284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Cover Page

**Order ID :** P4846

**Project ID :** Scotia, NY - Annual Testing

**Client :** EA Engineering Science & Technology

| Lab Sample Number | Client Sample Number |
|---|---|
| P4846-01 | FSND-MW-EVAL-03D-20241113 |
| P4846-02 | FSND-MW-EVAL-03S-20241113 |
| P4846-03 | FSND-FD-3-20241113 |
| P4846-04 | FSND-MW-EVAL-04S-20241113 |
| P4846-05 | FSND-MW-EVAL-04D-20241113 |
| P4846-06 | FSND-MW-EVAL-04D-20241113MS |
| P4846-07 | FSND-MW-EVAL-04D-20241113MSD |
| P4846-08 | FSND-MW-26-20241113 |
| P4846-09 | TB-1-20241113 |
| P4846-10 | FSND-RB-3-20241113 |
| P4846-11 | FSND-MW-24-20241113 |
| P4846-12 | FSND-MW-15-20241113 |
| P4846-13 | FSND-MW-EVAL-02D-20241113 |
| P4846-14 | FSND-MW-EVAL-02S-20241113 |
| P4846-15 | FSND-FD-4-20241113 |
| P4846-16 | FSND-MW-EVAL-01D-20241113 |
| P4846-17 | FSND-MW-EVAL-01S-20241113 |

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/27/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

284 Sheffield Street, Mountainside, NJ 07092
Phone: 908 789 8900 Fax: 908 789 8922

# CASE NARRATIVE

**EA Engineering Science & Technology**
**Project Name: Scotia, NY - Annual Testing**
**Project # N/A**
**Chemtech Project # P4846**
**Test Name: VOC-TCLVOA-10**

**A. Number of Samples and Date of Receipt:**
17 Water samples were received on 11/14/2024.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: Alkalinity, Anions Group1, Dissolved Metals Group5, Gases, Metals Group3, TOC and VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

**C. Analytical Techniques:**
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe analysis of VOC-TCLVOA-10 was based on method 8260D.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .

The MSD {P4846-07MSD} with File ID: VX043997.D recoveries met the acceptable requirements except for Trichloroethene[72%] due to matrix interference.

The sample # FSND-MW-EVAL-04D-20241113MSD is failing for Trichloroethene and the original sample (FSND-MW-EVAL-04D-20241113) is reported with M flag for this compound.

The RPD met criteria .
The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.
The %RSD is greater than 20% in the Initial Calibration method (82X112124W.M) for Bromoform this compound are passing on Quadratic Regression.

The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

284 Sheffield Street, Mountainside, NJ 07092
Phone: 908 789 8900 Fax: 908 789 8922

Samples FSND-MW-EVAL-03D-20241113, FSND-MW-EVAL-01D-20241113 were diluted due to high concentrations.

**E. Additional Comments:**
The Samples #FSND-MW-EVAL-03D-20241113DL, FSND-MW-EVAL-03S-20241113, FSND-MW-EVAL-04D-20241113, FSND-MW-24-20241113 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

The not QT review data is reported in the Miscellaneous.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

**F. Manual Integration Comments:**
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

---

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

284 Sheffield Street, Mountainside, NJ 07092
Phone: 908 789 8900 Fax: 908 789 8922

# CASE NARRATIVE

**EA Engineering Science & Technology**
**Project Name: Scotia, NY - Annual Testing**
**Project # N/A**
**Chemtech Project # P4846**
**Test Name: Gases**

**A. Number of Samples and Date of Receipt:**
17 Water samples were received on 11/14/2024.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: Alkalinity, Anions Group1, Dissolved Metals Group5, Gases, Metals Group3, TOC and VOC-TCLVOA-10. This data package contains results for Gases.

**C. Analytical Techniques:**
RT-U Plot 30m X 0.32mmThe analysis of Gasess was based on method RSK-175 and extraction was done based on method 3510.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the acceptable requirements.
The RPD met criteria.
The Blank Spike met requirements for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

Sample FSND-MW-EVAL-01D-20241113 was diluted due to high concentration.

**E. Additional Comments:**
The not QT review data is reported in the Miscellaneous.

**F. Manual Integration Comments:**
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

---

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed

284 Sheffield Street, Mountainside, NJ 07092
Phone: 908 789 8900 Fax: 908 789 8922

above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# CASE NARRATIVE

**EA Engineering Science & Technology**
**Project Name: Scotia, NY - Annual Testing**
**Project # N/A**
**Chemtech Project # P4846**
**Test Name: Alkalinity,TOC,Anions Group1**

**A. Number of Samples and Date of Receipt:**
17 Water samples were received on 11/14/2024.

**B. Parameters:**
According to the Chain of Custody document, the following analyses were requested: Alkalinity, Anions Group1, Dissolved Metals Group5, Gases, Metals Group3, TOC and VOC-TCLVOA-10. This data package contains results for Alkalinity,TOC,Anions Group1.

