Pinyon Environmental, Inc.
Corporate Headquarters
3222 South Vance Street, Suite 200, Lakewood, CO 80227
T: 303.980.5200 F: 303.980.0089
www.pinyon-env.com

December 8, 2023

Airborne and Surface Lead Sampling

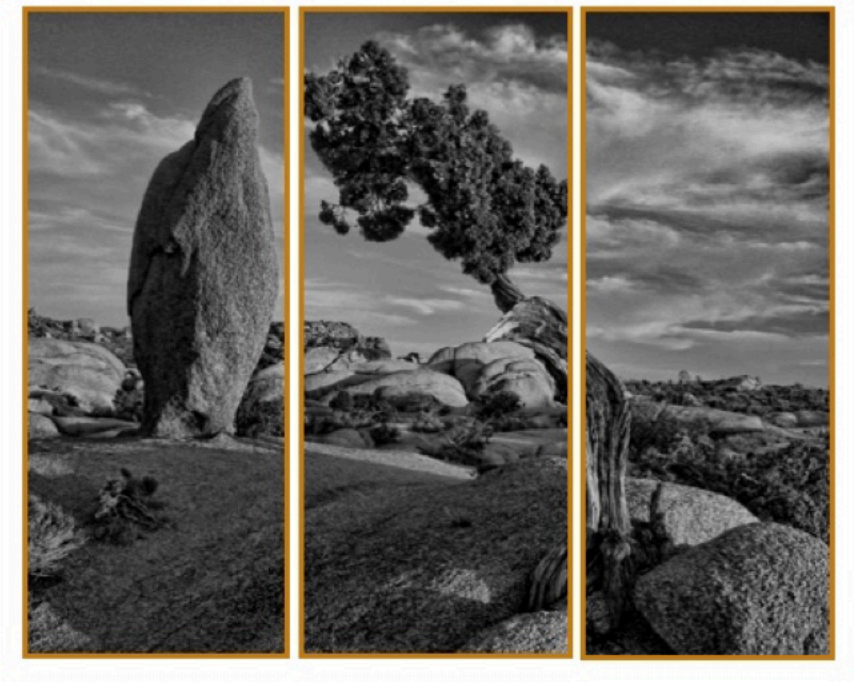
Louisville, CO

Prepared for:

Leslie Clark
124 E. Coal Creek Drive
Superior, Colorado 80027

Pinyon Project No.:

1/23-2523-01.IHS009.2



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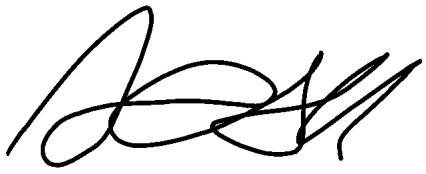
1/23-2523-01.IHS009.2

Prepared by:
Aaron Caudill
Regulatory Compliance Specialist



Reviewed by:
Tricia McCready
Technical Lead – Industrial Hygiene | Health & Safety

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Table of Contents

Appendices

1.0 INTRODUCTION

On November 6 and November 9, 2023, Pinyon Environmental, Inc. (Pinyon) completed air and surface sampling for lead analysis at four community locations within the Town of Louisville (Town). The four sampling locations were chosen by the Town with respect to each location's proximity to the Rocky Mountain Metropolitan Airport (RMMA) flight patterns (Appendix A). The study included two indoor and two outdoor locations.

This study was requested due to community concerns regarding low lead fuel emissions from small engine aircraft affiliated with the RMMA, and an increase in flight activity in recent years. This report represents data for airborne lead concentrations found in the community and is a snapshot in time. This data and associated evaluation are not to be used or interpreted as a thorough study designed to target lead emissions specifically from aircraft emissions associated with RMMA flight activities, nor should the results be used to demonstrate compliance with the U.S. Environemtal Protection Agency (EPA) National Ambient Air Quality Standards for lead.

According to the Griffiths[1] study that the Town shared with Pinyon, exhaust emission particle sizes from small piston aircraft have a mean diameter as small as 13 nanometers (nm) while exhaust automobile particles average 50 nm in diameter. Air sample collection near an airport, such as RMMA, at ground level would be expected to capture exhaust emission particles from both sources but would be unable to characterize between the two sources.

