SDG NARRATIVE

LAB NAME: CHEMTECH CONSULTING GROUP
CASE: 50251
SDG: CB8P7
CONTRACT: 68HERH20D0011
LAB CODE: CHM
CHEMTECH PROJECT: N4849
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
N4849-01	CB8P5	
N4849-02	CB8P7	
N4849-03	CB8Q5	
N4849-04	CB8Q9	
N4849-05	CB8R1	
N4849-06	CB8R4	
N4849-07	CB8S5	

02 Water sample was delivered to the laboratory intact on 09/27/2022.
05 Water sample was delivered to the laboratory intact on 09/29/2022.

Test requested on the Chain of Custody was Semivolatile Organic SIM by Method SFAM01.1.

Sample Tags were received with the samples.

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.3, 2.4 degree Celsius for the samples received on 09/27/2022, 2.3, 2.6, 2.1, 2.4, 2.0 degree Celsius for the samples received on 09/29/2022.

Semivolatiles SIM:

The samples were analyzed on instrument BNA_M using GC Column ZB-GR Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA.

Semis volatile Organic samples for Water were extracted by Method SFAM01.1 on 09/30/22 the analysis of SVOCMS Group3 was based on Method SFAM01.1_SVOC-SIM.

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank Spike for {PB148014BS} recoveries met the requirements for all compounds.

The Blank Spike for {PB148044BS} recoveries met the requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.
The Tuning criteria met requirements.

See Manual Integration report for the manual integration information at the end of the case narrative.

Concentration of Water Sample:

$$\text{Concentration ug/L} = \frac{(Ax)\,(Is)\,(Vt)\,(DF)\,(GPC)}{(Ais)\,(\overline{RRF})\,(Vo)\,(Vi)}$$

Where,
Ax = Area of the characteristic ion for the compound to be measured.
Ais = Area of the characteristic ion for the internal standard.
Is = Amount of internal standard injected in ng.
Vo = Volume of water extracted in mL.
Vi = Volume of extract injected in uL.
Vt = Volume of the concentrated extract in uL

$\overline{RRF}$ = Mean Relative Response Factor determined from the initial calibration standard.
GPC = $\frac{Vin}{Vout}$ = GPC factor (If no GPC is performed, GPC=1)

Example calculation of **CB8P5** for **1,4-Dioxane:**
Ax = 829
Ais = 5075
Is = 0.4
Vo = 1000
Vi = 1
Vt = 1000
RRF = 0.551
GPC = 1

$$\text{Concentration ug/L} = \frac{(829)\,(0.4)\,(1000)\,(1)\,(1)}{(5075)\,(0.551)\,(1000)\,(1)}$$

$$= 0.12 \text{ ug/L}$$

RRF Calculation of standard 0.4 ppb 1,4-Dioxane with instrument M for method 10/06/2022.

RRF= Area of compound / X Conc. of Internal Standard /

Area of Internal Standard Conc. of Compound

= 3043/5636 X 0.4/0.4

= 0.540 (Reported RRF)

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 _____ Name: Nimisha Pandya.

Date: _____ Title: Document Control Officer.