**C. Analytical Techniques:**
The analysis of Anions Group1 was based on method 9056A, The analysis of TOC was based on method 9060A and The analysis of Alkalinity was based on method SM2320 B.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
Sample FSND-MW-EVAL-03D-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-03S-20241113 was diluted due to high concentrations for Chloride & Sample FSND-FD-3-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-04S-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-04D-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-26-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-24-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-15-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-02D-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-02S-20241113 was diluted due to high concentrations for Chloride & Sample FSND-FD-4-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-01D-20241113 was diluted due to high concentrations for Chloride & Sample FSND-MW-EVAL-01S-20241113 was diluted due to high concentrations for Chloride.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (FSND-MW-EVAL-04D-20241113MS) analysis met criteria for all samples except for Chloride due to sample matrix interference. The Matrix Spike (FSND-MW-30-20241114MS) analysis met criteria for all samples except for Chloride due to sample matrix interference.

The Matrix Spike Duplicate (FSND-MW-EVAL-04D-20241113MSD) analysis met criteria for all samples except for Chloride due to sample matrix interference. The Matrix Spike Duplicate (FSND-MW-30-20241114MSD) analysis met criteria for all samples except for Chloride due to sample matrix interference.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

**E. Additional Comments:**

---

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

# DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

| | |
|---|---|
| **J** | Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL). |
| **U** | Indicates the analyte was analyzed for, but not detected. |
| **ND** | Indicates the analyte was analyzed for, but not detected |
| **E** | Indicates the reported value is estimated because of the presence of interference |
| **M** | Indicates Duplicate injection precision not met. |
| **N** | Indicates the spiked sample recovery is not within control limits. |
| **S** | Indicates the reported value was determined by the Method of Standard Addition (MSA). |
| * | Indicates that the duplicate analysis is not within control limits. |
| + | Indicates the correlation coefficient for the MSA is less than 0.995. |
| **D** | Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range. |
| **M** | Method qualifiers<br>**"P"** for ICP instrument<br>**"PM"** for ICP when Microwave Digestion is used<br>**"CV"** for Manual Cold Vapor AA<br>**"AV"** for automated Cold Vapor AA<br>**"CA"** for MIDI-Distillation Spectrophotometric<br>**"AS"** for Semi –Automated Spectrophotometric<br>**"C"** for Manual Spectrophotometric<br>**"T"** for Titrimetric<br>**"NR"** for analyte not required to be analyzed |
| **OR** | Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis. |
| **Q** | Indicates the LCS did not meet the control limits requirements |
| H | Sample Analysis Out Of Hold Time |

284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

# DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

| | |
|---|---|
| Value | If the result is a value greater than or equal to the detection limit, report the value |
| **U** | Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required. |
| **ND** | Indicates the analyte was analyzed for, but not detected |
| **J** | Indicates an estimated value**.** This flag is used:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others. |
| **B** | Indicates the analyte was found in the blank as well as the sample report as "12 B". |
| **E** | Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis. |
| **D** | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| **P** | This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P". |
| **N** | This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used. |
| **A** | This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product. |
| **Q** | Indicates the LCS did not meet the control limits requirements |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

**Project #:** **P4846**

| | Completed |
|---|---|
| **For thorough review, the report must have the following:** | |
| **GENERAL:** | |
| **Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)** | ✓ |
| **Check chain-of-custody for proper relinquish/return of samples** | ✓ |
| **Is the chain of custody signed and complete** | ✓ |
| **Check internal chain-of-custody for proper relinquish/return of samples /sample extracts** | ✓ |
| **Collect information for each project id from server. Were all requirements followed** | ✓ |
| **COVER PAGE:** | |
| **Do numbers of samples correspond to the number of samples in the Chain of Custody on login page** | ✓ |
| **Do lab numbers and client Ids on cover page agree with the Chain of Custody** | ✓ |
| **CHAIN OF CUSTODY:** | |
| **Do requested analyses on Chain of Custody agree with form I results** | ✓ |
| **Do requested analyses on Chain of Custody agree with the log-in page** | ✓ |
| **Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody** | ✓ |
| **Were the samples received within hold time** | ✓ |
| **Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle** | ✓ |
| **ANALYTICAL:** | |
| **Was method requirement followed?** | ✓ |
| **Was client requirement followed?** | ✓ |
| **Does the case narrative summarize all QC failure?** | ✓ |
| **All runlogs and manual integration are reviewed for requirements** | ✓ |
| **All manual calculations and /or hand notations verified** | ✓ |

**QA Review Signature:** **SOHIL JODHANI** **Date:** **11/27/2024**