SDG COVER PAGE

| Lab Name: | Alliance | Technical Group, LLC | Contract | 68HERH2 | 0D0011 | |
|-----------|----------|----------------------|----------|---------|-----------|-----------------|
| Lab Code: | ACE | Case No.: 51918 | MA No.: | 3157.0 | | SDG No.: MJNBZ1 |
| SOW No. : | SFAM01.1 | | | | | |
| | | | | Analysi | is Method | |
| EPA Sampl | e No. | Lab Sample Id | ICP-AES | ICP-MS | Mercury | Cyanide |
| MJNBZ1 | | P5250-01 | | X | X | |
| MJNBZ3 | | P5250-02 | | X | X | |
| MJNBZ4 | | P5250-03 | | X | X | |
| MJNBZ7 | | P5250-04 | | Х | X | |
| MJNBZ8 | | P5250-05 | | Х | X | |
| MJNBZ2 | | P5250-06 | | X | X | |
| MJNBZ2D | | P5250-07 | | Х | X | |
| MJNBZ2S | | P5250-08 | | X | X | |
| | | | | | | |

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG Narrative. All edits and manual integrations have been peer-reviewed. Release of the data contained in this hardcopy Complete SDG File and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

| Signature: | Name: | |
|------------|--------|--|
| Date: | Title: | |

CarrierName: Fedex
AirbillNo: 7706 ?369 0648

DateShipped: (2/9/2024 USEPA CLP COC (LAB COPY)

68HERH20D0011

SDG # MJNBZ1

No: 10-120324-132121-0003

Mehammad Ahmed 908-789-8900

Lab Phone:

Alliance Technical Group, LLeLab: Lab Contact:

CHAIN OF CUSTODY RECORD

Case #: 51918 Cooler #:

| WSTB-J003SB-3× 5/1-3 | Sample Identifier |
|------------------------------|-------------------------------|
| MJNBZ1 | CLP Sample No. |
| Soil Subsurface/ | Matrix/Sampler |
| Disposable Hand Trowel | Coll. Method |
| ICP/MS(21) | Analysis/Turnaround (Days) |
| 1042 (< 6 C) (2) | Tag/Preservative/Bottles |
| WSTB-J003SB | Location |
| 12/05/2024 1044 | Collection Date/Time |
| | For Lab Use Only |

| TAL Metals ICP-MS (Incl. Hg + Molybdenum) |
|--|
| Analysis Key: ICP/MS=CLP TAL Metals ICP-MS (Incl. Hg + Molybdenum) |

| Items/Reason | Items/Reason Relinquished by (Signature and Organization) Date/Time | Date/Time | Received by (Signature and O | Organization) | Date/Time | Sample Condition Upor Receipt |
|--------------|---|--------------|------------------------------|---------------|------------------|----------------------------------|
| MJNB21 | agnification of | 12/5/24 1215 | Emily Ox | MJP | 1215 H215h; | Good |
| | (| | 2 | | 12-11-21 Obit | 1872 140 Jan 1872 |
| | | | | | | Tom Blant Over |

USEPA CLP COC (LAB COPY)

CarrierName: Fed ex DateShipped: 12/9/2024 AirbillNo: 7706 2369 0648

CHAIN OF CUSTODY RECORD

Case #: 51918 Cooler #:

SDG # MJNBZ1

68HERH20D0011

No: 10-120324-181024-0008
Alliance Technical Group, ως, Lab:
Mohammad Ahrmed Lab Contact:

Lab Contact: Lab Phone:

0063-684-800

| · · · · · | | | | 17 -7 | | | |
|-----------|----------------------|----------|--------------------------|-------------------------------|-------|----------------|------------|
| For Lab I | Collection Date/Time | Location | Tag/Preservative/Bottles | Analysis/Turnaround (Davs) | Coll. | Matrix/Sampler | e b No. |
| For Lab | Collection | Location | Tag/Preservative/Bottles | Analysis/Turnaround | Coll. | Matrix/Sampler | |

