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

# LAB CHRONICLE

| | | | |
|---|---|---|---|
| **OrderID:** | Q1206 | **OrderDate:** | 1/28/2025 11:18:51 AM |
| **Client:** | RU2 Engineering, LLC | **Project:** | NYCDDC SANTWOBR Brooklyn Bridge BBMCR |
| **Contact:** | Rutu Manani | **Location:** | E11,VOA Ref. #2 Soil |

| LabID | ClientID | Matrix | Test | Method | Sample Date | Prep Date | Anal Date | Received |
|---|---|---|---|---|---|---|---|---|
| **Q1206-01** | **JPP-20.1-012725** | **SOIL** | | | **01/27/25** | | | **01/28/25** |
| | | | Diesel Range Organics | 8015D | | 01/29/25 | 01/30/25 | |
| | | | Gasoline Range Organics | 8015D | | | 01/29/25 | |
| **Q1206-03** | **JPP-20.1-012725** | **SOIL** | | | **01/27/25** | | | **01/28/25** |
| | | | PCB | 8082A | | 01/29/25 | 01/29/25 | |
| **Q1206-04** | **JPP-20.1-012725** | **TCLP** | | | **01/27/25** | | | **01/28/25** |
| | | | TCLP Herbicide | 8151A | | 01/29/25 | 01/30/25 | |
| | | | TCLP Pesticide | 8081B | | 01/29/25 | 02/03/25 | |
| **Q1206-05** | **JPP-16.3-012725** | **SOIL** | | | **01/27/25** | | | **01/28/25** |
| | | | Diesel Range Organics | 8015D | | 01/29/25 | 01/30/25 | |
| | | | Gasoline Range Organics | 8015D | | | 01/29/25 | |
| **Q1206-07** | **JPP-16.3-012725** | **SOIL** | | | **01/27/25** | | | **01/28/25** |
| | | | PCB | 8082A | | 01/29/25 | 01/29/25 | |
| **Q1206-08** | **JPP-16.3-012725** | **TCLP** | | | **01/27/25** | | | **01/28/25** |
| | | | TCLP Herbicide | 8151A | | 01/29/25 | 01/30/25 | |
| | | | TCLP Pesticide | 8081B | | 01/29/25 | 01/30/25 | |

# SAMPLE DATA

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | RU2 Engineering, LLC | Date Collected: | 01/27/25 |
| Project: | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received: | 01/28/25 |
| Client Sample ID: | JPP-20.1-012725 | SDG No.: | Q1206 |
| Lab Sample ID: | Q1206-01 | Matrix: | SOIL |
| Analytical Method: | 8015D DRO | % Solid: | 85.5 Decanted: |
| Sample Wt/Vol: | 18.22 Units: g | Final Vol: | 1 mL |
| Soil Aliquot Vol: | uL | Test: | Diesel Range Organics |
| Extraction Type: | | Injection Volume : | |
| GPC Factor : | PH : | | |
| Prep Method : | SW3541 | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| FE052144.D | 1 | 01/29/25 08:45 | 01/30/25 5:58 | PB166348 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units(Dry Weight) |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| DRO | DRO | 47400 | | 356 | 3210 | ug/kg |
| **SURROGATES** | | | | | | |
| 16416-32-3 | Tetracosane-d50 | 17.5 | | 37 - 130 | 87% | SPK: 20 |

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | RU2 Engineering, LLC | Date Collected: | 01/27/25 |
| Project: | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received: | 01/28/25 |
| Client Sample ID: | JPP-16.3-012725 | SDG No.: | Q1206 |
| Lab Sample ID: | Q1206-05 | Matrix: | SOIL |
| Analytical Method: | 8015D DRO | % Solid: | 85.9 Decanted: |
| Sample Wt/Vol: | 23.1 Units: g | Final Vol: | 1 mL |
| Soil Aliquot Vol: | uL | Test: | Diesel Range Organics |
| Extraction Type: | | Injection Volume : | |
| GPC Factor : | PH : | | |
| Prep Method : | SW3541 | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| FE052145.D | 1 | 01/29/25 08:45 | 01/30/25 6:28 | PB166348 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units(Dry Weight) |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| DRO | DRO | 39800 | | 279 | 2520 | ug/kg |
| **SURROGATES** | | | | | | |
| 16416-32-3 | Tetracosane-d50 | 14.1 | | 37 - 130 | 71% | SPK: 20 |

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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D = Dilution
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# QC SUMMARY

