284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # E1PM9
CASE # 51960
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # Q1292

A. Number of Samples and Date of Receipt

01 Soil sample were delivered to the laboratory intact on 02/05/2025.

B. Parameters

Test requested for TCLP ICP Metals = Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver, TCLP Mercury.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence

Cooler: 2.0^{o}C

D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):

Issue : Laboratory QC is scheduled for soil TCLP ICP -AES and TCLP Hg analysis, but a sample was not designated on the COC. The laboratory selected sample E1PM9 for Laboratory QC and confirmed this sample is not a blank, rinsate or PT sample.

E. Corrective Action taken for above:

Resolution : Per SOW SFAM01.1 Exhibit A, Section 5.5.4.1, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samplesResolution 4: Per SOW, SFAM01.1 Exhibit A, Section 5.5.4.1, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

F. Analytical Techniques:

All analyses were based on CLP Methodology by method SFAM01.1.

Inter Element correction factors (IECs) are determined annually and correction factor are applied during ICP-AES analysis.

G. Calculation:

Calculation for ICP-AES Water Sample:

$$\text{Concentration or Result (µg/L)} = C \times \frac{Vf}{Vi} \times DF \times 1000$$

Where,

C = Instrument value in ppm (The average of all replicate exposures)
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

Example Calculation For Sample E1PM9 For Arsenic:

If C = 0.0030491 ppm
Vf = 50 ml
Vi = 50 ml
DF = 1

$$\text{Concentration or Result (µg/L)} = 0.0030491 \times \frac{50}{50} \times 1 \times 1000$$

$$= 3.0491 \text{ µg/L}$$

$$= 3.1 \text{ µg/L (Reported Result with Signification)}$$

Calculation for Hg Water Sample:

Concentration or Result (µg/L) = C x DF
Where,

C = Instrument response in µg/L from the calibration curve.
DF = Dilution Factor

Example Calculation For E1PM9 :

If C = 0.1052 ppb
DF = 1

$$\text{Concentration or Result (µg/L)} = 0.1052 \times 1$$

$$= 0.1052 \text{ µg/L}$$

$$= 0.11 \text{ µg/L (Reported Result with Signification)}$$

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H. QA/ QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

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. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature_____ Name: Nimisha Pandya

Date _____ Title: Document Control Officer