

Tonight's Presentation Available Here



**Fifth Ward/Kashmere Gardens UPRR Site
(Former Houston Wood
Preserving Works)**

Community Meeting

February 27, 2025

AGENDA

- **EPA's Commitment**
- **History: UPRR Houston Wood Preserving Works**
- **What is EPA's Role?**
- **Site Update**
- **Results for Zone 1A and Zone 1**
- **Schedule Update and Community Engagement**
- **Informal Q&A**

EPA's Commitment

Under the leadership of EPA Region 6's new Regional Administrator, Scott Mason, EPA is committed to continuing the UPRR investigation in the Greater Fifth Ward. Currently the work is being conducted by Union Pacific under EPA's February 2023 Administrative Order with Union Pacific. On February 14, 2025, Regional Administrator Scott Mason met with Rep. Sylvester Turner to discuss UPRR and signed a formal letter, dated February 25, that reiterated EPA's commitment.

**FIFTH WARD/KASHMERE GARDENS UPRR SITE –
FORMER CREOSOTE OPERATION AND
SURROUNDING SUPER NEIGHBORHOODS**



**US EPA
REGION 6**



SOURCE: WORLD IMAGERY; ESRI


DATE	PROJECT NO.	SCALE
OCTOBER 2023	20600.012.001.1526	AS SHOWN

Kashmere Gardens

Greater
Fifth Ward

Denver Harbor
/ Port Houston

Legend

-  UPRR HOUSTON WOOD PRESERVING WORKS SITE
(FORMER CREOSOTE OPERATION)

UPRR Houston Wood Preserving Works: Former Operations

- ▶ Houston Wood Preserving Works was a wood treatment facility operated by Southern Pacific (now Union Pacific) from 1911 to 1984.
- ▶ Creosote was the primary wood preserver used.
- ▶ Location: 4910 Liberty Road, Houston, Texas
- ▶ Daily operations, waste storage and disposal and spills resulted in soil and groundwater contamination.



What is EPA's Role at the Fifth Ward/Kashmere Gardens UPRR Site?

- 1) Direct and oversee the investigation;
- 2) Track contamination from the former creosote operation and determine its extent in the neighborhood;
- 3) Determine if there is a risk to people's health and if cleanup is needed;
- 4) Ensure meaningful community engagement