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## SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

| EPA SAMPLE NO. | S1 TETRACOSANE-d50 | S2 | S3 | S4 | TOT OUT |
|---|---|---|---|---|---|
| PIBLK-FE052139.D | 91 | | | | 0 |
| PIBLK-FE052151.D | 86 | | | | 0 |
| PB166348BL | 90 | | | | 0 |
| PB166348BS | 91 | | | | 0 |
| JPP-20.1-012725 | 87 | | | | 0 |
| JPP-16.3-012725 | 71 | | | | 0 |

| | QC LIMITS |
|---|---|
| TETRACOSANE-d50 | For Water : 29-130<br>For Soil : 37-130 |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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## SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

**Lab Name:** Chemtech **Client:** RU2 Engineering, LLC

**Lab Code:** CHEM **Cas No:** Q1206 **SAS No :** Q1206 **SDG No:** Q1206

**Matrix Spike - EPA Sample No :** PB166348BS **Datafile:** FE052143.D

| COMPOUND | SPIKE ADDED ug/kg | CONCENTRATION ug/kg | LCS/LCSD CONCENTRATION ug/kg | % REC | QC LIMITS |
|---|---|---|---|---|---|
| DRO | 6662 | 0 | 6174 | 93 | 68-131 |

Alliance TECHNICAL GROUP
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# 4B
# METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166348BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG NO.: Q1206

Lab File ID: FE052142.D Lab Sample ID: PB166348BL

Instrument ID: FE Date Extracted: 01/30/2025

Matrix: (soil/water) Soil Date Analyzed: 01/30/25

Level: (low/med) low Time Analyzed: 4:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| PB166348BS | PB166348BS | FE052143.D | 01/30/25 |
| JPP-20.1-012725 | Q1206-01 | FE052144.D | 01/30/25 |
| JPP-16.3-012725 | Q1206-05 | FE052145.D | 01/30/25 |

COMMENTS:

# QC SAMPLE DATA

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | RU2 Engineering, LLC | Date Collected: | |
| Project: | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received: | |
| Client Sample ID: | PB166348BL | SDG No.: | Q1206 |
| Lab Sample ID: | PB166348BL | Matrix: | SOIL |
| Analytical Method: | 8015D DRO | % Solid: | 100 Decanted: |
| Sample Wt/Vol: | 30.01 Units: g | Final Vol: | 1 mL |
| Soil Aliquot Vol: | uL | Test: | Diesel Range Organics |
| Extraction Type: | | Injection Volume : | |
| GPC Factor : | PH : | | |
| Prep Method : | SW3541 | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| FE052142.D | 1 | 01/29/25 08:45 | 01/30/25 4:58 | PB166348 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units(Dry Weight) |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| DRO | DRO | 1670 | U | 185 | 1670 | ug/kg |
| **SURROGATES** | | | | | | |
| 16416-32-3 | Tetracosane-d50 | 18.0 | | 37 - 130 | 90% | SPK: 20 |

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | RU2 Engineering, LLC | Date Collected: | 01/30/25 |
| Project: | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received: | 01/30/25 |
| Client Sample ID: | PIBLK-FE052139.D | SDG No.: | Q1206 |
| Lab Sample ID: | I.BLK-FE052139.D | Matrix: | Water |
| Analytical Method: | 8015D DRO | % Solid: | 0 Decanted: |
| Sample Wt/Vol: | 1000 Units: mL | Final Vol: | 1 mL |
| Soil Aliquot Vol: | uL | Test: | Diesel Range Organics |
| Extraction Type: | | Injection Volume : | |
| GPC Factor : | PH : | | |
| Prep Method : | SW3510 | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| FE052139.D | 1 | | 01/30/25 | FE012925 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| DRO | DRO | 50.0 | U | 10.0 | 50.0 | ug/L |
| **SURROGATES** | | | | | | |
| 16416-32-3 | Tetracosane-d50 | 18.3 | | 29 - 130 | 91% | SPK: 20 |

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | RU2 Engineering, LLC | Date Collected: | 01/30/25 |
| Project: | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received: | 01/30/25 |
| Client Sample ID: | PIBLK-FE052151.D | SDG No.: | Q1206 |
| Lab Sample ID: | I.BLK-FE052151.D | Matrix: | Water |
| Analytical Method: | 8015D DRO | % Solid: | 0 Decanted: |
| Sample Wt/Vol: | 1000 Units: mL | Final Vol: | 1 mL |
| Soil Aliquot Vol: | uL | Test: | Diesel Range Organics |
| Extraction Type: | | Injection Volume : | |
| GPC Factor : | PH : | | |
| Prep Method : | SW3510 | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| FE052151.D | 1 | | 01/30/25 | FE012925 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| DRO | DRO | 50.0 | U | 10.0 | 50.0 | ug/L |
| **SURROGATES** | | | | | | |
| 16416-32-3 | Tetracosane-d50 | 17.1 | | 29 - 130 | 86% | SPK: 20 |