| Sample Identifier | CLP Sample No. | Matrix/Sampler | Coll. | Analysis/Turnaround (Days) | Tag/Preservative/Bottles | Location | Collection Date/Time | For Lab Use Only |
|-------------------|-------------------|---------------------|---------------------------------|----------------------------|--------------------------|--------------|----------------------|---------------------|
| SNBL-J018SB-1-2 | MJNBZ3 | Soil Subsurface/ | Direct Push Technology | ICP/MS(21) | 1003 (< 6 C) (2) | SNBL-J018SB | 12/11/2024 | |
| SNBL-J018SB-2-3 | MJNBZ4 | Soil | Direct | ICP/MS(21) | 1020 (< 6 C) (2) | SNBL-J018SB | 12/11/2024 | |
| | | Subsurface/ | Technology | | | | 1040 | |
| SNBI _1019SB 1-2 | -MJNBZ5 | Soit Subsurface/ | -BirectPush Technology | LICPIMS(21) | 1025 (< 6 C) (2) | -SNBL-J019SB | .1 <u>2/11/202</u> 4 | |
| SNBL-J01998-2-3 | 9ZGNFW | Subsurface/ | -Direct -Push- Tochnology | -ICP/MS(21) | -1021 (< ê C)(2) | SNBL-J0198B | 12/14/2024 | |
| | | | | | | | | |

Special Instructions:

Samples Transferred From Chain of Custody # **Shipment for Case Complete? N**

Analysis Key: ICP/MS=CLP TAL Metals ICP-MS (Incl. Hg + Molybdenum)

| | MUNB23, | Items/Reason |
|---------------------|---------------|---|
| | Janville Mich | Items/Reason Relinquished by (Signature and Organization) Date/Time |
| | 12/6/24 1110 | Date/Time |
| CR | Emily On uso | Received by (Signature and Organization) |
| 12-11-21 | C | Date/Time |
| custody seal Intert | | Sample Condition Upon Receipt |

USEPA CLP COC (LAB COPY)

DateShipped: 12/12/2024 17/13/2024 CarrierName: Fed ex

CHAIN OF CUSTODY RECORD 68HERH20D0011

SDG # MJNBZ1

Alliance Technical Group, 4-Clab.
Monammad Ahmed Lab Contact No: 10-120324-182542-0011

008-284-800

Lab Phone:

Case #: 51918 Cooler #:

| Sample Identifier | ROAD-J004SS | WSTB-J002SS | SNBL-340156-1-2 |
|----------------------------|------------------------------|------------------------------|------------------|
| CLP Sample No. | MJNBZ7 | MJNBZ8 | M3N822 |
| Matrix/Sampler | Soil Surface/ | Soil Surface/ | Soil Subsurface |
| Coll. Method | Disposable Hand Trowel | Disposable Hand Trowel | Technology |
| Analysis/Turnaround (Days) | ICP/MS(21) | ICP/MS(21) | TCP/MS (21) |
| Tag/Preservative/Bottles | 1002 (< 6 C) (2)(1) | 1037 (< 6 C) (2) (1) | 1036 (460)(2)(1) |
| Location | ROAD-J004SS | WSTB-J002SS | SN &L-10013B |
| Collection Date/Time | 12/12/2024 1 <i>6</i> 30 | 12/12/2024 0925 | 12/11/1024 |
| For Lab Use Only | | | |

| pecia | |
|----------|--|
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Analysis Key: ICP/MS=CLP TAL Metals ICP-MS (Incl. Hg + Molybdenum)

MJN 527, MJN 528, MJN 522

Items/Reason

Relinquished by (Signature and Organization)

Date/Time

Received by (Signature and Organization) JSW 12/12/24 1250 Date/Time Sample Condition Upon Receipt

Samples Transferred From Chain of Custody #

Shipment for Case Complete? N

12/12/24 1250

10:31 Tey blanden

FORM DC-1 SAMPLE LOG-IN SHEET

| Lab Name: Alliance Technical Group | p, LLC | Page $_{1}$ of ${\cal V}$ |
|------------------------------------|----------------|---------------------------|
| Received By (Print Name) | para liña | Log-in Date 12/11/2024 |
| Received By (Signature) | | |
| Case Number 51918 | SDG No. MJNBZ1 | MA No. 3157.0 |

| Remarks: | |
|---|---------------------------------|
| 1. Custody Seal (s) | Present, Intact |
| 2. Custody Seal Nos. | n/a |
| 3. Traffic Reports/Chain Of Custody Records | Present |
| 4. Airbill | Present |
| 5. Airbill No. and Shipping Container ID No. | 770623690648 1 |
| 6. Shipping Container Temperature Indicator Bottle | Present |
| 7. Shipping Container Temperature | 2.0 Degree C |
| 8. Sample Condition | Intact |
| 9. Sample Tags Sample Tag Numbers | Absent Listed on Traffic Report |
| 10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ? | Yes |
| 11. Date Received at Lab | 12/11/2024 |
| 12.Time Received | 07:40 |

