	70 - 130	1	20	
trans-1,2-Dichloroethene	25.0	23.1		ug/L		92	70 - 130	3	20	
trans-1,3-Dichloropropene	25.0	24.9		ug/L		100	70 - 130	0	20	
Trichloroethene	25.0	24.1		ug/L		97	70 - 130	2	20	
Trichlorofluoromethane	25.0	20.5		ug/L		82	70 - 130	2	20	
Vinyl chloride	25.0	20.4		ug/L		81	70 - 130	4	20	
Dibromomethane	25.0	22.6		ug/L		91	70 - 130	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: 480-57495-33 MS**

**Matrix: Water**

**Analysis Batch: 175074**

**Client Sample ID: REW-12-20140406-01**

**Prep Type: Total/NA**

Analyte	Sample	Sample Qualifier	Spike Added	MS	MS Qualifier	Unit	D	%Rec	%Rec Limits
	Result			Result					
1,1,1,2-Tetrachloroethane	ND		100	81.2		ug/L		81	70 - 130
1,1,1-Trichloroethane	ND		100	62.2	F1	ug/L		62	70 - 130
1,1,2,2-Tetrachloroethane	ND		100	92.0		ug/L		92	70 - 130
1,1,2-Trichloroethane	ND		100	86.2		ug/L		86	70 - 130
1,1-Dichloroethane	ND		100	70.1		ug/L		70	70 - 130
1,1-Dichloroethene	ND		100	59.6	F1	ug/L		60	70 - 130
1,1-Dichloropropene	ND		100	61.7	F1	ug/L		62	70 - 130
1,2,3-Trichlorobenzene	ND		100	80.9		ug/L		81	70 - 130
1,2,3-Trichloropropane	ND		100	92.3		ug/L		92	70 - 130
1,2,4-Trichlorobenzene	ND		100	74.6		ug/L		75	70 - 130
1,2,4-Trimethylbenzene	ND		100	72.9		ug/L		73	70 - 130
1,2-Dibromo-3-Chloropropane	ND		100	98.1		ug/L		98	70 - 130
1,2-Dichlorobenzene	ND		100	78.0		ug/L		78	70 - 130
1,2-Dichloroethane	ND		100	74.7		ug/L		75	70 - 130
1,2-Dichloropropane	ND		100	75.6		ug/L		76	70 - 130
1,3,5-Trimethylbenzene	ND		100	69.4	F1	ug/L		69	70 - 130
1,3-Dichlorobenzene	ND		100	74.5		ug/L		74	70 - 130
1,3-Dichloropropane	ND		100	84.6		ug/L		85	70 - 130
1,4-Dichlorobenzene	ND		100	75.6		ug/L		76	70 - 130
1,4-Dioxane	ND *		2000	1520		ug/L		76	70 - 130
2,2-Dichloropropane	ND		100	55.3	F1	ug/L		55	70 - 130
2-Butanone (MEK)	ND		500	504		ug/L		101	70 - 130
2-Chlorotoluene	ND		100	72.9		ug/L		73	70 - 130
2-Hexanone	ND *		500	703	F1	ug/L		141	70 - 130
4-Chlorotoluene	ND		100	76.3		ug/L		76	70 - 130
4-Isopropyltoluene	ND		100	67.8	F1	ug/L		68	70 - 130
4-Methyl-2-pentanone (MIBK)	ND		500	485		ug/L		97	70 - 130
Acetone	ND		500	422		ug/L		84	70 - 130
Benzene	ND		100	69.2	F1	ug/L		69	70 - 130
Bromobenzene	ND		100	75.8		ug/L		76	70 - 130
Bromoform	ND		100	84.4		ug/L		84	70 - 130
Bromomethane	ND		100	61.2	F1	ug/L		61	70 - 130
Carbon disulfide	ND		100	62.3	F1	ug/L		62	70 - 130
Carbon tetrachloride	ND		100	62.0	F1	ug/L		62	70 - 130
Chlorobenzene	ND		100	72.4		ug/L		72	70 - 130
Chlorobromomethane	ND		100	83.0		ug/L		83	70 - 130
Chlorodibromomethane	ND		98.0	85.8		ug/L		88	70 - 130
Chloroethane	ND		100	62.2	F1	ug/L		62	70 - 130
Chloroform	ND		100	69.4	F1	ug/L		69	70 - 130
Chloromethane	ND		100	61.7	F1	ug/L		62	70 - 130
cis-1,2-Dichloroethene	310		100	382		ug/L		76	70 - 130
cis-1,3-Dichloropropene	ND		100	72.2		ug/L		72	70 - 130
Dichlorobromomethane	ND		100	76.8		ug/L		77	70 - 130
Dichlorodifluoromethane	ND		100	50.8	F1	ug/L		51	70 - 130
Ethyl ether	ND		100	82.8		ug/L		83	70 - 130
Ethylbenzene	ND		100	66.6	F1	ug/L		67	70 - 130
Ethylene Dibromide	ND		100	86.9		ug/L		87	70 - 130
Hexachlorobutadiene	ND		100	72.5		ug/L		73	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: 480-57495-33 MS**

**Matrix: Water**

**Analysis Batch: 175074**

**Client Sample ID: REW-12-20140406-01**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Isopropyl ether	ND		100	72.8		ug/L		73	70 - 130
Isopropylbenzene	ND		100	65.0	F1	ug/L		65	70 - 130
Methyl tert-butyl ether	ND		100	84.3		ug/L		84	70 - 130
Methylene Chloride	ND		100	74.3		ug/L		74	70 - 130
m-Xylene & p-Xylene	ND		100	70.5		ug/L		71	70 - 130
Naphthalene	ND		100	85.8		ug/L		86	70 - 130
n-Butylbenzene	ND		100	65.6	F1	ug/L		66	70 - 130
N-Propylbenzene	ND		100	64.2	F1	ug/L		64	70 - 130
o-Xylene	ND		100	72.4		ug/L		72	70 - 130
sec-Butylbenzene	ND		100	65.1	F1	ug/L		65	70 - 130
Styrene	ND		100	74.7		ug/L		75	70 - 130
Tert-amyl methyl ether	ND		100	79.3		ug/L		79	70 - 130
Tert-butyl ethyl ether	ND		100	73.8		ug/L		74	70 - 130
tert-Butylbenzene	ND		100	66.5	F1	ug/L		67	70 - 130
Tetrachloroethene	ND		100	66.5	F1	ug/L		64	70 - 130
Tetrahydrofuran	ND		200	194		ug/L		97	70 - 130
Toluene	28		100	98.6		ug/L		71	70 - 130
trans-1,2-Dichloroethene	ND		100	68.1	F1	ug/L		68	70 - 130
trans-1,3-Dichloropropene	ND		100	80.6		ug/L		81	70 - 130
Trichloroethene	50		100	118	F1	ug/L		68	70 - 130
Trichlorofluoromethane	ND		100	51.8	F1	ug/L		52	70 - 130
Vinyl chloride	55		100	108	F1	ug/L		52	70 - 130
Dibromomethane	ND		100	80.5		ug/L		81	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

**Lab Sample ID: 480-57495-33 MSD**

**Matrix: Water**

**Analysis Batch: 175074**

**Client Sample ID: REW-12-20140406-01**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		100	84.0		ug/L		84	70 - 130	3	20
1,1,1-Trichloroethane	ND		100	66.7	F1	ug/L		67	70 - 130	7	20
1,1,1,2-Tetrachloroethane	ND		100	92.8		ug/L		93	70 - 130	1	20
1,1,2-Trichloroethane	ND		100	87.1		ug/L		87	70 - 130	1	20
1,1-Dichloroethane	ND		100	74.1		ug/L		74	70 - 130	6	20
1,1-Dichloroethene	ND		100	64.6	F1	ug/L		65	70 - 130	8	20
1,1-Dichloropropene	ND		100	68.2	F1	ug/L		68	70 - 130	10	20
1,2,3-Trichlorobenzene	ND		100	87.2		ug/L		87	70 - 130	7	20
1,2,3-Trichloropropane	ND		100	93.7		ug/L		94	70 - 130	2	20
1,2,4-Trichlorobenzene	ND		100	80.6		ug/L		81	70 - 130	8	20
1,2,4-Trimethylbenzene	ND		100	78.0		ug/L		78	70 - 130	7	20
1,2-Dibromo-3-Chloropropane	ND		100	98.6		ug/L		99	70 - 130	1	20
1,2-Dichlorobenzene	ND		100	81.8		ug/L		82	70 - 130	5	20
1,2-Dichloroethane	ND		100	76.6		ug/L		77	70 - 130	3	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: 480-57495-33 MSD

