284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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# Cover Page

**Order ID :** Q3177

**Project ID :** RFP 916

**Client :** Weston Solutions, Inc.

| Lab Sample Number | Client Sample Number |
|---|---|
| Q3177-01 | EME-TS12-01 |
| Q3177-02 | EME-TS13-01 |
| Q3177-03 | EME-TS14-02 |

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: 10/3/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: SPLP VOA**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: SPLP VOA. This data package contains results for SPLP VOA.

**C. Analytical Techniques:**
The analysis performed on instrument MSVOA_N were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of SPLP VOA was based on method 8260D.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis.
The Internal Standards Areas were met for all analysis.
The Retention Times were met for all analysis.

The MS {Q3179-02MS} with File ID: VN087957.D recoveries met the requirements for all compounds except for 2-Hexanone[132%], Methylene Chloride[116%] due to matrix interference.

The MSD {Q3179-03MSD} with File ID: VN087958.D recoveries met the requirements for all compounds except for 2-Chloroethyl vinyl ether[132%], Methyl iodide [123%] due to matrix interference.

The RPD were met for all analysis.
The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.

The Continuous Calibration File ID VN087948.D met the requirements except for 2-Chloroethyl Vinyl ether is failing high but no positive hit in associate sample therefore no corrective action taken.

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The Tuning criteria met requirements.

**E. Calculation**:
Water Calculation in ug/L

$$\frac{(A_x)(I_s)(Df)}{(A_{is})(RRF)(V_0)}$$

Where,
Ax = Area for the compound to be measured
Ais = Area for the specific internal standard
Is = Amount of internal standard added in nanograms (ng)
RRF = Relative response factor of the initial calibration curve standard.
Vo = Volume of water purged in milliliters (mL)
Df = Dilution factor.

**F. Additional Comments:**
Samples for MS/MSD for VOC analysis were not provided with this set of samples therefore lab used from another project.
Trip Blank was not provided with this set of samples.

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

---

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: SPLP BNA**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: EPH, SPLP BNA, SPLP Cyanide, SPLP Extraction, SPLP ICP Metals, SPLP Mercury, SPLP Metals, SPLP PCB, SPLP Pesticide, SPLP VOA and SPLP ZHE Ext. This data package contains results for SPLP BNA.

**C. Analytical Techniques:**
The samples were analyzed on instrument BNA_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um dfThe analysis of SPLP BNA was based on method 8270E and extraction was done based on method 3541.

**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 {Q3179-02MS} with File ID: BF143839.D recoveries met the requirements for all compounds except for 2,3,4,6-Tetrachlorophenol[124%], due to matrix interference, no corrective action is required.

The MSD {Q3179-03MSD} with File ID: BF143840.D recoveries met the acceptable requirements except for 2,3,4,6-Tetrachlorophenol[127%], due to matrix interference, no corrective action is required.

The RPD met criteria.

The Blank Spike for {PB169880BS} with File ID: BF143832.D met requirements for all samples except for 2,6-Dinitrotoluene[116%], Benzoic acid[126%] and Benzyl Alcohol[94%].The associate samples have no positive hit for these compounds therefore no corrective action was taken.

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The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 20% in the Method 8270-BF092325.M for 2-Nitrophenol & 2,4-Dinitrotoluene & are passing on Linear regression, and 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, they are passing on Quadratic regression.

The Continuous Calibration File ID BF143830.D met the requirements except for 2-Nitrophenol and 4,6-Dinitro-2-methylphenol. The associate samples have no positive hit for this compound therefore no corrective action was taken.

The Tuning criteria met requirements.

**E. Additional Comments:**

Concentration of Water Sample:

$$\text{Concentration ug/L} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vo)\,(Vi)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vo = Volume of water extracted in mL.
Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL

$\overline{RRF}$ = Mean Relative Response Factor determined from the initial calibration standard.
GPC = $\frac{Vin}{Vout}$ = GPC factor (If no GPC is performed, GPC=1)

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.
The soil samples results are based on a dry weight basis.

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

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: SPLP Pesticide**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: SPLP Pesticide. This data package contains results for SPLP Pesticide.

**C. Analytical Techniques:**
The analysis was performed on instrument ECD_D. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0. 5 um df,: Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11.The analysis of SPLP Pesticides was based on method 8081B and extraction was done based on method 3541.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis.
The Retention Times were met for all analysis.
The MS {Q3179-02MS} with File ID: PD090429.D recoveries met the requirements.
The MSD {Q3179-03MSD} with File ID: PD090430.D recoveries met the requirements.
The RPD were met for all analysis.
The Blank Spike met requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuous Calibration File ID PD090418.D met the requirements.