| | | | Correspond | | |
|----|-----------------|----------------------------------|----------------------|----------|---|
| | EPA Sample # | Aqueous Water Sample pH | , Sample Tag # | Assigned | Remarks: Condition of Sample Shipment, etc. |
| 1 | MJNBZ1 | N/A | 1042 A | P5250-01 | Intact |
| 2 | MJNBZ3 | N/A | 1033 1033 1 | P5250-02 | Intact |
| 3 | MJNBZ4 | N/A | 1020 | P5250-03 | Intact |
| 4 | N/A | N/A | N/A | N/A | N/A |
| 5 | N/A | N/A | N/A | N/A | N/A |
| 6 | N/A | N/A | N/A | N/A | N/A |
| 7 | N/A | N/A | N/A | N/A | N/A |
| 8 | N/A | N/A | N/A | N/A | N/A |
| 9 | N/A | N/A | N/A | N/A | N/A |
| 10 | N/A | N/A | N/A | N/A | N/A |
| 11 | N/A | N/A | N/A | N/A | N/A |
| 12 | N/A | N/A | N/A | N/A | N/A |
| 13 | N/A | N/A | N/A | N/A | N/A |
| 14 | N/A | N/A | N/A | N/A | N/A |
| 15 | N/A | N/A | N/A | N/A | N/A |
| 16 | N/A | N/A | N/A | N/A | N/A |
| 17 | N/A | N/A | N/A | N/A | N/A |
| 18 | N/A | N/A | N/A | N/A | N/A |
| 19 | N/A | N/A | N/A | N/A | N/A |
| 20 | N/A | N/A | N/A | N/A | N/A |
| 21 | N/A | N/A | N/A | N/A | N/A |
| 22 | N/A | N/A i | N/A | N/A | N/A |
| 23 | N/A | N/A I | N/A | N/A | N/A |

* Contact SMO and attach record of resolution

| Reviewed By | | Logbook No. | N/A |
|-------------|----------|------------------|-----|
| Date | 12/11/24 | Logbook Page No. | N/A |

FORM DC-1 SAMPLE LOG-IN SHEET

| Lab Name : Alliance Technical Group | , LLC | Page 2 of V | | | | |
|-------------------------------------|----------------|------------------------|--|--|--|--|
| Received By (Print Name) 25000 | ova Rina | Log-in Date 12/14/2024 | | | | |
| Received By (Signature) | | | | | | |
| Case Number 51918 | SDG No. MJNBZ1 | MA No. N/A 3157 0 00 | | | | |

| Remarks: | |
|---|---------------------------------|
| 1. Custody Seal (s) | Present, Intact |
| 2. Custody Seal Nos. | n/a |
| 3. Traffic Reports/Chain Of Custody Records | Present |
| 4. Airbill | Present |
| 5. Airbill No. and Shipping Container ID No. | 770757611280 2 |
| Shipping Container Temperature Indicator Bottle | Present |
| 7. Shipping Container Temperature | 2.1 Degree C |
| 8. Sample Condition | Intact |
| 9. Sample Tags Sample Tag Numbers | Absent Listed on Traffic Report |
| 10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ? | Yes |
| 11. Date Received at Lab | 12/14/2024 |
| 12.Time Received | 10:35 |

| | | | | Corrospondin | | |
|----|----------|----------------------------|------|--------------|----------|--------|
| | EPA | Aqueous Water Sample | Sam | | Assigned | 1 |
| | Sample # | pН | Tag | # | Lab # | etc. |
| 1 | MJNBZ7 | N/A | 1002 | | P5250-04 | intact |
| 2 | MJNBZ8 | N/A | 1037 | | P5250-05 | Intact |
| 3 | MJNBZ2 | N/A | 1030 | | P5250-06 | Intact |
| 4 | MJNBZ2D | N/A | 1030 | | P5250-07 | Intact |
| 5 | MJNBZ2S | N/A | 1030 | | P5250-08 | Intact |
| 6 | N/A | N/A | N/A | | N/A | N/A |
| 7 | N/A | N/A | N/A | | N/A | N/A |
| 8 | N/A | N/A | N/A | | N/A | N/A |
| 9 | N/A | N/A | N/A | | N/A | N/A |
| 10 | N/A | N/A | N/A | | N/A | N/A |
| 11 | N/A | N/A | N/A | | N/A | N/A |
| 12 | N/A | N/A | N/A | | N/A | N/A |
| 13 | N/A | N/A | N/A | | N/A | N/A |
| 14 | N/A | N/A | N/A | | N/A | N/A |
| 15 | N/A | N/A | N/A | | N/A | N/A |
| 16 | N/A | N/A | N/A | | N/A | N/A |
| 17 | N/A | N/A | N/A | | N/A | N/A |
| 18 | N/A | N/A i | N/A | | N/A | N/A |
| 19 | N/A | N/A I | V/A | | N/A | N/A |
| 20 | N/A | N/A | V/A | | | N/A |
| 21 | N/A | N/A | N/A | | N/A | N/A |
| 22 | N/A | N/A I | N/A | | N/A | N/A |
| 23 | N/A | N/A | N/A | | | N/A |

