

**SDG NARRATIVE****LAB NAME: Alliance Technical Group, LLC****CASE: 51733****SDG: GCP16****CONTRACT: 68HERH20D0011****LAB CODE: ACE****CHEMTECH PROJECT: P4629****MODIFICATION REF. NUMBER: NA**

Sample ID	EPA Sample ID	pH
P4629-01	GCP16	1.0
P4629-02	GCP17	1.0
P4629-03	GCP18	1.0
P4629-04	GCP19	1.0
P4629-05	GCP20	1.0
P4629-06	GCP21	1.0
P4629-07	GCP22	1.0
P4629-08	GCP23	1.0
P4629-09	GCP24	1.0
P4629-10	GCP25	1.0
P4629-10DL	GCP25DL	1.0
P4629-11MS	GCP25MS	1.0
P4629-12MSD	GCP25MSD	1.0
P4629-13	GCP26	1.0
P4629-14	GCP27	1.0
P4629-15	GCP28	1.0
P4629-16	GCP29	1.0
P4629-17	GCP30	1.0
P4629-18	GCP31	1.0
P4629-19	GCP32	1.0
P4629-20	GCP33	1.0
P4629-21	GCP34	
P4629-21DL	GCP34DL	

21 Water samples were delivered to the laboratory intact on 10/30/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.6 degree Celsius for the samples received on 10/30/2024.

### **Trace Volatiles:**

The analysis performed on instrument MSVOA\_U were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI.

The analysis of VOC-SFAM was based on method SFAM01.1\_Trace.

The Surrogate recoveries met the acceptable criteria except for GCP26 [1,1-Dichloroethene-d2 - 50%, Toluene-d8 - 40% and Vinyl Chloride-d3 - 0%]. As per method, up to three surrogates are allowed to fail. No corrective action was taken.

The Internal Standards Areas met the acceptable requirements.

Instrument Performance Check met requirements.

The Retention Times met requirements.

The Tuning criteria met requirements.

The MS {GCP25MS} recovery met the requirements for all compounds.

The MSD {GCP25MSD} recovery met the requirements for all compounds.

The RPD {GCP25MSD} RPD met the requirements for all compounds.

The initial Calibration criteria met requirements.

The Continuing Calibration criteria met requirements.

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

The storage blank analysis indicated presence of Chloromethane [0.12ug/L] and Methylene chloride [0.19ug/L] FileID: VU061403.D {VHBLK001} due to lab contamination. As per method, less than the respective CRQL is allowed to fail for Chloromethane and less than 2 times the respective CRQL is allowed to fail for Methylene chloride. Therefore no further corrective action was taken

Samples GCP25, GCP34 were diluted due to high concentrations.

The sample GCP16 was analyzed following the analysis of GCP25. Samples GCP25 had hit of compound Trichloroethene with concentration above calibration levels. Sample GCP16 have not detected of the compound Trichloroethene. Therefore, as per method no instrument blank was required.

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

## Calculation:

### Low/Med Water Level Calculation

$$\text{Concentration in ug/L} = \frac{(A_x) (I_s) (DF)}{(A_{is}) (RRF) (V_o)}$$

Where,

A<sub>x</sub> = Area of the characteristic ion (EICP) for the compound to be measured.

A<sub>is</sub> = Area of the characteristic ion (EICP) for the internal standard.

Amount of internal standard added in ng.

RRF = Mean Relative Response Factor from the initial calibration standard.

V<sub>o</sub> = Total volume of water purged, in mL.

DF = Dilution Factor

Example calculation of **GCP25** for **Trichlorofluoromethane**:

$$A_x = 64102$$

$$I_s = 125$$

$$RRF = 0.525$$

$$DF = 1$$

$$A_{is} = 169921$$

$$V_o = 25$$

$$\text{Concentration in ug/L} = \frac{(64102) (125) (1)}{(169921)(0.525)(25)}$$

$$\text{Reported Result} = 3.59 \text{ ug/L}$$

$$\text{Final Reported Result} = 3.6 \text{ ug/L}$$

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU102324** for **0.5** ppb

$$RRF = \frac{\text{Area of compound}}{\text{Area of Internal Standard}} \times \frac{\text{Conc. of Internal Standard}}{\text{Conc. of Compound}}$$

$$RRF = \frac{5894}{198718} \times \frac{5.0}{0.5}$$

$$RRF = 0.297$$



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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.