Major Investigation Activities

**Vapor Intrusion
Investigation**

**Background Study
and Former HWPW
Soil Sampling**

**Neighborhood
Residential Soil
Investigation**

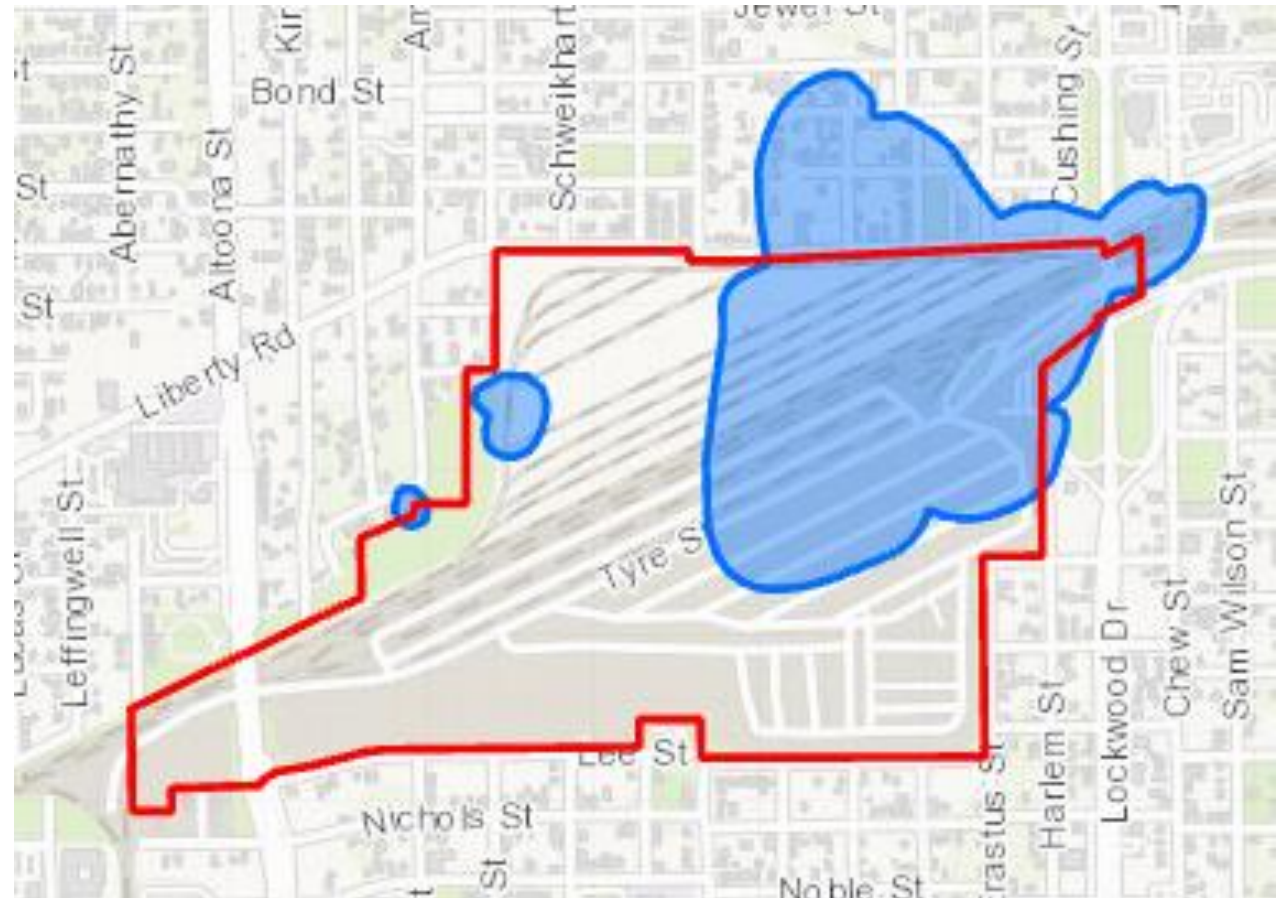
**Stormwater
Investigation**

Investigation Activities: Vapor Intrusion (VI) Investigation



- **Vapor Intrusion Sampling: Complete**

- **Purpose:** Determine if vapors are moving from creosote-contaminated groundwater beneath the nearby neighborhood into homes and buildings.
- **Next Step:** Review results from Round 2 to determine if additional sampling is needed. Results will be used in risk evaluation.



Investigation Activities: Background Study and Onsite Sampling



- **Background Soil Study: Complete**

- *Purpose:* Background samples help EPA answer this question:
How do samples results collected on and near the former creosote plant differ from those in the general environment?

- **Onsite/Formal Creosote Plant Sampling: Complete**

- *Purpose:* Results will be compared to neighborhood residential soil sample data.

FIFTH WARD/KASHMERE GARDENS UPRR SITE - BACKGROUND SOIL STUDY



LEGEND

BACKGROUND SOIL SAMPLING LOCATION

- ★ EXCEEDANCE OF AN EPA SCREENING LEVEL
- ★ NO EXCEEDANCE OF EPA SCREENING LEVELS
- FORMER HOUSTON WOOD PRESERVATING WORKS SITE (FORMER CREOSOTE OPERATION)

BRA09A
Benzo(a)pyrene

BRA10B
Benzo(a)pyrene,
Benzo(b)fluoranthene,
Dibenzo(a,h)anthracene

BRA04A
Benzo(a)pyrene

BRA05B
Benzo(a)pyrene

BRA04B
Benzo(a)pyrene

BRA01B
Benzo(a)pyrene

BRA01A

BRA02B

BRA02A

BRA03A

BRA07A

BRA08A

BRA08B

BRA09B

BRA06A

BRA05A

BRA07B

BRA06B

0 1,800 3,600
SCALE IN FEET

SOURCE: WORLD STREET MAP, ESRI
CLIN No.: 08HERH2F0391-0004000
Data Provided by Geosyntec



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DATE: OCTOBER 2024 PROJECT NO: 26506.012.001.0004.00 SCALE: AS SHOWN

Investigation Activities: Stormwater Investigation

- **Stormwater Investigation: Ongoing**

- **Purpose:** Determine if creosote related contaminants are present in current and historical drainage areas near the site.
- Sampling completed.
- Results will be used in risk evaluation.



Investigation Activities: Residential Soil Investigation



- **Neighborhood Residential Soil Investigation – Ongoing**

- *Purpose:* Track contamination from the former wood treating operation and determine its extent in the neighborhood.
- Yards, schools, parks, churches, community center, play areas and gardens sampled.
- 181 properties sampled.
- Property owners will receive results from EPA and UPRR from February-April.

How does EPA evaluate results?

- EPA uses a numerical tool called **Residential Screening Levels (RSLs)** to help evaluate the levels of chemicals soil samples.
- RSLs are developed by EPA to protect the most sensitive populations, especially young children.
- RSLs are a benchmark to help EPA know when further investigation or evaluation might be needed.