Table 1.0.1- Project Details

Client Name:	Leslie Clark
Proposal Date:	October 25, 2023
Sample Location(s):	• City Services - Indoor • N. Water Treatment Plant - Outdoor • Waste Water Treatment Plant - Outdoor • City Hall - Indoor

[1] https://pubmed.ncbi.nlm.nih.gov/33100835/

2.0 SURVEY METHODS

2.1 Airborne Lead Samples

Pinyon's environmental scientist collected the airborne samples utilizing Gilian BDXII Abatement Air Sampler constant flow air sampling pumps that were calibrated to 2.5 liters per min (lpm). For each pump, Tygon® tubing was connected from the pump's inlet port to a 37-millimeter, 3-piece air sampling cassette affixed with a 0.8 micrometer Mixed Cellulose Ester filter. The pump was placed on the ground or tabletop surface during sampling, while the cassette at the end of the tubing was securely clipped to a tripod that held that cassette about three feet above ground surface. The pumps ran continuously for approximately 7 hours on two separate days. Each morning, Pinyon placed each sampling pump and cassette in the designated locations, checked on them routinely throughout the day, and retrieved the pump and cassette in the evening. Although the pumps contained a rechargeable battery pack, the pumps were plugged into a power source during the sampling period. Each day, the four pumps were pre-calibrated and post-calibrated in the field using a TSI 4100 Series primary calibrator. Weather data was also collected and recorded during the two-day sampling event.

The airborne lead laboratory analysis was conducted using the most sensitive test for metals in air, NIOSH 7300M method performed on an Inductively Coupled Plasma Mass Spectrometer (ICP-MS). This laboratory method has a reporting limit around 0.045 micrograms per cubic meter ($\mu g/m^3$). The samples and two field blanks (one for each day) were collected and submitted under Pinyon Chain of Custody protocols to LA Testing, an American Industrial Hygiene Association Laboratory Accreditation Programs, LLC - Industrial Hygiene Laboratory Accreditation Program (AIHA LAP, LLC-IHLAP) laboratory in Orlando, Florida.

2.2 Lead Wipe Samples

Pinyon collected the surface lead wipe samples utilizing 15 centimeter x 15 centimeter (cm x cm) Ghost Wipe™ towelettes that were pre-wetted with deionized water from the manufacturer. A surface area of 30 cm x 30 cm was wiped, using a single use template, and the following wiping technique was used:

- Place a 30 cm x 30 cm, single use template on the surface area of choice.
- Press the wipe down firmly at an upper corner of the sample area and make an "S"-like motion to wipe the entire sample area, moving from side to side without crossing the outer border of the template.
- Fold the wipe in half, keeping the sample side in, and repeat the wiping procedure in an upside down "S" direction.

- Fold the wipe again and repeat the wiping procedure, concentrating on collecting dust from the edges and corners of the sample area.

- Fold the wipe again with the sample side folded in and place the folded wipe into a clean, plastic sample tube, labeled with a unique sample number.

The process was completed for each sample and the samples were submitted, along with one field blank to EMSL Analytical Inc., an AIHA LAP and Environmental Lead Laboratory Accreditation Program laboratory in Cinnaminson, New Jersey.

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3.0 FINDINGS

3.1 Airborne Lead Samples

The two sampling days, which fell on a Monday and Thursday, were generally sunny with mild wind and average temperatures for the time of year. No precipitation was recorded in the area. The weather conditions are presented in Table 3.1.1.

Table 3.1.1 - Weather Conditions

Date	Time Range	Average Temp (°F)	Average Humidity (%)	Average Wind Speed (mph)	General Wind Direction
November 6, 2023	7:45 am - 11:45 am	60.4	23.7	4.0	West to Southwest
	11:45 am - 3:45 pm	69.4	14.8	3.5	Northeast
November 9, 2023	7:45 am - 11:45 am	48.2	53.2	6.6	North to Northwest
	11:45 am - 3:45 pm	40.6	29.8	6.3	Southeast

Notes:

Temp *Temperature*
°F *Degrees Fahrenheit*
% *Percent*
mph *Miles per hour*

A total of eight samples were collected from the same four locations each day, thus providing two separate data sets. The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for six principal pollutants which can be harmful to public health and the environment. The level established for lead is not to exceed 0.15 µg/m^3 over a three-month period. Six of the results for the samples during this study were below the analytical reporting limit (RL), which is 0.041 µg/m^3 to 0.052 µg/m^3. Results from the City Services and N. Water Treatment Plant locations are above the RL but below the NAAQS limit. Refer to Table 3.1.2 for the sample results and Appendix C for the Laboratory Analytical Reports and Chain of Custody.

Table 3.1.2 - Airborne Lead Sample Results

Location	Sample Number	Sample Duration (min)	Flow Rate (lpm)	Volume (Liters)	Results ($\mu g/m^3$)	NAAQS for Lead ($\mu g/m^3$)
Monday, November 6, 2023						
City Services	110623-CS	455	2.63	1,194	0.077	0.15
N. Water Treatment Plant	110623-NWTP	465	2.58	1,197	0.043	0.15
City Hall	110623-CH	417	2.61	1,086	<0.041	0.15
Wastewater Treatment Plant	110623-WWTP	380	2.53	1,128	<0.052	0.15
Thursday, November 9, 2023						
City Services	110923-CS	452	2.56	1,155	<0.043	0.15
N. Water Treatment Plant	110923-NWTP	480	2.57	1,231	<0.041	0.15
Wastewater Treatment Plant	110923-WWTP	433	2.61	960	<0.044	0.15
City Hall	110923-CH	426	2.52	1,074	<0.047	0.15

Notes:

min *Minutes*
lpm *liters per minute*
NAAQS *National Ambient Air Quality Standard*
µgg/m3 *Microgram per cubic meter of air*
< *Less than*

3.2 Lead Wipe Samples

Lead was not detected at concentrations above the laboratory detection limit of 10 micrograms per square foot ($\mu g/ft^2$) in the four lead wipe samples submitted for analysis (Table 3.2.1).

