284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

ANALYTICAL RESULTS SUMMARY

GENERAL CHEMISTRY
METALS

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : P5213

ATTENTION : Nathan Fretz

Laboratory Certification ID # 20012

Table Of Contents for P5213

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Cover Page

Order ID : P5213

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number	Client Sample Number
P5213-01	TAPIAL3-SB03I-15-120624-00-T1

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 manager or his designee, as verified by the following signature.

Signature : _____ Date: 12/20/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # P5213
Test Name: Metals ICP-TAL,Mercury

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 12/07/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, pH and TOC. This data package contains results for Metals ICP-TAL,Mercury.

C. Analytical Techniques:
The analysis of Metals ICP-TAL was based on method 6020B, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (TAPIAL3-SB04I-10-120324-00-T1MS) analysis met criteria for all samples except for Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Nickel, Selenium, Silver, Thallium and Vanadium due to Chemical Interference during Digestion Process.
The Matrix Spike Duplicate (TAPIAL3-SB04I-10-120324-00-T1MSD) analysis met criteria for all samples except for Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Nickel, Selenium, Silver, Thallium and Vanadium due to Chemical Interference during Digestion Process.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met criteria for all samples.

E. Additional Comments:

P5213-01 sample analyzed Straight X5 dilution because of high interferent samples.

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.

Calculation for ICP-MS Soil Sample:

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

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

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)
S = % Solids / 100 (Fraction of Percent Solids)
DF = Dilution Factor

Calculation for Hg Soil Sample:

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

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

Where,

C = Instrument response in µg/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

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # P5213
Test Name: pH,TOC

A. Number of Samples and Date of Receipt:
1 Solid sample was received on 12/07/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Mercury, Metals ICP-TAL, METALS-TAL, pH and TOC. This data package contains results for pH,TOC.

C. Analytical Techniques:
The analysis of pH was based on method 9045D and The analysis of TOC was based on method 9060A.

D. QA/ QC Samples:
The Holding Times were met for all samples except for TAPIAL3-SB03I-15-120624-00-T1 of pH as sample Receive out of holding time.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike analysis met criteria for all samples.
The Matrix Spike Duplicate analysis met criteria for all samples.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.

E. Additional Comments:

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers **"P"** for ICP instrument **"PM"** for ICP when Microwave Digestion is used **"CV"** for Manual Cold Vapor AA **"AV"** for automated Cold Vapor AA **"CA"** for MIDI-Distillation Spectrophotometric **"AS"** for Semi –Automated Spectrophotometric **"C"** for Manual Spectrophotometric **"T"** for Titrimetric **"NR"** for analyte not required to be analyzed
OR	Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **P5213**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **SOHIL JODHANI** **Date:** **12/20/2024**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: P5213 **Order ID:** P5213

Client: Weston Solutions **Project ID:** Ft Meade Tipton Airfield Parcel RI - PO 01

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : TAPIAL3-SB03I-15-120624-00-T1									
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Aluminum	871	D	2.46	4.39	8.79	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Arsenic	0.65	D	0.040	0.11	0.44	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Barium	3.40	JD	0.16	0.55	4.39	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Chromium	2.94	D	0.11	0.22	0.88	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Cobalt	0.16	JD	0.035	0.11	0.44	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Copper	1.12	D	0.25	0.44	0.88	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Iron	1640	D	4.88	5.49	22.0	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Lead	0.99	D	0.066	0.33	0.44	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Magnesium	23.6	JD	11.9	83.5	220	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Manganese	8.46	D	0.15	0.22	0.44	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Nickel	0.30	JD	0.070	0.11	0.44	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Mercury	0.0080	J	0.0060	0.011	0.013	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Potassium	56.7	JD	17.5	83.5	220	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Vanadium	4.83	D	0.035	0.11	2.20	mg/Kg
P5213-01	TAPIAL3-SB03I-15-120624-00-	SOIL	Zinc	1.32	JD	0.57	0.66	2.20	mg/Kg

