



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

## **CASE NARRATIVE**

**Core Environmental Consultants and Services, Inc.**

**Project Name: Brooklyn Navy Yard Building 50 SI**

**Project # N/A**

**Order ID # Q3741**

**Test Name: VOC-TCLVOA-10,SVOC-TCL BNA,Diesel Range Organics,Gasoline Range Organics,PCB,Mercury,Metals ICP-TAL**

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

6 Solid samples were received on 11/26/2025.

1 Water sample was received on 11/26/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10,SVOC-TCL BNA,Diesel Range Organics,Gasoline Range Organics,PCB,Mercury,Metals ICP-TAL. This data package contains results for VOC-TCLVOA-10(8260-Low,8260D),SVOC-TCL BNA(8270E),Diesel Range Organics(8015D),Gasoline Range Organics(8015D),PCB(8082A),Mercury(7471B),Metals ICP-TAL(6010D).

### **C. Analytical Techniques:**

VOC-TCLVOA-10 : 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 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.

SVOC-TCL BNA : 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 df. The samples were analyzed on instrument BNA\_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. The analysis of SVOC-TCL BNA was based on method 8270E and extraction was done based on method 3541.

PCB : The analyses were performed on instrument GCECD\_P. 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 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 PCBs was based on method 8082A and extraction was done based on method 3541.



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

Diesel Range Organics : The analysis were performed on instrument FID\_G. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302. The analysis of Diesel Range Organics was based on method 8015D and extraction was done based on method 3541.

Gasoline Range Organics : The analysis performed on instrument FID\_B were done using GC column RTX502.2 which is 60 meters, 0.53mm ID, 3.0 um df, cat#10909. The analysis of Gasoline Range Organics was based on method 8015D.

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

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis except following VOC-TCLVOA-10 : B50-SP9-112425 [Dibromofluoromethane - 49%], B50-SP9-112425RE [4-Bromofluorobenzene - 49%], B50-SP11-112525 [Dibromofluoromethane - 63%], B50-SP11-112525RE [Dibromofluoromethane - 59%] and B50-SP4-112525 [Dibromofluoromethane - 32%] samples were reanalyzed to confirm the failure and reported.

The Internal Standards Areas were met for all analysis except following VOC-TCLVOA-10 : B50-SP9-112425RE, B50-SP4-112525 and B50-SP4-112525RE samples were reanalyzed to confirm the failure and reported.

The Retention Times were acceptable for all samples.

The MS recoveries met the requirements for all compounds except following Mercury, Metals ICP-TAL : The Matrix Spike (B50-SP3-111925MS) analysis met criteria for all compounds except for Mercury due to matrix interference. The Matrix Spike (FENCE WC-1MS) analysis met criteria for all compounds except for Antimony, Barium, Copper, Lead, Sodium, Vanadium due to soil matrix is having tiny stones along with brown soil, which is causing not consistent recovery for these elements and also their is unknown interference during digestion.

The MSD recoveries met the requirements for all compounds except following SVOC-TCL BNA : The MSD {Q3741-06MSD} with File ID: BP026237.D recoveries met the requirements for all compounds except for 4-Nitroaniline[58%] due to matrix interference.

Mercury, Metals ICP-TAL : The Matrix Spike Duplicate (B50-SP3-111925MSD) analysis met criteria for all compounds except for Mercury due to matrix interference. The Matrix Spike Duplicate (FENCE WC-1MSD) analysis met criteria for all compounds except for Antimony, Barium, Lead, Sodium due to soil matrix is having tiny stones along with brown soil, which is causing not consistent recovery for these elements and also their is unknown interference during digestion.



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

The RPD recoveries met criteria.

The Blank Spike met requirements for all compounds except following  
SVOC-TCL BNA : The Blank Spike for {PB170797BS} with File ID: BP026226.D met requirements for all compounds except for 2,4-Dinitrotoluene[76%], Caprolactam[65%]. But associated samples have no positive hit for these compounds therefore no corrective action was taken.

The Blank Spike Duplicate met requirements for all compounds

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

The Initial Calibration met the requirements except following  
SVOC-TCL BNA : The %RSD is greater than 20% in the Method 8270-BF110525.M for Hexachlorocyclopentadiene, this compound is passing on Quadratic regression.

The Continuous Calibration met the requirements except following  
VOC-TCLVOA-10 : The Continuous Calibration File ID VN088370.D met the requirements except for Acetone is failing marginally low and Bromoform is failing high but no positive hit in associate sample therefore no corrective action taken.

The Continuous Calibration File ID VY023829.D met the requirements except for 2-Hexanone is failing high but no positive hit in associate sample therefore no corrective action taken.

The Continuous Calibration File ID VY023849.D met the requirements except for Acetone is failing high and associate sample having hit of acetone but below CRQL therefore no corrective action taken.

SVOC-TCL BNA : The Continuous Calibration File ID BF144415.D met the requirements except for 2,4-Dinitrophenol and Benzaldehyde. Failing high but associated samples have no positive hit for these compounds therefore no corrective action was taken.

The Continuous Calibration File ID BP026224.D met the requirements except for Benzaldehyde, failing high but associated samples have no positive hit for this compound therefore no corrective action was taken. And for Hexachlorocyclopentadiene, failing marginally low therefore no corrective action was taken.



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

PCB : The Continuous Calibration File ID PO115565.D met the requirements except for Aroclor-1260(Peak-03),Aroclor-1260(Peak-04),Aroclor-1260(Peak-05) is failing in 2nd column. however it is passed in 1st column therefore no corrective action was taken.

The Continuous Calibration File ID PP076744.D met the requirements except for Aroclor-1016(Peak-05) is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken.

The Tuning criteria met requirements.

Mercury,Metals ICP-TAL : Sample B50-SP3-111925 was diluted due to high concentrations for Mercury & Sample B50-SP13-112025 was diluted due to high concentrations for Mercury & Sample B50-SP14-112025 was diluted due to high concentrations for Mercury & Sample B50-SP9-112425 was diluted due to high concentrations for Mercury & Sample B50-SP4-112525 was diluted due to high concentrations for Mercury.

The Duplicate analysis met criteria for all compounds except following Mercury,Metals ICP-TAL : The Duplicate (FENCE WC-1MSD) analysis met criteria for all compounds except for Aluminum, Barium, Calcium, Iron, Lead, Zinc due to soil matrix is having tiny stones along with brown soil, which is causing not consistent recovery for these elements and also their is unknown interference during digestion.

The Serial Dilution met the acceptable requirements.

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

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

SEMI-VOA : The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

VOC-TCLVOA-10 : Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Mercury,Metals ICP-TAL : The Post Digest Spike (SB-1125-24A) analysis met criteria for all compounds except for Mercury due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.

The Post Digest Spike (FENCE WC-1A) analysis met criteria for all compounds except for Barium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.



284 Sheffield Street, Mountainside, NJ 7092, Phone: 908 789 8900, Fax: 908 789 8922

SVOC-TCL BNA : The Form 6 is not included in the data package because the Initial Calibration was performed using 8 points.

**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\_\_\_\_\_