Refer to Appendix C for the Laboratory Analytical Reports and Chain of Custody.

Table 3.2.1 - Surface Lead Wipe Sample Results

Location	Sample Number	Sample Location Description	Lead Detection (Present or BDL)
Indoor Locations			
City Services	110923-CS-W	Work Station Counter	BDL
City Hall	110923-CH-W	Counter in Lobby	BDL
Outdoor Locations			
N. Water Treatment Plant	110923-NWTP-W	Metal Hatch	BDL

Location	Sample Number	Sample Location Description	Lead Detection (Present or BDL)
Wastewater Treatment Plant	110923-WWTP-W	Utility Box	BDL

Notes:
BDL Below Analytical Detection Limit of 10 microgram/square foot (µg/ft^2)

4.0 RECOMMENDATIONS

The results of the two sampling events indicate that airborne lead was not detected at concentrations exceeding the NAAQS limit of 0.15 ug/m^3 for lead. Additionally, lead was not detected in the surface wipe samples submitted for analysis above the analytical detection limit of 10 µg/ft^2. For a detailed study to show correlation between small piston aircraft emission activity and community airborne lead exposure, Pinyon recommends a study with air samples collected at the airport over a period of time that correlates with the NAAQS evaluation criteria, exhaust emission sampling, and several hundred more airborne samples be collected. This sampling event was designed to provide an initial screening of airborne lead particles. The recommended detail study should follow the EPA Federal Reference Method for measuring lead in total suspended particulate matter[1].

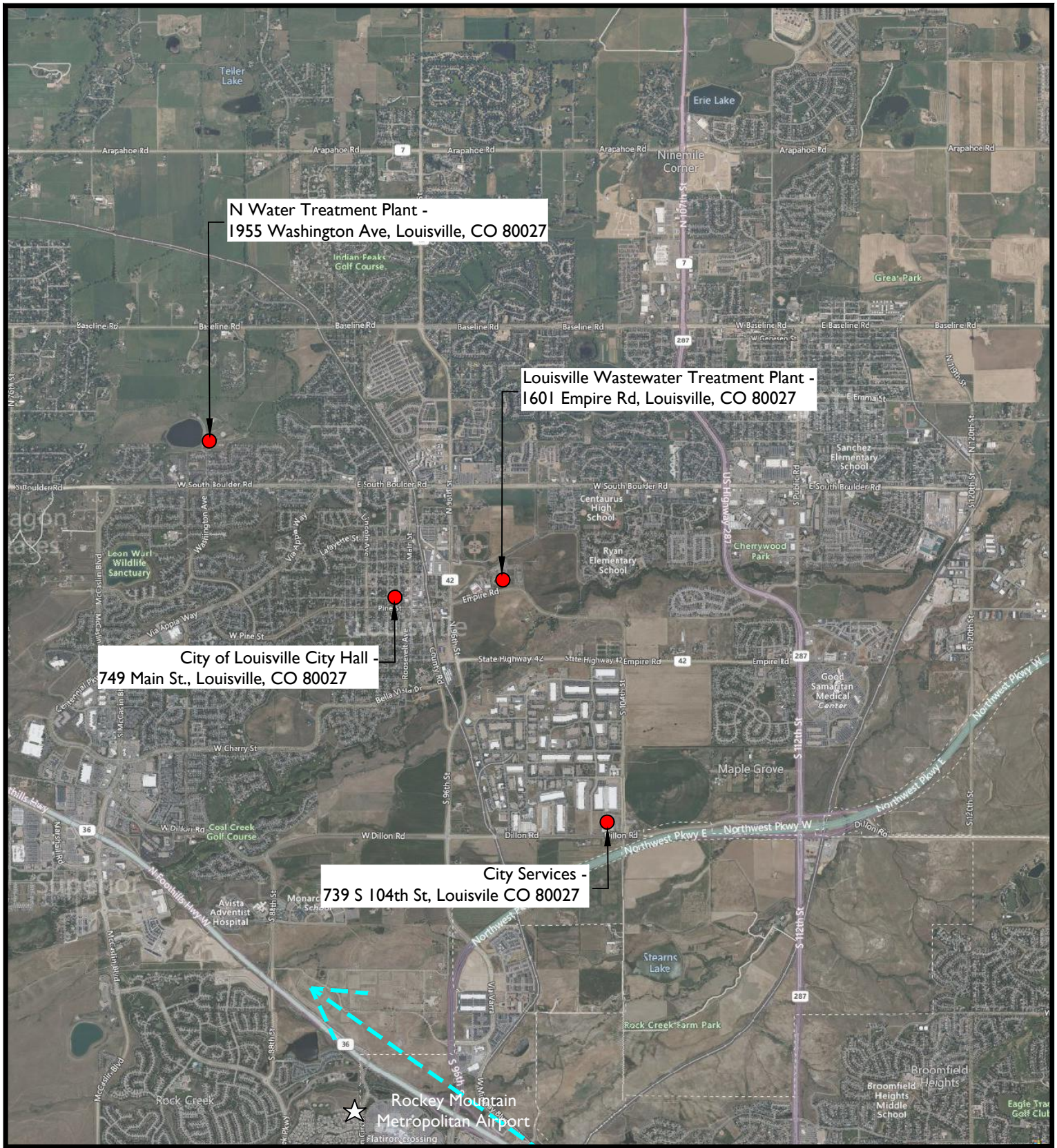
[1]https://www.epa.gov/sites/default/files/2016-03/documents/finalrule_lead_20130626fs.pdf

