SDG COVER PAGE

Lab Name:	Alliance	Technical Group, LLC	Contract	: 68HERH2	0D0011		
Lab Code:	ACE	Case No.: 51900	MA No.:	3114.1		SDG No.: ME2993	
SOW No. :	SFAM01.1						
				Analys	is Method		
EPA Sample	e No.	Lab Sample Id	ICP-AES	ICP-MS	Mercury	Cyanide	
ME2993		Q1231-01		X	X	X	
ME2993D		Q1231-02		Х	X	X	
ME2993S		Q1231-03		Х	X	X	
ME29C1		Q1231-04		Х	X		
ME29C2		Q1231-05		Х	X	X	
ME29C3		Q1231-06		Х	X	X	
ME29C4		Q1231-07		Х	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:	1	Name:	
Date:		Title:	

Page 1 of 1

USEPA CLP COC (LAB COPY)

DateShipped: 1/29/2025

CarrierName: UPS

AirbillNo: 1Z93947Y0132287961

CHAIN OF CUSTODY RECORD

Case #: 51900 Cooler #: 32

Lab: Alliance Technical Group LLC

No: 5-012925-113428-0361

Lab Contact: Mohammad Ahmed Lab Phone: 312-353-9083 For Lab Use Only 01/29/2025 11:35 01/29/2025 11:35 Collection Date/Time IA-05-MW-01-RI-MS/MSD IA-05-MW-01-RI-MS/MSD Location 5488 (NaOH), 5489 (HN03) (4) 5484, 5485, 5486, 5487 (16) Tag/Preservative/Bottles SVSIM(21), 1,4-DSIM(21), PEST(21), ARO(21) Analysis/Turnaround 1 CN(21), ICP-MS+HG+HARD(21) (Days) Coll. Grab Grab Matrix/Sampler Water/ Water/ CLP Sample No. ME2993 E2993 Sample Identifier IA-05-MW-01-RI-MS/MSD IA-05-MW-01-RI-MS/MSD

Samples Transferred From Chain of Custody # Shipment for Case Complete? N Special Instructions: Please return cooler with enclosed airbill ASAP (1293947Y0324593276)

Analysis Key: SVSIM=Semivolatiles + SIM, 1,4-DSIM=1,4-Dioxane by SIM, PEST=Pesticides, ARO=Aroclors, CN=Cyanide, ICP-MS+HG+HARD=ICP-MS 11+ Metals+HG+Hardness

		ų	3	X
Sample Condition Upon Receipt		-30.25 TREME 30	Costoly Seal List	to But no
Date/Time	18:30	10:18		
Received by (Signature and Organization)	26			I
Date/Time	08.31			
Relinquished by (Signature and Organization)	All flows			
Items/Reason		1		

Page 1 of 1

USEPA CLP COC (LAB COPY)

DateShipped: 2/3/2025

CarrierName: UPS

AirbillNo: 1Z93947Y0132881078

CHAIN OF CUSTODY RECORD

Case #: 51900 Cooler#: 46

Lab: Alliance Technical Group LLC Lab Contact: Mohammad Ahmed

No: 5-020325-142211-0380

Lab Phone: 312-353-9083

For Lab Use Only			0110	0410/0412						
Collection Family Date/Time	02/03/2025 13:00	02/03/2025 14:28	02/03/2025 13:00	02/03/2025 14:28	_					
Location	JA-11-LFB-01	IA-11-LFA-01	IA-11-LFB-01	IA-11-LFA-01						
Tag/Preservative/Bottles	5696, 5697, 5698, 5699 (2)	5703, 5704, 5705, 5706 (4)	5701 (HN03) (1)	5707 (NaOH), 5708 (HN03) (2)						
Analysis/Turnaround (Days)	SVSIM(21), 1,4- DSIM(21), PEST(21), ARO(21)	SVSIM(21), 1,4- DSIM(21), PEST(21), ARO(21)	ICP-MS+HG+HARD(21)	CN(21), ICP- MS+HG+HARD(21)						
Coll.	Grab	Grab	Grab	Grab						
Matrix/Sampler	Water/	Water/	Water/	Water/						
CLP Sample No.	E29C1	E29C2	ME29C1	ME29C2						
Sample Identifier	IA-11-LFB-01	IA-11-LFA-01	IA-11-LFB-01	IA-11-LFA-01						

Shipment for Case Complete? N Samples Transferred From Chain of Custody # Special Instructions: Please return cooler with enclosed airbill ASAP (1Z93947Y0323141416). Note reduced volume for samples IA-11-LFB-01 and IA-11-LFA-01. Please coordinate with USACE on analyses to be run.

