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West Oakland Residential Lead  
Assessment  
Preliminary Report

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10/15/09 – 10/28/09

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# Background

- Lead investigation and removal in yards adjacent to the AMCO NPL Site (Center and 3<sup>rd</sup> Streets) 2007.
    - 8 residential yards
    - 400 ppm Pb Action Level
    - Pb not attributed to historic AMCO/DC Metals operations
  - Congresswoman Barbara Lee's Office requests EPA to investigate community members concerns of lead levels in the immediate neighborhood – Aug 2009.
  - EPA initiates expanded investigation of lead levels in residential yards – October 2009.
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# Investigation Area

- Residential yards and community gardens located:
    - West of Mandela Parkway
    - North of Interstate 880
    - East of US Post Office Complex
    - South of 7<sup>th</sup> Street and BART Tracks/Station
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7th

Center

Garden

Garden

5th

Peralta

Lewis

Henry

Chester

Center

Mandela

324  
322

343-353

1579  
350  
344

1555 VL4  
355  
351  
331  
325  
323  
321

350  
332  
316  
1536

355  
331  
327  
319-321

VL2

1529

1505

VL1  
360  
356  
342  
338  
326  
322

1469  
357  
355  
347  
337  
323

1492  
VL3  
1484

537  
529  
519  
513  
1566  
1550

514  
506  
506

1518



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# West Oakland Residential Lead Assessment

- **0.254** square miles approximate study area
- **862** approximate total population
- **150** residential yards (  $\pm$  5 yards )
- Age Demographics
  - 0-9 years: 14.8% (127 approx.)
  - 10-19 years: 14% (121 approx.)

Source: zipskinny.com (zip 94607)

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# Investigation Objectives

- What are surface soil lead levels in residential yards and community garden areas in the investigation area.



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# Sampling Method

- 5-point composite from front and/or back yards.
- Complete field documentation.



# Analytical Method

- All samples analyzed with X-Ray Fluorescence (XRF) for total lead
  - Subset of samples run as duplicates and triplicates
- 20% of all field samples submitted for laboratory analysis



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# West Oakland Residential Lead Assessment – Sampling Results

- **54** properties sampled for lead analysis
  - **96** total samples collected for lead analysis
  - **2,708** ppm highest detected concentration
  - **843** ppm average concentration of samples collected
  - **80%** above PRG (400 ppm Pb)
    - **983** ppm avg of samples above PRG
  - Levels of lead in soils appear to be uniformly distributed
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# Lead contamination in Oakland

- EPA's Preliminary Remedial Goal (PRG) for Pb is 400 ppm.
  - Lead levels in soils in Oakland tend to be elevated.
  - Lead levels in urban areas in excess of 400 ppm is pervasive throughout the country.
  - Natural levels in Oakland (i.e., pre-urbanization levels) range 20 – 50 ppm (depending on the study).
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## What can residents do now?

- Ingestion is the greatest risk
  - Wash frequently, especially after working in your yard
  - Wash any fruit or vegetables that you grow in your yards or gardens
  - Wash toys that children play with outside
  - Take outdoor shoes off inside
  - Vacuum and clean indoor floors regularly
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# Next steps for EPA

- Brief EPA Management in San Francisco and Washington DC
  - Possible outcomes:
    - Further investigation
    - Remediation track
    - Conduct removal of contaminated soils
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# Recommendation

- Conduct removal of contaminated soils from 150 yards
  - Estimated timeframe
    - 20 months =  $(4 \text{ days/yard} \times 150 \text{ yards}) / 30 \text{ days/month}$
    - 31,250 cu/yds removed est.
  - Begin action April/May 2010
  - Est. completion Dec 2011
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