Client Sample ID: REW-12-20140406-01

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 175074

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,2-Dichloropropane	ND		100	80.4		ug/L		80	70 - 130	6	20
1,3,5-Trimethylbenzene	ND		100	74.6		ug/L		75	70 - 130	7	20
1,3-Dichlorobenzene	ND		100	79.7		ug/L		80	70 - 130	7	20
1,3-Dichloropropane	ND		100	87.7		ug/L		88	70 - 130	4	20
1,4-Dichlorobenzene	ND		100	80.2		ug/L		80	70 - 130	6	20
1,4-Dioxane	ND *		2000	1810		ug/L		90	70 - 130	18	20
2,2-Dichloropropane	ND		100	58.6	F1	ug/L		59	70 - 130	6	20
2-Butanone (MEK)	ND		500	512		ug/L		102	70 - 130	1	20
2-Chlorotoluene	ND		100	77.5		ug/L		77	70 - 130	6	20
2-Hexanone	ND *		500	699	F1	ug/L		140	70 - 130	1	20
4-Chlorotoluene	ND		100	81.9		ug/L		82	70 - 130	7	20
4-Isopropyltoluene	ND		100	74.4		ug/L		74	70 - 130	9	20
4-Methyl-2-pentanone (MIBK)	ND		500	478		ug/L		96	70 - 130	1	20
Acetone	ND		500	390		ug/L		78	70 - 130	8	20
Benzene	ND		100	73.0		ug/L		73	70 - 130	5	20
Bromobenzene	ND		100	82.2		ug/L		82	70 - 130	8	20
Bromoform	ND		100	88.1		ug/L		88	70 - 130	4	20
Bromomethane	ND		100	66.2	F1	ug/L		66	70 - 130	8	20
Carbon disulfide	ND		100	68.7	F1	ug/L		69	70 - 130	10	20
Carbon tetrachloride	ND		100	68.2	F1	ug/L		68	70 - 130	10	20
Chlorobenzene	ND		100	78.0		ug/L		78	70 - 130	8	20
Chlorobromomethane	ND		100	84.6		ug/L		85	70 - 130	2	20
Chlorodibromomethane	ND		98.0	88.8		ug/L		91	70 - 130	3	20
Chloroethane	ND		100	70.6		ug/L		71	70 - 130	13	20
Chloroform	ND		100	73.1		ug/L		73	70 - 130	5	20
Chloromethane	ND		100	69.9		ug/L		70	70 - 130	12	20
cis-1,2-Dichloroethene	310		100	373	F1	ug/L		68	70 - 130	2	20
cis-1,3-Dichloropropene	ND		100	76.9		ug/L		77	70 - 130	6	20
Dichlorobromomethane	ND		100	80.3		ug/L		80	70 - 130	5	20
Dichlorodifluoromethane	ND		100	59.2	F1	ug/L		59	70 - 130	15	20
Ethyl ether	ND		100	84.9		ug/L		85	70 - 130	2	20
Ethylbenzene	ND		100	71.9		ug/L		72	70 - 130	8	20
Ethylene Dibromide	ND		100	89.5		ug/L		89	70 - 130	3	20
Hexachlorobutadiene	ND		100	81.5		ug/L		82	70 - 130	12	20
Isopropyl ether	ND		100	71.6		ug/L		72	70 - 130	2	20
Isopropylbenzene	ND		100	70.4		ug/L		70	70 - 130	8	20
Methyl tert-butyl ether	ND		100	84.7		ug/L		85	70 - 130	0	20
Methylene Chloride	ND		100	76.2		ug/L		76	70 - 130	2	20
m-Xylene & p-Xylene	ND		100	76.3		ug/L		76	70 - 130	8	20
Naphthalene	ND		100	89.7		ug/L		90	70 - 130	4	20
n-Butylbenzene	ND		100	72.0		ug/L		72	70 - 130	9	20
N-Propylbenzene	ND		100	69.8		ug/L		70	70 - 130	8	20
o-Xylene	ND		100	77.7		ug/L		78	70 - 130	7	20
sec-Butylbenzene	ND		100	70.9		ug/L		71	70 - 130	9	20
Styrene	ND		100	79.3		ug/L		79	70 - 130	6	20
Tert-amyl methyl ether	ND		100	78.6		ug/L		79	70 - 130	1	20
Tert-butyl ethyl ether	ND		100	71.9		ug/L		72	70 - 130	3	20
tert-Butylbenzene	ND		100	73.6		ug/L		74	70 - 130	10	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: 480-57495-33 MSD

Matrix: Water

Analysis Batch: 175074

Client Sample ID: REW-12-20140406-01

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Tetrachloroethene	ND		100	72.7		ug/L		70	70 - 130	9	20
Tetrahydrofuran	ND		200	188		ug/L		94	70 - 130	3	20
Toluene	28		100	103		ug/L		76	70 - 130	5	20
trans-1,2-Dichloroethene	ND		100	70.8		ug/L		71	70 - 130	4	20
trans-1,3-Dichloropropene	ND		100	83.6		ug/L		84	70 - 130	4	20
Trichloroethene	50		100	122		ug/L		72	70 - 130	4	20
Trichlorofluoromethane	ND		100	60.8	F1	ug/L		61	70 - 130	16	20
Vinyl chloride	55		100	112	F1	ug/L		57	70 - 130	4	20
Dibromomethane	ND		100	83.2		ug/L		83	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 480-175163/8

Matrix: Water

Analysis Batch: 175163

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/11/14 12:27	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/11/14 12:27	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			04/11/14 12:27	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/11/14 12:27	1
1,1-Dichloroethane	ND		1.0		ug/L			04/11/14 12:27	1
1,1-Dichloroethene	ND		1.0		ug/L			04/11/14 12:27	1
1,1-Dichloropropene	ND		1.0		ug/L			04/11/14 12:27	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,2,3-Trichloropropane	ND		1.0		ug/L			04/11/14 12:27	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/11/14 12:27	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,2-Dichloroethane	ND		1.0		ug/L			04/11/14 12:27	1
1,2-Dichloropropane	ND		1.0		ug/L			04/11/14 12:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,3-Dichloropropane	ND		1.0		ug/L			04/11/14 12:27	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/11/14 12:27	1
1,4-Dioxane	ND		50		ug/L			04/11/14 12:27	1
2,2-Dichloropropane	ND		1.0		ug/L			04/11/14 12:27	1
2-Butanone (MEK)	ND		10		ug/L			04/11/14 12:27	1
2-Chlorotoluene	ND		1.0		ug/L			04/11/14 12:27	1
2-Hexanone	ND		10		ug/L			04/11/14 12:27	1
4-Chlorotoluene	ND		1.0		ug/L			04/11/14 12:27	1
4-Isopropyltoluene	ND		1.0		ug/L			04/11/14 12:27	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/11/14 12:27	1
Acetone	ND		50		ug/L			04/11/14 12:27	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: MB 480-175163/8

Matrix: Water

Analysis Batch: 175163

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.0		ug/L			04/11/14 12:27	1
Bromobenzene	ND		1.0		ug/L			04/11/14 12:27	1
Bromoform	ND		1.0		ug/L			04/11/14 12:27	1
Bromomethane	ND		2.0		ug/L			04/11/14 12:27	1
Carbon disulfide	ND		10		ug/L			04/11/14 12:27	1
Carbon tetrachloride	ND		1.0		ug/L			04/11/14 12:27	1
Chlorobenzene	ND		1.0		ug/L			04/11/14 12:27	1
Chlorobromomethane	ND		1.0		ug/L			04/11/14 12:27	1
Chlorodibromomethane	ND		0.50		ug/L			04/11/14 12:27	1
Chloroethane	ND		2.0		ug/L			04/11/14 12:27	1
Chloroform	ND		1.0		ug/L			04/11/14 12:27	1
Chloromethane	ND		2.0		ug/L			04/11/14 12:27	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/11/14 12:27	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/11/14 12:27	1
Dichlorobromomethane	ND		0.50		ug/L			04/11/14 12:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/11/14 12:27	1
Ethyl ether	ND		1.0		ug/L			04/11/14 12:27	1
Ethylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
Ethylene Dibromide	ND		1.0		ug/L			04/11/14 12:27	1
Hexachlorobutadiene	ND		0.40		ug/L			04/11/14 12:27	1
Isopropyl ether	ND		10		ug/L			04/11/14 12:27	1
Isopropylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/11/14 12:27	1
Methylene Chloride	ND		1.0		ug/L			04/11/14 12:27	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/11/14 12:27	1
Naphthalene	ND		5.0		ug/L			04/11/14 12:27	1
n-Butylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
N-Propylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
o-Xylene	ND		1.0		ug/L			04/11/14 12:27	1
sec-Butylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
Styrene	ND		1.0		ug/L			04/11/14 12:27	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/11/14 12:27	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/11/14 12:27	1
tert-Butylbenzene	ND		1.0		ug/L			04/11/14 12:27	1
Tetrachloroethene	ND		1.0		ug/L			04/11/14 12:27	1
Tetrahydrofuran	ND		10		ug/L			04/11/14 12:27	1
Toluene	ND		1.0		ug/L			04/11/14 12:27	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/11/14 12:27	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/11/14 12:27	1
Trichloroethene	ND		1.0		ug/L			04/11/14 12:27	1
Trichlorofluoromethane	ND		1.0		ug/L			04/11/14 12:27	1
Vinyl chloride	ND		1.0		ug/L			04/11/14 12:27	1
Dibromomethane	ND		1.0		ug/L			04/11/14 12:27	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	97		70 - 130		04/11/14 12:27	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		04/11/14 12:27	1
4-Bromofluorobenzene (Surr)	101		70 - 130		04/11/14 12:27	1

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: LCS 480-175163/5**

**Matrix: Water**

**Analysis Batch: 175163**

**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	26.3		ug/L		105	70 - 130
1,1,1-Trichloroethane	25.0	23.6		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	70 - 130
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 130
1,1-Dichloroethene	25.0	23.3		ug/L		93	70 - 130
1,1-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	25.0	25.6		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	25.0	26.9		ug/L		108	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.5		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	22.2		ug/L		89	70 - 130
1,2-Dichloropropane	25.0	24.9		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 130
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,3-Dichloropropane	25.0	24.7		ug/L		99	70 - 130
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,4-Dioxane	500	395		ug/L		79	70 - 130
2,2-Dichloropropane	25.0	25.0		ug/L		100	70 - 130
2-Butanone (MEK)	125	131		ug/L		105	70 - 130
2-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
2-Hexanone	125	182 *		ug/L		145	70 - 130
4-Chlorotoluene	25.0	28.0		ug/L		112	70 - 130
4-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 130
4-Methyl-2-pentanone (MIBK)	125	126		ug/L		101	70 - 130
Acetone	125	104		ug/L		83	70 - 130
Benzene	25.0	24.2		ug/L		97	70 - 130
Bromobenzene	25.0	25.4		ug/L		101	70 - 130
Bromoform	25.0	23.9		ug/L		95	70 - 130
Bromomethane	25.0	20.9		ug/L		83	70 - 130
Carbon disulfide	25.0	24.7		ug/L		99	70 - 130
Carbon tetrachloride	25.0	24.5		ug/L		98	70 - 130
Chlorobenzene	25.0	25.4		ug/L		102	70 - 130
Chlorobromomethane	25.0	25.1		ug/L		100	70 - 130
Chlorodibromomethane	24.5	25.8		ug/L		105	70 - 130
Chloroethane	25.0	22.1		ug/L		89	70 - 130
Chloroform	25.0	23.3		ug/L		93	70 - 130
Chloromethane	25.0	22.7		ug/L		91	70 - 130
cis-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130
cis-1,3-Dichloropropene	25.0	24.8		ug/L		99	70 - 130
Dichlorobromomethane	25.0	24.5		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	24.2		ug/L		97	70 - 130
Ethyl ether	25.0	24.7		ug/L		99	70 - 130
Ethylbenzene	25.0	24.9		ug/L		100	70 - 130
Ethylene Dibromide	25.0	25.0		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	27.8		ug/L		111	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-175163/5