* Contact SMO and attach record of resolution

| Reviewed By | 06 | Logbook No. | N/A |
|-------------|----------|------------------|-----|
| Date | 12/16/24 | Logbook Page No. | N/A |

FORM DC-2 COMPLETE SDG FILE (CSF) INVENTORY SHEET

| LAB NAME | Alliance Technical Group, LLC | | | | | | |
|--------------|-------------------------------|---------|----------|--|--|--|--|
| LAB CODE | ACE | | | | | | |
| CONTRACT NO. | 68HERH20D0011 | | | | | | |
| CASE NO. | 51918 | SDG NO. | MJNBZ1 | | | | |
| MA NO. | 3157.0 | SOW NO. | SFAM01.1 | | | | |
| | | | | | | | |

All documents delivered in the Complete SDG File must be original documents where possible. (Reference - Exhibit B Section 2.4)

| , | | | | |
|---|-----------|------|------------|--------|
| | PAGE NOs: | | CHECK | |
| | FROM | TO | LAB | REGION |
| | | | | |
| 1. SDG Cover Page | 1 | 1 | _ ✓ | |
| 2. Traffic Report/Chain of Custody Record(s) | 2 | 4 | ✓ | |
| 3. Sample Log-In Sheet (DC-1) | 5 | 6 | - ✓ | |
| 4. CSF Inventory Sheet (DC-2) | 7 | 9 | √ | |
| 5. SDG Narrative | 10 | 14 | - ✓ | |
| 6. Communication Logs | 15 | 19 | ✓ | |
| 7. Percent Solids Log | 20 | 21 | ✓ | |
| Analysis Forms and Data (ICP-AES) | | | | |
| 8. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample | NA | NA | _ ✓ | |
| or sample analysis, laboratory QC as applicable 9. Instrument raw data by instrument in analysis order | NA | NA | ✓ | |
| Other Data | | | | |
| 10 . Standard and Reagent Preparation Logs | NA | NA | ✓ | |
| 11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks | NA | NA | ✓ | |
| 12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks | NA | NA | | |
| 13. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions | NA | NA_ | ✓ | |
| 14. Extraction Logs for TCLP and SPLP | NA | NA_ | | |
| 15. Raw GPC Data | NA | NA | | |
| 16. Raw Florisil Data | NA | NA | | |
| Analysis Forms and Data (ICP-MS) | | | | |
| 17. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample | 22 | 2.7 | ✓ | |
| or sample analysis, laboratory QC as applicable 18. Instrument raw data by instrument in analysis order | 28 | 1311 | ✓ | |
| Other Data | | | | |
| 19. Standard and Reagent Preparation Logs | 1312 | 1446 | ✓ | |
| 20. Original Preparation and Cleanup forms or copies of Preparation and | 1447 | 1448 | ✓ | |
| Cleanup Logbooks 21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks | 1449 | 1460 | | |
| 22. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions | NA | NA | ✓ | |
| | | | | |

| | PAGE | NOs: | СН | IECK |
|--|------|------|----------|--------|
| | FROM | TO | LAB | REGION |
| 23. Extraction Logs for TCLP and SPLP | NA | NA_ | | |
| 24 . Raw GPC Data | NA | NA | | |
| 25 . Raw Florisil Data | NA | NA | | |
| Analysis Forms and Data (Mercury) | | | | |
| 26. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample | 1461 | 1466 | _ | |
| or sample analysis, laboratory QC as applicable 27. Instrument raw data by instrument in analysis order | 1467 | 1468 | | |
| Other Data | | | | |
| 28. Standard and Reagent Preparation Logs | 1469 | 1493 | | |
| 29. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks | 1494 | 1495 | | |
| 30. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks | 1496 | 1497 | ✓ | |
| 31. Performance Evaluation (PE)/Proficiency Testing (PT) Sample | NA | NA | ✓ | |
| Instructions 32. Extraction Logs for TCLP and SPLP | NA | NA | _ | |
| 33 . Raw GPC Data | NA | NA | ✓ | |
| 34 . Raw Florisil Data | NA | NA | ✓ | |
| Analysis Forms and Data (Cyanide) | | | | |
| 35. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample | NA | NA | ✓ | |
| or sample analysis, laboratory QC as applicable 36. Instrument raw data by instrument in analysis order | NA | NA | ✓ | |
| Other Data | | | | |
| 37. Standard and Reagent Preparation Logs | NA | NA | ✓ | |
| 38. Original Preparation and Cleanup forms or copies of Preparation and | NA | NA | ✓ | |
| Cleanup Logbooks 39. Original Analysis or Instrument Run forms or copies of Analysis or | NA | NA | ✓ | |
| Instrument Logbooks 40. Performance Evaluation (PE)/Proficiency Testing (PT) Sample | NA | NA | ✓ | |
| Instructions 41. Extraction Logs for TCLP and SPLP | NA | NA | ✓ | |
| 42 . Raw GPC Data | NA | NA | ✓ | |
| 43 . Raw Florisil Data | NA | NA | ✓ | |
| | | | | |

Form DC-2 - 2

| | | | PAGE NOs: | | CH | CHECK | |
|-------------------|--|-----------------------|-----------|---------|----------|--------|--|
| | | | FROM | TO | LAB | REGION | |
| Additional | | | | | | | |
| 44. EPA Shipp | ping/Receiving Documents | | | | | | |
| Airbill | (No. of Shipments) | | 1498 | 1499 | ✓ | _ | |
| Sample Ta | ags | | NA | NA | ✓ | | |
| Sample Lo | og-In Sheet (Lab) | | 1500 | 1501 | ✓ | | |
| 45. Misc. Shi | ipping/Receiving Records(list all indiv | idual records) | | | | | |
| | | | NA | NA | | | |
| | | | | | | | |
| | | | | | | | |
| | Lab Sample Transfer Records and Tracking | ng Sheets | | | | | |
| (describe | e or list) | | 1502 | 1503 | | | |
| | | | | | √ | | |
| 45 011 5 | | | | | | | |
| | cords and related Communication Logs e or list) | | | | | | |
| <u> </u> | , | | NA | NA | ✓ | | |
| | | | | | | | |
| | | | | | | | |
| 40 Commontos | | | | | | | |
| 48. Comments: | : | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Completed by | ·: | | | | | | |
| (CLP Lab) | (Signature) | Nimisha Pandya, Docur | | Officer | <u> </u> | + - \ | |
| Audited by: (EPA) | (Signature) | (Print Name & Title |) | | (Da | te) | |
| | (Signature) | (Print Name & Title |) | | (Da | te) | |
| | | | | | | | |



SDG NARRATIVE

USEPA
SDG # MJNBZ1
CASE # 51918
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # P5250
MODIFIED ANALYSIS #3157.0

A. Number of Samples and Date of Receipt

06 Soil samples was delivered to the laboratory intact on 12/11/2024, 12/14/2024.

B. Parameters

Test requested for Metals CLP MS FULL = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc & Mercury.

C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 2.0°C, 2.1°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 on the COC for laboratory QC for ICP-MS Metals and Hg analyses in SDG MJNBZ1. The laboratory has selected sample MJNBZ2 for laboratory QC for ICP-MS Metals and Hg, and confirms that the sample is not a PT, blank, or rinsate sample.

Issue 3: According to the COC, samples shipped on 12/09/2024, but the collection date for samples MJNBZ3 and MJNBZ4 is 12/11/2024, indicating these samples were collected two days after the ship date. Please advise on how the laboratory may proceed.



284 Sheffield Street Mountainside, NJ 07092

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, the laboratory should proceed with a sample collection date of 12/06/2024 for samples MJNBZ3 and MJNBZ4. 12/11/2024 was the date that the samples were originally planned to be collected, but these samples were actually collected on 12/06/2024. 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.

G. Calculation:

Calculation for ICP-MS Soil Sample:

Conversion of Results from µg /L or ppb to mg/kg:

Concentration (mg/kg) =
$$C \times \frac{Vf}{W \times S} \times DF / 1000$$

Where,

C = Instrument value in ppb (The average of all replicate integrations)

Vf = Final digestion volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

= 4.5 mg/kg (Reported Result with Signification)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

Example Calculation For Sample MJNBZ1 For Arsenic:

If C = 9.24 ppb
$$Vf = 500 \text{ ml}$$

$$W = 1.16 \text{ g}$$

$$S = 0.894 (89.4/100)$$

$$DF = 1$$

$$Concentration (mg/kg) = 9.24 \text{ x} \frac{500}{1.16 \text{ x} 0.894} \text{ x } 1 / 1000$$

$$= 4.4549 \text{ mg/kg}$$



284 Sheffield Street Mountainside, NJ 07092

Calculation for Hg Soil Sample:

Conversion of Results from µg /L or ppb to mg/kg:

Concentration (mg/kg) =
$$C \times \frac{Vf}{W \times S} \times DF / 1000$$

Where,

C = Instrument response in μ g/L from the calibration curve.

