Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Chemtech**

Project	CSM020|Ft Meade Tipton Airfiel
Workorder	3393654
Report ID	381112 on 1/14/2025

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Dec 24, 2024.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Jessica Smith (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Project Chemtech - Chemtech
Yazmeen Gomez - Chemtech

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Jessica Smith

Jessica Smith *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3393654001	TAPIAL3-IDW-SOIL-122024-T1	Solid	12/20/2024 14:15	12/24/2024 09:14	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.

Detected Results Summary

Client Sample ID	TAPIAL3-IDW-SOIL-122024-T1	Collected	12/20/2024 14:15
Lab Sample ID	3393654001	Lab Receipt	12/24/2024 09:14

Compound	Result	Units	LOQ	LOD	DL	Method	Flag
WET CHEMISTRY							
Moisture	17.3	%	0.1	0.1	0.01	S2540G-15	#
Total Solids	82.7	%	0.1	0.1	0.01	S2540G-15	#

Results

Client Sample ID	TAPIAL3-IDW-SOIL-122024-T1	Collected	12/20/2024 14:15
Lab Sample ID	3393654001	Lab Receipt	12/24/2024 09:14

WET CHEMISTRY

Compound	Result	Flag	Units	LOQ	LOD	DL	Method	Dilution	Analysis Date/Time	By	Cntr
Cyanide, Reactive	10U	U	mg/kg	10	10	0.011	SW-846 7.3CN	1	12/28/2024 18:24	KMV	A
Moisture	17.3		%	0.1	0.1	0.01	S2540G-15	1	12/27/2024 13:33	J1K	A
Sulfide, Reactive	6.2U	U	mg/kg	6.2	6.2	1.2	SW846 7.3	1	12/28/2024 16:12	KMV	A
Total Solids	82.7		%	0.1	0.1	0.01	S2540G-15	1	12/27/2024 13:33	J1K	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3393654001	TAPIAL3-IDW-SOIL-122024-T1	S2540G-15	N/A	
		SW846 7.3	SW846 7.3	
		SW-846 7.3CN	SW-846 7.3CN	

QUALITY CONTROL SAMPLES

WET CHEMISTRY

QC Batch

QC Batch	1360807	Prep Method	SW-846 7.3CN
Date	12/27/2024 10:49	Analysis Method	SW-846 7.3CN
Tech.	KMV		

Associated Samples

3393654001

Method Blank 3923315 (MB) Created on 12/26/2024 17:38 For QC Batch 1360807

RESULTS

Compound	CAS No		Result	Units	LOQ	Qualifiers
Cyanide, Reactive	CNREACT	BLK	10.0U	mg/kg	10.0	U

Lab Control Standard 3923316 (LCS) Created on 12/26/2024 17:38 For QC Batch 1360807

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Cyanide, Reactive	CNREACT	LCS	2.4		5	48.8	1 - 92		J

Duplicate 3923317 (DUP) 3393654001 For QC Batch 1360807

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)			Qualifiers
Cyanide, Reactive	CNREACT	DUP	0	0.0010	RPD	200* (Max-20)	U

QC Batch

QC Batch	1360808	Prep Method	SW846 7.3
Date	12/27/2024 10:49	Analysis Method	SW846 7.3
Tech.	KMV		

Associated Samples

3393654001

Method Blank 3923318 (MB) Created on 12/26/2024 17:38 For QC Batch 1360808

RESULTS

Compound	CAS No		Result	Units	LOQ	Qualifiers
Sulfide, Reactive	SO2REACT	BLK	4.0J	mg/kg	6.3	J

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

Lab Control Standard 3923319 (LCS) Created on 12/26/2024 17:38 For QC Batch 1360808

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Sulfide, Reactive	SO2REACT	LCS	335		286	117	49 - 148		

Duplicate 3923320 (DUP) 3393654001 For QC Batch 1360808

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)			Qualifiers
Sulfide, Reactive	SO2REACT	DUP	1.20	0.7968	RPD	40.40* (Max-20)	U

QC Batch

QC Batch	1361090	Prep Method	N/A
Date	N/A	Analysis Method	S2540G-15
Tech.			