5.0 LIMITATIONS

This report was prepared by Pinyon Environmental, Inc., at the request of and for the sole benefit of the Town of Superior, or any entity controlling, controlled by, or under common control with the Town of Superior. Any use a third party makes of this report, including reuse or publication of any portion of this report or any reliance on or decisions to be made based upon the results presented, are the responsibility of such third party. Pinyon Environmental, Inc., shall not be liable for any damages arising out of such reuse or publication, and accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this report.

The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed on November 6 and November 9, 2023. Changes in environmental and work conditions, such as weather, can cause changes in exposure. The information contained in this report should not be relied upon to represent conditions that existed previously or that are anticipated to occur at a future date.

Appendix A Figures



LEGEND

- Site Boundary
- Landing / Takeoff Area (LTO)

N

0 4000' 8000'

SCALE: 1" = 4000'

Pinyon Environmental, Inc.

SITE LOCATION

Surface Lead Wipe Sample Locations
Town of Superior
Superior, Colorado

Site Location: Multiple Sections, T 1S, R 69W, 6th Principal Meridian	Drawn By: SJA	Figure: 1
Pinyon Project Number: 1/23-1523-01.IHS009.2	Reviewed By: AC	Date: 11/30/2023

Coordinate System: NAD83 COLORADO STAET PLANES, NORTH ZONE, US FOOT - CO83-NF

PLOT DATE: 11/30/2023

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Appendix B Photographic Log

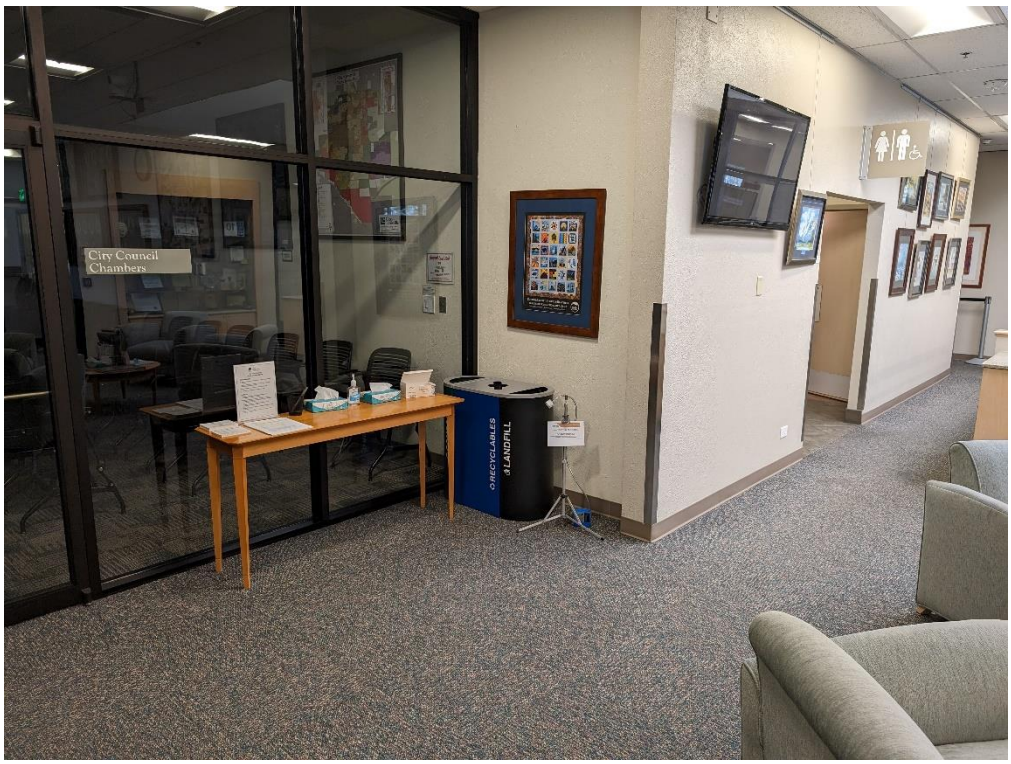


Photo 1.
City Hall

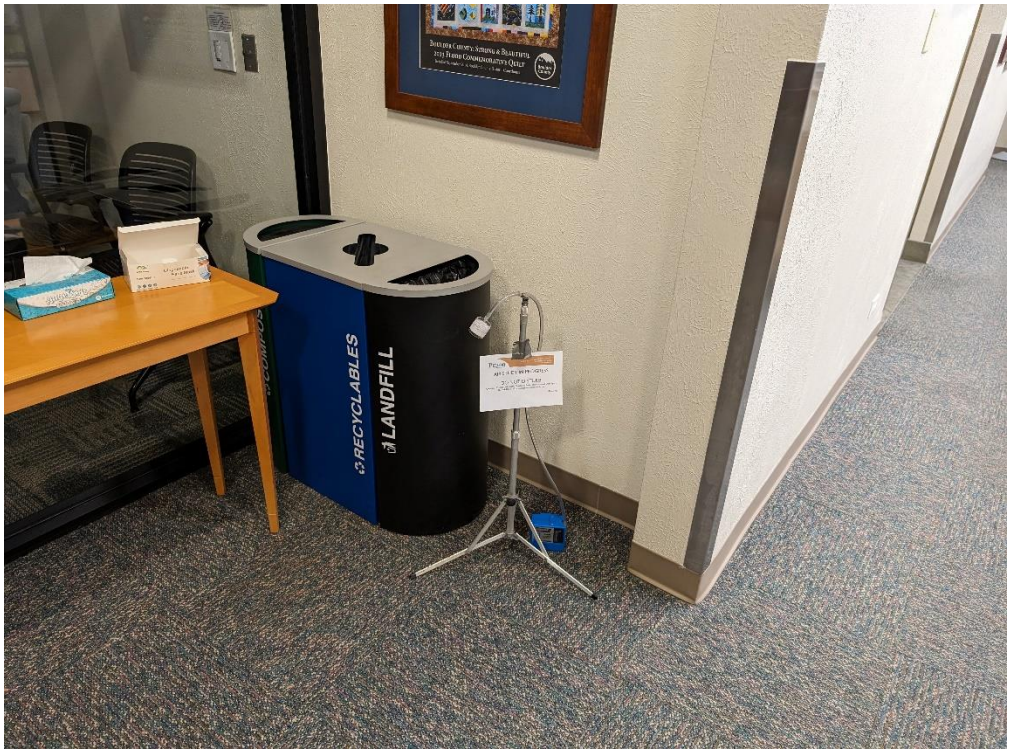


Photo 2.
City Hall

Photo 3.
Service Center

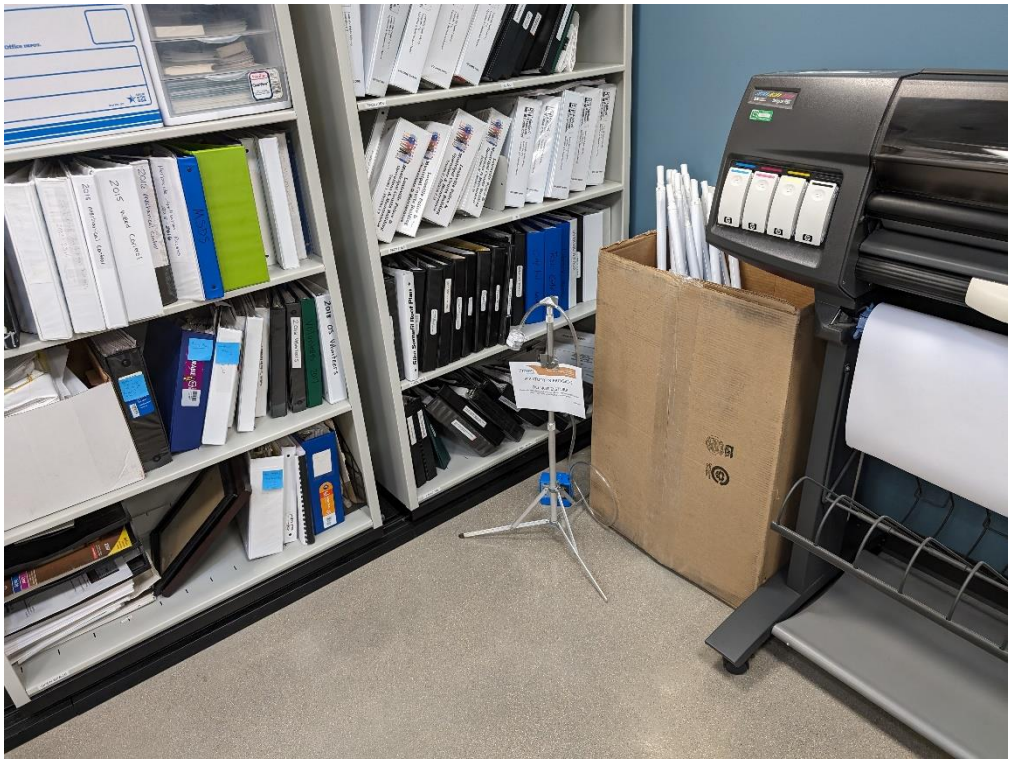


Photo 4.
Service Center

Photo 5.
N. Water
Treatment Plant

Photo 6.
N. Water
