SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51834
SDG: E27L1
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P4741
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P4741-01	E27L1	
P4741-02	E27L2	
P4741-03	E27M1	
P4741-04	E27M3	
P4741-05	E27M4	
P4741-06	E27L3	
P4741-07	E27L4	
P4741-08	E27L6	
P4741-09	E27L7	
P4741-10	E27L8	
P4741-11	E27M5	
P4741-12	E27M6	
P4741-13	E27M7	
P4741-14	E27M8	
P4741-15	E27M9	
P4741-16	E27N4	
P4741-17	E27N5	
P4741-18	E27N6	
P4741-19MS	E27N6MS	
P4741-20MSD	E27N6MSD	

10 Water samples were delivered to the laboratory intact on 11/07/2024.
10 Water samples were delivered to the laboratory intact on 11/08/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.5, 2.3 degree Celsius for the samples received on 11/07/2024, 2.0, 2.3 degree Celsius for the samples received on 11/08/2024

Shipping Discrepancies and/or QC issues:

Issue 01: Samples E27N7 and E27N8 are listed on the COC but were not received by the laboratory.

Resolution 01: Per Region 5, samples E27N7 and E27N8 can be disregarded by the laboratory.

Semivolatiles:

The samples were analyzed on instrument BNA_G 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.

The samples were analyzed on instrument BNA_P 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 sample for water sample was extracted by Method SFAM01.1 on 11//09/2024, 11/10/2024 and 11/13/2024, The analysis of SVOC-SFAM was based on method SFAM01.1_SVOC.

The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for,
E27N4 [1,4-Dioxane-d8 - 1010%]. As per method four surrogates are allowed to fail. Therefore no further corrective action was taken.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS {E27N6MS} recovery met the requirements for all compounds.
The MSD {E27N6MSD} recovery met the requirements for all compounds.
The RPD {E27N6MSD} RPD met the requirements for all compounds
The Blank Spike for {PB164835BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB164853BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB164941BS} recoveries met the requirements for all compounds.
The Blank Spike for {PB164957BS} recoveries met the requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met the requirements.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.

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
RRF = Mean Relative Response Factor determined from the initial calibration standard.
GPC = $\underline{Vin}$ = GPC factor (If no GPC is performed, GPC=1)
Vout = Volume of extract collected after GPC cleanup.

Example calculation of E27M3 for Phenol:

Ax = 23121
Ais = 97384
Is = 20
DF = 1
Vo = 990
Vi = 1
Vt = 1000
RRF = 1.967
GPC = 1

$$\text{Concentration ug/L} = \frac{(23121)\,(20)\,(1000)\,(1)\,(1)}{(97384)\,(1.967)\,(990)\,(1)}$$

$$= 2.4 \text{ ug/L}$$

RRF Calculation of standard 20 ppb for **Naphthalene** with G instrument for method 11/06/2024.

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

   = 267121/252685 X 20/20

   = 1.057 (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.