



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Laboratory Services and Applied Science Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 21-0221

Project: 21-0221, Piney Point - Phase 2 - [REDACTED]

April 28, 2021

4LSASD-ASB

**MEMORANDUM**

**SUBJECT:** FINAL Analytical Report  
Project: 21-0221, Piney Point - Phase 2

**FROM:** [REDACTED]  
EAB Analyst

**THRU:** [REDACTED]  
EAB Water Quality Section

**TO:** [REDACTED]

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Ecological Assessment Branch's (EAB) Laboratory Operations and Quality Assurance Manual (EAB LOQAM). Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Data has been verified based on the EAB LOQAM specifications and may have been qualified if the applicable quality control criteria were not met. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

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**Algal Assay (ALG)**

Chlorophyll a (Spec)  
Chlorophyll a (Spec-Corrected)

EPA 446 (SP-T) (Water)  
EPA 446 (SP-M) (Water)



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**Sample Disposal Policy**

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at [REDACTED]

cc: [REDACTED]



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**SAMPLES INCLUDED IN THIS REPORT**

**Project: 21-0221, Piney Point - Phase 2**

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
Piney 6	E211710-01	Saline Water	4/22/21 11:20	4/23/21 10:00
Piney 15	E211710-02	Saline Water	4/22/21 11:35	4/23/21 10:00
Piney 13	E211712-01	Saline Water	4/23/21 11:00	4/24/21 11:17
Piney 8	E211712-02	Saline Water	4/23/21 11:20	4/24/21 11:17
Piney 3	E211802-01	Saline Water	4/26/21 10:35	4/27/21 8:35
Piney 9	E211802-02	Saline Water	4/25/21 12:15	4/27/21 8:35



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### DATA QUALIFIER DEFINITIONS

U The analyte was not detected at or above the reporting limit.

### ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System ([www.epa.gov/srs](http://www.epa.gov/srs)), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

#### ACCREDITATIONS:

ISO Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Laboratories.

Refer to the certificate and scope of accreditation FT-0330 at:  
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

NR Not accredited for this test.

DW Accredited for conformance with ISO/IEC 17025:2017 and testing elements in the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water, EPA 815-R-05-004, 2005.

Refer to the certificate and scope of accreditation AT-2628 at:  
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

ISO/DW Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Labs, and conformance with ISO/IEC 17025:2017 and testing elements in the Manual for the Certification of Laboratories Analyzing Drinking Water.



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Project: 21-0221, Piney Point - Phase 2 - [REDACTED]

## Algal Assay

**Project: 21-0221, Piney Point - Phase 2**

**Sample ID:** Piney 6

**Lab ID:** E211710-01

**Station ID:** PINEY 6

**Matrix:** Saline Water

**Date Collected:** 4/22/21 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
479-61-8	Chlorophyll a (Spec)	2.7		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-T)
479-61-8	Chlorophyll a (Spec - Corrected)	2.4		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)
603-17-8	Pheophytin a (Spec)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)



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Project: 21-0221, Piney Point - Phase 2 - [REDACTED]

## Algal Assay

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 15

Lab ID: E211710-02

Station ID: PINEY 15

Matrix: Saline Water

Date Collected: 4/22/21 11:35

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
479-61-8	Chlorophyll a (Spec)	4.5		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-T)
479-61-8	Chlorophyll a (Spec - Corrected)	4.1		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)
603-17-8	Pheophytin a (Spec)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)



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## Algal Assay

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 13

Lab ID: E211712-01

Station ID:

Matrix: Saline Water

Date Collected: 4/23/21 11:00

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
479-61-8	Chlorophyll a (Spec)	2.2		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-T)
479-61-8	Chlorophyll a (Spec - Corrected)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)
603-17-8	Pheophytin a (Spec)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)



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Project: 21-0221, Piney Point - Phase 2 - [REDACTED]

## Algal Assay

Project: 21-0221, Piney Point - Phase 2

Sample ID: Piney 8

Lab ID: E211712-02

Station ID:

Matrix: Saline Water

Date Collected: 4/23/21 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
479-61-8	Chlorophyll a (Spec)	3.2		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-T)
479-61-8	Chlorophyll a (Spec - Corrected)	2.9		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)
603-17-8	Pheophytin a (Spec)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)





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Project: 21-0221, Piney Point - Phase 2 - [REDACTED]