**E. Additional Comments:**

**F. Calculation for Concentration in Water Samples:**

Concentration ug/L = (Ax) (Vt) (DF) (GPC)
(CF) (Vo) (Vi)
Where,
Ax = Response (peak area or height) of the compound to be measured.
CF = Mean Calibration Factor from the initial calibration (area/ng).
Vo = Volume of water extracted in mL.

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Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL
GPC = Vin = GPC factor (If no GPC is performed, GPC=1)
Vout
Vin = Volume of extract loaded onto GPC column.
Vout = Volume of extract collected after GPC cleanup.
DF = Dilution Factor.

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

---

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: SPLP PCB**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: SPLP PCB. This data package contains results for SPLP PCB.

**C. Analytical Techniques:**
The analyses were performed on instrument GCECD_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.The analysis of SPLP PCBs was based on method 8082A and extraction was done based on method 3541.

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

The Continuous Calibration File ID PP075341.D met the requirements except forDecachlorobiphenyl is failing in 2nd column but passing in first column therefore nocorrective action taken.

The Continuous Calibration File ID PP075434.D met the requirements except forDecachlorobiphenyl is failing in 2nd column but passing in first column therefore nocorrective action taken.

**E. Additional Comments:**

**F. Calculation for Concentration in Soil samples:**

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Concentration ug/Kg (Dry weight basis) = $\frac{(Ax)\ (Vt)\ (DF)\ (GPC)}{(CF)\ (Vi)\ (Ws)\ (D)}$

Where,
Ax = Response (peak area or height) of the compound to be measured.
CF = Mean Calibration Factor from the initial calibration (area/ng).
Vt = Volume of the concentrated extract in uL
Vi = Volume of extract injected (uL). (If a single injection is made onto two columns, use ½ the volume in the syringe as the volume injected onto each column).
Ws = Weight of sample extracted (g).
D = % dry weight or 100 - %Moisture
100
GPC = Vin = GPC factor (If no GPC is performed, GPC=1)
Vout
DF = Dilution Factor

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

---

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: EPH**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: EPH. This data package contains results for EPH.

**C. Analytical Techniques:**
The analysis were performed on instrument FID_C. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analysis were performed on instrument FID_E. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analysis were performed on instrument FID_F. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302.The analysis of EPHs was based on method NJEPH and extraction was done based on method 3541.

**D. QA/ QC Samples:**

The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis.
The Retention Times were met for all analysis.
The MS recoveries met the requirements for all compounds.
The MSD recoveries met the requirements for all compounds.
The RPD were met for all analysis.
The Blank Spike met requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.

**E. Additional Comments:**

**F. Calculation for Concentration in Water Samples:**

$$C\ (ug/L) = \frac{(A)\ (D)\ (Ve)}{CF\ (Vs)}$$

Where:
C = Concentration of each compound or hydrocarbon range, ug/L

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A = Area response of each compound or carbon range to be measured
D = Dilution Factor
Vs = Volume of sample extracted, mL
Ve = Final volume of extract, uL
CF = Calibration factor of each compound or carbon range for each fraction

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

---

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: SPLP ICP Metals,SPLP Mercury**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters:**
According to the Chain of Custody document, the following analyses were requested: EPH, SPLP BNA, SPLP Cyanide, SPLP Extraction, SPLP ICP Metals, SPLP Mercury, SPLP Metals, SPLP PCB, SPLP Pesticide, SPLP VOA and SPLP ZHE Ext. This data package contains results for SPLP ICP Metals,SPLP Mercury.

**C. Analytical Techniques:**
The analysis of SPLP ICP Metals was based on method 6010D, digestion based on method 3050 (soils). The analysis of SPLP Mercury was based on method 7470A and digestion was based on method 7471B (soils).

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (EME-TS14-01MS) analysis met criteria for all samples except for Sodium due to Chemical Interference during Digestion process.
The Matrix Spike Duplicate (EME-TS14-01MSD) analysis met criteria for all samples except for Sodium due to Chemical Interference during Digestion process.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

**E. Additional Comments:**

---

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# CASE NARRATIVE

**Weston Solutions, Inc.**
**Project Name: RFP 916**
**Project # N/A**
**Order ID # Q3177**
**Test Name: SPLP Cyanide**

**A. Number of Samples and Date of Receipt:**
3 Solid samples were received on 09/23/2025.

**B. Parameters:**
According to the Chain of Custody document, the following analyses were requested: SPLP Cyanide. This data package contains results for SPLP Cyanide.

**C. Analytical Techniques:**
The analysis of SPLP Cyanide was based on method 9012B.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Blank Spike met requirements for all compounds.
The Duplicate analysis met criteria for all compounds.
The Matrix Spike analysis met criteria for all compounds.
The Matrix Spike Duplicate analysis met criteria for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

**E. Additional Comments:**

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Alliance TECHNICAL GROUP

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# 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 |

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# 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 |

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**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

**Project #:** **Q3177**

| | 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:** **10/03/2025**