Vf = Final prepared (absorbing solution) volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

Example Calculation For Sample MJNBZ1:

If C =0.4461 ppb

Vf = 100 mL

W = 0.60g

S = 0.894(89.4/100)

DF = 1

Concentration (mg/kg) = $0.4461 \text{ x} \frac{100}{0.60 \text{ x} 0.894} \text{ x } 1 / 1000$

= 0.083165 mg/kg

= 0.083 mg/kg (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. MS Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

Internal Standard Association for ICP-MS analysis.

| Target Analyte | Associated |
|----------------|-------------------|
| | Internal Standard |



284 Sheffield Street Mountainside, NJ 07092

| Modification, 110 07072 | | | | |
|-------------------------|-------|--|--|--|
| Antimony | 159Tb | | | |
| Arsenic | 89Y | | | |
| Barium | 159Tb | | | |
| Beryllium | 6Li | | | |
| Cadmium | 159Tb | | | |
| Chromium | 45Sc | | | |
| Cobalt | 45Sc | | | |
| Copper | 45Sc | | | |
| Lead | 209Bi | | | |
| Manganese | 45Sc | | | |
| Molybdenum | 89Y | | | |
| Nickel | 45Sc | | | |
| Selenium | 89Y | | | |
| Silver | 159Tb | | | |
| Thallium | 209Bi | | | |
| Vanadium | 45Sc | | | |
| Zinc | 45Sc | | | |
| | | | | |

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 Office |

| Date: 05/11/2017 | MA: 3157.0 | Title: ICP-MS Analysis Plus Molybdenum |
|-------------------------|-------------------|--|
| Method Source: SFAM01.1 | Method: ICP-MS | |
| Matrix: Soil/Sediment | | |
| Summary of Modification | | |

The purpose of this modified analysis is to analyze soil/sediment samples by ICP-MS with the addition of the non-routine analyte Molybdenum (Mo). Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.

I. Analyte Modifications

Not applicable

| Analyte | CAS Number | CRQL (mg/kg) | Spike Added (mg/kg) |
|-----------------|------------|--------------|---------------------|
| Molybdenum (Mo) | 7439-98-7 | 2.0 | 100 |

II. Calibration and QC Requirements

Not applicable

The Laboratory shall:

- Ensure that a Method Detection Limit has been determined for Mo in soil/sediment matrix by the preparation method used for the samples that meets all applicable SOW requirements.
- Perform the Initial Calibration with at least one non-blank standard at or below the modified CRQL, converted to μg/L.
- Add Mo to the ICV and CCV at appropriate mid-range concentrations.
- Evaluate the ICB and CCB against the modified CRQL converted to μg/L.
- Evaluate the Preparation Blanks using the modified CRQL.
- Perform the Matrix Spike at the level specified above. Post-digestion spike requirements are per the SOW.
- Flag the Duplicates based on the modified CRQL.
- Prepare the LCS at 2 times the modified CRQL.

IV. Special Reporting Requirements Not applicable Not applicable

The Laboratory shall:

- Add Molybdenum to Form 1.
- Report the "J" and "U" qualifiers in accordance with the requirements in Exhibit B, Section 3.4.3.2.4.2, using the modified CRQL.
- Ensure that the SDG Narrative is updated as stated in the SOW, including any technical and administrative problems encountered and the corrective action taken. These problems may include interference problems encountered during analysis, dilutions, re-analyses or repreparations performed, and problems with the analysis of samples. Also include a discussion of any SOW Modified Analysis including a copy of the approved modification with the SDG Narrative.

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Monday, December 16, 2024 10:29 AM

To: Mohammad Ahmed; Deepak Parmar; Sohil Jodhani

Cc: Johnson, Matthew; Bauer, Heather E; Dunn, Meghan (she/her/hers; Reece, Caitlin; Britz,

Helen; Moody, Brett; Gambrah, Derrick; Taylor, Lucinda; Myer, Shari; Patel, Bhavita;

Vargas, Magda (she/her/hers

Subject: Region 10 | Case 51918 | Lab ACE | Issue Insufficient/inappropriate designation of

laboratory QC | FINAL

Attachments: 51918-COC.pdf

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning,

Please see the below resolution.

