

#### **SDG NARRATIVE**

LAB NAME: Alliance Technical Group, LLC CASE: 51847 SDG: E2905 CONTRACT: 68HERH20D0011 LAB CODE: ACE LAB ORDER ID: P5334 MODIFICATION REF. NUMBER: NA

Sample ID	EPA Sample ID	pН
P5334-01	E2904	
P5334-02	E2905	
P5334-03	E2906	
P5334-04	E2921	
P5334-05MS	E2921MS	
P5334-06MSD	E2921MSD	

03 Soil samples were delivered to the laboratory intact on 12/18/2024. 03 Soil samples were delivered to the laboratory intact on 12/19/2024.

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

The temperature of the samples was measured using an I R Gun. The samples temperature was 2.1 degree Celsius for the samples received on 12/18/2024, and 2.3 degree Celsius for the samples received on 12/19/2024

### **Shipping Discrepancies and/or QC issues:**

**Issue 01:** Issue: There is no sample designated on the COC for laboratory QC for PEST analysis in SDG E2905. The laboratory has selected sample E2921 for laboratory QC. The laboratory has confirmed that the sample is not a PT, blank, or rinsate sample.

**Resolution 01:** Per SFAM01.1 Exhibit A, Section 5.5.4.1., the laboratory should note the issue in the SDG Narrative and proceed with analysis of the samples.

### **Pesticides:**

The analyses for Pesticides were performed on instrument ECD\_D. The front column is ZB-Multi-Residue-1 which is 30 meters, 0.32 mm ID, 0.50 um df. The rear column ZB-Multi-Residue-2 which is 30 meters, 0.32 mm ID, 0.25 um df.



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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 PLCS are referenced as IBLK(1)/IBLK(2), MS(1)/MS(2), MSD(1)/MSD(2) and PLCS01(1) / PLCS01(2) respectively.

Pesticide sample was extracted by method SFAM01.1 on 12/23/2024 and analyzed on 12/26 and 12/27/2024. The sample was extracted and analyzed within contractual holding time.

The soil sample was subjected to Florisil and GPC Cleanup.

The Surrogate recoveries met the acceptable criteria except for E2904 [Decachlorobiphenyl(1)- 18%, Decachlorobiphenyl(2)- 21%], E2905 [Decachlorobiphenyl(1)- 15%, Decachlorobiphenyl(2)- 17%], E2906 [Decachlorobiphenyl(1)- 341%], The SOW allows one surrogate to fail to meet the criteria per column. ((Please See Section 11.3.6 of Exhibit D Pesticide Analysis).

E2921MS met the requirements. E2921MSD met the requirements. The RPD met the requirements

The Blank analysis did not indicate the presence of lab contamination. Blank and Laboratory Control Sample met the requirements. Retention Times met the requirements. Florisil check met the requirements. Resolution Check met the requirements. The Retention Times were acceptable for all samples. The Initial Calibration met the requirements. The Individual Mix A met the requirements. The Individual Mix B met the requirements. The Individual Mix B met the requirements. The PEM met the requirement.

Samples E2904, E2905, E2906, E2921 and E2921MS failed to meet the %D for the results between the two columns Criteria.

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

## **Calculation for the Concentration in Soil Samples**

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

DF = Dilution Factor.

### **Example of Dieldrin calculation**

Calibration Factor Calculation Dieldrin in the first column

Calibration factor (CF) =  $\underline{\text{peak area}}$ Mass injected in ng

Mean Calibration Factor = average of 5 point calibration factor

= 3616610

Sample **E2904** <u>Ax</u> = 15069461 CF = 3616610 Ws = 30.1 Vi = 1.0 Vt = 5000 DF = 1.0 GPC = 2.0D = 0.858

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

 $= \frac{(15069461) (5000) (1.0) (2.0)}{(3616610) (1.0) (30.1) (0.858)}$ 

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### = 1.61

## Reported Results = 1.6 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.