Analysis Key: SVSIM=Semivolatiles + SIM, 1,4-DSIM=1,4-Dioxane by SIM, PEST=Pesticides, ARO=Aroclors, ICP-MS+HG+HARD=ICP-MS 11+ Metals+HG+Hardness, CN=Cyanide

tems/Reason	Items/Reason Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Wall Plan	12/2/2/20	3	213125	
,				82:01	Il County 120
				2-4-25	11.1.1.1.
					Color South Andrews
					1 8 A T N 2

Page 1 of 1

USEPA CLP COC (LAB COPY)

DateShipped: 2/3/2025 CarrierName: UPS

AirbillNo: 1Z93947Y0128347289

CHAIN OF CUSTODY RECORD

Case #: 51900 Cooler #: 47

Lab: Alliance Technical Group LLC

No: 5-020325-155854-0381

Lab Contact: Mohammad Ahmed

Lab Phone: 312-353-9083

For Lab Use Only	:55	.45	55 DIF 1.516.11.12	_ `						
Collection Date/Time	02/03/2025 14:55	02/03/2025 15:45	02/03/2025 14:55	02/03/2025 15:45						
Location	MW-113	IA-04-MW-02	MW-113	IA-04-MW-02						
Tag/Preservative/Bottles	5710, 5711, 5712, 5713 (8)	5724, 5725, 5726, 5727 (8)	5714 (NaOH), 5715 (HN03) (2)	5728 (NaOH), 5729 (HN03) (2)						
Analysis/Turnaround (Days)	SVSIM(21), 1,4-DSIM(21), PEST(21), ARO(21)	SVSIM(21), 1,4-DSIM(21), PEST(21), ARO(21)	CN(21), ICP- MS+HG+HARD(21)	CN(21), ICP- MS+HG+HARD(21)				K		
Coll. Method	Grab	Grab	Grab	Grab						
Matrix/Sampler	Water/	Water/	Water/	Water/						
CLP Sample No.	E29C3	E29C4	ME29C3	ME29C4						
Sample Identifier	MW-113-25	IA-04-MW-02-25	MW-113-25	IA-04-MW-02-25						

Shipment for Case Complete? N Samples Transferred From Chain of Custody # Special Instructions: Please return cooler with enclosed airbill ASAP (1Z93947Y0326392426).

Analysis Key: SVSIM=Semivolatiles + SIM, 1,4-DSIM=1,4-Dioxane by SIM, PEST=Pesticides, ARO=Arodors, CN=Cyanide, ICP-MS+HG+HARD=ICP-MS 11+ Metals+HG+Hardness

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Date/Time Sample Condition Upon Receipt
	Jahr hars	213125	ک⁄اک	V3125	
,			1	2-4-2	2-0-
7			}	1028	2
56					टण्डारेस् उब्स् प्राप्त
					TELS, BIL AUSSELL

FORM DC-1 SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group	, LLC	Page 1 of 3					
Received By (Print Name)	Received By (Print Name) (ashage) Log-in Date 1/30/2025						
Received By (Signature)							
Case Number 51900	SDG No. ME2993	MA No. 3114.1					

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.	1z93947y0132287961 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	3.0 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	01/30/2025
12.Time Received	10:18

			Correspo	nding	Pomarko
	EPA Sample #	Aqueous Water Sample pH	Sample Tag #	Assigned	Remarks: Condition of Sample Shipment, etc.
1	ME2993	1.0,12	5488,89	Q1231-01	Intact
2	ME2993D	1.0,12	5488,89	Q1231-02	Intact
3	ME2993S	1.0,12	5488,89	Q1231-03	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	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By	W.	Logbook No.	N/A	
Date	1/30/25	Logbook Page No.	N/A	

FORM DC-1 SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC	Page_2_of_3
Received By (Print Name) (assarava dure	Log-in Date 2/4/2025
Received By (Signature)	
Case Number 51900 SDG No. ME2993	MA No. 3114.1

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.	1z93947Y0132881078 2
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	2.6 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	02/04/2025
12.Time Received	10:28

			Correspond	ding	Domonico
	EPA Sample #	Aqueous Water Sample pH	Sample Tag #	Assigned	Remarks: Condition of Sample Shipment, etc.
1	ME29C1	1.0	5701	Q1231-04	Intact
2	ME29C2	1.0,12	5707,08	Q1231-05	Intact
3	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	2/4/20	Logbook Page No.	N/A