Issue: There is no sample designated on the COC for laboratory QC for ICP-MS Metals and Hg analyses in SDG MJNBZ1. The laboratory has selected sample MJNBZ2 for laboratory QC for ICP-MS Metals and Hg, and confirms that the sample is not a PT, blank, or rinsate sample.

Resolution: 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.

Please note that the laboratory may contact the appropriate CLP PM should any defects need to be waived for this issue.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

T: (571) 454-2416
casey.shaeffer@gdit.com
15036 Conference Center Drive
Chantilly, VA 20151
www.gdit.com

GENERAL DYNAMICS

Leave Alert: December 24, 2024

From: Deepak Parmar < Deepak.Parmar@alliancetg.com >

Sent: Monday, December 16, 2024 7:49 AM To: Shaeffer, Casey < Casey.Shaeffer@gdit.com> Cc: Sohil Jodhani <Sohil.Jodhani@AllianceTG.com>

Subject: Region 10 | Case 51918 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Good morning,

Issue 1: One SDG MJNBZ1 is open without lab QC for ICP-MS and Hg analysis However, a sample was not designated for Laboratory QC. Lab like to use sample MJNBZ2 for Lab QC. these samples are not blanks, rinsates or PE samples.

Please see attachment for your reference.

Thanks & Regards,



Deepak Parmar QA/QC **An Alliance Technical Group Company** Main: 908-789-8900

Direct: 908-728-3154

Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092

From: Shaeffer, Casey <Casey.Shaeffer@gdit.com>
Sent: Monday, December 16, 2024 1:35 PM

To: Mohammad Ahmed; Deepak Parmar; Sohil Jodhani

Cc: Johnson, Matthew; Bauer, Heather E; Dunn, Meghan (she/her/hers; Reece, Caitlin Subject: Region 10 | Case 51918 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC |

FINAL

Attachments: P5250-TR.pdf

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good afternoon,

Please see the below resolution from Region 10.

Issue: According to the COC, samples shipped on 12/09/2024, but the collection date for samples MJNBZ3 and MJNBZ4 is 12/11/2024, indicating these samples were collected two days after the ship date. Please advise on how the laboratory may proceed.

Resolution: Per Region 10, the laboratory should proceed with a sample collection date of 12/06/2024 for samples MJNBZ3 and MJNBZ4. 12/11/2024 was the date that the samples were originally planned to be collected, but these samples were actually collected on 12/06/2024. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Please note that the laboratory may contact the appropriate CLP PM should any defects need to be waived for this issue.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

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casey.shaeffer@gdit.com
15036 Conference Center Drive
Chantilly, VA 20151
www.gdit.com

GENERAL DYNAMICS

Leave Alert: December 24, 2024

From: Reece, Caitlin < Reece. Caitlin@epa.gov > Sent: Monday, December 16, 2024 12:53 PM

To: Shaeffer, Casey < Casey.Shaeffer@gdit.com; Dunn, Meghan (she/her/hers) < dunn.meghan@epa.gov>

Subject: RE: Region 10 | Case 51918 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Hello Casey,

Below is the other resolution for ACE. Thank you!

Resolution2 (ACE): The collection date on the CoC is incorrect. The date of 12/11/24 was the planned date. Please use collection date of 12/6/24 for both samples.

Kind regards,

Caitlin Reece

QA Chemist

US Environmental Protection Agency, Region 10 – Seattle, WA

Laboratory Services & Applied Sciences Division

(206) 553-1813

reece.caitlin@epa.gov

From: Shaeffer, Casey < <u>Casey.Shaeffer@gdit.com</u>> Sent: Monday, December 16, 2024 8:16 AM

To: Reece, Caitlin < Reece. Caitlin@epa.gov >; Dunn, Meghan (she/her/hers) < dunn.meghan@epa.gov >

Subject: Region 10 | Case 51918 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good morning,

Please see the below issue from ACE.

Issue: According to the COC, samples shipped on 12/09/2024, but the collection date for samples MJNBZ3 and MJNBZ4 is 12/11/2024, indicating these samples were collected two days after the ship date. Please advise on how the laboratory may proceed.

Thank you,

Casey Shaeffer

Associate Environmental Analyst
CLP QSS Coordinator – EPA Regions 4 & 10
Under contract to the EPA

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casey.shaeffer@gdit.com

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www.gdit.com

GENERAL DYNAMICS

Leave Alert: December 24, 2024

From: Deepak Parmar < Deepak.Parmar@alliancetg.com >

Sent: Monday, December 16, 2024 11:07 AM **To:** Shaeffer, Casey < <u>Casey.Shaeffer@gdit.com</u>> **Cc:** Sohil Jodhani < Sohil.Jodhani@AllianceTG.com>

Subject: Region 10 | Case 51918 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

This Message Is From an External Sender

Please use caution with links, attachments, and any requests for credentials.

