



September 5, 2023

Leslie Clark
Town of Superior
124 E. Coal Creek Drive
Superior, CO 80027

Subject: Surface Lead Wipe Sampling, Seven Community Locations, Superior, CO
Pinyon Project Number: 123152301

Dear Ms. Clark:

Introduction

On August 11, 2023, Pinyon Environmental, Inc. (Pinyon) completed surface lead wipe sampling within the Town of Superior (Town) for the seven community locations where airborne lead sampling was previously performed. (Figure 1). The seven sampling locations were chosen by the Town with respect to each location’s proximity to the Rocky Mountain Metropolitan Airport (RMMA) flight patterns. The surface lead wipe sampling included a combination of indoor and outdoor locations.

Per the Town’s request, the surface lead wipe sampling was a continuation of an air sampling survey that was performed in response 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 surface lead concentrations found in the community and is a snapshot in time. This data and associated results 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.

Project Details

Client Name:	Town of Superior
Sample Locations:	<ul style="list-style-type: none"> • Superior Town Hall, 124 E. Coal Creek Dr. • The Bungalow, 112 E. William St. • Superior Community Center, 1500 Coalton Rd. • South Pool, 3300 Huron Peak Ave. • Superior Commons Park, 2250 Creek View Wy. • Purple Park, 1310 Pitkin Ave. • Pirate Park, 1466 Vinca Pl.

Survey Methods

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 10 cm x 10 cm was wiped, using a single use template, and the following wiping technique was used:

- Place a 10 cm x 10 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, under Pinyon Chain of Custody protocols to EMSL Analytical Inc., an American Industrial Hygiene Association Laboratory Accreditation Program (AIHA LAP) and Environmental Lead Laboratory Accreditation Program (ELLAP) laboratory in Indianapolis, Indiana.

Findings

The results of 13 of the 14 samples were below the laboratory detection limit of 93 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) (Table 1). Sample, 081123-BV-2, from the windowsill in the back room of the Bungalow, had a detectable lead concentration. The Bungalow is the oldest building in the Town and is a converted residence that is serving as the Town’s Interim Grasso Bungalow Museum. The original building materials used in the Bungalow were known to contain lead-based paint. The back room of the Bungalow was not part of the front room renovation that occurred within the last decade and is currently used for storage with some office desk space. Pinyon is not aware of the extent or scope of lead abatement that might have occurred during the front room renovation. The occupants of the backroom indicated that they do not open the windows. The Bungalow is equipped with a residential heating a cooling system that does not have an outdoor intake source. It is likely that the back room positive lead result is related to the presence of lead-based paint within the non-renovated portion of the Bungalow and not influenced by potential outdoor sources.

Refer to Attachment A for the Laboratory Analytical Reports and Chain of Custody.

Table I Surface Lead Wipe Sample Results

Location	Sample Number	Sample Location Description	Lead Detection (Present or BDL)
Indoor Locations			
Superior Town Hall	081123-TH-1	East Windowsill	BDL
	081123-TH-2	South Windowsill	BDL
The Bungalow	081123-BV-1	Front Room Windowsill	BDL
	081123-BV-2	Back Room Windowsill	Present
Superior Community Center	081123-CC-1	Top of Library Cabinet	BDL
South Pool	081123-SP-1	Top of AED Cabinet	BDL
Outdoor Locations			
Superior Community Center	081123-CC-2	South Patio- Storage Garage Door	BDL
South Pool	081123-SP-2	Under Water Slide	BDL
Superior Commons Park	081123-SC-1	Under Vertical Slide	BDL
	081123-SC-1	Under Picnic Table	BDL
Purple Park	081123-PP-1	Under Double Gray Slide	BDL
	081123-PP-2	Base of Purple Structure	BDL
Pirate Park	081123-PIP-1	Under Red Slide	BDL
	081123-PIP-2	Bow of Plastic Pirate Ship	BDL

Notes:

BDL Below Analytical Detection Limit of 93 microgram/square foot (ug/ft²)

Recommendations

The results of the sampling indicate that one of 14 surface wipe samples had a detectable concentration of lead, which was collected in the back room of the Bungalow. The source of lead detected in the Bungalow is likely influenced by the presence of lead-based paint in this non-renovated portion of the Bungalow. This sampling survey was designed to provide an initial screening of the presence of surface lead. It is not mandatory for the Town to abate the lead-based paint from the Bungalow since the Bungalow’s use is not classified as a residence or child occupied facility. However, if the Town chooses to do so, please follow appropriate guidelines as outlined in the U.S. Department of Housing and Urban Development. https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines.

In Pinyon’s previous report dated June 16, 2023, regarding airborne lead sampling at the same Town locations, Pinyon recommended that if the Town wished to pursue a detailed study to evaluate if a correlation exists between small piston aircraft emission activity and community airborne lead exposure, an additional, thorough study should be designed and conducted. Lead surface sampling may enhance the validity of the air sampling study.

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 a limited survey and the conditions observed on August 11, 2023. Changes in environmental and weather conditions can affect 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.