Matrix: Water

Analysis Batch: 175163

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl ether	25.0	22.5		ug/L		90	70 - 130
Isopropylbenzene	25.0	25.7		ug/L		103	70 - 130
Methyl tert-butyl ether	25.0	23.8		ug/L		95	70 - 130
Methylene Chloride	25.0	23.9		ug/L		95	70 - 130
m-Xylene & p-Xylene	25.0	25.9		ug/L		104	70 - 130
Naphthalene	25.0	25.0		ug/L		100	70 - 130
n-Butylbenzene	25.0	25.7		ug/L		103	70 - 130
N-Propylbenzene	25.0	25.3		ug/L		101	70 - 130
o-Xylene	25.0	25.9		ug/L		104	70 - 130
sec-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
Styrene	25.0	26.0		ug/L		104	70 - 130
Tert-amyl methyl ether	25.0	22.6		ug/L		91	70 - 130
Tert-butyl ethyl ether	25.0	21.9		ug/L		88	70 - 130
tert-Butylbenzene	25.0	26.6		ug/L		106	70 - 130
Tetrachloroethene	25.0	25.9		ug/L		104	70 - 130
Tetrahydrofuran	50.0	47.9		ug/L		96	70 - 130
Toluene	25.0	25.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130
trans-1,3-Dichloropropene	25.0	25.9		ug/L		104	70 - 130
Trichloroethene	25.0	25.1		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	20.6		ug/L		83	70 - 130
Vinyl chloride	25.0	21.3		ug/L		85	70 - 130
Dibromomethane	25.0	23.0		ug/L		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 480-175163/6

Matrix: Water

Analysis Batch: 175163

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	25.8		ug/L		103	70 - 130	2	20
1,1,1-Trichloroethane	25.0	23.0		ug/L		92	70 - 130	3	20
1,1,1,2-Tetrachloroethane	25.0	24.9		ug/L		100	70 - 130	0	20
1,1,2-Trichloroethane	25.0	24.5		ug/L		98	70 - 130	1	20
1,1-Dichloroethane	25.0	23.8		ug/L		95	70 - 130	2	20
1,1-Dichloroethane	25.0	22.5		ug/L		90	70 - 130	4	20
1,1-Dichloropropene	25.0	23.2		ug/L		93	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	25.9		ug/L		104	70 - 130	0	20
1,2,3-Trichloropropane	25.0	25.1		ug/L		100	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	25.5		ug/L		102	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	25.8		ug/L		103	70 - 130	1	20
1,2-Dichlorobenzene	25.0	25.1		ug/L		101	70 - 130	2	20
1,2-Dichloroethane	25.0	22.3		ug/L		89	70 - 130	0	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCSD 480-175163/6

Matrix: Water

Analysis Batch: 175163

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
1,2-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	26.0		ug/L		104	70 - 130	2	20
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130	2	20
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	1	20
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	1	20
1,4-Dioxane	500	466		ug/L		93	70 - 130	16	20
2,2-Dichloropropane	25.0	23.9		ug/L		96	70 - 130	5	20
2-Butanone (MEK)	125	127		ug/L		101	70 - 130	3	20
2-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130	2	20
2-Hexanone	125	182 *		ug/L		145	70 - 130	0	20
4-Chlorotoluene	25.0	26.7		ug/L		107	70 - 130	5	20
4-Isopropyltoluene	25.0	26.0		ug/L		104	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	70 - 130	1	20
Acetone	125	103		ug/L		82	70 - 130	1	20
Benzene	25.0	23.6		ug/L		95	70 - 130	3	20
Bromobenzene	25.0	25.4		ug/L		102	70 - 130	0	20
Bromoform	25.0	24.1		ug/L		96	70 - 130	1	20
Bromomethane	25.0	20.3		ug/L		81	70 - 130	3	20
Carbon disulfide	25.0	24.0		ug/L		96	70 - 130	3	20
Carbon tetrachloride	25.0	23.8		ug/L		95	70 - 130	3	20
Chlorobenzene	25.0	24.5		ug/L		98	70 - 130	4	20
Chlorobromomethane	25.0	24.4		ug/L		97	70 - 130	3	20
Chlorodibromomethane	24.5	25.7		ug/L		105	70 - 130	0	20
Chloroethane	25.0	21.3		ug/L		85	70 - 130	4	20
Chloroform	25.0	22.8		ug/L		91	70 - 130	2	20
Chloromethane	25.0	21.5		ug/L		86	70 - 130	5	20
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 130	2	20
cis-1,3-Dichloropropene	25.0	24.7		ug/L		99	70 - 130	0	20
Dichlorobromomethane	25.0	24.0		ug/L		96	70 - 130	2	20
Dichlorodifluoromethane	25.0	22.6		ug/L		90	70 - 130	7	20
Ethyl ether	25.0	24.4		ug/L		98	70 - 130	1	20
Ethylbenzene	25.0	24.3		ug/L		97	70 - 130	2	20
Ethylene Dibromide	25.0	24.2		ug/L		97	70 - 130	3	20
Hexachlorobutadiene	25.0	27.6		ug/L		111	70 - 130	0	20
Isopropyl ether	25.0	22.1		ug/L		88	70 - 130	2	20
Isopropylbenzene	25.0	24.9		ug/L		99	70 - 130	3	20
Methyl tert-butyl ether	25.0	24.0		ug/L		96	70 - 130	1	20
Methylene Chloride	25.0	23.2		ug/L		93	70 - 130	3	20
m-Xylene & p-Xylene	25.0	25.2		ug/L		101	70 - 130	3	20
Naphthalene	25.0	25.5		ug/L		102	70 - 130	2	20
n-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	1	20
N-Propylbenzene	25.0	24.5		ug/L		98	70 - 130	3	20
o-Xylene	25.0	25.2		ug/L		101	70 - 130	3	20
sec-Butylbenzene	25.0	25.0		ug/L		100	70 - 130	2	20
Styrene	25.0	25.4		ug/L		102	70 - 130	2	20
Tert-amyl methyl ether	25.0	22.3		ug/L		89	70 - 130	1	20
Tert-butyl ethyl ether	25.0	21.6		ug/L		86	70 - 130	1	20
tert-Butylbenzene	25.0	25.7		ug/L		103	70 - 130	3	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: LCSD 480-175163/6**

**Matrix: Water**

**Analysis Batch: 175163**

**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
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130	2	20
Tetrahydrofuran	50.0	47.5		ug/L		95	70 - 130	1	20
Toluene	25.0	24.8		ug/L		99	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	23.2		ug/L		93	70 - 130	4	20
trans-1,3-Dichloropropene	25.0	25.4		ug/L		102	70 - 130	2	20
Trichloroethene	25.0	24.1		ug/L		96	70 - 130	4	20
Trichlorofluoromethane	25.0	19.6		ug/L		78	70 - 130	5	20
Vinyl chloride	25.0	20.3		ug/L		81	70 - 130	5	20
Dibromomethane	25.0	23.0		ug/L		92	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

**Lab Sample ID: 480-57495-17 MS**

**Matrix: Water**

**Analysis Batch: 175163**

**Client Sample ID: MW-551-20140408-01**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		1000	1070		ug/L		107	70 - 130
1,1,1-Trichloroethane	ND		1000	980		ug/L		98	70 - 130
1,1,1,2,2-Tetrachloroethane	ND		1000	992		ug/L		99	70 - 130
1,1,2-Trichloroethane	ND		1000	985		ug/L		99	70 - 130
1,1-Dichloroethane	ND		1000	1010		ug/L		101	70 - 130
1,1-Dichloroethene	ND		1000	987		ug/L		99	70 - 130
1,1-Dichloropropene	ND		1000	994		ug/L		99	70 - 130
1,2,3-Trichlorobenzene	ND		1000	1010		ug/L		101	70 - 130
1,2,3-Trichloropropane	ND		1000	995		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	ND		1000	975		ug/L		97	70 - 130
1,2,4-Trimethylbenzene	ND		1000	1050		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	ND		1000	975		ug/L		97	70 - 130
1,2-Dichlorobenzene	ND		1000	1010		ug/L		101	70 - 130
1,2-Dichloroethane	ND		1000	907		ug/L		91	70 - 130
1,2-Dichloropropane	ND		1000	1020		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	ND		1000	1040		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		1000	1020		ug/L		102	70 - 130
1,3-Dichloropropane	ND		1000	993		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND		1000	1010		ug/L		101	70 - 130
1,4-Dioxane	ND		20000	15000		ug/L		75	70 - 130
2,2-Dichloropropane	ND		1000	881		ug/L		88	70 - 130
2-Butanone (MEK)	ND		5000	6380		ug/L		124	70 - 130
2-Chlorotoluene	ND		1000	1050		ug/L		105	70 - 130
2-Hexanone	ND *		5000	7010	F1	ug/L		140	70 - 130
4-Chlorotoluene	ND		1000	1080		ug/L		108	70 - 130
4-Isopropyltoluene	ND		1000	1050		ug/L		105	70 - 130
4-Methyl-2-pentanone (MIBK)	ND		5000	4930		ug/L		99	70 - 130
Acetone	15000		5000	19300		ug/L		92	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: 480-57495-17 MS**