Treatment Plant

Photo 7.
Wastewater
Treatment Plant

Photo 8.
Wastewater
Treatment Plant

Appendix C Laboratory Analytical Reports and Chain of Custody

EMSL Analytical, Inc.
3303 PARKWAY CENTER COURT, Orlando, FL 32808
Phone: (407) 599-5887 Fax: (407) 599-9063 Email: orlandolab@emsl.com

Attn: **Tricia McCready**
Pinyon Environmental
3222 S. Vance Street
Suite 200
Lakewood, CO 80227
Phone: (303) 980-5200
Fax: (303) 980-0089

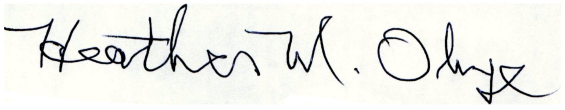
12/7/2023

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 12/7/2023. The results are tabulated on the attached data pages for the following client designated project:

123152301 Superior Airborne Lead

The reference number for these samples is EMSL Order #342327265. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (407) 599-5887.

Approved By:



Heather Ohye, Metals Manager

EMSL Analytical, Inc.
3303 PARKWAY CENTER COURT, Orlando, FL 32808
Phone/Fax: (407) 599-5887 / (407) 599-9063
http://www.EMSL.com orlandolab@emsl.com

EMSL Order: 342327265
CustomerID: PINY63
CustomerPO:
ProjectID:

Attn: **Tricia McCready**
Pinyon Environmental
3222 S. Vance Street
Suite 200
Lakewood, CO 80227

Phone: (303) 980-5200
Fax: (303) 980-0089
Received: 12/7/2023 10:01 AM
Collected: 11/9/2023

Project: **123152301 Superior Airborne Lead**

Analytical Results

Client Sample Description 110623-CS
City Services
Collected: 11/6/2023 ***Lab ID:*** *342327265-0001*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	0.077	0.042	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110623-NWTP
N. Water Treatment Plant
Collected: 11/6/2023 ***Lab ID:*** *342327265-0002*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	0.043	0.042	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110623-CH
City Hall
