284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # MBH6M7
CASE # 51835
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID #P4623

A. Number of Samples and Date of Receipt

12 Soil samples were delivered to the laboratory intact on 10/29/2024.

B. Parameters

Test requested for SPLP MetalGroup3 = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, & SPLP Hg & SPLP Cyanide.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence

Cooler: 2.4^{o}C, 2.8^{o}C

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

Issue 1: A "P" or "M" prefix was listed at the beginning of a CLP sample ID.

Issue 2: The attached COCs lists a 7-day TAT, but a 14-day TAT is scheduled for this Case.

E. Corrective Action taken for above:

Resolution 1: To maintain COC integrity, ASB requests no changes to the Sample IDs. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

Resolution 2: Per Region 2, the laboratory should note the issue in the SDG Narrative and proceed with the analysis of the samples as scheduled (14-day TAT).

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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 MBH6M7 For Arsenic:

If C = 0.0411259 ppm
Vf = 50 ml
Vi = 50 ml
DF = 1

$$\text{Concentration or Result (µg/L)} = 0.0411259 \times \frac{50}{50} \times 1 \times 1000$$

$$= 41.1259 \text{ µg/L}$$

$$= 41 \text{ µg/L (Reported Result with Signification)}$$

Calculation for Hg Water Sample:

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

Where,

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

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Example Calculation For Sample MBH6M7:

If C = 0.0973 ppb
DF = 1

Concentration or Result (µg/L) = 0.0973 x 1

= 0.0973 µg/L

= 0.097 µg/L (Reported Result with Signification)

Calculation for CN Water Sample:

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

Where,

C = Instrument response in µg/L CN from the calibration curve.
Vf = Final prepared (absorbing solution) volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

Example Calculation:

If C = 7.2182 ppb
Vf = 50 ml
Vi = 50 ml
DF = 1

$$\text{Concentration or Result (µg/L)} = 7.2182 \times \frac{50}{50} \times 1$$

= 7.2182 µg/L

= 7.2 µg/L(Reported Result with Signification)

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 except for SPLP Mercury. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

Samples receive as soil but as per ASR process for SPLP and forms are reported with water.

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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