EPA's UPRR Dioxin RSL = 48 ng/kg

- Assumes a 0-6 YO child spends 24 hrs./day, 7days/week, 50 weeks/year for the first 6 years of their life at home being exposed to dioxin.
- If dioxin < 48 ng/kg, EPA expects no increased risk of health effects to the child.
- If dioxin > 48 ng/kg, then there may be an increased risk for health effects to the child.
- For comparison: Adult level = 500 ng/kg

EPA Benzo(a)pyrene RSL = 0.11 mg/kg

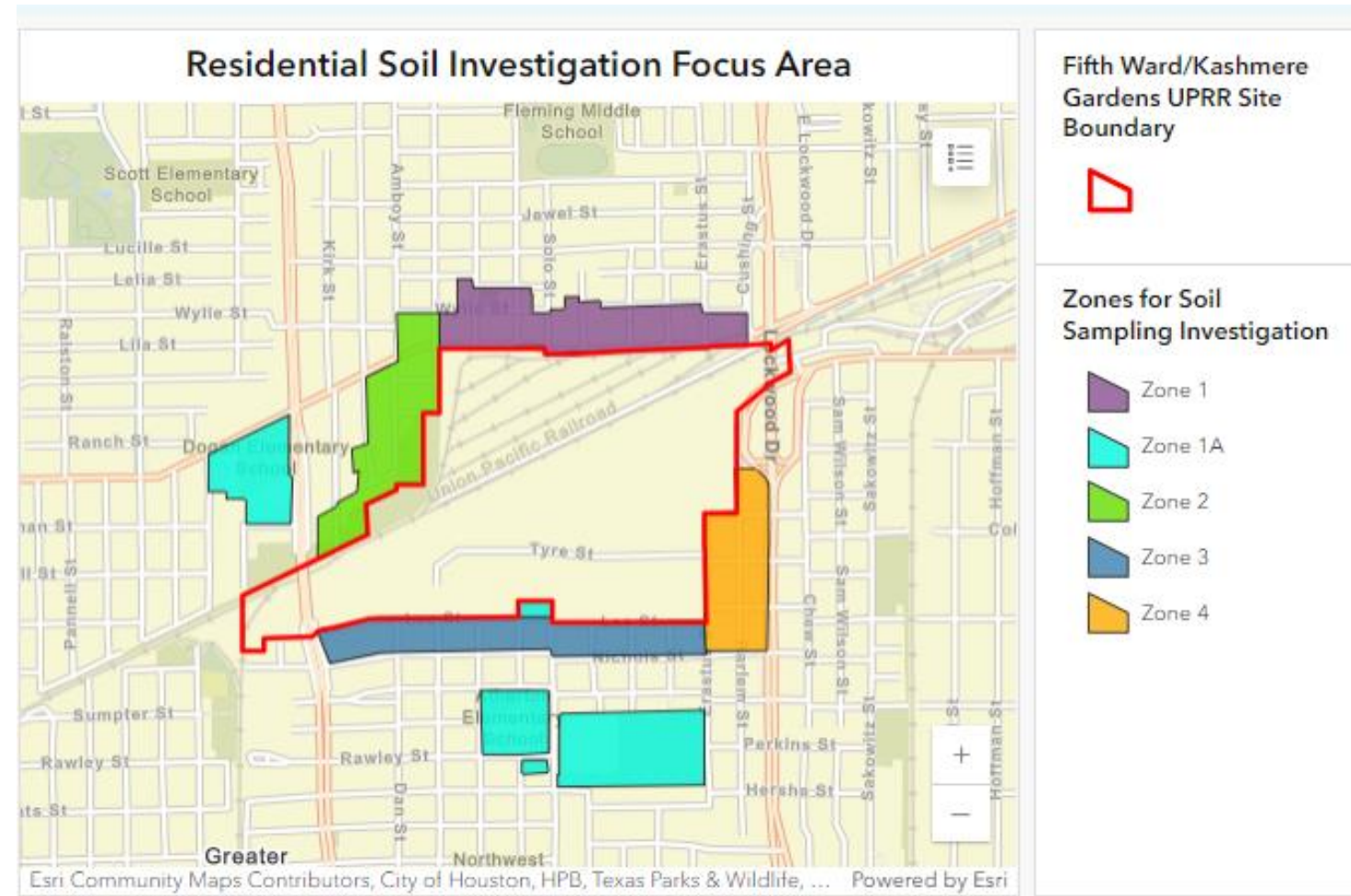


- IF ONE MILLION people are at your residence for 26 years out of 70, ONLY ONE person in that crowd has a potential to develop cancer due to exposure.
- If BaP < 0.11 mg/kg, EPA expects no increased risk of cancer.
- If BaP > 0.11 mg/kg, then there may be an increased cancer risk.

