



April 02, 2018

Service Request No:J1802211

Sara Armour  
Florida Department of Environmental Protection  
Bureau of Laboratories  
2600 Blair Stone Road  
Tallahassee, FL 32399

**Laboratory Results for: FDEP-NE ROC**

Dear Sara,

Enclosed are the results of the sample(s) submitted to our laboratory March 28, 2018  
For your reference, these analyses have been assigned our service request number **J1802211**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Gina Bondani  
Project Manager

ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
PHONE +1 904 739 2277 | FAX +1 904 739 2011  
ALS Group USA, Corp.  
dba ALS Environmental



---

ALS Environmental  
ALS Group USA, Corp  
9143 Philips Highway, Suite 200  
Jacksonville, FL 32256  
T : +1 904 739 2277  
F : +1 904 739 2011  
[www.alsglobal.com](http://www.alsglobal.com)

## Table of Contents

|                                          |    |
|------------------------------------------|----|
| CoverLetter                              | 1  |
| Table of Contents                        | 2  |
| Narrative Documents                      | 4  |
| Narrative Documents                      | 5  |
| Hit Summary List                         | 6  |
| Sample Receipt Information               | 7  |
| Sample Cross-Reference                   | 8  |
| Chain Of Custody                         | 9  |
| Miscellaneous Forms                      | 11 |
| Qualifiers                               | 12 |
| Acronyms                                 | 14 |
| Analyst Summary                          | 15 |
| Sample Results                           | 17 |
| Microbiology                             | 18 |
| SM 9223 B - General Chemistry Parameters |    |
| G1NE0867 - Microbiology                  | 19 |
| G1NE1131 - Microbiology                  | 20 |
| G1N30869 - Microbiology                  | 21 |
| G2NE1156 - Microbiology                  | 22 |
| 20020116 - Microbiology                  | 23 |
| G1NE0859 - Microbiology                  | 24 |
| QC Summary Forms                         | 25 |

## **Table of Contents (continued)**

|                                          |    |
|------------------------------------------|----|
| Microbiology                             | 26 |
| SM 9223 B - General Chemistry Parameters |    |
| Method Blank - Microbiology              | 27 |



## Narrative Documents

**ALS Environmental—Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904) 739-2277 Fax (904) 739-2011  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water

**Service Request:** J1802211  
**Date Received:** 3/28/18

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier I data deliverables. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

#### Sample Receipt

6 water samples were received for analysis at ALS Environmental on 3/28/18. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at  $\leq 6^{\circ}\text{C}$  upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

#### Microbiology Analyses:

SM9223B: Incubation end time and sample read time is 3/29/18 21:23.

Approved by  Date 4/2/2018

**SAMPLE DETECTION SUMMARY**

|                            |  |  |                             |  |  |  |
|----------------------------|--|--|-----------------------------|--|--|--|
| <b>CLIENT ID: G1N30869</b> |  |  | <b>Lab ID: J1802211-003</b> |  |  |  |
|----------------------------|--|--|-----------------------------|--|--|--|

| <b>Analyte</b>   | <b>Results</b> | <b>Flag</b> | <b>MDL</b> | <b>PQL</b> | <b>Units</b>  | <b>Method</b> |
|------------------|----------------|-------------|------------|------------|---------------|---------------|
| Escherichia coli | 10             |             | 10         | 10         | MPN/100m<br>L | SM 9223 B     |

|                            |  |  |                             |  |  |  |
|----------------------------|--|--|-----------------------------|--|--|--|
| <b>CLIENT ID: 20020116</b> |  |  | <b>Lab ID: J1802211-005</b> |  |  |  |
|----------------------------|--|--|-----------------------------|--|--|--|

| <b>Analyte</b>   | <b>Results</b> | <b>Flag</b> | <b>MDL</b> | <b>PQL</b> | <b>Units</b>  | <b>Method</b> |
|------------------|----------------|-------------|------------|------------|---------------|---------------|
| Escherichia coli | 10             |             | 10         | 10         | MPN/100m<br>L | SM 9223 B     |

|                            |  |  |                             |  |  |  |
|----------------------------|--|--|-----------------------------|--|--|--|
| <b>CLIENT ID: G1NE0859</b> |  |  | <b>Lab ID: J1802211-006</b> |  |  |  |
|----------------------------|--|--|-----------------------------|--|--|--|

| <b>Analyte</b>   | <b>Results</b> | <b>Flag</b> | <b>MDL</b> | <b>PQL</b> | <b>Units</b>  | <b>Method</b> |
|------------------|----------------|-------------|------------|------------|---------------|---------------|
| Escherichia coli | 10             |             | 10         | 10         | MPN/100m<br>L | SM 9223 B     |



## Sample Receipt Information

**ALS Environmental—Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904) 739-2277 Fax (904) 739-2011  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24

