



SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC

CASE: 51894

SDG: E1PJ3

CONTRACT: 68HERH20D0011

LAB CODE: ACE

LAB ORDER ID: P5017

MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
P5017-01	E1PJ2	1.0
P5017-02	E1PJ3	1.0
P5017-02DL	E1PJ3DL	1.0
P5017-03	E1PJ4	1.0
P5017-04	E1PJ5	1.0

04 Water samples were delivered to the laboratory intact on 11/26/2024.

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 2.4 degree Celsius for the samples received on 11/26/2024.

Shipping Discrepancies and/or QC issues:

Issue 1: The air bill number is missing on the COC.

Resolution 1: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples. This resolution will be applied to all samples received for this Case.

Issue 2: The laboratory received water samples listed on the COC for VOA analysis, but TVOA analysis is scheduled for this Case.

Resolution 2: Per Region 5, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples for TVOA analysis as scheduled. This resolution can be applied to all samples for this Case.

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.
Holding Times were met requirement.

The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
Instrument Performance Check met requirements.
The Retention Times met requirements.
The Tuning criteria met requirements.

The %RSD met requirement for initial Calibration except for 1,1,2,2-Tetrachloroethane (20.9%) for the initial calibration dated 11/20/2024 with U instrument, As per method, the %RSD up to two Compounds are allowed to fail to meet the minimum criteria as long as the compound meets the maximum of 40% RSD. No further corrective action was taken.

The Continuing Calibration (VSTD005165) file ID VU062034.D met the requirements except for Chloroform-d (-20.1%) and 1,1,2,2-Tetrachloroethane-d2 (-31%). As per method, up to two target analyte in opening and closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

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

Sample E1PJ3 was diluted due to high concentration.

The sample E1PJ4 was analyzed following the analysis of E1PJ3. Sample E1PJ3 had hit of compound Tetrachloroethene with concentration above calibration levels. Sample E1PJ4 had concentration of this compound which is below CRQL. 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_x = Area of the characteristic ion (EICP) for the compound to be measured.

A_{is} = 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_o = Total volume of water purged, in mL.



DF = Dilution Factor

Example calculation of **E1PJ2** for **Tetrachloroethene**:

$$A_x = 4317$$

$$I_s = 125$$

$$RRF = 0.293$$

$$DF = 1$$

$$A_{is} = 106937$$

$$V_o = 25$$

$$\text{Concentration in ug/L} = \frac{(4317)(125)(1)}{(106937)(0.293)(25)}$$

$$\text{Reported Result} = 0.69 \text{ ug/L}$$

$$\text{Final Reported Result} = 0.69 \text{ ug/L}$$

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VU112024** for **0.5** ppb

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

$$RRF = \frac{7631}{174068} \times \frac{5.0}{0.5}$$

$$RRF = 0.438$$

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.