**Matrix: Water**

**Analysis Batch: 175163**

**Client Sample ID: MW-551-20140408-01**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene	ND		1000	1000		ug/L		100	70 - 130
Bromobenzene	ND		1000	1020		ug/L		102	70 - 130
Bromoform	ND		1000	938		ug/L		94	70 - 130
Bromomethane	ND		1000	904		ug/L		90	70 - 130
Carbon disulfide	ND		1000	1000		ug/L		100	70 - 130
Carbon tetrachloride	ND		1000	1020		ug/L		102	70 - 130
Chlorobenzene	ND		1000	1010		ug/L		101	70 - 130
Chlorobromomethane	ND		1000	1040		ug/L		104	70 - 130
Chlorodibromomethane	ND		980	1020		ug/L		104	70 - 130
Chloroethane	ND		1000	966		ug/L		97	70 - 130
Chloroform	ND		1000	972		ug/L		97	70 - 130
Chloromethane	ND		1000	989		ug/L		99	70 - 130
cis-1,2-Dichloroethene	ND		1000	1030		ug/L		103	70 - 130
cis-1,3-Dichloropropene	ND		1000	948		ug/L		95	70 - 130
Dichlorobromomethane	ND		1000	994		ug/L		99	70 - 130
Dichlorodifluoromethane	ND		1000	1040		ug/L		104	70 - 130
Ethyl ether	ND		1000	997		ug/L		100	70 - 130
Ethylbenzene	ND		1000	1000		ug/L		100	70 - 130
Ethylene Dibromide	ND		1000	992		ug/L		99	70 - 130
Hexachlorobutadiene	ND		1000	1100		ug/L		110	70 - 130
Isopropyl ether	ND		1000	903		ug/L		90	70 - 130
Isopropylbenzene	ND		1000	1010		ug/L		101	70 - 130
Methyl tert-butyl ether	ND		1000	970		ug/L		97	70 - 130
Methylene Chloride	ND		1000	1010		ug/L		101	70 - 130
m-Xylene & p-Xylene	ND		1000	1040		ug/L		104	70 - 130
Naphthalene	ND		1000	952		ug/L		95	70 - 130
n-Butylbenzene	ND		1000	1010		ug/L		101	70 - 130
N-Propylbenzene	ND		1000	988		ug/L		99	70 - 130
o-Xylene	ND		1000	1040		ug/L		104	70 - 130
sec-Butylbenzene	ND		1000	1020		ug/L		102	70 - 130
Styrene	ND		1000	1030		ug/L		103	70 - 130
Tert-amyl methyl ether	ND		1000	898		ug/L		90	70 - 130
Tert-butyl ethyl ether	ND		1000	878		ug/L		88	70 - 130
tert-Butylbenzene	ND		1000	1050		ug/L		105	70 - 130
Tetrachloroethene	ND		1000	1020		ug/L		102	70 - 130
Tetrahydrofuran	ND		2000	1910		ug/L		95	70 - 130
Toluene	ND		1000	1030		ug/L		103	70 - 130
trans-1,2-Dichloroethene	ND		1000	1020		ug/L		102	70 - 130
trans-1,3-Dichloropropene	ND		1000	979		ug/L		98	70 - 130
Trichloroethene	ND		1000	1030		ug/L		103	70 - 130
Trichlorofluoromethane	ND		1000	894		ug/L		89	70 - 130
Vinyl chloride	ND		1000	966		ug/L		97	70 - 130
Dibromomethane	ND		1000	945		ug/L		94	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: 480-57495-17 MSD

Matrix: Water

Analysis Batch: 175163

Client Sample ID: MW-551-20140408-01

Prep Type: Total/NA

Analyte	Sample	Sample Qualifier	Spike Added	MSD	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result			Result					Limits		
1,1,1,2-Tetrachloroethane	ND		1000	1030		ug/L		103	70 - 130	4	20
1,1,1-Trichloroethane	ND		1000	931		ug/L		93	70 - 130	5	20
1,1,2,2-Tetrachloroethane	ND		1000	985		ug/L		98	70 - 130	1	20
1,1,2-Trichloroethane	ND		1000	978		ug/L		98	70 - 130	1	20
1,1-Dichloroethane	ND		1000	974		ug/L		97	70 - 130	4	20
1,1-Dichloroethene	ND		1000	923		ug/L		92	70 - 130	7	20
1,1-Dichloropropene	ND		1000	961		ug/L		96	70 - 130	3	20
1,2,3-Trichlorobenzene	ND		1000	1020		ug/L		102	70 - 130	1	20
1,2,3-Trichloropropane	ND		1000	973		ug/L		97	70 - 130	2	20
1,2,4-Trichlorobenzene	ND		1000	985		ug/L		98	70 - 130	1	20
1,2,4-Trimethylbenzene	ND		1000	1030		ug/L		103	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	ND		1000	1010		ug/L		101	70 - 130	4	20
1,2-Dichlorobenzene	ND		1000	996		ug/L		100	70 - 130	1	20
1,2-Dichloroethane	ND		1000	898		ug/L		90	70 - 130	1	20
1,2-Dichloropropane	ND		1000	994		ug/L		99	70 - 130	2	20
1,3,5-Trimethylbenzene	ND		1000	1020		ug/L		102	70 - 130	2	20
1,3-Dichlorobenzene	ND		1000	1010		ug/L		101	70 - 130	2	20
1,3-Dichloropropane	ND		1000	982		ug/L		98	70 - 130	1	20
1,4-Dichlorobenzene	ND		1000	999		ug/L		100	70 - 130	1	20
1,4-Dioxane	ND		20000	18400	F2	ug/L		92	70 - 130	21	20
2,2-Dichloropropane	ND		1000	839		ug/L		84	70 - 130	5	20
2-Butanone (MEK)	ND		5000	6550		ug/L		127	70 - 130	3	20
2-Chlorotoluene	ND		1000	1030		ug/L		103	70 - 130	2	20
2-Hexanone	ND *		5000	7160	F1	ug/L		143	70 - 130	2	20
4-Chlorotoluene	ND		1000	1070		ug/L		107	70 - 130	2	20
4-Isopropyltoluene	ND		1000	1020		ug/L		102	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	ND		5000	4950		ug/L		99	70 - 130	0	20
Acetone	15000		5000	19000		ug/L		85	70 - 130	2	20
Benzene	ND		1000	966		ug/L		97	70 - 130	4	20
Bromobenzene	ND		1000	1000		ug/L		100	70 - 130	2	20
Bromoform	ND		1000	943		ug/L		94	70 - 130	0	20
Bromomethane	ND		1000	832		ug/L		83	70 - 130	8	20
Carbon disulfide	ND		1000	987		ug/L		99	70 - 130	2	20
Carbon tetrachloride	ND		1000	971		ug/L		97	70 - 130	4	20
Chlorobenzene	ND		1000	1000		ug/L		100	70 - 130	1	20
Chlorobromomethane	ND		1000	1010		ug/L		101	70 - 130	4	20
Chlorodibromomethane	ND		980	1010		ug/L		103	70 - 130	1	20
Chloroethane	ND		1000	884		ug/L		88	70 - 130	9	20
Chloroform	ND		1000	932		ug/L		93	70 - 130	4	20
Chloromethane	ND		1000	893		ug/L		89	70 - 130	10	20
cis-1,2-Dichloroethene	ND		1000	1000		ug/L		100	70 - 130	3	20
cis-1,3-Dichloropropene	ND		1000	960		ug/L		96	70 - 130	1	20
Dichlorobromomethane	ND		1000	988		ug/L		99	70 - 130	1	20
Dichlorodifluoromethane	ND		1000	941		ug/L		94	70 - 130	10	20
Ethyl ether	ND		1000	983		ug/L		98	70 - 130	1	20
Ethylbenzene	ND		1000	981		ug/L		98	70 - 130	2	20
Ethylene Dibromide	ND		1000	981		ug/L		98	70 - 130	1	20
Hexachlorobutadiene	ND		1000	1070		ug/L		107	70 - 130	3	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: 480-57495-17 MSD**

**Matrix: Water**

**Analysis Batch: 175163**

**Client Sample ID: MW-551-20140408-01**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Isopropyl ether	ND		1000	892		ug/L		89	70 - 130	1	20
Isopropylbenzene	ND		1000	983		ug/L		98	70 - 130	2	20
Methyl tert-butyl ether	ND		1000	954		ug/L		95	70 - 130	2	20
Methylene Chloride	ND		1000	965		ug/L		96	70 - 130	4	20
m-Xylene & p-Xylene	ND		1000	1020		ug/L		102	70 - 130	2	20
Naphthalene	ND		1000	979		ug/L		98	70 - 130	3	20
n-Butylbenzene	ND		1000	971		ug/L		97	70 - 130	4	20
N-Propylbenzene	ND		1000	975		ug/L		98	70 - 130	1	20
o-Xylene	ND		1000	1010		ug/L		101	70 - 130	3	20
sec-Butylbenzene	ND		1000	990		ug/L		99	70 - 130	3	20
Styrene	ND		1000	1030		ug/L		103	70 - 130	1	20
Tert-amyl methyl ether	ND		1000	897		ug/L		90	70 - 130	0	20
Tert-butyl ethyl ether	ND		1000	865		ug/L		87	70 - 130	1	20
tert-Butylbenzene	ND		1000	1040		ug/L		104	70 - 130	1	20
Tetrachloroethene	ND		1000	991		ug/L		99	70 - 130	3	20
Tetrahydrofuran	ND		2000	1940		ug/L		97	70 - 130	2	20
Toluene	ND		1000	1010		ug/L		101	70 - 130	2	20
trans-1,2-Dichloroethene	ND		1000	971		ug/L		97	70 - 130	5	20
trans-1,3-Dichloropropene	ND		1000	976		ug/L		98	70 - 130	0	20
Trichloroethene	ND		1000	998		ug/L		100	70 - 130	3	20
Trichlorofluoromethane	ND		1000	821		ug/L		82	70 - 130	9	20
Vinyl chloride	ND		1000	874		ug/L		87	70 - 130	10	20
Dibromomethane	ND		1000	947		ug/L		95	70 - 130	0	20