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | RU2 Engineering, LLC | Date Collected: | |
| Project: | NYCDDC SANTWOBR Brooklyn Bridge BBMCR | Date Received: | |
| Client Sample ID: | PB166348BS | SDG No.: | Q1206 |
| Lab Sample ID: | PB166348BS | Matrix: | SOIL |
| Analytical Method: | 8015D DRO | % Solid: | 100 Decanted: |
| Sample Wt/Vol: | 30.02 Units: g | Final Vol: | 1 mL |
| Soil Aliquot Vol: | uL | Test: | Diesel Range Organics |
| Extraction Type: | | Injection Volume : | |
| GPC Factor : | PH : | | |
| Prep Method : | SW3541 | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| FE052143.D | 1 | 01/29/25 08:45 | 01/30/25 5:28 | PB166348 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units(Dry Weight) |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| DRO | DRO | 6170 | | 185 | 1670 | ug/kg |
| **SURROGATES** | | | | | | |
| 16416-32-3 | Tetracosane-d50 | 18.2 | | 37 - 130 | 91% | SPK: 20 |

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

# CALIBRATION SUMMARY

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## DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

| Calibration Sequence : FE012325 | | Test : Diesel Range Organics | |
|---|---|---|---|
| **Concentration (PPM)** | **Area Count** | **Reference Factor** | **File ID** |
| 1000 | 100840417 | 100840 | FE052027.D |
| 500 | 49711032 | 99422 | FE052028.D |
| 200 | 20907011 | 104535 | FE052029.D |
| 100 | 11272495 | 112725 | FE052030.D |
| 50 | 5669298 | 113386 | FE052031.D |
| **AVG RF :** 106182 | **% RSD : 6.169** | | **AVG RT : 15.2554** |

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## DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FE052140.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

| Conc. (PPM) | Area Count | RF | Average RF | %D |
|---|---|---|---|---|
| 500 | 50016905 | 100034 | 106182 | 5.79 |

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## DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

**50 PPM TRPH STD**

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1206 SAS No.: Q1206 SDG No.: Q1206

DataFile: FE052152.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

| Conc. (PPM) | Area Count | RF | Average RF | %D |
|---|---|---|---|---|
| 500 | 47032768 | 94066 | 106182 | 11.411 |

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# Analytical Sequence

**Client:** RU2 Engineering, LLC **SDG No.:** Q1206

**Project:** NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_E

**GC Column:** RXI-1MS **ID:** 0.18 **(mm)**

**THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:**

**MEAN SUROGATE RT FROM INITIAL CALIBRATION** **15.2554**

| EPA SAMPLE NO. | LAB SAMPLE ID | DATE AND TIME ANALYZED | DATAFILE | RT | # |
|---|---|---|---|---|---|
| PIBLK01 | I.BLK01 | 30 Jan 2025 03:28 | FE052139.D | 15.244 | |
| 50 PPM TRPH STD | 50 PPM TRPH STD | 30 Jan 2025 03:58 | FE052140.D | 15.247 | |
| PB166348BL | PB166348BL | 30 Jan 2025 04:58 | FE052142.D | 15.244 | |
| PB166348BS | PB166348BS | 30 Jan 2025 05:28 | FE052143.D | 15.243 | |
| JPP-20.1-012725 | Q1206-01 | 30 Jan 2025 05:58 | FE052144.D | 15.247 | |
| JPP-16.3-012725 | Q1206-05 | 30 Jan 2025 06:28 | FE052145.D | 15.260 | |
| PIBLK02 | I.BLK02 | 30 Jan 2025 10:30 | FE052151.D | 15.274 | |
| 50 PPM TRPH STD | 50 PPM TRPH STD | 30 Jan 2025 11:00 | FE052152.D | 15.273 | |

**# Column used to flag RT values with an * values outside of QC limits**

| QC Limits | Lower Limit | Upper Limits |
|---|---|---|
| (± 0.10 minutes) | 15.1554 | 15.3554 |