Good morning,

Issue 1: Sample MJNBZ3 and MJNBZ4 collection dated on COC is after sample shipping dated ,therefore lab would like to confirm that lab how can proceed with Analysis ?

Please see attachment for your reference.

Thanks & Regards,



Deepak Parmar QA/QC An Alliance Technical Group Company Main: 908-789-8900

Direct: 908-728-3154

Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092

www.alliancetg.com



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh

Date: 12/17/2024

OVENTEMP IN Celsius(°C): 107 OVENTEMP OUT Celsius(°C): 103

Time IN: 14:25 Time OUT: 07:55

In Date: 12/16/2024 Out Date: 12/17/2024

 Weight Check 1.0g: 1.00
 Weight Check 1.0g: 1.00

 Weight Check 10g: 10.00
 Weight Check 10g: 10.00

OvenID: M OVEN#1 BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

qc:LB133958

| Lab ID | Client SampleID | Dish # | Dish Wt(g) (A) | Sample Wt(g) | Sample | Dish+Dry Sample Wt(g)(C) | % Solid | Comments |
|----------|-----------------|-----------|----------------------|-----------------|--------|--------------------------------|------------|----------|
| P5250-01 | MJNBZ1 | 1 | 1.15 | 8.67 | 9.82 | 8.9 | 89.4 | |
| P5250-02 | MJNBZ3 | 2 | 1.19 | 8.62 | 9.81 | 8.04 | 79.5 | |
| P5250-03 | MJNBZ4 | 3 | 1.18 | 8.42 | 9.6 | 7.55 | 75.7 | |
| P5250-04 | MJNBZ7 | 4 | 1.15 | 8.50 | 9.65 | 6.79 | 66.4 | |
| P5250-05 | MJNBZ8 | 5 | 1.15 | 8.80 | 9.95 | 8.36 | 81.9 | |
| P5250-06 | MJNBZ2 | 6 | 1.15 | 8.38 | 9.53 | 8.74 | 90.6 | |
| P5250-07 | MJNBZ2D | 7 | 1.15 | 8.38 | 9.53 | 8.74 | 90.6 | |
| P5250-08 | MJNBZ2S | 8 | 1.15 | 8.38 | 9.53 | 8.74 | 90.6 | |

WORKLIST(Hardcopy Internal Chain)

WorkList ID: 186369 %1-p5250 WorkList Name:

Department: Wet-Chemistry

Date: 12-16-2024 10:40:13 836661

| Sample | Customer Sample | Matrix | Test | Preservative | Customer | Raw Sample Storage Location | Collect Date Method | Method |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------------|---------------------|-------------------------|
| P5250-01 | MJNBZ1 | Solid | Percent Solids | Cool 4 deg C | USEP01 | C11 | 12/05/2024 | 12/05/2024 Chemtech -SO |
| P5250-02 | MJNBZ3 | Solid | Percent Solids | Cool 4 deg C | USEP01 | C11 | 12/11/2024 | 12/11/2024 Chemtech -SO |
| P5250-03 | MJNBZ4 | Solid | Percent Solids | Cool 4 deg C | USEP01 | C11 | 12/11/2024 | 12/11/2024 Chemtech -SO |
| P5250-04 | MJNBZ7 | Solid | Percent Solids | Cool 4 deg C | USEP01 | C11 | 12/12/2024 | 12/12/2024 Chemtech SO |
| P5250-05 | MJNBZ8 | Solid | Percent Solids | Cool 4 deg C | USEP01 | 5 5 5 | 12/12/2024 | 12/12/2024 Chemtech -50 |
| P5250-06 | MJNBZ2 | Solid | Percent Solids | Cool 4 deg C | USEP01 | C11 | 12/11/2024 | 12/11/2024 Chemtech SO |
| P5250-07 | MJNBZ2D | Solid | Percent Solids | Cool 4 deg C | USEP01 | 5 7 | 12/11/2024 | 12/11/2024 Chemtech -SO |
| P5250-08 | MJNBZ2S | Solid | Percent Solids | Cool 4 deg C | USEP01 | C11 | 12/11/2024 | 12/11/2024 Chemtech -SO |

Date/Time Date/Time

Date/Time (2.)624 19430

Raw Sample Received by: Raw Sample Relinquished by:

Raw Sample Received by:

Raw Sample Relinquished by:

Page 1 of 1