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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: NWIRP Bethpage CTO WE13 - VPB-192 #112G08005
Project Manager: Ernie Wu
Chemtech Project # Q1380
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
3 Solid samples were received on 02/17/2025.
6 Water samples were received on 02/17/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. This data package contains results for VOCMS Group1.

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 performed on instrument MSVOA_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of VOCMS Group1 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis except for BP-VPB-192-GW-725-727MS and BP-VPB-192-GW-725-727MSD,for MS-MSD VIAL A Initially analyzed in sequence VY022025 with in Holding time but internal standard and surrogate failed as well as End CCAL was failing therefore as a corrective action lab analyzed MS-MSD again with VIAL B where Internal standards and surrogate failure confirmed but this analysis is out of Holding time, Therefore VIAL B reported as final and VIAL A reported as screening data in miscellaneous section.

The Surrogate recoveries met the acceptable criteria except for BP-VPB-192-GW-725-727MS [4-Bromofluorobenzene - 63%, Toluene-d8 - 73%] Surrogate fail in Only MS and but Parent Sample and MSD are Passing For Surrogate Recoveries therefore no Corrective action was taken.

The Internal Standards Areas met the acceptable requirements except for BP-VPB-192-GW-725-727MSD.Internal standard fail in only MSD but MS and Parent Sample are Passing For Internal standard Recoveries therefore no Corrective action was taken.

The Retention Times were acceptable for all samples.
The MS {Q1380-07MS} with File ID: VY021342.D recoveries met the requirements for all compounds except for 1,2-Dichlorobenzene[72%], 1,3-Dichlorobenzene[67%], 1,4-Dichlorobenzene[69%], Chlorobenzene[76%], Ethyl Benzene[75%], m/p-Xylenes[74%], Methylcyclohexane[46%], o-Xylene[75%], Styrene[51%], Tetrachloroethene[72%] and Trichloroethene[76%],due to Matrix interference.

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The MSD {Q1380-08MSD} with File ID: VY021343.D recoveries met the acceptable requirements except for 1,1,2,2-Tetrachloroethane[164%], Methyl tert-butyl Ether[127%] and Styrene[69%], due to Matrix interference.

The sample # BP-VPB-192-GW-725-727MS and BP-VPB-192-GW-725-727MSD are failing for Methyl tert-butyl Ether,Methylcyclohexane,Trichloroethene,Tetrachloroethene,Chlorobenzene,Ethyl Benzene,m/p-Xylenes,o-Xylene,Styrene,1,1,2,2-Tetrachloroethane,1,3-Dichlorobenzene,1,4-Dichlorobenzene and 1,2-Dichlorobenzene the original sample(BP-VPB-192-GW-725-727) is reported with M flag for this compounds.

The RPD for {Q1380-08MSD} with File ID: VY021343.D met criteria except for 1,1,1-Trichloroethane[34%], 1,1,2,2-Tetrachloroethane[38%], 1,1,2-Trichloroethane[40%], 1,1,2-Trichlorotrifluoroethane[37%], 1,1-Dichloroethane[32%], 1,1-Dichloroethene[35%], 1,2-Dichlorobenzene[40%], 1,2-Dichloroethane[38%], 1,2-Dichloropropane[35%], 1,3-Dichlorobenzene[38%], 1,4-Dichlorobenzene[40%], 2-Butanone[41%], 2-Hexanone[45%], 4-Methyl-2-Pentanone[45%], Acetone[39%], Benzene[35%], Bromodichloromethane[34%], Bromoform[38%], Bromomethane[33%], Carbon disulfide[32%], Carbon Tetrachloride[35%], Chlorobenzene[34%], Chloroethane[31%], Chloroform[33%], Chloromethane[36%], cis-1,2-Dichloroethene[33%], cis-1,3-Dichloropropene[35%], Dibromochloromethane[38%], Ethyl Benzene[35%], Isopropylbenzene[37%], m/p-Xylenes[37%], Methyl tert-butyl Ether[39%], Methylcyclohexane[43%], Methylene Chloride[33%], o-Xylene[35%], Styrene[30%], t-1,3-Dichloropropene[36%], Tetrachloroethene[34%], Toluene[35%], trans-1,2-Dichloroethene[34%], Trichloroethene[35%], Trichlorofluoromethane[35%] and Vinyl chloride[37%] , due to difference in results of MS and MSD.

The Blank Spike for {VY0219SBS01} with File ID: VY021238.D met requirements for all samples except for Chloroethane[146%], Chloromethane[150%] and Vinyl chloride[145%], are failing high but no positive hit in associate samples therefore no corrective action taken.

The Blank Spike Duplicate 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 (82N021825W.M) for Styrene this compound is passing on Quadratic Regression.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."

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The not QT review data is reported in the Miscellaneous.
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.

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_____