Collected: 11/6/2023 ***Lab ID:*** *342327265-0003*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.041	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110623-WWTP
W. Water Treatment Plant
Collected: 11/6/2023 ***Lab ID:*** *342327265-0004*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.052	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110623-FB
Field Blank
Collected: 11/6/2023 ***Lab ID:*** *342327265-0005*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.050	µg/filter	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110923-CS
City Services
Collected: 11/9/2023 ***Lab ID:*** *342327265-0006*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						

EMSL Analytical, Inc.
3303 PARKWAY CENTER COURT, Orlando, FL 32808
Phone/Fax: (407) 599-5887 / (407) 599-9063
http://www.EMSL.com orlandolab@emsl.com

EMSL Order:	342327265
CustomerID:	PINY63
CustomerPO:	
ProjectID:	

Attn: **Tricia McCready**
Pinyon Environmental
3222 S. Vance Street
Suite 200
Lakewood, CO 80227

Phone: (303) 980-5200
Fax: (303) 980-0089
Received: 12/7/2023 10:01 AM
Collected: 11/9/2023

Project: **123152301 Superior Airborne Lead**

Analytical Results

Client Sample Description 110923-CS
City Services
Collected: 11/9/2023 ***Lab ID:*** *342327265-0006*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.043	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110923-NWTP
N. Water Treatment Plant
Collected: 11/9/2023 ***Lab ID:*** *342327265-0007*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.041	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110923-WWTP
W. Water Treatment Plant
Collected: 11/9/2023 ***Lab ID:*** *342327265-0008*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.044	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110923-CH
City Hall
Collected: 11/9/2023 ***Lab ID:*** *342327265-0009*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.047	µg/m³	11/16/2023 LK	12/7/2023 LN