Associated Samples

3393654001

Duplicate 3923651 (DUP) 3393658001 (non-Project Sample) For QC Batch 1361090

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	39.5330	39.7368	RPD	0.51 (Max-10)	
Total Solids	TSP	DUP	60.4669	60.2631	RPD	0.34 (Max-5)	

Duplicate 3923653 (DUP) 3393609001 (non-Project Sample) For QC Batch 1361090

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	19.1087	17.4541	RPD	9.05 (Max-10)	
Total Solids	TSP	DUP	80.8912	82.5458	RPD	2.02 (Max-5)	

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

Duplicate 3923654 (DUP) 3393458001 (non-Project Sample) For QC Batch 1361090

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	15.9021	16.0594	RPD	0.98 (Max-10)	
Total Solids	TSP	DUP	84.0978	83.9405	RPD	0.19 (Max-5)	

Duplicate 3923655 (DUP) 3393772001 (non-Project Sample) For QC Batch 1361090

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	93.8630	94.1896	RPD	0.35 (Max-10)	
Total Solids	TSP	DUP	6.1369	5.8103	RPD	5.47* (Max-5)	

Duplicate 3923656 (DUP) 3393779001 (non-Project Sample) For QC Batch 1361090

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	79.5876	79.8283	RPD	0.30 (Max-10)	
Total Solids	TSP	DUP	20.4123	20.1716	RPD	1.19 (Max-5)	

Duplicate 3923652 (DUP) 3393654001 For QC Batch 1361090

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	18.1001	17.2518	RPD	4.80 (Max-10)	
Total Solids	TSP	DUP	81.8998	82.7481	RPD	1.03 (Max-5)	

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3393654001	TAPIAL3-IDW-SOIL-122024-T1	N/A	N/A	N/A		S2540G-15	1361090
		SW846 7.3	1360808	12/27/2024 10:49	KMV	SW846 7.3	1361327
		SW-846 7.3CN	1360807	12/27/2024 10:49	KMV	SW-846 7.3CN	1361320

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
WWW.CHEMTECH.NET

3393654
Logged By: MJE
PM: JLS

CHAIN OF CUSTODY RECORD

Sub Lab INFORMATION	CLIENT PROJECT INFORMATION		CLIENT BILLING INFORMATION
COMPANY : ALS Environmental- Middletown	ORDER ID : P5381		BILL TO: CHEMTECH PO# : P5381
ADDRESS : 301 Fulling Mill Road	PROJECT ID:Ft Meade Tipton Airfield Parcel RI - PO 0111169		ADDRESS : 284, Sheffield Street
CITY:Middletown State :PA ZIP :17057	PROJECT MANAGER Yazmeen		CITY: Mountainside State : NJ ZIP : 07092
E-mail :	E-mail : YAZMEEN@CHEMTECH.NET		ATTENTION :Yazmeen
PHONE :717-944-5541	PHONE : (908) 789 8900	FAX: (908) 789 8922	PHONE : (908) 789 8900 FAX : (908) 789 8922

EDD : SEDD 2A **Report :** Level 4 **Comment :**

ID	CLIENT SAMPLE IDENTIFICATION	SAMPLE MATRIX	ANALYSIS	Preservative	Method	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	TAT DAYS
01	TAPIAL3-IDW-SOIL-122024-T1	Solid	Reactive Cyanide	Cool 4 deg C	9012B	12/20/2024	14:15:00	1	10
01		Solid	Reactive Sulfide	Cool 4 deg C	9034			1	10

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGES POSSESSION INCLUDING COURIER DELIVERY

RELINQUIESHED BY SAMPLER: 1.	DATETIME: 12/23/24	RECEIVED BY: 1. Fedex	Conditions of bottles or Coolers at receipt: ☐ Compliant ☐ Non Compliant 1°C 7709 9355 2869 9	Cooler Temp Ice or Cooler?
RELINQUIESHED BY: 2. Fedex	DATETIME: 12/24/24 914	RECEIVED BY: 2.		
RELINQUIESHED BY: 3.	DATETIME:	RECEIVED BY: 3.	☐ OVERNIGHT ☐ OVERNIGHT	Shipment Complete: ☐ YES ☐ NO

Middletown Sample Condition Form

Client Alliance Technical Group Chemtech Workorder 3393654

Temp °C 1° Therm ID 569 Ice? (Y) N N/A Initials & Date MJE 12/24/24

(Fedex) UPS Client ALS Other Tracking # 770993528699

	Yes	No	N/A	Comments
Cooler Custody Seals present & intact			X	
Sample Custody Seals present & intact			X	
Chain-of-Custody present	X			
Sample collector name present	X			
COC/bottle labels complete & in agreement	X			
•Sample location	X			
•Date and time of sample collection	X			
•Type(s) of preservation		X		GUND
•Number of containers	X			
•Composite or grab		X		
•Matrix	X			
Proper containers, preservation, and volume per method	X			
Received within hold time	X			
Containers intact	X			
Trip blanks present (EPA 504, EPA 524)			X	
Field blanks present (Hg 1631, PFAS)			X	
NJ ≤ 4 Days			X	
CR6 Samples Filtered			X	
OP Samples Filtered			X	
WV Containers 0-6°C			X	
SDWA compliance reporting			X	

Rad Screen (uCi) —

Review Comments: