



284 Sheffield Street, Mountainside, NJ 07092  
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## **CASE NARRATIVE**

**CDM Smith**

**Project Name: South River WM Replacement**

**Project # N/A**

**Order ID # Q2032**

**Test Name: VOC-TCLVOA-10**

### **A. Number of Samples and Date of Receipt:**

9 Solid samples were received on 05/13/2025.

2 Water samples were received on 05/13/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Herbicide, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL, VOC-TCLVOA-10 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#121-1324UI The analysis performed on instrument MSVOA\_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of VOC-TCLVOA-10 was based on method 8260-Low, 8260D.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for TP-11 [Toluene-d8 - 125%]. Due to high concentration of compounds, this sample required MEOH.

Therefore, sample was reanalyzed in MEOH and reported.

The Internal Standards Areas met the acceptable requirements except for TP-24MSD.

Both Vials analyzed to confirm results, In First run MSMSD both have Internal Standards failed while in second run only MSD has Internal Standards failed therefore second run is reported as final results.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds .

The MSD {Q2032-06MSD} with File ID: VY022349.D recoveries met the acceptable requirements except for 1,1,2-Trichlorotrifluoroethane[148%], Acetone[185%], Methyl Acetate[222%] and Methylcyclohexane[150%] due to matrix interference.

The RPD for {Q2032-06MSD} with File ID: VY022349.D met criteria except for 1,1,2,2-Tetrachloroethane[35%], 1,1,2-Trichlorotrifluoroethane[29%], 1,2,3-Trichlorobenzene[63%], 1,2,4-Trichlorobenzene[50%], Bromochloromethane[21%], Bromomethane[40%], Carbon Tetrachloride[36%], Chloroform[24%], cis-1,2-Dichloroethene[21%], cis-1,3-Dichloropropene[25%], Cyclohexane[25%], Dibromochloromethane[21%], Isopropylbenzene[46%], Methyl Acetate[27%], Methyl tert-butyl Ether[27%], Methylcyclohexane[40%], Methylene Chloride[27%], t-1,3-Dichloropropene[23%] and Tetrachloroethene[36%] due to difference in MS and MSD concentrations.

The Blank Spike for {VY0520SBS01} with File ID: VY022331.D met requirements for all samples except for Bromomethane[190%], Chloroethane[175%], Chloromethane[149%], Trichlorofluoromethane[143%] and Vinyl chloride[153%]. But associated samples have not positive hit for these compounds therefore no corrective action was taken.

The Blank Spike Duplicate 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 File ID VY022329.D met the requirements except for Chloroethane and Vinyl Chloride . But associated samples have not positive hit for these compounds therefore no corrective action was taken.

The Tuning criteria met requirements.

Sample TP-11 was diluted due to high concentration. Some analyte gets over diluted in this dilution, due to low concentration in low level Soil.

#### **E. Additional Comments:**

The soil samples results are based on a dry weight basis.

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.

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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\_\_\_\_\_