Client Sample Description 110923-FB
Field Blank
Collected: 11/9/2023 ***Lab ID:*** *342327265-0010*

Method	*Parameter*	*Result*	*RL*	*Units*	*Prep Date & Analyst*	*Analysis Date & Analyst*
METALS						
7300 Modified	Lead	ND	0.050	µg/filter	11/16/2023 LK	12/7/2023 LN

Definitions:

MDL - method detection limit
J - Result was below the reporting limit, but at or above the MDL
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)
D - Dilution Sample required a dilution which was used to calculate final results

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012365305
LIMS Reference ID: AB65305
EMSL Customer ID: PINY63

Attention: Tricia McCready
Pinyon Environmental [PINY63]
3222 S. Vance Street, Suite 200
Lakewood, CO 80227
(303) 980-5200
mccready@pinyon-env.com

Project Name: 123152301 Superior Airborne Lead
Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 11/13/2023 11:00
Reported: 11/15/2023 14:09

Analytical Results

Analyte	Results	RL	Area	Prep Date & Tech	Prep Method	Analysis Date & Analyst	Analytical Method	Q	DF
Client Sample ID: 110923-CS-W/City Services									**Date Sampled: 11/09/23**
Matrix: Wipe									**LIMS Reference ID: AB65305-01**
Lead	<10 µg/ft²	10 µg/ft²	1.00104 ft²	11/14/23 PL	SW846-3050 B	11/14/23 PMx	SW846-7000B		1
	Sample Comments:								
Client Sample ID: 110923-NWTP-WN/Water Treatment Plant									**Date Sampled: 11/09/23**
Matrix: Wipe									**LIMS Reference ID: AB65305-02**
Lead	<10 µg/ft²	10 µg/ft²	1.00104 ft²	11/14/23 PL	SW846-3050 B	11/14/23 PMx	SW846-7000B		1
	Sample Comments:								
Client Sample ID: 110923-WWTP-WW/Water Treatment Plant									**Date Sampled: 11/09/23**
Matrix: Wipe									**LIMS Reference ID: AB65305-03**
Lead	<10 µg/ft²	10 µg/ft²	1.00104 ft²	11/14/23 PL	SW846-3050 B	11/14/23 PMx	SW846-7000B		1
	Sample Comments:								
Client Sample ID: 110923-CH-W/City Hall									**Date Sampled: 11/09/23**
Matrix: Wipe									**LIMS Reference ID: AB65305-04**
Lead	<10 µg/ft²	10 µg/ft²	1.00104 ft²	11/14/23 PL	SW846-3050 B	11/14/23 PMx	SW846-7000B		1
	Sample Comments:								
Client Sample ID: 110923-FB-W/Field Blank									**Date Sampled: 11/09/23**
Matrix: Wipe									**LIMS Reference ID: AB65305-05**
Lead	<10 ug/wipe	10 ug/wipe		11/14/23 PL	SW846-3050 B	11/14/23 PMx	SW846-7000B		1
	Sample Comments:								

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
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EMSL-CIN-01

EMSL Order ID: 012365305
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EMSL Customer ID: PINY63

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Lakewood, CO 80227
(303) 980-5200
mccready@pinyon-env.com

Project Name: 123152301 Superior Airborne Lead
Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 11/13/2023 11:00
Reported: 11/15/2023 14:09

Certified Analyses included in this Report

Analyte	CAS #	Certifications
SW846-7000B in Wipe		
Lead	7439-92-1	AIHA LAP

List of Certifications

Code	Description	Number	Expires
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2024
AIHA LAP	EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited	100194	01/01/2025
NYSDOH	New York State Department of Health	10872	04/01/2024
California ELAP	California Water Boards	1877	06/30/2024
A2LA	A2LA Environmental Certificate	2845.01	07/31/2024
PADEP	Pennsylvania Department of Environmental Protection	68-00367	11/30/2023
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2024
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2024

Please see the specific Field of Testing (FOT) on www.emsl.com <http://www.emsl.com> for a complete listing of parameters for which EMSL is certified.

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974
EMSL-CIN-01

EMSL Order ID: 012365305
LIMS Reference ID: AB65305
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Attention: Tricia McCready
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3222 S. Vance Street, Suite 200
Lakewood, CO 80227
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mccready@pinyon-env.com

Project Name: 123152301 Superior Airborne Lead
Customer PO:
EMSL Sales Rep: Stefan Wiersgalla
Received: 11/13/2023 11:00
Reported: 11/15/2023 14:09

Notes and Definitions

Item	Definition
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
Q	Qualifier
RL	Reporting Limit

For paint chips, the RL is 0.008% by wt. (equiv. to 80 mg/kg, or ppm) based upon a minimum sample weight of 0.25 grams.

For soils, the RL is 40 mg/kg (ppm) based upon a minimum sample weight of 0.5 grams.