SAMPLE DATA

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Weston Solutions	Date Collected:	12/06/24
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	12/07/24
Client Sample ID:	TAPIAL3-SB03I-15-120624-00-T1	SDG No.:	P5213
Lab Sample ID:	P5213-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	871	D	5	2.46	4.39	8.79	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-36-0	Antimony	0.33	UDN	5	0.044	0.33	0.88	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-38-2	Arsenic	0.65	DN	5	0.040	0.11	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-39-3	Barium	3.40	JD	5	0.16	0.55	4.39	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-41-7	Beryllium	0.33	UDN	5	0.11	0.33	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-43-9	Cadmium	0.33	UDN	5	0.12	0.33	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-70-2	Calcium	83.5	UD	5	29.7	83.5	220	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-47-3	Chromium	2.94	DN	5	0.11	0.22	0.88	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-48-4	Cobalt	0.16	JDN	5	0.035	0.11	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-50-8	Copper	1.12	D	5	0.25	0.44	0.88	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7439-89-6	Iron	1640	D	5	4.88	5.49	22.0	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7439-92-1	Lead	0.99	D	5	0.066	0.33	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7439-95-4	Magnesium	23.6	JD	5	11.9	83.5	220	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7439-96-5	Manganese	8.46	D	5	0.15	0.22	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7439-97-6	Mercury	0.0080	J	1	0.0060	0.011	0.013	mg/Kg	12/10/24 15:50	12/11/24 11:55	SW7471B	
7440-02-0	Nickel	0.30	JDN	5	0.070	0.11	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-09-7	Potassium	56.7	JD	5	17.5	83.5	220	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7782-49-2	Selenium	1.98	UDN	5	0.53	1.98	2.20	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-22-4	Silver	0.22	UDN	5	0.11	0.22	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-23-5	Sodium	110	UD	5	26.8	110	220	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-28-0	Thallium	0.22	UDN	5	0.044	0.22	0.44	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-62-2	Vanadium	4.83	DN	5	0.035	0.11	2.20	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050
7440-66-6	Zinc	1.32	JD	5	0.57	0.66	2.20	mg/Kg	12/18/24 10:40	12/19/24 17:07	SW6020	SW3050

Color Before:	light Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	P5213	**OrderDate:**	12/9/2024 9:51:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	L51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5213-01	**TAPIAL3-SB03I-15-12 0624-00-T1**	**SOIL**			**12/06/24**			**12/07/24**
			Mercury	7471B		12/10/24	12/11/24	
			Metals ICP-TAL	6020B		12/18/24	12/19/24	

SAMPLE DATA

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Weston Solutions	Date Collected:	12/06/24 11:40
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	12/07/24
Client Sample ID:	TAPIAL3-SB03I-15-120624-00-T1	SDG No.:	P5213
Lab Sample ID:	P5213-01	Matrix:	SOIL
		% Solid:	89.6

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
pH	5.00	H	1	0	0	0	pH		12/10/24 08:15	9045D
TOC	753		1	19.8	50.0	250	mg/Kg		12/17/24 12:42	9060A

Comments: pH result reported at temperature 23.1 °C

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time
J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	P5213	**OrderDate:**	12/9/2024 9:51:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	L51

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5213-01	**TAPIAL3-SB03I-15-12 0624-00-T1**	**SOIL**			**12/06/24 11:40**			**12/07/24**
			pH	9045D			12/10/24 08:15	
			TOC	9060A			12/17/24 12:42	

SHIPPING DOCUMENTS

P5213

Weston COC ID
Weston_20241206_1614

Chain of Custody Record/Lab Work Request

Page 1 of 1

Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	**Project POC:**	Nathan Fretz
PO Number	0111169	**Phone:**	484-524-5665
W.O. #:		**POC e-mail:**	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	**Lab POC:**	Jordan Hedvat
TAT (days):	21	**Lab Phone:**	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Matrix Codes
SB- Soil
SE - Sediment
SO - Solid
SL - Sludge
GW - Groundwater
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected	Analyses Requested: pH by EPA 9045D	TAL Metals by EPA 6020B/7471B	TOC by 9060A							Special Instructions/Comments
								Container Type: Glass	Glass	Glass							
								Container Size: 8 oz	8 oz	8 oz							
								Preservative: Ice to 0-6	Ice to 0-6	Ice to 0-6							
1	TAPIAL3-SB03I-15-120624-00-T1	g	SB	2	no	12/6/2024	11:40	X	X	X							
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

Shipping Airbill Number(s):

Cooler Number: 1 of 1

	Relinquished By	Date	Time	Received By	Date	Time	Additional Comments
1.)	[signature]	12/6/24	1811	[signature]	12/7/24	9:55	QSM 6.0 Compliant
2.)						2:30	Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD
3.)							

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488