

SDG NARRATIVE**LAB NAME: CHEMTECH CONSULTING GROUP****CASE: 48940****SDG: CB7D2****CONTRACT: EPW14030****LAB CODE: CHM****CHEMTECH PROJECT: L2785****MODIFICATION REF. NUMBER: 2989.1**

Sample ID	EPA Sample ID	pH
L2785-01	CB7D2	
L2785-02	CB7D3	
L2785-03	CB7D4	
L2785-04	CB7D5	
L2785-05	CB7D6	
L2785-06	CB7D7	
L2785-07	CB7D8	
L2785-08	CB7D9	
L2785-09	CB7E0	
L2785-10	CB7E1	
L2785-11	CB7E2	

11 Soil samples were delivered to the laboratory intact on 05/27/2020.

Test requested on the Chain of Custody was Semi-Volatile Organic by Method SOM02.4.

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.3 degree Celsius for the samples received on 05/27/2020.

Issue 1: This Case is scheduled with a 14 day TAT; however, the COC lists a 21 day TAT. The laboratory would like to confirm that they may proceed with the samples as scheduled.

Resolution 1: In accordance with previous direction from Region 3, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples as indicated on the Scheduling Notification Form. The resolution will be applied to all COCs received for this Case that list information that does not match the Scheduling Notification Form.

Semivolatiles :

The samples were analyzed on instrument BNA_M using GC Column ZB-Semi Volatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 μ m df, Catalog # 7HG-G027-17-GGA.

Semi volatile Organic samples for Solid were extracted by Method SOM02.4 on 05/27/2020. The analysis of SVOC-PAH was based on method SOM02.4_SVOC using MA 2989.1, See the MA

instructions at the end of the Case Narrative.

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for CB7D2 [1,4-Dioxane-d8 - 28%], CB7D8 [1 and 4-Dioxane-d8 - 38%]. As per method two surrogates are allowed to fail. No further corrective action was taken.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Tuning criteria met requirements.

The %RSD met requirement for initial Calibration except for 1,4-Dioxane-d8 (20.3 %) for the initial calibration with dated 05/13/2020 with instrument M. As per method, 4 compounds can be failed within 40% Therefore no corrective action was required.

The Continuous Calibration (SSTD02081) File BM026152.D met the requirements except for 1,4-Dioxane-d8, As per method two compounds are allowed to fail, not exceed 40%, but 4-Chloroaniline-d4 not associated with Targets compounds list. No further corrective action was taken.

Samples were received after MIS Preparation Laboratory with $\leq 6^{\circ}\text{C}$ temperature. % solid was not received by ISM processing. Extra volume was provided by determination of % solid. See the MA 2989.1 instructions at the end of the Case Narrative.

Please See EPA communication in shipping discrepancy Section.

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

Concentration of SOIL Sample:

Concentration ug/Kg,
(dry weight basis) = $\frac{(A_x) (I_s) (V_t) (DF) (GPC)}{(A_{is}) (RRF) (V_i) (W_t) (D)}$

Where,

A_x = Area of the characteristic ion for the compound to be measured.

A_{is} = Area of the characteristic ion for the internal standard.

I_s = Amount of internal standard injected in ng.

V_i = Volume of extract injected in microliters (uL)

V_t = Volume of concentrated extract in microliters (uL)

W_t = Weight of the original sample extracted in g

D_f = Dilution factor

$\overline{\text{RRF}}$ = Mean Relative Response Factor determined from the initial calibration standard.

$\text{GPC} = \frac{V_{\text{in}}}{V_{\text{out}}}$ = GPC factor (If no GPC is performed, $\text{GPC}=1$)

V_{out} = Volume of extract collected after GPC cleanup.

$D = \% \text{ dry weight or } \frac{100 - \% \text{Moisture}}{100}$

Example calculation of CB7D2 for Fluoranthene:

$A_x = 339885$

$A_{\text{is}} = 794627$

$I_s = 20$

$V_i = 1$

$V_t = 500$

$W_t = 30.1$

$D_f = 1$

$\text{RRF} = 1.322$

$\text{GPC} = 2$

$D = 0.919$

Concentration

$$\begin{aligned} (\text{dry weight basis}) \text{ ug/Kg} &= \frac{(339885) (20) (500) (1) (2)}{(794627) (1.322) (1) (30.1) (0.919)} \\ &= 230 \text{ ug/Kg} \end{aligned}$$

RRF Calculation of standard 20 ppb for **Naphthalene** with M instrument for method 05/13/2020

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

$$= 535344 / 456063 \times 20 / 20$$

$$= 1.174 \text{ (Reported RRF)}$$

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