For dust wipes, the RL is 10 µg/wipe; reporting units of µg/sq. ft. are not validated by the lab based upon data provided by non-lab personnel.

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

Owen McKenna Laboratory Manager or other approved signatory

* Analysis following Lead in Dust by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is10ug/wipe. Ug/Wipe=ug/ft2 x area sample in ft2. Unless noted, results in this report are not blank corrected. The lab is not responsible for data reported in ug/ft2 which is dependent upon the area provided by non-lab personnel. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainity is available upon request. Definitions of modifications are available upon request.

OrderID: 342327265

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Lead Chain of Custody

EMSL Order Number / Lab Use Only

342327265

EMSL Analytical, Inc.
6340 Castleplace Drive
Indianapolis, IN 46250

PHONE: (317) 803-2997
EMAIL: indianapolislab@emsl.com

Customer Information

Customer ID:	PINY63
Company Name:	Pinyon Environmental
Contact Name:	Tricia McCready
Street Address:	3222 S. Vance St., Suite 200
City, State, Zip:	Lakewood, CO 80227
Country:	USA
Phone:	303-980-5200
Email(s) for Report:	mccready@pinyon-env.com

Billing Information

Billing ID:	
Company Name:	
Billing Contact:	
Street Address:	
City, State, Zip:	Same
Country:	
Phone:	
Email(s) for Invoice:	ap@pinyon-env.com

Project Information

Project Name/No:	123152301 Superior Airborne Lead
Purchase Order:	NA
EMSL LIMS Project ID: (If applicable, EMSL will provide)	NO-24723 Cassettes only analyzed in Orlando
US State where samples collected:	CO
State of Connecticut (CT) must select project location:	☐ Commercial (Taxable) ☐ Residential (Non-Taxable)
Sampled By Name:	Aaron Caudill
Sampled By Signature:	
No. of Samples in Shipment	

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☑ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

MATRIX	METHOD	INSTRUMENT	REPORTING LIMIT	SELECTION
CHIPS ☐ % by wt. ☐ ppm (mg/kg) ☐ mg/cm² *Reporting Limit based on a minimum 0.25g sample weight. **Not appropriate for Ceramic Tiles - XRF is recommended	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)	☐
	SW 846-6010D*	ICP-OES	0.0004% (4ppm)	☐
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter	☑
WIPE ☑ ASTM ☐ NON-ASTM *If no box is checked, non-ASTM Wipe is assumed	SW 846-7000B	Flame Atomic Absorption	10µg/wipe	☑
	SW 846-6010D*	ICP-OES	1.0µg/wipe	☐
TCLP	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
SPLP	SW 846-1312 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1312 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
TTLC	22 CCR App. II, 7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
STLC	22 CCR App. II, 7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
Soil	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
Wastewater	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
Unpreserved ☐ Preserved with HNO3 ☐ PH<2	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	☐
Drinking Water	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	☐
Unpreserved ☐ Preserved with HNO3 ☐ PH<2	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	☐
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	☐
Other:				☐

Sample Number	Sample Location	Volume / Area	Date / Time Sampled
110623-CS	City Services	1195 @ 2.63 lpm	11/6 455 min
110623-NWTP	N. Water Treatment Plant	1197 @ 2.58 lpm	11/6 465 min
110623-CH	City Hall	1231 @ 2.57 lpm	11/6 417 min
110623-WWTP	W. Water Treatment Plant	960 @ 2.53 lpm	11/6 380 min
110623-FB	Field Blank	0	11/6

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-25 Lead R17 05/09/2022

*6010C Available Upon Request

☑ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

OrderID: 342327265

EMSL ANALYTICAL, INC.
TESTING LABS • PRODUCTS • TRAINING

Lead Chain of Custody

EMSL Order Number / Lab Use Only

342327265

EMSL Analytical, Inc.
6340 Castleplace Drive
Indianapolis, IN 46250

PHONE: (317) 803-2997
EMAIL: indianapolislab@emsl.com

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	Sample Location	Volume / Area	Date / Time Sampled
110923-CS	City Services	1155 @ 2.56 lpm	11/9 452 min
110923-NWTP	N. Water Treatment Plant	1231 @ 2.57 lpm	11/9 480 min
110923-WWTP	W. Water Treatment Plant	1128 @ 2.61 lpm	11/9 433 min
110923-CH	City Hall	1074 @ 2.52 lpm	11/9 426 min
110923-FB	Field Blank	0	11/9
110923-CS-W	City Services	930 cm square	11/9
110923-NWTP-W	N. Water Treatment Plant	930 cm square	11/9
110923-WWTP-W	W. Water Treatment Plant	930 cm square	11/9
110923-CH-W	City Hall	930 cm square	11/9
110923-FB-W	Field Blank	0	11/9

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time: 11/10 11:15	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by.	Date/Time

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☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature)