



**284 Sheffield Street
Mountainside, NJ 07092**

SDG NARRATIVE

USEPA

SDG # MJNLH1

CASE # 51821

CONTRACT # 68HERH20D0011

SOW# SFAM01.1

LAB NAME: Alliance Technical Group, LLC

LAB CODE: ACE

LAB ORDER ID # P5169

A. Number of Samples and Date of Receipt

04 Soil samples was delivered to the laboratory intact on 12/06/2024, 12/11/2024

B. Parameters

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

C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 2.1°C, 2.0°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: There is no sample designated for laboratory QC for TCLP analyses in SDG MJNLH1. The laboratory has selected sample MJNLH4 for laboratory QC for TCLP Metals and Hg, and confirms that the sample is not a PT, blank, or rinsate sample.

Issue 3: The COC indicates PRs are required for all samples, but per scheduling there are no PRs requested for this Case. Please advise on how the laboratory may proceed.

Issue 4: Samples under this Case are scheduled for TCLP ICP-AES 5-10 Metals and TCLP Hg, but the COC only indicates TCLP ICP-AES 5-10 Metals for CLP sample numbers MJNLH1 and MJNLH2.



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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 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

Resolution 3: Per Region 10, preliminary results were inadvertently included on the COC but are not needed for this project. Please proceed with the scheduled 21-day TAT. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Resolution 4: Per Region 10, the laboratory should proceed with TCLP ICP-AES 5-10 Metals and TCLP Hg as scheduled for CLP sample numbers MJNLH1 and MJNLH2. Please note the issue in the SDG Narrative and proceed with 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 TCLP Water Sample:

$$\text{Concentration or Result } (\mu\text{g/L}) = C \times \frac{V_f}{V_i} \times \text{DF} \times 1000$$

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 MJNLH1 For Barium:

If C = 0.4375750 ppm

Vf = 50 ml

Vi = 50 ml

DF = 1

$$\text{Concentration or Result } (\mu\text{g/L}) = 0.4375750 \times \frac{50}{50} \times 1 \times 1000$$



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$$= 437.5750 \text{ } \mu\text{g/L}$$

$$= 440 \text{ } \mu\text{g/L (Reported Result with Signification)}$$

Calculation for Hg TCLP Sample:

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

Where,

C = Instrument response in $\mu\text{g/L}$ from the calibration curve.

DF = Dilution Factor

Example Calculation for Mercury for sample MJNLH5:

$$\text{If } C = 0.8627 \text{ ppb}$$

$$\text{DF} = 1$$

$$\text{Concentration or Result (}\mu\text{g/L)} = 0.8627 \times 1$$

$$= 0.8627 \text{ } \mu\text{g/L}$$

$$= 0.86 \text{ } \mu\text{g/L (Reported Result with Signification)}$$

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 Silver. 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