SDG NARRATIVE

LAB NAME: Alliance Technical Group, LLC
CASE: 51798
SDG: A0BE3
CONTRACT: 68HERH20D0011
LAB CODE: ACE
LAB ORDER ID: P4716
MODIFICATION REF. NUMBER: 3147.0

Sample ID	EPA Sample ID	pH
P4716-01	A0BE3	
P4716-02	A0BE4	
P4716-03	A0BE5	
P4716-04MS	A0BE5MS	
P4716-05MSD	A0BE5MSD	

05 Soil samples were delivered to the laboratory intact on 11/05/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 4.9 degree Celsius for the samples received on 11/05/2024.

Aroclors:

The analyses were performed on instrument GC ECD_R. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.

The sample was analyzed on a single injection dual column system. To distinguish the second column analysis from the first column a -2 suffix was added to the file id on the form 1. These refer to forms were both columns are reported. Form 1s for the IBLK and ALCS are referenced as IBLK(1)/IBLK(2), MS(1)/MS(2), MSD(1)/MSD(2) and ALCS01(1)/ALCS01(2) respectively.

Aroclor sample was extracted by Method SFAM01.1 on 11/09/2024 and analyzed on 11/11/2024, 11/12/2024 All the samples were subjected to a Sulfuric acid cleanup. The sample was extracted and analyzed within contractual holding time.

The Surrogate recoveries met the acceptable criteria.
A0BE5MS met the requirements.
A0BE5MSD met the requirements.
The RPD met the requirements.

The Laboratory Control Sample met requirements.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuing Calibrations met the requirements.
The Retention Times were acceptable for all samples.

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

Calculation for Concentration in Soil samples:

$$\text{Concentration ug/Kg (Dry weight basis)} = \frac{(Ax)\,(Vt)\,(DF)\,(GPC)}{(CF)\,(Vi)\,(Ws)\,(D)}$$

Where,
Ax = Response (peak area or height) of the compound to be measured.
CF = Mean Calibration Factor from the initial calibration (area/ng).
Vt = Volume of the concentrated extract in uL
Vi = Volume of extract injected (uL). (If a single injection is made onto two columns, use ½ the volume in the syringe as the volume injected onto each column).
Ws = Weight of sample extracted (g).

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

$GPC = \frac{Vin}{Vout}$ = GPC factor (If no GPC is performed, GPC=1)

DF = Dilution Factor

Example of AR1260 calculation for Peak 1

$$\text{Calibration factor Peak 1 100ppb ISTD=Column2} \quad \frac{\text{peak area}}{\text{Mass injected ng}}$$

$$= \frac{30951704}{0.100}$$

= 309517040 calibration factor for Peak 1 100ppb

Average of 5 peaks = 279412911

Sample **A0BE5**
Ax = 2908451
CF = 279412911
Vt = 10000

Vi = 1.0
Ws = 30.1
D = 0.564
GPC = 1.0
DF = 1.0

$$\text{Concentration ug/Kg (Dry weight basis)} = \frac{(Ax)\,(Vt)\,(DF)\,(GPC)}{(CF)\,(Vi)\,(Ws)\,(D)}$$

$$= \frac{(2908451)\,(10000)\,(1.0)\,(1.0)}{(279412911)\,(1.0)\,(30.1)\,(0.564)}$$

Peak 1 = 6.13

Average of 5 peaks = 6.40

Reported results = 6.4 ug/kg

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.