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CASE NARRATIVE

First Environment, Inc.

Project Name: USACE018-44 DOD

Project # N/A

Order ID # Q2815

Test Name: SVOC-TCL BNA -20

A. Number of Samples and Date of Receipt:

24 Water samples were received on 08/08/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: SVOC-TCL BNA -20. This data package contains results for SVOC-TCL BNA -20.

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 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 -20 was based on method 8270E and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis except for, TW-705R-S [2,4,6-Tribromophenol - 11%, 2-Fluorobiphenyl - 25%, 2-Fluorophenol - 7%, Nitrobenzene-d5 - 23%, Phenol-d6 - 9%, Terphenyl-d14 - 22%], Surrogates are failed due to Muddy matrix, As no extra volume was available for re-extraction and also the re-analysis, therefor no further corrective action was taken.

TW-22M-E [2,4,6-Tribromophenol - 14%, 2-Fluorobiphenyl - 27%, 2-Fluorophenol - 12%, Nitrobenzene-d5 - 26%, Phenol-d6 - 4%, Terphenyl-d14 - 30%], Surrogate are failed due to matrix interference. The Chromatogram also indicated presence of the non target hydro carbons, therefor no further corrective action was taken.

TW-22M-N [Terphenyl-d14 - 49%]. As per SOP one Base surrogate is allowed to fail, therefor no further corrective action was taken.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

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

The %RSD is greater than 20% for certain compounds in the Initial Calibration (Method 8270-BF081225.M) for 2-Nitrophenol, Hexachlorocyclopentadiene, 2-Nitroaniline, 2,6-Dinitrotoluene, 4-Nitrophenol, 2,4-Dinitrotoluene, 4,6-Dinitro-2-methylphenol, Pentachlorophenol, Butylbenzylphthalate, Bis(2-ethylhexylephthalate), Di-n-octyl phthalate, These Compounds is passing on Linear Regression and 2,4-Dinitrophenol is passing on Quadratic Regression.

The %RSD is greater than 20% in the Initial Calibration (Method 8270-BF082025.M) for Hexachlorocyclopentadiene, 2,4-Dinitrophenol these Compounds are passing on Linear regression.

The Continuous Calibration File ID BF143399.D met the requirements except for Bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Di-n-octyl phthalate, Hexachlorocyclopentadiene, Pentachlorophenol, These compounds are failed high side and associated samples does not have hit for these compounds, therefor no further corrective action was taken. and Pyrene is failed marginally low, therefor no further corrective action was taken.

The Continuous Calibration File ID BP025422.D met the requirements except for Benzaldehyde, This compound is failed high side and associated samples does not have hit for this compound, therefor no further corrective action was taken.

The Continuous Calibration File ID BF143414.D met the requirements except for Butylbenzylphthalate, This compound is failed high side and associated samples does not have hit for this compound, therefor no further corrective action was taken.

The Continuous Calibration File ID BF143539.D met the requirements except for Pentachlorophenol, This compound is failed high side and associated samples does not have hit for this compound, therefor no further corrective action was taken.

The Continuous Calibration File ID BP025470.D met the requirements except for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Hexachlorocyclopentadiene. These compounds are failed high side and associated samples does not have hit for these compounds, therefor no further corrective action was taken.

The Continuous Calibration File ID BP025485.D met the requirements except for 2,4-Dinitrophenol. This compound is failed high side and associated samples does not have hit for this compound, therefor no further corrective action was taken.

The Continuous Calibration File ID BP025487.D met the requirements except for 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol. These compounds are failed high side and associated samples does not have hit for these compounds, therefor no further corrective action was taken.

The Tuning criteria met requirements.



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E. Additional Comments:

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

The not QT review data is reported in the Miscellaneous.

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_____