SDG NARRATIVE

LAB NAME: CHEMTECH CONSULTING GROUP
CASE: 50161
SDG: EY143
CONTRACT: 68HERH20D0011
LAB CODE: CHM
CHEMTECH PROJECT: N4005
MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pH
N4005-01	EY143	1.0
N4005-01DL	EY143DL	1.0
N4005-02	EY145	1.0
N4005-02DL	EY145DL	1.0
N4005-03	EY146	1.0
N4005-03DL	EY146DL	1.0
N4005-04	EY149	1.0
N4005-05	EY157	1.0
N4005-05DL	EY157DL	1.0
N4005-06MS	EY157MS	1.0
N4005-07MSD	EY157MSD	1.0

7 Water samples were delivered to the laboratory intact on 08/002/2022.

Test requested on the Chain of Custody was Volatile Organic by Method SFAM01.0.

Sample Tags were not received with the samples.

The temperature of the samples was measured using an I R Gun. The samples temperature was 3.3 degree Celsius for the samples received on 08/02/2022.

Shipping Discrepancies and/or QC issues:
Issue 1: Sample tags were not received with samples at the laboratory. Sample tag numbers may or may not be listed on the TR/COC.

Resolutions 1: The laboratory will note the samples with the missing tags in the SDG Narrative and proceed with the analysis of the samples. The resolution will be applied to all samples received for this Case.

Issue 2: This Case is scheduled for a 21 day TAT, however the COC states a 14 day TAT.

Resolution 2: Per Region 5, the laboratory will proceed with the scheduled 21 day TAT. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Low Volatiles:

The analysis performed on instrument MSVOA_V were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator.
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.

Holding Times were met requirement.

The Surrogate recoveries met the acceptable criteria except for,
EY143DL [1,1-Dichloroethene-d2 - 50%, Toluene-d8 - 65%],
EY145 [1,2-Dichlorobenzene-d4 - 121%, Chloroethane-d5 - 140%],
EY145DL [1,1-Dichloroethene-d2 - 40%, Benzene-d6 - 62%, Toluene-d8 - 48%],
EY146 [1,2-Dichlorobenzene-d4 - 120%],
EY146DL [1,1-Dichloroethene-d2 - 54%, Toluene-d8 - 71%],
EY157 [1,2-Dichlorobenzene-d4 - 123%],
EY157DL [Chloroethane-d5 - 135%],
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 {EY157MS} recovery met the requirements for all compounds.
The MSD {EY157MSD} recovery met the requirements for all compounds.
The RPD {EY157MSD} met the requirements for all compounds.

The Initial Calibration met the requirements.
The Continuing Calibration met the requirements.

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

Samples EY143, EY145, EY146 and EY157 were diluted due to high concentrations.

The sample EY157 was analyzed following the analysis of EY146. Both samples had common hit of compound with concentration above calibration levels for trans-1,2-Dichloroethene and cis-1,2-Dichloroethene, It was reanalyzed at a diluted. As per method, no instrument blank was required and not analyzed.

The sample EY157MS was analyzed following the analysis EY157. This sample EY157 had concentration for above calibration levels for trans-1,2-Dichloroethene and cis-1,2-Dichloroethene. The following sample was QC samples; therefore no corrective action was required

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

Calculation:
Low/Med Water Level Calculation

$$\text{Concentration in ug/L} = \frac{(Ax)\,(Is)\,(DF)}{(Ais)\,(RRF)\,(Vo)}$$

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 **EY143** for **Trichloroethene:**

Ax= 96236
Is = 250
RRF=0.394
DF= 1
Ais= 528359
Vo. = 5

$$\text{Concentration in ug/L} = \frac{(96236)\,(250)\,(1)}{(528359)(0.394)(5)}$$

Reported Result = 23 ug/L

Relative Response Factor = **Dichlorodifluoromethane**: RUN **VV0801222** for **5.0** ppb

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

$$RRF = \frac{31686}{593051} \times \frac{50}{5.0}$$

RRF= 0.534

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.