TIMELINE TO RELEASE SOIL SAMPLING RESULTS TO PROPERTY OWNERS



ZONE	RESULTS MAILED TO PROPERTY OWNERS BY
1a (City, HISD, Recreational Properties Only)	January 31, 2025
1 (Residential Properties)	February 28, 2025
2, 3, and 4 (Residential Properties)	March 31, 2025
Properties sampled after October 15, 2024.	April 30, 2025



Zone 1A:
**Results for Schools, Parks and
Recreational Areas**

Schools, Parks and Rec Areas Sampled (aka Zone 1A)



Property Owner	Property Description
City of Houston	Barbara Jordan City Park Catherine Adams City Park Boyce Dorian Park
Houston Independent School District	Atherton Elementary Dogan Elementary
Julia C. Hester House Inc./ Harris County	Julia C. Hester House Community Center

City of Houston/UPRR Property

Barbara Jordan Family Park

19

20



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LEGEND

PARCEL BOUNDARY

VALIDATED RESULTS

BELOW EPA SCREENING LEVELS (2)

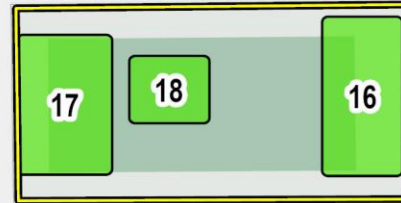
FIFTH WARD/KASHMERE GARDENS UPRR SITE BOUNDARY

0 100 200

SCALE IN FEET

City of Houston Property

Catherine Adams Park




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LEGEND

 PARCEL BOUNDARY

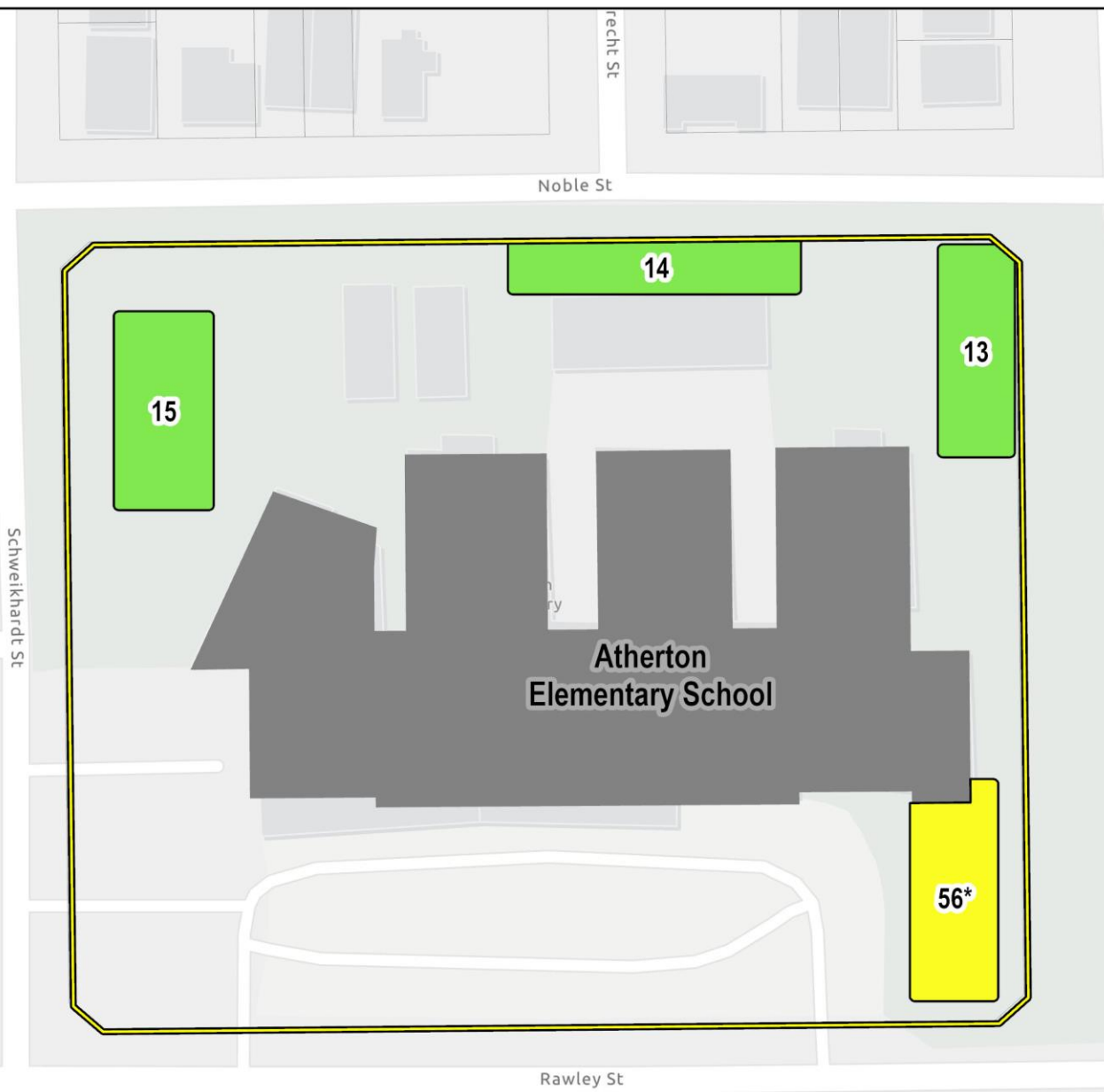
VALIDATED RESULTS

 BELOW EPA SCREENING LEVELS (3)

0 100 200

SCALE IN FEET

HISD Property



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LEGEND

PARCEL BOUNDARY

VALIDATED RESULTS

BELOW EPA SCREENING LEVELS (3)

RESAMPLE* (1)

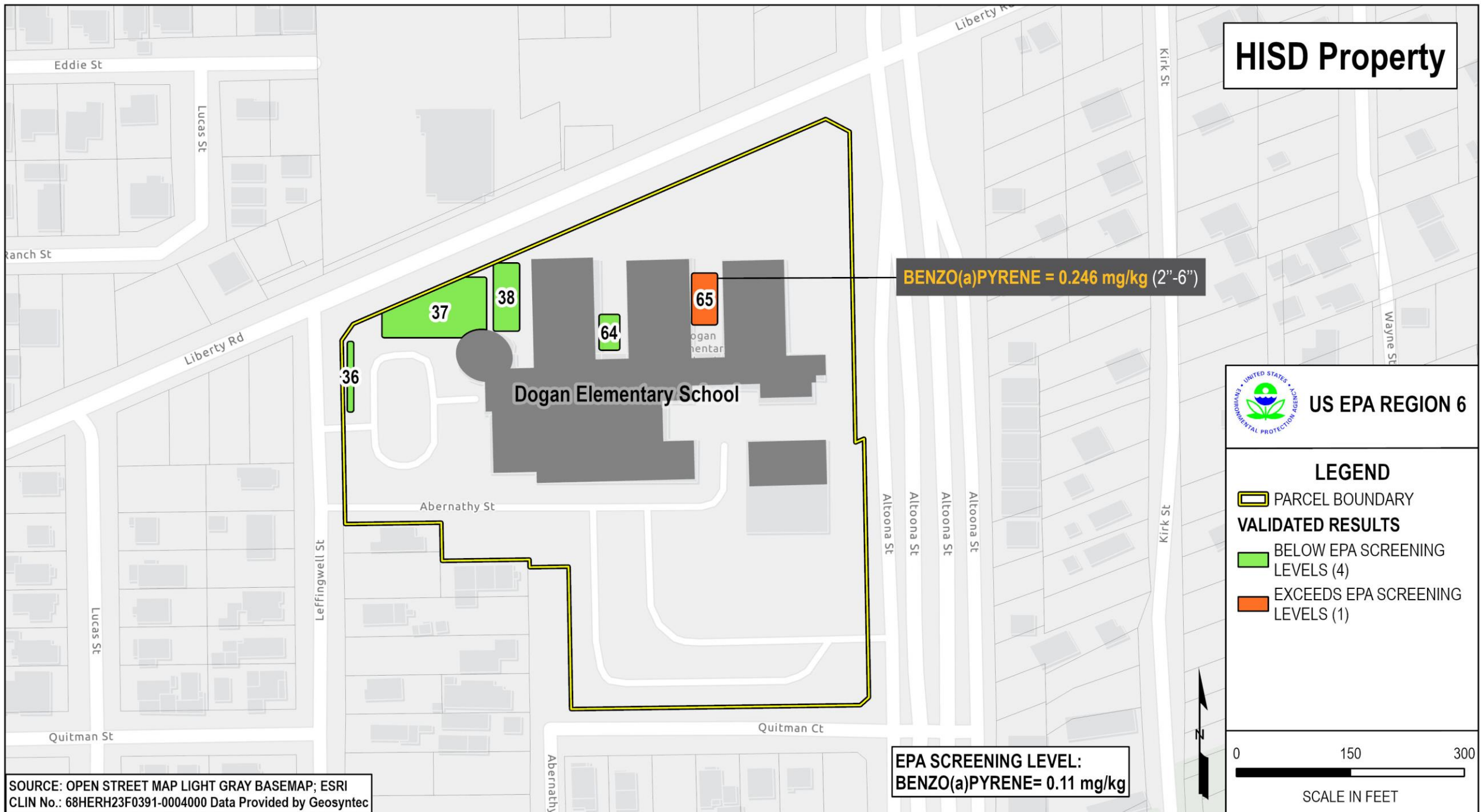
* Grid 56 is being resampled due to a data conflict.



0 100 200

SCALE IN FEET

HISD Property



BENZO(a)PYRENE = 0.246 mg/kg (2''-6'')

Dogan Elementary School

City of Houston Property

DIOXIN / FURAN = 70 ng/kg (2"-6")
BENZO(a)PYRENE = 0.766 mg/kg (2"-6")
BENZO(b)FLUORANTHENE = 1.38 mg/kg (2"-6")
*DIBENZO(a,h)ANTHRACENE = 0.188 mg/kg (0"-2")

BENZO(a)PYRENE = 0.12 mg/kg (0"-2")

Boyce-Dorian Park

DIOXIN / FURAN = 62 ng/kg (2"-6")
BENZO(a)ANTHRACENE = 1.92 mg/kg (2"-6")
BENZO(a)PYRENE = 1.46 mg/kg (2"-6")
BENZO(b)FLUORANTHENE = 2.63 mg/kg (2"-6")
*DIBENZO(a,h)ANTHRACENE = 0.202 mg/kg (2"-6")

DIOXIN / FURAN = 49 ng/kg (2"-6")
BENZO(a)PYRENE = 0.222 mg/kg (0"-2")

EPA SCREENING LEVEL:
DIOXIN / FURAN = 48 ng/kg
BENZO(a)ANTHRACENE = 1.1 mg/kg
BENZO(a)PYRENE = 0.11 mg/kg
BENZO(b)FLUORANTHENE = 1.1 mg/kg
*DIBENZO(a,h)ANTHRACENE = 0.11 mg/kg
*NON PCOC COMPOUNDS