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	105		70 - 130

**Lab Sample ID: MB 480-175485/9**

**Matrix: Water**

**Analysis Batch: 175485**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			04/13/14 22:07	1
1,1,1-Trichloroethane	ND		1.0		ug/L			04/13/14 22:07	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			04/13/14 22:07	1
1,1,2-Trichloroethane	ND		1.0		ug/L			04/13/14 22:07	1
1,1-Dichloroethane	ND		1.0		ug/L			04/13/14 22:07	1
1,1-Dichloroethene	ND		1.0		ug/L			04/13/14 22:07	1
1,1-Dichloropropene	ND		1.0		ug/L			04/13/14 22:07	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,2,3-Trichloropropene	ND		1.0		ug/L			04/13/14 22:07	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			04/13/14 22:07	1
1,2-Dichlorobenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,2-Dichloroethane	ND		1.0		ug/L			04/13/14 22:07	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

**Lab Sample ID: MB 480-175485/9**

**Matrix: Water**

**Analysis Batch: 175485**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloropropane	ND		1.0		ug/L			04/13/14 22:07	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,3-Dichlorobenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,3-Dichloropropane	ND		1.0		ug/L			04/13/14 22:07	1
1,4-Dichlorobenzene	ND		1.0		ug/L			04/13/14 22:07	1
1,4-Dioxane	ND		50		ug/L			04/13/14 22:07	1
2,2-Dichloropropane	ND		1.0		ug/L			04/13/14 22:07	1
2-Butanone (MEK)	ND		10		ug/L			04/13/14 22:07	1
2-Chlorotoluene	ND		1.0		ug/L			04/13/14 22:07	1
2-Hexanone	ND		10		ug/L			04/13/14 22:07	1
4-Chlorotoluene	ND		1.0		ug/L			04/13/14 22:07	1
4-Isopropyltoluene	ND		1.0		ug/L			04/13/14 22:07	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			04/13/14 22:07	1
Acetone	ND		50		ug/L			04/13/14 22:07	1
Benzene	ND		1.0		ug/L			04/13/14 22:07	1
Bromobenzene	ND		1.0		ug/L			04/13/14 22:07	1
Bromoform	ND		1.0		ug/L			04/13/14 22:07	1
Bromomethane	ND		2.0		ug/L			04/13/14 22:07	1
Carbon disulfide	ND		10		ug/L			04/13/14 22:07	1
Carbon tetrachloride	ND		1.0		ug/L			04/13/14 22:07	1
Chlorobenzene	ND		1.0		ug/L			04/13/14 22:07	1
Chlorobromomethane	ND		1.0		ug/L			04/13/14 22:07	1
Chlorodibromomethane	ND		0.50		ug/L			04/13/14 22:07	1
Chloroethane	ND		2.0		ug/L			04/13/14 22:07	1
Chloroform	ND		1.0		ug/L			04/13/14 22:07	1
Chloromethane	ND		2.0		ug/L			04/13/14 22:07	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			04/13/14 22:07	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			04/13/14 22:07	1
Dichlorobromomethane	ND		0.50		ug/L			04/13/14 22:07	1
Dichlorodifluoromethane	ND		1.0		ug/L			04/13/14 22:07	1
Ethyl ether	ND		1.0		ug/L			04/13/14 22:07	1
Ethylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
Ethylene Dibromide	ND		1.0		ug/L			04/13/14 22:07	1
Hexachlorobutadiene	ND		0.40		ug/L			04/13/14 22:07	1
Isopropyl ether	ND		10		ug/L			04/13/14 22:07	1
Isopropylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
Methyl tert-butyl ether	ND		1.0		ug/L			04/13/14 22:07	1
Methylene Chloride	ND		1.0		ug/L			04/13/14 22:07	1
m-Xylene & p-Xylene	ND		2.0		ug/L			04/13/14 22:07	1
Naphthalene	ND		5.0		ug/L			04/13/14 22:07	1
n-Butylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
N-Propylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
o-Xylene	ND		1.0		ug/L			04/13/14 22:07	1
sec-Butylbenzene	ND		1.0		ug/L			04/13/14 22:07	1
Styrene	ND		1.0		ug/L			04/13/14 22:07	1
Tert-amyl methyl ether	ND		5.0		ug/L			04/13/14 22:07	1
Tert-butyl ethyl ether	ND		5.0		ug/L			04/13/14 22:07	1
tert-Butylbenzene	ND		1.0		ug/L			04/13/14 22:07	1

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: MB 480-175485/9

Matrix: Water

Analysis Batch: 175485

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0		ug/L			04/13/14 22:07	1
Tetrahydrofuran	ND		10		ug/L			04/13/14 22:07	1
Toluene	ND		1.0		ug/L			04/13/14 22:07	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			04/13/14 22:07	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			04/13/14 22:07	1
Trichloroethene	ND		1.0		ug/L			04/13/14 22:07	1
Trichlorofluoromethane	ND		1.0		ug/L			04/13/14 22:07	1
Vinyl chloride	ND		1.0		ug/L			04/13/14 22:07	1
Dibromomethane	ND		1.0		ug/L			04/13/14 22:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		04/13/14 22:07	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		04/13/14 22:07	1
4-Bromofluorobenzene (Surr)	96		70 - 130		04/13/14 22:07	1

Lab Sample ID: LCS 480-175485/6

Matrix: Water

Analysis Batch: 175485

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	24.4		ug/L		97	70 - 130
1,1,1-Trichloroethane	25.0	24.8		ug/L		99	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	24.9		ug/L		99	70 - 130
1,1-Dichloroethane	25.0	24.7		ug/L		99	70 - 130
1,1-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloropropene	25.0	25.5		ug/L		102	70 - 130
1,2,3-Trichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	70 - 130
1,2,4-Trichlorobenzene	25.0	25.3		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.3		ug/L		93	70 - 130
1,2-Dichlorobenzene	25.0	24.9		ug/L		99	70 - 130
1,2-Dichloroethane	25.0	26.4		ug/L		106	70 - 130
1,2-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	70 - 130
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130
1,4-Dichlorobenzene	25.0	24.1		ug/L		97	70 - 130
1,4-Dioxane	500	452		ug/L		90	70 - 130
2,2-Dichloropropane	25.0	23.3		ug/L		93	70 - 130
2-Butanone (MEK)	125	142		ug/L		113	70 - 130
2-Chlorotoluene	25.0	24.4		ug/L		98	70 - 130
2-Hexanone	125	125		ug/L		100	70 - 130
4-Chlorotoluene	25.0	22.0		ug/L		88	70 - 130
4-Isopropyltoluene	25.0	24.9		ug/L		100	70 - 130
4-Methyl-2-pentanone (MIBK)	125	124		ug/L		99	70 - 130
Acetone	125	125		ug/L		100	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCS 480-175485/6

Matrix: Water

Analysis Batch: 175485

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	24.9		ug/L		100	70 - 130
Bromobenzene	25.0	24.3		ug/L		97	70 - 130
Bromoform	25.0	21.2		ug/L		85	70 - 130
Bromomethane	25.0	29.6		ug/L		118	70 - 130
Carbon disulfide	25.0	21.1		ug/L		84	70 - 130
Carbon tetrachloride	25.0	25.3		ug/L		101	70 - 130
Chlorobenzene	25.0	24.9		ug/L		99	70 - 130
Chlorobromomethane	25.0	25.3		ug/L		101	70 - 130
Chlorodibromomethane	24.5	24.5		ug/L		100	70 - 130
Chloroethane	25.0	28.9		ug/L		116	70 - 130
Chloroform	25.0	25.1		ug/L		100	70 - 130
Chloromethane	25.0	24.2		ug/L		97	70 - 130
cis-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 130
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130
Dichlorobromomethane	25.0	25.5		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	22.6		ug/L		90	70 - 130
Ethyl ether	25.0	25.0		ug/L		100	70 - 130
Ethylbenzene	25.0	24.2		ug/L		97	70 - 130
Ethylene Dibromide	25.0	24.8		ug/L		99	70 - 130
Hexachlorobutadiene	25.0	25.5		ug/L		102	70 - 130
Isopropyl ether	25.0	26.3		ug/L		105	70 - 130
Isopropylbenzene	25.0	24.1		ug/L		96	70 - 130
Methyl tert-butyl ether	25.0	24.3		ug/L		97	70 - 130
Methylene Chloride	25.0	23.7		ug/L		95	70 - 130
m-Xylene & p-Xylene	25.0	24.7		ug/L		99	70 - 130
Naphthalene	25.0	25.8		ug/L		103	70 - 130
n-Butylbenzene	25.0	25.4		ug/L		102	70 - 130
N-Propylbenzene	25.0	24.2		ug/L		97	70 - 130
o-Xylene	25.0	24.1		ug/L		96	70 - 130
sec-Butylbenzene	25.0	24.7		ug/L		99	70 - 130
Styrene	25.0	24.9		ug/L		99	70 - 130
Tert-amyl methyl ether	25.0	25.7		ug/L		103	70 - 130
Tert-butyl ethyl ether	25.0	25.4		ug/L		101	70 - 130
tert-Butylbenzene	25.0	24.0		ug/L		96	70 - 130
Tetrachloroethene	25.0	26.1		ug/L		104	70 - 130
Tetrahydrofuran	50.0	65.3 *		ug/L		131	70 - 130
Toluene	25.0	24.2		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	23.7		ug/L		95	70 - 130
Trichloroethene	25.0	24.0		ug/L		96	70 - 130
Trichlorofluoromethane	25.0	27.1		ug/L		108	70 - 130
Vinyl chloride	25.0	23.8		ug/L		95	70 - 130
Dibromomethane	25.0	26.1		ug/L		104	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCSD 480-175485/7