We appreciate the opportunity to provide our services on this project. If we can be of any assistance, or if you have any questions regarding this report, please feel free to contact us at (303) 980-5200.

Sincerely,

PINYON ENVIRONMENTAL, INC.



Tricia M. McCready

Technical Lead – Industrial Hygiene | Health & Safety

Reviewed by:

 on behalf of

Cynthia Ellwood, Ph.D., CIH, FAIHA

Associates in Occupational + Environmental Health, LLC

Attachments:

Figure I Town of Superior Sample Locations

Attachment A Laboratory Analytical Reports

Figure I Town of Superior Sample Locations

PLOT DATE: 6/16/2023

\\192.168.2.10\Company2\PROJECTS\2023\1123152301 Superior - Airborne Lead Sampling\Figures\AutoCAD\DWG\IHS01_SLDwg



1 - Superior Town Hall, 124 East Coal Creek Drive

3 - Superior Commons, 2130 Creek View Way

2 - Bungalow, 112 East William Street



4 - Purple Park, 1310 South Pitkin Avenue

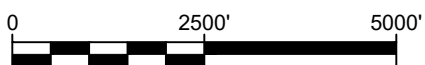
5 - Superior Community Center, 1500 Coalton Road

6 - South Pool, 3300 Huron Peak Avenue

7 - Pirate Park, 1466 Vinca Place

LEGEND

-  Site Location
-  Landing / Takeoff Area (LTO)



SCALE: 1" = 2500'



SITE LOCATIONS

Surface Lead Wipe Sampling Locations
Town of Superior
Superior, Colorado

Site Location: Section 24, T 1S, R 70W, 6th Principal Meridian

Pinyon Project Number: 1/23-1523-01.IHS009

Drawn By: SJA

Figure: 1

Reviewed By: TMM

Date: 8/28/2023

Attachment A Laboratory Analytical Reports

**EMSL Analytical, Inc.**

6340 CastlePlace Dr., Indianapolis, IN 46250

Phone/Fax: (317) 803-2997 / (317) 803-3047

<http://www.EMSL.com>indianapolislab@emsl.com

EMSL Order: 162318398

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: 8/14/2023 09:33 AM
 Collected: 8/11/2023

Project: **SUPERIOR IH LEAD WIPE****Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)***

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area Sampled</i>	<i>RDL</i>	<i>Lead Concentration</i>
081123-TH-1 162318398-0001	8/11/2023 Site: E WINDOW SILL	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-TH-2 162318398-0002	8/11/2023 Site: S WINDOW SILL	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-BV-1 162318398-0003	8/11/2023 Site: FRONT ROOM WINDOW SILL	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-BV-2 162318398-0004	8/11/2023 Site: BACK ROOM WINDOW SILL	8/14/2023	100 cm ²	93 µg/ft ²	170 µg/ft ²
081123-SC-1 162318398-0005	8/11/2023 Site: UNDER VERTICAL SLIDE	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-SC-2 162318398-0006	8/11/2023 Site: UNDER PICNIC TABLE	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-PP-1 162318398-0007	8/11/2023 Site: UNDER DOUBLE GR. SLIDE	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-PP-2 162318398-0008	8/11/2023 Site: BASE OF PURPLE STRUCTURE	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-CC-1 162318398-0009	8/11/2023 Site: TOP OF LIBRARY CABINET	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-CC-2 162318398-0010	8/11/2023 Site: S. PATIO STORAGE GAR. DOOR	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²
081123-SP-1 162318398-0011	8/11/2023 Site: SOUTH POOL INSIDE AED TOP	8/14/2023	100 cm ²	93 µg/ft ²	<93 µg/ft ²

Aleksandra Kuchenbrod, Inorganic Chemistry
 Lab Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

* Analysis following Lead in Dust by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. Ug/wipe = ug/ft² x area sampled 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

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA LAP, LLC-ELLAP Accredited #157245

Initial report from 08/15/2023 07:41:09



EMSL Analytical, Inc.

6340 CastlePlace Dr., Indianapolis, IN 46250

Phone/Fax: (317) 803-2997 / (317) 803-3047

<http://www.EMSL.com>

indianapolislab@emsl.com

EMSL Order:	162318398
CustomerID:	PINY63
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ProjectID:	

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

Phone: (303) 980-5200
 Fax: (303) 980-0089
 Received: 8/14/2023 09:33 AM
 Collected: 8/11/2023

Project: **SUPERIOR IH LEAD WIPE**

Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)*

Client SampleDescription	Collected	Analyzed	Area Sampled	RDL	Lead Concentration
081123-SP-2 162318398-0012	8/11/2023	8/14/2023	100 cm ² Site: UNDER WATER SLIDE	93 µg/ft ²	<93 µg/ft ²
081123-PIP-1 162318398-0013	8/11/2023	8/14/2023	100 cm ² Site: UNDER RED SLIDE	93 µg/ft ²	<93 µg/ft ²
081123-PIP-2 162318398-0014	8/11/2023	8/14/2023	100 cm ² Site: BOW OF PLASTIC PIRATE SHIP	93 µg/ft ²	<93 µg/ft ²
081123-FB-1 162318398-0015	8/11/2023	8/14/2023	N/A Site: FB	10 µg/wipe	<10 µg/wipe

Aleksandra Kuchenbrod, Inorganic Chemistry
 Lab Manager
 or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA LAP, LLC-ELLAP Accredited #157245

Initial report from 08/15/2023 07:41:09



Lead Chain of Custody
LA Testing Order Number / Lab Use Only

LA Testing
5431 Industrial Avenue
Huntington Beach, CA 92649

162318398

PHONE: (714) 828-4999
EMAIL: huntingtonbeachlab@latesting.com

Customer Information	Customer ID:	Billing ID:	
	Company Name: <u>Pinon Environmental</u>	Company Name:	
	Contact Name: <u>Tricia McCready</u>	Billing Contact:	
	Street Address: <u>3222 S. Vancast, Ste 200</u>	Street Address:	
	City, State, Zip: <u>Lakewood, CO 80227</u> Country:	City, State, Zip:	Country:
	Phone: <u>303-204-9542</u>	Phone:	
Email(s) for Report: <u>mccready@pinon-env.com</u>	Email(s) for Invoice:		

Project Information

Project Name/No: Superior IH Lead Wipe Purchase Order:

LAT LIMS Project ID: (if applicable, EMSL will provide) US State where samples collected: State of Connecticut (CT) must select project location: Commercial (Taxable) Residential (Non-Taxable)

Sampled By Name: T. McCready Sampled By Signature: [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 <input type="checkbox"/> % by wt. <input type="checkbox"/> ppm (mg/kg) <input type="checkbox"/> mg/cmf	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)	<input type="checkbox"/>
Reporting Limit based on a minimum 0.25g sample weight	SW 846-6010D	ICP-OES	0.0004% (4ppm)	<input type="checkbox"/>
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter	<input type="checkbox"/>
WIPE <input checked="" type="checkbox"/> ASTM <input type="checkbox"/> NON-ASTM	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter	<input type="checkbox"/>
*If no box is checked, non-ASTM Wipe is assumed	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter	<input type="checkbox"/>
TCLP	SW 846-7000B	Flame Atomic Absorption	10µg/wipe	<input checked="" type="checkbox"/>
SPLP	SW 846-6010D*	ICP-OES	1.0µg/wipe	<input type="checkbox"/>
TTLIC	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
STLC	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW 846-1312 / SW 846-6010D*	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
Wastewater	22 CCR App. II, 7000B	Flame Atomic Absorption	40mg/kg (ppm)	<input type="checkbox"/>
Unpreserved <input type="checkbox"/>	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)	<input type="checkbox"/>
Preserved with HNO3 <input type="checkbox"/> PH<2	22 CCR App. II, 7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
Drinking Water	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Unpreserved <input type="checkbox"/>	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)	<input type="checkbox"/>
Preserved with HNO3 <input type="checkbox"/> PH<2	SW 846-6010D*	ICP-OES	2mg/kg (ppm)	<input type="checkbox"/>
TSP/SPM Filter	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
Other:	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>

Sample Number	Sample Location	Volume / Area	Date / Time Sampled
081123-TH1	E window Sill	Wipe 100cm ²	8/11/23
081123-TH2	S window Sill		
081123-BV1	Front Room Window Sill		
081123-BV2	Back Room Window Sill		
081123-SC1	Under Vertical Sill		

Method of Shipment: _____ Sample Condition Upon Receipt: _____

Relinquished by: <u>[Signature]</u>	Date/Time: <u>8/11/23</u>	Received by: <u>[Signature]</u>	Date/Time: <u>8/11/23 11:2am</u>
Relinquished by: _____	Date/Time: _____	Received by: <u>(indy) 997</u>	Date/Time: <u>8/14/23 9:33am RF</u>

Controlled Document - COC-25 LAT Lead R15 04/19/2021 *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. (DBA LA Testing) Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to LA Testing constitutes acceptance and acknowledgment of all terms and conditions by Customer.



Lead Chain of Custody

LA Testing Order Number / Lab Use Only

LA Testing
5431 Industrial Avenue
Huntington Beach, CA 92649

PHONE: (714) 828-4999
EMAIL: huntingtonbeachlab@latesting.com

18398

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
081123-502	Under Picnic table	100cm ²	8/11/23
081123-PP1	under double ar. slide	↓	↓
081123-PP2	base of purple structure		
081123-CC1	top of library cabinet		
081123-CC2	S. patio storage gar. door		
081123-SP1	South Pool inside AED top		
081123-SP2	under water slide		
081123 PIP-1	under red slide		
081123 PIP-2	bow of plastic proleship		
081123-FBI	FB		

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by: <i>Tom McLog</i>	Date/Time: <i>8/11/23</i>	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - COC-25 LAT Lead R15 04/19/2021

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

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