FORM DC-1 SAMPLE LOG-IN SHEET

Lab Name: Alliance Technical Group,	LLC	Page 3 of 3
Received By (Print Name)	rara line	Log-in Date 2/4/2025
Received By (Signature)	•	
Case Number 51900	SDG No. ME2993	MA No. 3114.1

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.	1z93947y0128347289 3
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	02/04/2025
12.Time Received	10:28

			Correspo	nding	Domonico
	EPA Sample #	Aqueous Water Sample pH	Sample Tag #	Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	ME29C3	1.0,12	5714,15	Q1231-06	Intact
2	ME29C4	1.0,12	5728,29	Q1231-07	Intact
3	N/A	N/A	N/A	N/A	N/A
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	V/A	N/A	N/A
22	N/A	N/A	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	S	Logbook No.	N/A	
Date	2/4/25	Logbook Page No.	N/A	

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

LAB NAME	Alliance Tech	nical Group, LLC		
LAB CODE	ACE			
CONTRACT NO.	68HERH20D0011			
CASE NO.	51900	SDG NO.	ME2993	
MA NO.	3114.1	SOW NO.	SFAM01.1	

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

(100	dictioned Hamilyic B deceron 2.47				
		PAGE NOs:		CHE	ECK
		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	7	√	
4.	CSF Inventory Sheet (DC-2)	8	10	√	
5.	SDG Narrative	11	16	√	
6.	Communication Logs	NA	NA	√	
7.	Percent Solids Log	NA	NA	√	
Ana	lysis Forms and Data (ICP-AES)				
8.	Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample	NA	NA		
9.	or sample analysis, laboratory QC as applicable Instrument raw data by instrument in analysis order	NA	NA	✓	
Othe	er Data				
10.	Standard and Reagent Preparation Logs	NA	NA		
11.	Original Preparation and Cleanup forms or copies of Preparation and	NA	NA	✓	
12.	Cleanup Logbooks 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	✓	
Ana	lysis Forms and Data (ICP-MS)				
17.	Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable	17	21	✓	
18.	Instrument raw data by instrument in analysis order	22	325		
Othe	er Data				
19.	Standard and Reagent Preparation Logs	326	466	✓	
20.	Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	467	468	<u> </u>	
21.	Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	469	471	✓	
22.	Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	

	PAGE	NOs:	CH	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	472	476		
or sample analysis, laboratory QC as applicable 27. Instrument raw data by instrument in analysis order	477	479	_	
Other Data				
28. Standard and Reagent Preparation Logs	480	507	✓	
29. Original Preparation and Cleanup forms or copies of Preparation and	508	509		
Cleanup Logbooks 30. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	510	513		
31. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	_	
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	514	517	_	
or sample analysis, laboratory QC as applicable 36. Instrument raw data by instrument in analysis order	518	522		
Other Data				
37. Standard and Reagent Preparation Logs	523	551	✓	
38. Original Preparation and Cleanup forms or copies of Preparation and	552	553	✓	
Cleanup Logbooks 39. Original Analysis or Instrument Run forms or copies of Analysis or	554	557	_ ✓	
Instrument Logbooks 40. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA_	_	
41. Extraction Logs for TCLP and SPLP	NA	NA	✓	
42 . Raw GPC Data	NA	NA	✓	
43 . Raw Florisil Data	NA	NA	✓	

			PAGE NOs:		CH	CHECK	
			FROM	TO	LAB	REGION	
Additional							
44. EPA Shipp	ing/Receiving Documents						
Airbill (No. of Shipments3)		558	560	✓		
Sample Ta	gs		NA	NA	✓		
Sample Lo	g-In Sheet (Lab)		561	562	✓		
45. Misc. Shi	pping/Receiving Records(list all individu	ual records)					
			NA	NA	<u> ✓</u>		
	Lab Sample Transfer Records and Tracking	Sheets					
(describe	e or list)		563	566	,		
					<u> ✓</u>		
						-	
	ords and related Communication Logs or list)						
,			NA	NA	✓		
10 0							
48. Comments:							
Completed by	:						
(CLP Lab)	- (3)	Nimisha Pandya, Documer	t Control	Officer	<u>-</u>		
Audited by: (EPA)	(Signature)	(Print Name & Title)			(Da	te)	
· ·/	(Signature)	(Print Name & Title)			(Da	te)	



SDG NARRATIVE

USEPA
SDG # ME2993
CASE # 51900
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # Q1231
MODIFIED ANALYSIS # 3114.1

A. Number of Samples and Date of Receipt

05 Water samples were delivered to the laboratory intact on 01/30/2025 & 02/04/2025.

B. Parameters

Test requested for Metals CLP MS = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Hardness, total, Mercury, Cyanide.

