

SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC CASE: 51834 SDG: E27M3 CONTRACT: 68HERH20D0011 LAB CODE: ACE LAB ORDER ID: P4786 MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pН
P4786-01	E27M3	1.0
P4786-02	E27M4	1.0
P4786-03	E27M5	1.0
P4786-04	E27M6	1.0
P4786-05	E27M7	1.0
P4786-05DL	E27M7DL	1.0
P4786-06	E27M8	1.0
P4786-07	E27M9	1.0
P4786-08	E27N0	1.0
P4786-09	E27N1	1.0
P4786-10	E27N2	1.0
P4786-11	E27N3	1.0
P4786-12	E27N4	1.0
P4786-12DL	E27N4DL	1.0
P4786-13	E27N5	1.0
P4786-15	E27P5	1.0
P4786-16MS	E27P5MS	1.0
P4786-17MSD	E27P5MSD	1.0
P4786-18	E27P6	1.0
P4786-19	E27P7	1.0
P4786-20	E27P8	1.0

13 Water samples were delivered to the laboratory intact on 11/08/2024. 06 Water samples were delivered to the laboratory intact on 11/09/2024.

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



The temperature of the samples was measured using an I R Gun. The samples temperature was 1.8 degree Celsius for the samples received on 11/08/2024, 1.8 degree Celsius for the samples received on 11/09/2024.

Shipping Discrepancies and/or QC issues:

Issue 01: "Lab has received water samples for VOA analysis. Lab has analyzed undiluted VOA analysis for the sample E27M7. Sample found positive with extremely elevated target analytes from calibration range and required dilution as you can see attached form-1 for your reference. Due to matrix interference, sample has internal standard recovery outside the QC limits therefore lab would like to confirm that lab will report undiluted VOA analysis with internal standard failure and further dilution in final electronic deliverables.

Resolution 01: "The lab's proposal is acceptable."

Low Volatiles:

The analysis performed on instrument MSVOA_X 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_LOW

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for, E27M6 [Toluene-d8 - 76%], E27M7DL [Toluene-d8 - 76%], E27M8 [Toluene-d8 - 77%], E27N2 [Toluene-d8 - 76%], E27N4 [1,2-Dichloropropane-d6 - 62%], E27N5 [Toluene-d8 - 79%], E27P5 [Toluene-d8 - 76%], E27P5 [Toluene-d8 - 76%], E27P6 [Toluene-d8 - 77%], E27P7 [Toluene-d8 - 78%], E27P8 [Toluene-d8 - 75%]. As per method, up to three surrogates are allowed to fail. No corrective action was taken.

The Internal Standards Areas met the acceptable requirements except for E27M7. Lab has received water samples for VOA analysis. Lab has analyzed undiluted VOA analysis for the sample E27M7. Sample found positive with extremely elevated target analytes from calibration range and required dilution, Due to matrix interference, sample has internal standard recovery outside the QC limits therefore lab reporedt undiluted VOA analysis with internal



standard failure and further dilution in final hard Copy, Please see EPA communication after SDG Narrative.

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Instrument Performance Check met requirements. The Retention Times were met for all samples. The Tuning criteria met requirements.

The MS {E27P5MS} recovery met the requirements for all compounds. The MSD {E27P5MSD} recovery met the requirements for all compounds. The RPD {E27P5MSD} RPD met the requirements for all compounds.

The %RSD met requirement for initial Calibration except for Dibromochloromethane (20.5%) for the initial calibration dated 11/04/2024 with X 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 End Continuing Calibration (VSTD050784) file ID VX043801.D met the requirements except for Trichloroethene (245.0%). 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 Continuing Calibration (VSTD050787) file ID VX043828.D met the requirements except for Carbon disulfide (-28.2%). 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 indicated the presence of lab Contamination. The Storage blank analysis did not indicated the presence of lab Contamination.

Samples E27M7 and E27N4 were diluted due to high concentrations.

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

Calculation:

Low/Med Water Level Calculation

Concentration in ug/L = (Ax) (Is) (DF) (Ais) (RRF) (Vo)

Where,

Ax = Area of the characteristic ion (EICP) for the compound to be measured. Ais = 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.



Vo = Total volume of water purged, in mL. DF = Dilution Factor

Example Calculation for sample: **E27M7** for **1,1-Dichloroethene**:

Ax= 8757 Is= 250 RRF= 0.267 DF=1 Ais= 168377 Vo.= 5 Concentration in ug/KG = $\frac{(8757)(250)(1)}{(168377)(0.267)(5)}$ = 9.74 ug/L

Final Reported Results = 9.8 ug/L

Relative Response Factor = Dichlorodifluoromethane: RUN VX110424 for 5.0 ppb

 RRF=
 Area of compound
 X
 Conc. of Internal Standard

 Area of Internal Standard
 Conc. of Compound
 Conc. of Compound

 $\begin{array}{rrr} \text{RRF=} & \underline{9818} \text{ X} & \underline{50} \\ 318749 & 5.0 \end{array}$

RRF= 0.301

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.