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LEGEND

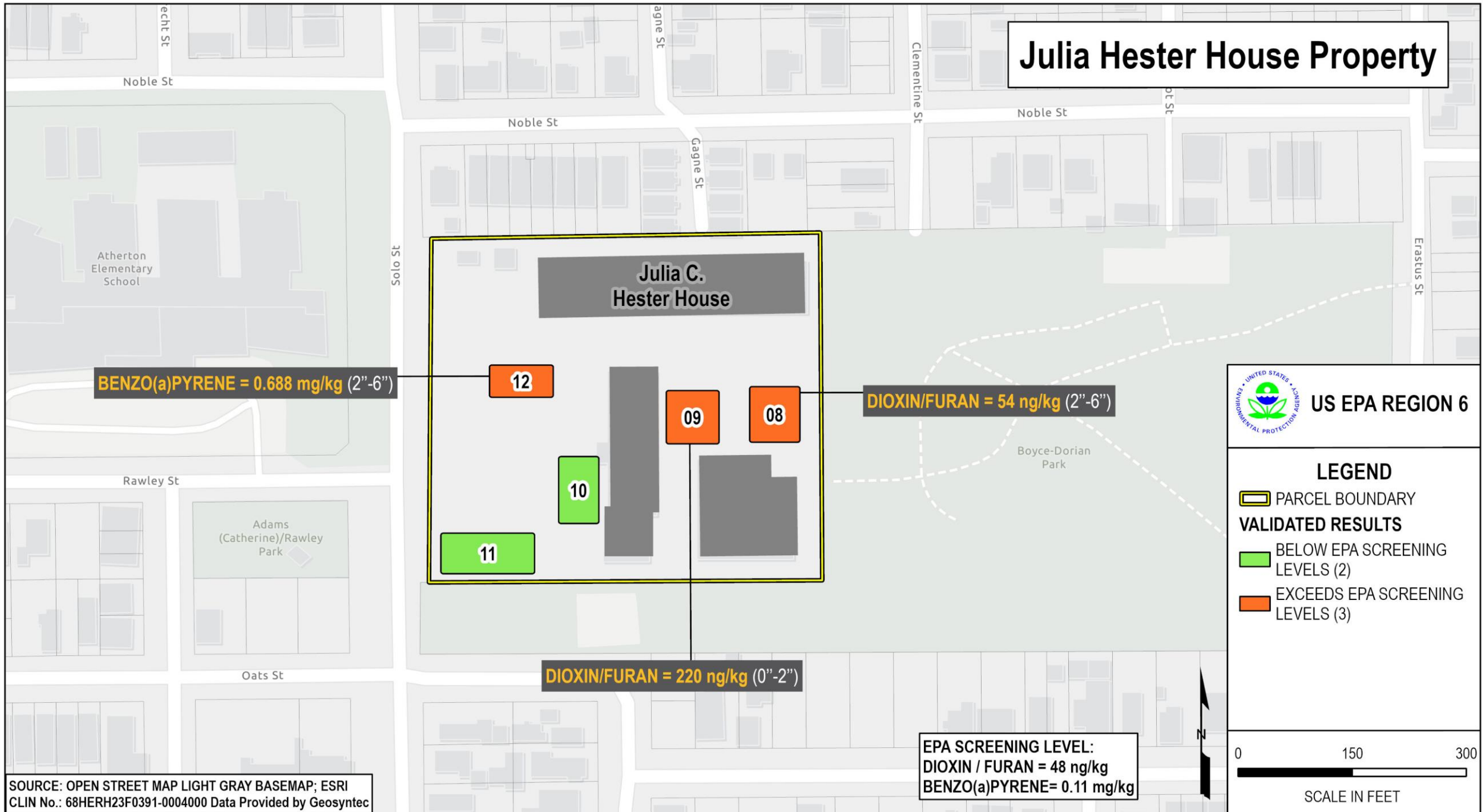
PARCEL BOUNDARY

VALIDATED RESULTS

- BELOW EPA SCREENING LEVELS (3)
- EXCEEDS EPA SCREENING LEVELS (4)

0 250 500
SCALE IN FEET

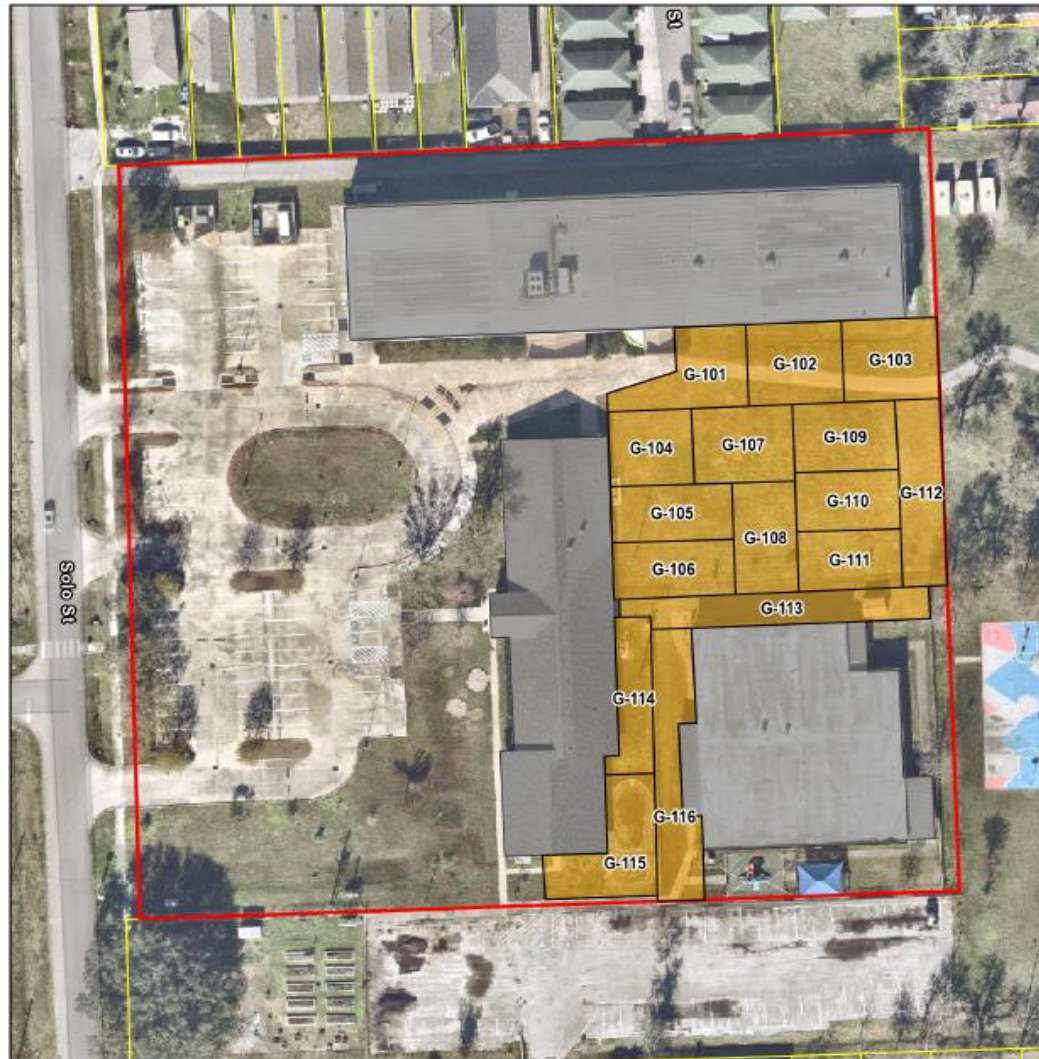
Julia Hester House Property



EPA Sampling at Solo Street Greenspace, near the Hester House



- Results from two grids near the Hester House at 2020 Solo Street, Houston, Texas, showed levels of dioxin/furans up to nearly 5x the EPA screening level.
- EPA will conduct a Removal Site Evaluation (RSE) at the site to investigate the nature and extent of the contamination beginning the week of February 24, 2025.
- EPA completed sampling on February 26.
- EPA collected 48 soil samples plus QC samples.
- The information from the RSE will help determine whether contaminated soil could present a potential threat to people's health.



LEGEND

- Building Footprint
- Parcel Boundary
- Property Boundary
- Proposed Sample Grid (n = 16)

SOURCE: OneMap Imagery, January 2025
 Task-ELIN: 68HERH23F0091-0001044
 SSID: A67A



0 75 150
 SCALE IN FEET



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FIGURE 3-1
 PROPOSED SAMPLE LOCATION MAP
 SOLO STREET GREENSPACE
 2020 SOLO STREET
 HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO.	SCALE
FEBRUARY 2025	26560.012.001.0124	AS SHOWN

FILE: I:\epa\file\core\windows\refined\F0091\START\Y\Superfund\Solo Street Greenspace\Solo Street Greenspace.aprx 1:22 AM 2/10/25 covej

EPA's Evaluation of Zone 1A Results and Next Steps



Property	Evaluation and Next Steps
Catherine Adams City Park Barbara Jordan City Park	Results are below EPA screening levels. No further evaluation or action is required.
Dogan Elementary	No additional sampling or investigation needed. Results will be used in the risk evaluation, which will assist EPA in determining if cleanup is needed.
Atherton Elementary	3 of 4 areas sampled do not exceed EPA screening levels. Due to data conflicts between EPA analytical methods, UPRR re-sampled Grid 56 on February 15. Results pending.
Boyce Dorian Park	No additional sampling or investigation needed. Results will be used in the risk evaluation, which will assist EPA in determining if cleanup is needed.
Julia C. Hester House Community Center	Dioxin results in one sample grid are 4x higher than EPA's residential child screening level. EPA is conducting a focused evaluation with additional sampling to further characterize the extent of dioxin contamination. Results should be available in May.

Zone 1: Summary of Results for Residential Properties

Zone 1 Properties: Results Summary Table

NOTE: Summary of results as of 2/14/2025.
Properties sampled after 10/15/2024 will have results mailed by 4/30/2025.

Zone 1 Property Information	
# of Properties Sampled	27
# of properties with no exceedance of EPA screening levels	18
# of properties exceeding an EPA screening level	8
# of properties pending results	1

Zone 1 Property Results				
Chemical	EPA Screening Value	Units	Range of Exceedances	Units
Dioxin/Furan	48	ng/kg	62-140	ng/kg
Benzo(a)pyrene	0.11	mg/kg	0.131-0.575	mg/kg

Properties with only Dioxin/Furan exceedance	3
Properties with only Benzo(a)pyrene exceedance	3
Properties with Dioxin/Furan & Benzo(a)pyrene exceedances	2



EPA's Evaluation of Zone 1 Results and Next Steps



Property Description	Evaluation and Next Steps
Properties with no exceedance of EPA screening levels.	Results are below EPA screening levels. No further evaluation or action is required.
Properties exceeding EPA screening levels.	Results will be used in the risk evaluation which will assist EPA in determining if and where cleanup is needed.

What's Next?

Next 30 Days



Date(s)	Activity
2/25-26	<ul style="list-style-type: none">EPA conducts additional sampling near the Hester House Community Center
2/27 2/28	<ul style="list-style-type: none">EPA hosts community mtgMail transmittal of first round of results to private property owners
3/5-8	<ul style="list-style-type: none">EPA holds open office hours for residents to discuss their results
3/31	<ul style="list-style-type: none">Mail transmittal of results for properties in Zones 2, 3 and 4

Next Steps in 2025



Timing	Activity
Early to Mid 2025	<ul style="list-style-type: none">• UPRR and EPA continue to send results to property owners.• EPA evaluates results to determine if additional sampling or investigation is needed and/or if the sampling zones should be expanded.• EPA performs a risk evaluation to determine if there is a risk to people's health from creosote contamination.
Mid to Late 2025	<ul style="list-style-type: none">• EPA determines if cleanup is necessary.• Cleanup/remediation decision and start if necessary.

Ongoing Community Engagement

- EPA “office hours” - EPA Field Office at the Fifth Ward Multi Service Center is open to speak 1:1 with EPA team. Upcoming office hours:
 - March 5-6, 1pm-7pm
 - March 7-8, 8am-12pm
- Website Updates - Add results, advertise upcoming office hrs. and community meetings, etc.
- Host community meetings to provide site updates
- Collaborate with the UPRR Community Advisory Group

EPA Contact Information

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Adam Weece

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Site updates and information can be found at:

<https://fifth-ward-kashmere-gardens-uprr-epa.hub.arcgis.com/>



Informal Q&A Session

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<https://fifth-ward-kashmere-gardens-uprr-epa.hub.arcgis.com/>