Matrix: Water

Analysis Batch: 175485

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	1	20
1,1,1-Trichloroethane	25.0	24.3		ug/L		97	70 - 130	2	20
1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130	3	20
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	70 - 130	0	20
1,1-Dichloroethane	25.0	24.6		ug/L		98	70 - 130	1	20
1,1-Dichloroethene	25.0	24.1		ug/L		96	70 - 130	1	20
1,1-Dichloropropene	25.0	24.6		ug/L		98	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	25.2		ug/L		101	70 - 130	0	20
1,2,3-Trichloropropane	25.0	24.2		ug/L		97	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		101	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	23.1		ug/L		92	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	70 - 130	2	20
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	70 - 130	4	20
1,2-Dichloroethane	25.0	25.9		ug/L		104	70 - 130	2	20
1,2-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	23.1		ug/L		92	70 - 130	4	20
1,3-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130	4	20
1,3-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	0	20
1,4-Dichlorobenzene	25.0	23.2		ug/L		93	70 - 130	4	20
1,4-Dioxane	500	463		ug/L		93	70 - 130	2	20
2,2-Dichloropropane	25.0	22.8		ug/L		91	70 - 130	2	20
2-Butanone (MEK)	125	135		ug/L		108	70 - 130	4	20
2-Chlorotoluene	25.0	23.8		ug/L		95	70 - 130	2	20
2-Hexanone	125	123		ug/L		99	70 - 130	1	20
4-Chlorotoluene	25.0	21.2		ug/L		85	70 - 130	4	20
4-Isopropyltoluene	25.0	24.0		ug/L		96	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	70 - 130	2	20
Acetone	125	126		ug/L		101	70 - 130	0	20
Benzene	25.0	24.7		ug/L		99	70 - 130	1	20
Bromobenzene	25.0	23.6		ug/L		95	70 - 130	3	20
Bromoform	25.0	21.4		ug/L		86	70 - 130	1	20
Bromomethane	25.0	30.4		ug/L		122	70 - 130	3	20
Carbon disulfide	25.0	20.4		ug/L		82	70 - 130	3	20
Carbon tetrachloride	25.0	24.7		ug/L		99	70 - 130	2	20
Chlorobenzene	25.0	23.8		ug/L		95	70 - 130	5	20
Chlorobromomethane	25.0	24.8		ug/L		99	70 - 130	2	20
Chlorodibromomethane	24.5	24.0		ug/L		98	70 - 130	2	20
Chloroethane	25.0	28.7		ug/L		115	70 - 130	1	20
Chloroform	25.0	25.0		ug/L		100	70 - 130	0	20
Chloromethane	25.0	24.6		ug/L		98	70 - 130	2	20
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	2	20
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130	0	20
Dichlorobromomethane	25.0	25.6		ug/L		102	70 - 130	0	20
Dichlorodifluoromethane	25.0	23.1		ug/L		92	70 - 130	2	20
Ethyl ether	25.0	25.1		ug/L		100	70 - 130	0	20
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130	1	20
Ethylene Dibromide	25.0	24.2		ug/L		97	70 - 130	2	20
Hexachlorobutadiene	25.0	24.3		ug/L		97	70 - 130	5	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-57495-1

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

Lab Sample ID: LCSD 480-175485/7

Matrix: Water

Analysis Batch: 175485

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier				Limits		
Isopropyl ether	25.0	26.0		ug/L		104	70 - 130	1	20
Isopropylbenzene	25.0	23.1		ug/L		93	70 - 130	4	20
Methyl tert-butyl ether	25.0	24.5		ug/L		98	70 - 130	1	20
Methylene Chloride	25.0	23.9		ug/L		95	70 - 130	1	20
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	70 - 130	3	20
Naphthalene	25.0	25.0		ug/L		100	70 - 130	3	20
n-Butylbenzene	25.0	23.9		ug/L		96	70 - 130	6	20
N-Propylbenzene	25.0	23.3		ug/L		93	70 - 130	4	20
o-Xylene	25.0	23.7		ug/L		95	70 - 130	2	20
sec-Butylbenzene	25.0	23.5		ug/L		94	70 - 130	5	20
Styrene	25.0	24.1		ug/L		96	70 - 130	3	20
Tert-amyl methyl ether	25.0	25.9		ug/L		103	70 - 130	1	20
Tert-butyl ethyl ether	25.0	26.0		ug/L		104	70 - 130	2	20
tert-Butylbenzene	25.0	23.3		ug/L		93	70 - 130	3	20
Tetrachloroethene	25.0	24.5		ug/L		98	70 - 130	6	20
Tetrahydrofuran	50.0	66.1 *		ug/L		132	70 - 130	1	20
Toluene	25.0	23.3		ug/L		93	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	23.8		ug/L		95	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	23.9		ug/L		95	70 - 130	1	20
Trichloroethene	25.0	24.1		ug/L		96	70 - 130	1	20
Trichlorofluoromethane	25.0	26.2		ug/L		105	70 - 130	3	20
Vinyl chloride	25.0	23.2		ug/L		93	70 - 130	3	20
Dibromomethane	25.0	25.6		ug/L		103	70 - 130	2	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

# QC Association Summary

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

TestAmerica Job ID: 480-57495-1

## GC/MS VOA

### Analysis Batch: 174684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-1	DEP-19M-20140405-01	Total/NA	Water	8260C	
480-57495-2	DEP-21-20140405-01	Total/NA	Water	8260C	
480-57495-3	MW-261S-20140408-01	Total/NA	Water	8260C	
480-57495-4	MW-263M-20140408-01	Total/NA	Water	8260C	
480-57495-5	MW-264M-20140408-01	Total/NA	Water	8260C	
480-57495-6	MW-265S-20140408-01	Total/NA	Water	8260C	
480-57495-7	MW-263M-20140408-01	Total/NA	Water	8260C	
480-57495-9	MW-266Ma-20140405-01	Total/NA	Water	8260C	
480-57495-10	MW-266Mb-20140405-01	Total/NA	Water	8260C	
LCS 480-174684/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-174684/7	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-174684/9	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 174949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-7 - DL	MW-263M-20140408-01	Total/NA	Water	8260C	
480-57495-8	MW-265D-20140408-01	Total/NA	Water	8260C	
480-57495-11	MW-267S-20140405-01	Total/NA	Water	8260C	
480-57495-12	MW-267M-20140405-01	Total/NA	Water	8260C	
480-57495-13	MW-268S-20140407	Total/NA	Water	8260C	
480-57495-14	MW-268M-20140407	Total/NA	Water	8260C	
480-57495-15	MW-268D-20140405	Total/NA	Water	8260C	
480-57495-16	MW-269Ma-20140405	Total/NA	Water	8260C	
480-57495-20	MW-560-20140407-01	Total/NA	Water	8260C	
LCS 480-174949/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-174949/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-174949/8	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 175074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-22	MW-562-20140407-01	Total/NA	Water	8260C	
480-57495-23	MW-563-20140407-01	Total/NA	Water	8260C	
480-57495-27	REW-6-20140406-01	Total/NA	Water	8260C	
480-57495-28	REW-7-20140406-01	Total/NA	Water	8260C	
480-57495-29	REW-8-20140406-01	Total/NA	Water	8260C	
480-57495-30	REW-9-20140406-01	Total/NA	Water	8260C	
480-57495-31	REW-10-20140406-01	Total/NA	Water	8260C	
480-57495-32	REW-11-20140406-01	Total/NA	Water	8260C	
480-57495-33	REW-12-20140406-01	Total/NA	Water	8260C	
480-57495-33 MS	REW-12-20140406-01	Total/NA	Water	8260C	
480-57495-33 MSD	REW-12-20140406-01	Total/NA	Water	8260C	
480-57495-34	DupX1-20140405-01	Total/NA	Water	8260C	
480-57495-35	DupX2-20140406-01	Total/NA	Water	8260C	
480-57495-36	DupX3-20140408-01	Total/NA	Water	8260C	
LCS 480-175074/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-175074/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-175074/8	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 175163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-17	MW-551-20140408-01	Total/NA	Water	8260C	

TestAmerica Buffalo

# QC Association Summary

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

TestAmerica Job ID: 480-57495-1

## GC/MS VOA (Continued)

### Analysis Batch: 175163 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-17 MS	MW-551-20140408-01	Total/NA	Water	8260C	
480-57495-17 MSD	MW-551-20140408-01	Total/NA	Water	8260C	
480-57495-18	MW-552-20140407-01	Total/NA	Water	8260C	
480-57495-19	MW-553-20140407-01	Total/NA	Water	8260C	
480-57495-20 - DL	MW-560-20140407-01	Total/NA	Water	8260C	
480-57495-21	MW-561-20140407-01	Total/NA	Water	8260C	
480-57495-22 - DL	MW-562-20140407-01	Total/NA	Water	8260C	
480-57495-24	REW-1-20140406-01	Total/NA	Water	8260C	
480-57495-25	REW-4-20140406-01	Total/NA	Water	8260C	
480-57495-26	REW-5-20140406-01	Total/NA	Water	8260C	
480-57495-35 - DL	DupX2-20140406-01	Total/NA	Water	8260C	
480-57495-37	Trip Blanks	Total/NA	Water	8260C	
LCS 480-175163/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-175163/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-175163/8	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 175364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-3	MW-261S-20140408-01	Total/NA	Water	8260B SIM	
480-57495-7	MW-263M-20140408-01	Total/NA	Water	8260B SIM	
480-57495-9	MW-266Ma-20140405-01	Total/NA	Water	8260B SIM	
480-57495-11	MW-267S-20140405-01	Total/NA	Water	8260B SIM	
480-57495-12	MW-267M-20140405-01	Total/NA	Water	8260B SIM	
480-57495-13	MW-268S-20140407	Total/NA	Water	8260B SIM	
480-57495-14	MW-268M-20140407	Total/NA	Water	8260B SIM	
480-57495-16	MW-269Ma-20140405	Total/NA	Water	8260B SIM	
480-57495-18	MW-552-20140407-01	Total/NA	Water	8260B SIM	
480-57495-36	DupX3-20140408-01	Total/NA	Water	8260B SIM	
LCS 480-175364/4	Lab Control Sample	Total/NA	Water	8260B SIM	
LCSD 480-175364/5	Lab Control Sample Dup	Total/NA	Water	8260B SIM	
MB 480-175364/6	Method Blank	Total/NA	Water	8260B SIM	

### Analysis Batch: 175485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-57495-36 - DL	DupX3-20140408-01	Total/NA	Water	8260C	
LCS 480-175485/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-175485/7	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-175485/9	Method Blank	Total/NA	Water	8260C	

# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: DEP-19M-20140405-01**

**Lab Sample ID: 480-57495-1**

Date Collected: 04/05/14 10:30

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174684	04/09/14 17:26	LCH	TAL BUF

**Client Sample ID: DEP-21-20140405-01**

**Lab Sample ID: 480-57495-2**

Date Collected: 04/05/14 11:25

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174684	04/09/14 17:50	LCH	TAL BUF

**Client Sample ID: MW-261S-20140408-01**

**Lab Sample ID: 480-57495-3**

Date Collected: 04/08/14 07:20

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		2	175364	04/11/14 23:36	CDC	TAL BUF
Total/NA	Analysis	8260C		50	174684	04/09/14 18:14	LCH	TAL BUF

**Client Sample ID: MW-263M-20140408-01**

**Lab Sample ID: 480-57495-4**

Date Collected: 04/08/14 11:45

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174684	04/09/14 18:37	LCH	TAL BUF

**Client Sample ID: MW-264M-20140408-01**

**Lab Sample ID: 480-57495-5**

Date Collected: 04/08/14 10:30

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174684	04/09/14 19:01	LCH	TAL BUF

**Client Sample ID: MW-265S-20140408-01**

**Lab Sample ID: 480-57495-6**

Date Collected: 04/08/14 09:25

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174684	04/09/14 19:25	LCH	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-263M-20140408-01**

**Lab Sample ID: 480-57495-7**

Date Collected: 04/08/14 08:45

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		2	175364	04/12/14 00:00	CDC	TAL BUF
Total/NA	Analysis	8260C	DL	5	174949	04/10/14 15:48	NMD1	TAL BUF
Total/NA	Analysis	8260C		1	174684	04/09/14 19:49	LCH	TAL BUF

**Client Sample ID: MW-265D-20140408-01**

**Lab Sample ID: 480-57495-8**

Date Collected: 04/08/14 08:15

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174949	04/10/14 16:14	NMD1	TAL BUF

**Client Sample ID: MW-266Ma-20140405-01**

**Lab Sample ID: 480-57495-9**

Date Collected: 04/05/14 14:50

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	175364	04/12/14 00:23	CDC	TAL BUF
Total/NA	Analysis	8260C		1	174684	04/09/14 20:37	LCH	TAL BUF

**Client Sample ID: MW-266Mb-20140405-01**

**Lab Sample ID: 480-57495-10**

Date Collected: 04/05/14 15:20

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174684	04/09/14 21:00	LCH	TAL BUF

**Client Sample ID: MW-267S-20140405-01**

**Lab Sample ID: 480-57495-11**

Date Collected: 04/05/14 13:20

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		2	175364	04/12/14 00:48	CDC	TAL BUF
Total/NA	Analysis	8260C		5	174949	04/10/14 16:39	NMD1	TAL BUF

**Client Sample ID: MW-267M-20140405-01**

**Lab Sample ID: 480-57495-12**

Date Collected: 04/05/14 12:50

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		2	175364	04/12/14 01:11	CDC	TAL BUF
Total/NA	Analysis	8260C		10	174949	04/10/14 17:04	NMD1	TAL BUF

TestAmerica Buffalo



# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-268S-20140407**

**Lab Sample ID: 480-57495-13**

Date Collected: 04/07/14 08:45

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	175364	04/12/14 01:36	CDC	TAL BUF
Total/NA	Analysis	8260C		1	174949	04/10/14 17:29	NMD1	TAL BUF

**Client Sample ID: MW-268M-20140407**

**Lab Sample ID: 480-57495-14**

Date Collected: 04/07/14 09:25

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	175364	04/12/14 02:00	CDC	TAL BUF
Total/NA	Analysis	8260C		40	174949	04/10/14 17:54	NMD1	TAL BUF

**Client Sample ID: MW-268D-20140405**

**Lab Sample ID: 480-57495-15**

Date Collected: 04/05/14 12:20

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174949	04/10/14 18:19	NMD1	TAL BUF

**Client Sample ID: MW-269Ma-20140405**

**Lab Sample ID: 480-57495-16**

Date Collected: 04/05/14 14:10

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		1	175364	04/12/14 02:24	CDC	TAL BUF
Total/NA	Analysis	8260C		1	174949	04/10/14 18:44	NMD1	TAL BUF

**Client Sample ID: MW-551-20140408-01**

**Lab Sample ID: 480-57495-17**

Date Collected: 04/08/14 12:05

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	175163	04/11/14 14:09	NMD1	TAL BUF

**Client Sample ID: MW-552-20140407-01**

**Lab Sample ID: 480-57495-18**

Date Collected: 04/07/14 15:25

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		2	175364	04/12/14 02:48	CDC	TAL BUF
Total/NA	Analysis	8260C		1	175163	04/11/14 14:35	NMD1	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: MW-553-20140407-01**

**Lab Sample ID: 480-57495-19**

Date Collected: 04/07/14 14:30

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175163	04/11/14 15:00	NMD1	TAL BUF

**Client Sample ID: MW-560-20140407-01**

**Lab Sample ID: 480-57495-20**

Date Collected: 04/07/14 11:10

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	174949	04/10/14 20:26	NMD1	TAL BUF
Total/NA	Analysis	8260C	DL	4	175163	04/11/14 15:26	NMD1	TAL BUF

**Client Sample ID: MW-561-20140407-01**

**Lab Sample ID: 480-57495-21**

Date Collected: 04/07/14 12:00

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	175163	04/11/14 15:51	NMD1	TAL BUF

**Client Sample ID: MW-562-20140407-01**

**Lab Sample ID: 480-57495-22**

Date Collected: 04/07/14 13:30

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	175074	04/11/14 02:04	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	4	175163	04/11/14 16:16	NMD1	TAL BUF

**Client Sample ID: MW-563-20140407-01**

**Lab Sample ID: 480-57495-23**

Date Collected: 04/07/14 10:20

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	175074	04/11/14 02:29	LCH	TAL BUF

**Client Sample ID: REW-1-20140406-01**

**Lab Sample ID: 480-57495-24**

Date Collected: 04/06/14 13:45

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	175163	04/11/14 16:42	NMD1	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: REW-4-20140406-01**

**Lab Sample ID: 480-57495-25**

Date Collected: 04/06/14 15:20

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175163	04/11/14 17:07	NMD1	TAL BUF

**Client Sample ID: REW-5-20140406-01**

**Lab Sample ID: 480-57495-26**

Date Collected: 04/06/14 14:30

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175163	04/11/14 17:33	NMD1	TAL BUF

**Client Sample ID: REW-6-20140406-01**

**Lab Sample ID: 480-57495-27**

Date Collected: 04/06/14 09:05

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	175074	04/11/14 04:10	LCH	TAL BUF

**Client Sample ID: REW-7-20140406-01**

**Lab Sample ID: 480-57495-28**

Date Collected: 04/06/14 09:35

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	175074	04/11/14 04:36	LCH	TAL BUF

**Client Sample ID: REW-8-20140406-01**

**Lab Sample ID: 480-57495-29**

Date Collected: 04/06/14 10:45

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175074	04/11/14 05:01	LCH	TAL BUF

**Client Sample ID: REW-9-20140406-01**

**Lab Sample ID: 480-57495-30**

Date Collected: 04/06/14 11:40

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175074	04/11/14 05:26	LCH	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: REW-10-20140406-01**

**Lab Sample ID: 480-57495-31**

Date Collected: 04/06/14 12:25

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175074	04/11/14 05:51	LCH	TAL BUF

**Client Sample ID: REW-11-20140406-01**

**Lab Sample ID: 480-57495-32**

Date Collected: 04/06/14 08:15

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	175074	04/11/14 06:16	LCH	TAL BUF

**Client Sample ID: REW-12-20140406-01**

**Lab Sample ID: 480-57495-33**

Date Collected: 04/06/14 13:10

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	175074	04/11/14 06:42	LCH	TAL BUF

**Client Sample ID: DupX1-20140405-01**

**Lab Sample ID: 480-57495-34**

Date Collected: 04/05/14 00:00

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175074	04/11/14 07:06	LCH	TAL BUF

**Client Sample ID: DupX2-20140406-01**

**Lab Sample ID: 480-57495-35**

Date Collected: 04/06/14 00:00

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175074	04/11/14 07:31	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	25	175163	04/11/14 17:58	NMD1	TAL BUF

**Client Sample ID: DupX3-20140408-01**

**Lab Sample ID: 480-57495-36**

Date Collected: 04/08/14 00:00

Matrix: Water

Date Received: 04/09/14 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B SIM		2	175364	04/12/14 03:12	CDC	TAL BUF
Total/NA	Analysis	8260C		1	175074	04/11/14 07:57	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	40	175485	04/14/14 00:11	LCH	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-57495-1

**Client Sample ID: Trip Blanks**

**Lab Sample ID: 480-57495-37**

**Date Collected: 04/08/14 00:00**

**Matrix: Water**

**Date Received: 04/09/14 01:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	175163	04/11/14 13:43	NMD1	TAL BUF

**Laboratory References:**

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

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# Certification Summary

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

TestAmerica Job ID: 480-57495-1

## Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	State Program	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-15
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15 *
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	03-31-15
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14 *
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-15
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	03-31-15
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-15
West Virginia DEP	State Program	3	252	05-31-14
Wisconsin	State Program	5	998310390	08-31-14

\* Expired certification is currently pending renewal and is considered valid.