## Algal Assay

**Project: 21-0221, Piney Point - Phase 2**

**Sample ID:** Piney 3

**Lab ID:** E211802-01

**Station ID:** PINEY 3

**Matrix:** Saline Water

**Date Collected:** 4/26/21 10:35

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
479-61-8	Chlorophyll a (Spec)	4.7		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-T)
479-61-8	Chlorophyll a (Spec - Corrected)	4.4		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)
603-17-8	Pheophytin a (Spec)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)



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Project: 21-0221, Piney Point - Phase 2 - [REDACTED]

## Algal Assay

**Project: 21-0221, Piney Point - Phase 2**

**Sample ID:** Piney 9

**Lab ID:** E211802-02

**Station ID:** PINEY 9

**Matrix:** Saline Water

**Date Collected:** 4/25/21 12:15

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
479-61-8	Chlorophyll a (Spec)	3.7		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-T)
479-61-8	Chlorophyll a (Spec - Corrected)	3.5		ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)
603-17-8	Pheophytin a (Spec)	2.0	U	ug/L	2.0	4/27/21	4/28/21	EPA 446 (SP-M)



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**Algal Assay (ALG) - Quality Control**

**US-EPA, Region 4, LSASD**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2104121 - A 446.0 R1.2 Chla Spec**

**Blank (2104121-BLK1)**

Prepared: 04/27/21 Analyzed: 04/28/21

**EPA 446 (SP-M)**

Chlorophyll a (Spec - Corrected)	U	2.0	ug/L							U
Pheophytin a (Spec)	U	2.0	"							U

**EPA 446 (SP-T)**

Chlorophyll a (Spec)	U	2.0	"							U
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**Blank (2104121-BLK2)**

Prepared: 04/27/21 Analyzed: 04/28/21

**EPA 446 (SP-M)**

Chlorophyll a (Spec - Corrected)	U	2.0	ug/L							U
Pheophytin a (Spec)	U	2.0	"							U

**EPA 446 (SP-T)**

Chlorophyll a (Spec)	U	2.0	"							U
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**Blank (2104121-BLK3)**

Prepared: 04/27/21 Analyzed: 04/28/21

**EPA 446 (SP-M)**

Chlorophyll a (Spec - Corrected)	U	2.0	ug/L							U
Pheophytin a (Spec)	U	2.0	"							U

**EPA 446 (SP-T)**

Chlorophyll a (Spec)	U	2.0	"							U
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**Blank (2104121-BLK4)**

Prepared: 04/27/21 Analyzed: 04/28/21

**EPA 446 (SP-M)**

Chlorophyll a (Spec - Corrected)	U	2.0	ug/L							U
Pheophytin a (Spec)	U	2.0	"							U

**EPA 446 (SP-T)**

Chlorophyll a (Spec)	U	2.0	"							U
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**LCS (2104121-BS1)**

Prepared: 04/27/21 Analyzed: 04/28/21

**EPA 446 (SP-M)**

Chlorophyll a (Spec - Corrected)	839.0		ug/L	840.00		99.9	80-120			
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**EPA 446 (SP-T)**

Chlorophyll a (Spec)	841.0		"	840.00		100	80-120			
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**LCS Dup (2104121-BSD1)**

Prepared: 04/27/21 Analyzed: 04/28/21



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**Algal Assay (ALG) - Quality Control**

**US-EPA, Region 4, LSASD**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2104121 - A 446.0 R1.2 Chla Spec										
LCS Dup (2104121-BSD1)				Prepared: 04/27/21 Analyzed: 04/28/21						
EPA 446 (SP-M)										
Chlorophyll a (Spec - Corrected)	843 0		ug/L	840 00		100	80-120	0 476	20	
EPA 446 (SP-T)										
Chlorophyll a (Spec)	843 0		"	840 00		100	80-120	0 238	10	
Duplicate (2104121-DUP1)				Source: E211710-01		Prepared: 04/27/21 Analyzed: 04/28/21				
EPA 446 (SP-M)										
Chlorophyll a (Spec - Corrected)	2 300	2 0	ug/L		2 400			4 26	20	
Pheophytin a (Spec)	0 4000	2 0	"		0 2000			66 7	200	U
EPA 446 (SP-T)										
Chlorophyll a (Spec)	2 700	2 0	"		2 700			0 00	20	



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**Notes and Definitions for QC Samples**

U The analyte was not detected at or above the reporting limit.