**Service Request:**J1802211

**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-----------------|-------------------------|-------------|-------------|
| J1802211-001    | G1NE0867                | 3/28/2018   | 1210        |
| J1802211-002    | G1NE1131                | 3/28/2018   | 1030        |
| J1802211-003    | G1N30869                | 3/28/2018   | 1240        |
| J1802211-004    | G2NE1156                | 3/28/2018   | 0950        |
| J1802211-005    | 20020116                | 3/28/2018   | 1145        |
| J1802211-006    | G1NE0859                | 3/28/2018   | 1055        |

**Cooler Receipt Form**

Client: FDEP Service Request #: J1802211  
 Project: FDEP-NE ROC Shipping paid by ALS? Yes No N/A  
 Cooler received on 3/28/18 and opened on 3/28/18 by SS  
 COURIER: ALS UPS FEDEX DHL Client Other \_\_\_\_\_ Airbill # \_\_\_\_\_

- 1 Were custody seals on outside of cooler? Yes No  
 If yes, how many and where? #: \_\_\_\_\_ on lid other N/A
- 2 Were seals intact and signature and date correct? Yes No N/A
- 3 Were custody papers properly filled out? Yes No N/A
- 4 Temperature of cooler(s) upon receipt (Should be 0°C and ≤ 6°C) 1.4°C
- 5 Thermometer ID T124
- 6 Temperature Blank Present? Yes No
- 7 Were Ice or Ice Packs present Ice Ice Packs No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? Yes No N/A
- 9 Type of packing material present  
 Netting Vial Holder Bubble Wrap  
 Paper Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? Yes No N/A
- 11 Did all bottle labels and tags agree with custody papers? Yes No N/A
- 12 Were the correct bottles used for the tests indicated? Yes No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?  
 HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2  
 Preservative additions noted below Yes No N/A
- 14 Were all samples received within analysis holding times? Yes No N/A
- 15 Were VOA vials free of air bubbles greater than 6mm? If present, note below Yes No N/A
- 16 Where did the bottles originate? ALS Client

| Sample ID | Reagent | Lot # | ml added | Initials Date/Time |
|-----------|---------|-------|----------|--------------------|
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |
|           |         |       |          |                    |

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:





## Miscellaneous Forms

**ALS Environmental—Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904) 739-2277 Fax (904) 739-2011  
[www.alsglobal.com](http://www.alsglobal.com)



## **FLORIDA DEP DATA QUALIFIERS**

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
  2. No known quality control criteria exists for the component.
  3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
  4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
  5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.



**Jacksonville Lab ID # for State Certifications<sup>1</sup>**

| <b>Agency</b>                                                  | <b>Number</b>   | <b>Expiration Date</b> |
|----------------------------------------------------------------|-----------------|------------------------|
| Department of Defense                                          | 66206           | 7/31/2018              |
| Florida Department of Health                                   | E82502          | 6/30/2018              |
| Georgia Department of Natural Resources                        | 958             | 6/30/2018              |
| Kentucky Division of Waste Management                          | 123042          | 6/30/2018              |
| Louisiana Department of Environmental Quality                  | 02086           | 6/30/2018              |
| Maine Department of Health and Human Services                  | 2015002         | 2/3/2019               |
| North Carolina Department of Environment and Natural Resources | 527             | 12/31/2018             |
| Pennsylvania Department of Environmental Protection            | 68-04835        | 8/31/2018              |
| South Carolina Department of Health and Environmental Control  | 96021001        | 6/30/2018              |
| Texas Commission on Environmental Quality                      | T104704197-16-8 | 5/31/2018              |
| Virginia Environmental Accreditation Program                   | 460191          | 12/14/2018             |

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## **ACRONYMS**

|            |                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ASTM       | American Society for Testing and Materials                                                                                               |
| A2LA       | American Association for Laboratory Accreditation                                                                                        |
| CARB       | California Air Resources Board                                                                                                           |
| CAS Number | Chemical Abstract Service registry Number                                                                                                |
| CFC        | Chlorofluorocarbon                                                                                                                       |
| CFU        | Colony-Forming Unit                                                                                                                      |
| DEC        | Department of Environmental Conservation                                                                                                 |
| DEQ        | Department of Environmental Quality                                                                                                      |
| DHS        | Department of Health Services                                                                                                            |
| DOE        | Department of Ecology                                                                                                                    |
| DOH        | Department of Health                                                                                                                     |
| EPA        | U. S. Environmental Protection Agency                                                                                                    |
| ELAP       | Environmental Laboratory Accreditation Program                                                                                           |
| GC         | Gas Chromatography                                                                                                                       |
| GC/MS      | Gas Chromatography/Mass Spectrometry                                                                                                     |
| LUFT       | Leaking Underground Fuel Tank                                                                                                            |
| M          | Modified                                                                                                                                 |
| MCL        | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL        | Method Detection Limit                                                                                                                   |
| MPN        | Most Probable Number                                                                                                                     |
| MRL        | Method Reporting Limit                                                                                                                   |
| NA         | Not Applicable                                                                                                                           |
| NC         | Not Calculated                                                                                                                           |
| NCASI      | National Council of the Paper Industry for Air and Stream Improvement                                                                    |
| ND         | Not Detected                                                                                                                             |
| NIOSH      | National Institute for Occupational Safety and Health                                                                                    |
| PQL        | Practical Quantitation Limit                                                                                                             |
| RCRA       | Resource Conservation and Recovery Act                                                                                                   |
| SIM        | Selected Ion Monitoring                                                                                                                  |
| TPH        | Total Petroleum Hydrocarbons                                                                                                             |
| tr         | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.                           |

