

SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC CASE: 51870 SDG: H46Q8 CONTRACT: 68HERH20D0011 LAB CODE: ACE LAB ORDER ID: P4743 MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pН
P4743-01	H46Q8	1.0
P4743-02	H46R3	1.0
P4743-03	H46R4	1.0
P4743-03DL	H46R4DL	1.0
P4743-04MS	H46R4MS	1.0
P4743-05MSD	H46R4MSD	1.0
P4743-06	H46R5	1.0
P4743-06DL	H46R5DL	1.0
P4743-07	H46R6	1.0
P4743-07DL	H46R6DL	1.0
P4743-08	H46R8	1.0
P4743-08DL	H46R8DL	1.0
P4743-09	H46S1	1.0
P4743-09DL	H46S1DL	1.0
P4743-10	H46S3	1.0
P4743-10DL	H46S3DL	1.0
P4743-11	H46S4	1.0
P4743-12	H46S6	10
P4743-12DL	H46S6DL	1.0
P4743-13	H46S7	1.0
P4743-13DL	H46S7DL	1.0
P4743-14	H46S8	1.0
P4743-15	H46X1	1.0
P4743-15DL	H46X1DL	1.0

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

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



2 of 5

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

Shipping Discrepancies and/or QC issues:

Issue 01: "Lab has received water samples for TVOA analysis. Lab has analyzed samples H46X1, H46S3 & H46R4 in a continues analytical sequence. All three samples are found positive and required dilution to bring target analytes within calibration range as you can see attached form-1 with quant reports. Due to continuous analytical sequence, instrument blank was not analyzed in between the samples therefore lab would like to confirm that lab will report undiluted TVOA analysis without instrument blank in between the samples and further dilution in final electronic deliverables.

Resolution 01: "The approach is acceptable."

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, H46S3 [1,1-Dichloroethene-d2 - 134%], H46S4 [1,2-Dichlorobenzene-d4 - 80%], H46S7 [1,2-Dichlorobenzene-d4 - 121%], H46X1 [Vinyl Chloride-d3 - 142%], H46X1DL [1 and2-Dichlorobenzene-d4 - 122%], 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 {H46R4MS} recovery met the requirements for all compounds. The MSD {H46R4MSD} recovery met the requirements for all compounds. The RPD {H46R4MSD} RPD met the requirements for all compounds.

The initial Calibration criteria met requirements.

The Continuing Calibration (VSTD005127) file ID VU061515.D met the requirements except for Vinyl Chloride-d3 (-30.9%). 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 (VSTD005129) file ID VU061537.D met the requirements except for Vinyl Chloride-d3 (-31.7%). 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 (VSTD005130) file ID VU061562.D met the requirements except for Vinyl Chloride-d3 (-35.9%). 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.

Samples H46R4, H46R5, H46R6, H46R8, H46S1, H46S3, H46S6, H46S7 and H46X1 were diluted due to high concentrations.

The sample H46R6 was analyzed following the analysis of H46R5. Both samples had common hit of compound with concentration above calibration levels for cis-1,2-Dichloroethene, It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The sample H46R8 was analyzed following the analysis of H46R6. Both samples had common hit of compound with concentration above calibration levels for cis-1,2-Dichloroethene, It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The sample H46S7 was analyzed following the analysis of H46S6. Both samples had common hit of compound with concentration above calibration levels for Vinyl chloride and cis-1,2-Dichloroethene, It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The sample H46X1 was analyzed following the analysis of H46S7. Both samples had common hit of compound with concentration above calibration levels for Vinyl chloride and cis-1,2-Dichloroethene, It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The Samples H46X1, H46S3 and H46R4 were analyzed back to back in an continuous analytical sequence and samples found positive with high concentration of target analytes are detected and required dilution. However, instrument blanks were not analyzed in between them per SOW due to samples are analyzed in continuous analytical sequence, so Lab has reported both the analysis as undiluted analysis without instrument blanks and further dilution analysis. Please see EPA communication after SDG Narrative.

The sample H46R4MS was analyzed following the analysis H46R4. This sample H46R4 had concentration for above calibration levels for cis-1,2-Dichloroethene. The following sample was QC samples; therefore no corrective action was required



4 of 5 See **Manual Integration report** for the manual integration information at the end of the case

Calculation:

narrative.

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 of H46R3 for Vinyl chloride:

Ax= 22135 Is = 125 RRF= 0.386 DF= 1 Ais= 220979 Vo. = 25 Concentration in ug/L = (22135)(125)(1)(220979)(0.386)(25)

Reported Result = 1.3 ug/L

Final Reported Result = 1.3 ug/L

Relative Response Factor = Dichlorodifluoromethane: RUN VU102324 for 0.5 ppb

 $RRF= \underline{Area of compound}_{Area of Internal Standard} X \underline{Conc. of Internal Standard}_{Conc. of Compound} RRF= \underline{5894}_{198718} X \underline{5.0}_{0.5}$

RRF= 0.297



5 of 5

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.