TestAmerica Buffalo

# Method Summary

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

TestAmerica Job ID: 480-57495-1

Method	Method Description	Protocol	Laboratory
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL BUF
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF

**Protocol References:**

MA DEP = Massachusetts Department Of Environmental Protection

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

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# Sample Summary

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

TestAmerica Job ID: 480-57495-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-57495-1	DEP-19M-20140405-01	Water	04/05/14 10:30	04/09/14 01:30
480-57495-2	DEP-21-20140405-01	Water	04/05/14 11:25	04/09/14 01:30
480-57495-3	MW-261S-20140408-01	Water	04/08/14 07:20	04/09/14 01:30
480-57495-4	MW-263M-20140408-01	Water	04/08/14 11:45	04/09/14 01:30
480-57495-5	MW-264M-20140408-01	Water	04/08/14 10:30	04/09/14 01:30
480-57495-6	MW-265S-20140408-01	Water	04/08/14 09:25	04/09/14 01:30
480-57495-7	MW-263M-20140408-01	Water	04/08/14 08:45	04/09/14 01:30
480-57495-8	MW-265D-20140408-01	Water	04/08/14 08:15	04/09/14 01:30
480-57495-9	MW-266Ma-20140405-01	Water	04/05/14 14:50	04/09/14 01:30
480-57495-10	MW-266Mb-20140405-01	Water	04/05/14 15:20	04/09/14 01:30
480-57495-11	MW-267S-20140405-01	Water	04/05/14 13:20	04/09/14 01:30
480-57495-12	MW-267M-20140405-01	Water	04/05/14 12:50	04/09/14 01:30
480-57495-13	MW-268S-20140407	Water	04/07/14 08:45	04/09/14 01:30
480-57495-14	MW-268M-20140407	Water	04/07/14 09:25	04/09/14 01:30
480-57495-15	MW-268D-20140405	Water	04/05/14 12:20	04/09/14 01:30
480-57495-16	MW-269Ma-20140405	Water	04/05/14 14:10	04/09/14 01:30
480-57495-17	MW-551-20140408-01	Water	04/08/14 12:05	04/09/14 01:30
480-57495-18	MW-552-20140407-01	Water	04/07/14 15:25	04/09/14 01:30
480-57495-19	MW-553-20140407-01	Water	04/07/14 14:30	04/09/14 01:30
480-57495-20	MW-560-20140407-01	Water	04/07/14 11:10	04/09/14 01:30
480-57495-21	MW-561-20140407-01	Water	04/07/14 12:00	04/09/14 01:30
480-57495-22	MW-562-20140407-01	Water	04/07/14 13:30	04/09/14 01:30
480-57495-23	MW-563-20140407-01	Water	04/07/14 10:20	04/09/14 01:30
480-57495-24	REW-1-20140406-01	Water	04/06/14 13:45	04/09/14 01:30
480-57495-25	REW-4-20140406-01	Water	04/06/14 15:20	04/09/14 01:30
480-57495-26	REW-5-20140406-01	Water	04/06/14 14:30	04/09/14 01:30
480-57495-27	REW-6-20140406-01	Water	04/06/14 09:05	04/09/14 01:30
480-57495-28	REW-7-20140406-01	Water	04/06/14 09:35	04/09/14 01:30
480-57495-29	REW-8-20140406-01	Water	04/06/14 10:45	04/09/14 01:30
480-57495-30	REW-9-20140406-01	Water	04/06/14 11:40	04/09/14 01:30
480-57495-31	REW-10-20140406-01	Water	04/06/14 12:25	04/09/14 01:30
480-57495-32	REW-11-20140406-01	Water	04/06/14 08:15	04/09/14 01:30
480-57495-33	REW-12-20140406-01	Water	04/06/14 13:10	04/09/14 01:30
480-57495-34	DupX1-20140405-01	Water	04/05/14 00:00	04/09/14 01:30
480-57495-35	DupX2-20140406-01	Water	04/06/14 00:00	04/09/14 01:30
480-57495-36	DupX3-20140408-01	Water	04/08/14 00:00	04/09/14 01:30
480-57495-37	Trip Blanks	Water	04/08/14 00:00	04/09/14 01:30



## Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-57495-1

**Login Number: 57495**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Wienke, Robert K**

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.	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	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

# Chain of Custody Record

TAL-4124 (1007)

Client: Innovative Environmental Solutions Inc.  
 Address: 25 Spring St  
 City: Waldpole State: MA Zip Code: 02081  
 Project Name and Location (State): Southton Waldpole, Waldpole MA  
 Contract/Purchase Order/Quote No.: RA-008

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No



480-57495 Chain of Custody



Chain of Custody Number: 261779  
 Date: 4/8/14  
 Lab Number: 45  
 Page 1 of 4

Project Manager: Vicki Reiner  
 Telephone Number (Area Code)/Fax Number: 508-668-0033/15173  
 Site Contact: Dean Sosa Lab Contact: \_\_\_\_\_  
 Carrier/Waybill Number: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt		
			Air	soenbny	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc/ MnOH	
DEP-19M-20140405-01	4/5/14	1030	X												
DEP-21-20140405-01	4/5/14	1125	X												
MW-2613-20140408-01	4/8/14	0720	X												
MW-263M-20140408-01	4/8/14	1145	X												
MW-264M-20140408-01	4/8/14	1030	X												
MW-2653-20140408-01	4/8/14	0735	X												
MW-263M-20140408-01	4/8/14	0845	X												
MW-265D-20140408-01	4/8/14	0813	X												
MW-266M-20140405-01	4/5/14	1450	X												
MW-266M-20140405-01	4/5/14	1520	X												
MW-2673-20140405-01	4/5/14	1320	X												
MW-267M-20140405-01	4/5/14	1250	X												

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

Turn Around Time Required	1. Relinquished By	Date	Time	2. Relinquished By	Date	Time	3. Relinquished By	Date	Time
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input checked="" type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other	<u>[Signature]</u>	4/8/14	1300	<u>[Signature]</u>	4/8/14	1300	<u>[Signature]</u>	4/8/14	1300
	<u>[Signature]</u>	4/8/14	1638	<u>[Signature]</u>	4-8-14	0130	<u>[Signature]</u>	4-8-14	0130

Comments: 2, 3, 2, (#)



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: Environmental Engineering Solutions Inc  
 Address: 95 Spring St  
 City: Waldpole State: MA Zip Code: 03081  
 Project Name and Location (State): Peabody Warehouse, Waldpole MA  
 Contract/Purchase Order/Quote No.: RA-006

Project Manager: Vicki Pearson  
 Telephone Number (Area Code)/Fax Number: 508-668-0033 / 5175  
 Site Contact: Dave S... Lab Contact: \_\_\_\_\_  
 Carrier/Waybill Number: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt		
			Air	Ammonia	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
MA-268P-20140407 -01	4/7/14	0845	X												
MA-268M-20140407 -01	4/7/14	0925	X												
MA-268D-20140405 -01	4/5/14	1320	X												
MA-268M-20140405 -01	4/5/14	1410	X												
MA-551-20140408 -01	4/8/14	1205	X												
MA-552-20140407 -01	4/7/14	1525	X												
MA-553-20140407 -01	4/7/14	1430	X												
MA-560-20140407 -01	4/7/14	1110	X												
MA-561-20140407 -01	4/7/14	1200	X												
MA-562-20140407 -01	4/7/14	1330	X												
MA-563-20140407 -01	4/7/14	1020	X												
RES-1-20140406 -01	4/10/14	1345	X												

Possible Hazard Identification:  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_  
 Turn Around Time Required

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

QC Requirements (Specify): \_\_\_\_\_

1. Relinquished By: [Signature] Date: 4/17/14 Time: 1300  
 2. Relinquished By: [Signature] Date: 4/18/14 Time: 1628  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Comments: 2.3, 2.1 #1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_  
 Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client Innovative Engineering Solutions Inc Address 95 Spring St Worcester MA 01091		Project Manager Vicki Peaslee Telephone Number (Area Code)/Fax Number 508-668-0033 / 5175		Date 4/8/14	Chain of Custody Number 261782
City Worcester		Lab Contact Dawn Sorey Carrier/Waybill Number		Page 4	of 4
Project Name and Location (State) Bridges Warehouse (Worcester MA)		Containers & Preservatives		Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No. RA-008		Matrix		Special Instructions/ Conditions of Receipt	
Sample I.D. No. and Description (Containers for each sample may be combined on one line) Tap Blank		Containers & Preservatives		Note: detection limit seen Sioux most best at least 3 app	
Date		Unpres.			
Time		H2SO4			
		HCl			
		HNO3			
		NaOH			
		ZnAc/NaOH			
		Soil			
		Sed			
		Aqueous			
		Air			
		Sample Disposal			
		Return To Client		Disposal By Lab	
		Unknown		Archive For	
		Poison B		Months	
		Skin Irritant		GC Requirements (Specify)	
		Flammable		1. Received By	
		Non-Hazard		Date	
		Turn Around Time Required		Time	
		24 Hours		4/8/14	
		48 Hours		1300	
		7 Days		Date	
		14 Days		4/8/14	
		21 Days		Time	
		Other		1630	
		1. Relinquished By		Date	
		Date		Time	
		2. Relinquished By		Date	
		Date		Time	
		3. Relinquished By		Date	
		Date		Time	

Comments  
 2-3 2-14

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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