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24

**Service Request:** J1802211

**Sample Name:** G1NE0867  
**Lab Code:** J1802211-001  
**Sample Matrix:** Water

**Date Collected:** 03/28/18**Date Received:** 03/28/18

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
VSPEARS

**Sample Name:** G1NE1131  
**Lab Code:** J1802211-002  
**Sample Matrix:** Water

**Date Collected:** 03/28/18**Date Received:** 03/28/18

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
VSPEARS

**Sample Name:** G1N30869  
**Lab Code:** J1802211-003  
**Sample Matrix:** Water

**Date Collected:** 03/28/18**Date Received:** 03/28/18

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
VSPEARS

**Sample Name:** G2NE1156  
**Lab Code:** J1802211-004  
**Sample Matrix:** Water

**Date Collected:** 03/28/18**Date Received:** 03/28/18

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
VSPEARS

**Sample Name:** 20020116  
**Lab Code:** J1802211-005  
**Sample Matrix:** Water

**Date Collected:** 03/28/18**Date Received:** 03/28/18

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
VSPEARS

**ALS Group USA, Corp.**

**dba ALS Environmental**

Analyst Summary report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24

**Service Request:** J1802211

**Sample Name:** G1NE0859  
**Lab Code:** J1802211-006  
**Sample Matrix:** Water

**Date Collected:** 03/28/18  
**Date Received:** 03/28/18

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
VSPEARS



## Sample Results

**ALS Environmental—Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904) 739-2277 Fax (904) 739-2011  
[www.alsglobal.com](http://www.alsglobal.com)



## Microbiology

**ALS Environmental—Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904)739-2277 Fax (904)739-2011  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
**Sample Name:** G1NE0867  
**Lab Code:** J1802211-001

**Service Request:** J1802211  
**Date Collected:** 03/28/18 12:10  
**Date Received:** 03/28/18 14:17  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 10 U   | MPN/100mL | 10  | 10   | 03/28/18 17:39 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
**Sample Name:** G1NE1131  
**Lab Code:** J1802211-002

**Service Request:** J1802211  
**Date Collected:** 03/28/18 10:30  
**Date Received:** 03/28/18 14:17  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 10 U   | MPN/100mL | 10  | 10   | 03/28/18 17:39 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
**Sample Name:** G1N30869  
**Lab Code:** J1802211-003

**Service Request:** J1802211  
**Date Collected:** 03/28/18 12:40  
**Date Received:** 03/28/18 14:17  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 10     | MPN/100mL | 10  | 10   | 03/28/18 17:39 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
  
**Sample Name:** G2NE1156  
**Lab Code:** J1802211-004

**Service Request:** J1802211  
**Date Collected:** 03/28/18 09:50  
**Date Received:** 03/28/18 14:17  
  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 10 U   | MPN/100mL | 10  | 10   | 03/28/18 17:39 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
**Sample Name:** 20020116  
**Lab Code:** J1802211-005

**Service Request:** J1802211  
**Date Collected:** 03/28/18 11:45  
**Date Received:** 03/28/18 14:17  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 10     | MPN/100mL | 10  | 10   | 03/28/18 17:39 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
**Sample Name:** G1NE0859  
**Lab Code:** J1802211-006

**Service Request:** J1802211  
**Date Collected:** 03/28/18 10:55  
**Date Received:** 03/28/18 14:17  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 10     | MPN/100mL | 10  | 10   | 03/28/18 17:39 |   |



## QC Summary Forms

**ALS Environmental - Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904) 739-2277 Fax (904) 739-2011  
[www.alsglobal.com](http://www.alsglobal.com)



## Microbiology

**ALS Environmental—Jacksonville Laboratory**  
9143 Philips Highway, Suite 200, Jacksonville, FL 32256  
Phone (904)739-2277 Fax (904)739-2011  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida DEP  
**Project:** FDEP-NE ROC/RQ-2018-02-26-24  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J1802211-MB

**Service Request:** J1802211  
**Date Collected:** NA  
**Date Received:** NA  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | PQL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 1.0 U  | MPN/100mL | 1.0 | 1    | 03/28/18 17:39 |   |