C. Cooler Temp

Indicator Bottle: Presence/Absence

Cooler: 3.0°C, 2.6°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.

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.

F. Analytical Techniques:

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



G. Calculation:

Calculation for ICP-MS Water Sample:

Concentration or Result (
$$\mu$$
g/L) = C x V_i V DF

Where,

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

Vf = Final digestion volume (mL)

Vi = Initial aliquot amount (mL) (Sample amount taken in prep)

DF = Dilution Factor

Example Calculation For Sample ME2993 For Arsenic:

$$If C = 0.66 ppb$$

$$Vf = 50 ml$$

Vi = 50 ml

DF = 1

Concentration or Result (
$$\mu$$
g/L) = 0.66 x $\underline{50}$ x 1 $\underline{50}$

$$=~0.66~\mu g/L$$

= 0.66 µg/L (Reported Result with Signification)

Calculation for Hg Water Sample:

Concentration or Result ($\mu g/L$) = C x DF

Where,

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

DF = Dilution Factor

Example Calculation For Sample ME2993:

$$\begin{array}{cc} If \ C &= 0.0422 \ ppb \\ DF &= 1 \end{array}$$



Concentration or Result (
$$\mu$$
g/L) = 0.0422 x 1
= 0.042 μ g/L
= 0.058 μ g/L (Reported Result with Signification)

Calculation for CN Water Sample:

Concentration or Result (
$$\mu$$
g/L) = C x \underline{Vf} x DF \underline{Vi}

Where,

C = Instrument response in μ g/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 For Sample ME29C2:

$$If C = 4.307 ppb$$

$$Vf = 50 ml$$

$$Vi = 50 ml$$

$$DF = 1$$

Concentration or Result (
$$\mu$$
g/L) = $4.307 \times \underline{50} \times 1$
 $= 4.307 \mu$ g/L
= 4.307μ 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 Selenium & Mercury. 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.



Mountainside, NJ 07092				
Target Analyte	Associated Internal Standard			
Aluminum	45Sc			
Antimony	159Tb			
Arsenic	89Y			
Barium	159Tb			
Beryllium	6Li			
Cadmium	159Tb			
Calcium	45Sc			
Chromium	45Sc			
Cobalt	45Sc			
Copper	45Sc			
Iron	45Sc			
Lead	209Bi			
Magnesium	45Sc			
Manganese	45Sc			
Nickel	45Sc			
Potassium	45Sc			
Selenium	89Y			
Silver	159Tb			
Sodium	45Sc			
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 Officer	

Date: 08/08/2023	MA: 3114.1	Title: ICP-MS Analysis with Hardness
Method Source: SFAM01.1	Method: ICP-MS	
Matrix: Aqueous/Water		
Summary of Modification		

The purpose of this modified analysis is to analyze aqueous/water samples by ICP-MS with the additional calculated analyte Hardness. 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

Analyte	CAS Number	CRQL (mg/L)
Hardness (total)	Hardness	3.3

II. Calibration and QC Requirements	Not applicable
III. Preparation and Method Modifications	Not applicable
IV. Special Reporting Requirements	Not applicable

The Laboratory shall:

- Report Hardness (total) in units of mg/L on Form 1, calculated from the calcium and magnesium results using Equation 4F in Exhibit G, Section 3.2.
- The instructions for reporting Hardness by ICP-AES apply to these ICP-MS analyses. All applicable AnalyteGroupID and AnalysisGroupID data elements shall be reported. Report AnalyteGroup for Hardness, and any necessary AnalysisGroup nodes.
- Report the reported results for Hardness (total) in the EDD with AnalyteType = "Derived" and ClientAnalyteID = "Hardness" for the field samples, field blanks, and PT samples only.
- Ensure the SDG Narrative is updated as stated in the SOW, including any technical and administrative problems encountered and the resolution or corrective actions taken. These problems may include interference problems encountered during analysis, dilutions, re-analyses and/or re-preparations performed, and problems with the analysis of samples. Also, include a discussion of any SOW Modified Analyses, including a copy of the approved modification form with the SDG Narrative.
- 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.

Not applicable