

Uncharted Territory – Radiological Issues and the VAP

Former Tiger Metals Site
Ironton, Ohio

Presenters:

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BURGESS & NIPLE
Engineers ■ Architects ■ Planners

Presentation Objectives

- Provide brief project history
- Present initial findings
- Identify the problem
- Discussion initial direction
- Ohio EPA discussion
- ODH discussion
- Final Direction



Brief Project History

- Property is 0.85 acres along the Riverfront area of Ironton, Ohio
- Occupants included:
 - The Columbia Radiator Company (manufacturer)
 - Alan Kissock & Company (chemical)
 - Southern California Chemical Co (chemical)
 - Gulf Chemical Metallurgical (chemical)
 - Tiger Metals (metal recovery)
- Numerous database listings
 - RCRA; CERCLIS; CORRACTS; FINDS; NFRAP; PA; SI; SPILLS



Project History (continued)

- CERCLIS Discovery - 1979
- PA -1984 & 1990
- SI -1991 (high priority for further assessment)
- Notice letters issued -1993 & 1994
- Emergency removal/partial cleanup -1993/1994
- Removal negotiations -1994
- AOC – Dec 1994
- Expanded SI -1997
- Non-NPL PRP determination - 1998 & 2001

Initial PIPA Findings

- Five IAs identified
 - IA-1, Former Waste Storage Shed/Area
 - IA-2, General Material Storage and AST Area
 - IA-3, Laboratory/Main Manufacturing Building
 - IA-4, Southeast Property Boundary, South Second St
 - IA-5, North Property Boundary, Mulberry St
- COCs recommended
 - VOCs
 - TPHs
 - SVOCs
 - TAL 23 Metals
 - Radionuclides??





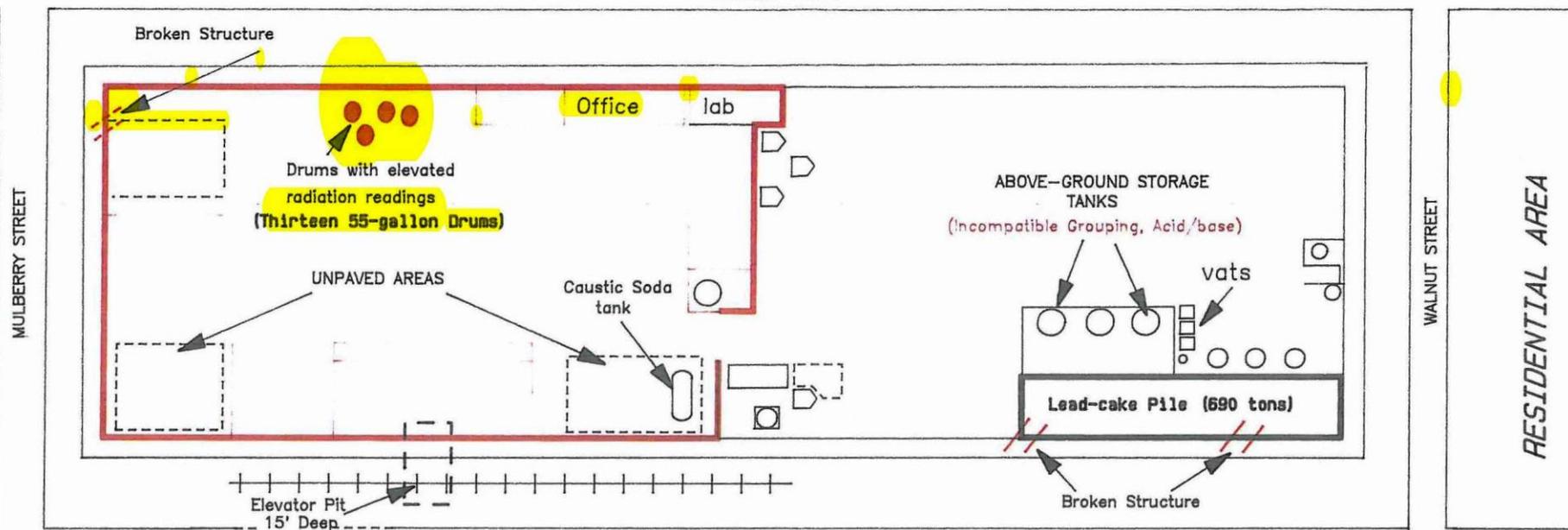
Initial PIPA Findings

- Based upon detailed review of the USEPA files:
 - 13 drums of low-level radioactive waste was identified and were removed
 - “it was discovered that 12 55-gallon drums have been added to the site waste by unknown source.”

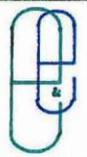
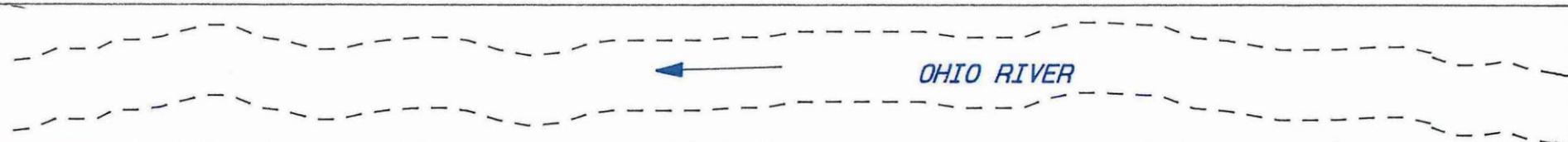
RESIDENTIAL/COMMERCIAL AREA



SECOND STREET



CAMPBELL STREET



Ecology and Environment, Inc.
 Technical Assistance Team
 Region V

SITE TIGER METALS SERVICES, INC. SITE		SCALE N/A
CITY IRONTON	STATE OHIO	PAN EOH0679FCA
DRAWN BY: Sammy Sirhan		DATE 01/18/95

TITLE SITE FEATURES MAP	FIGURE # 2-1
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Initial PIIPA Findings

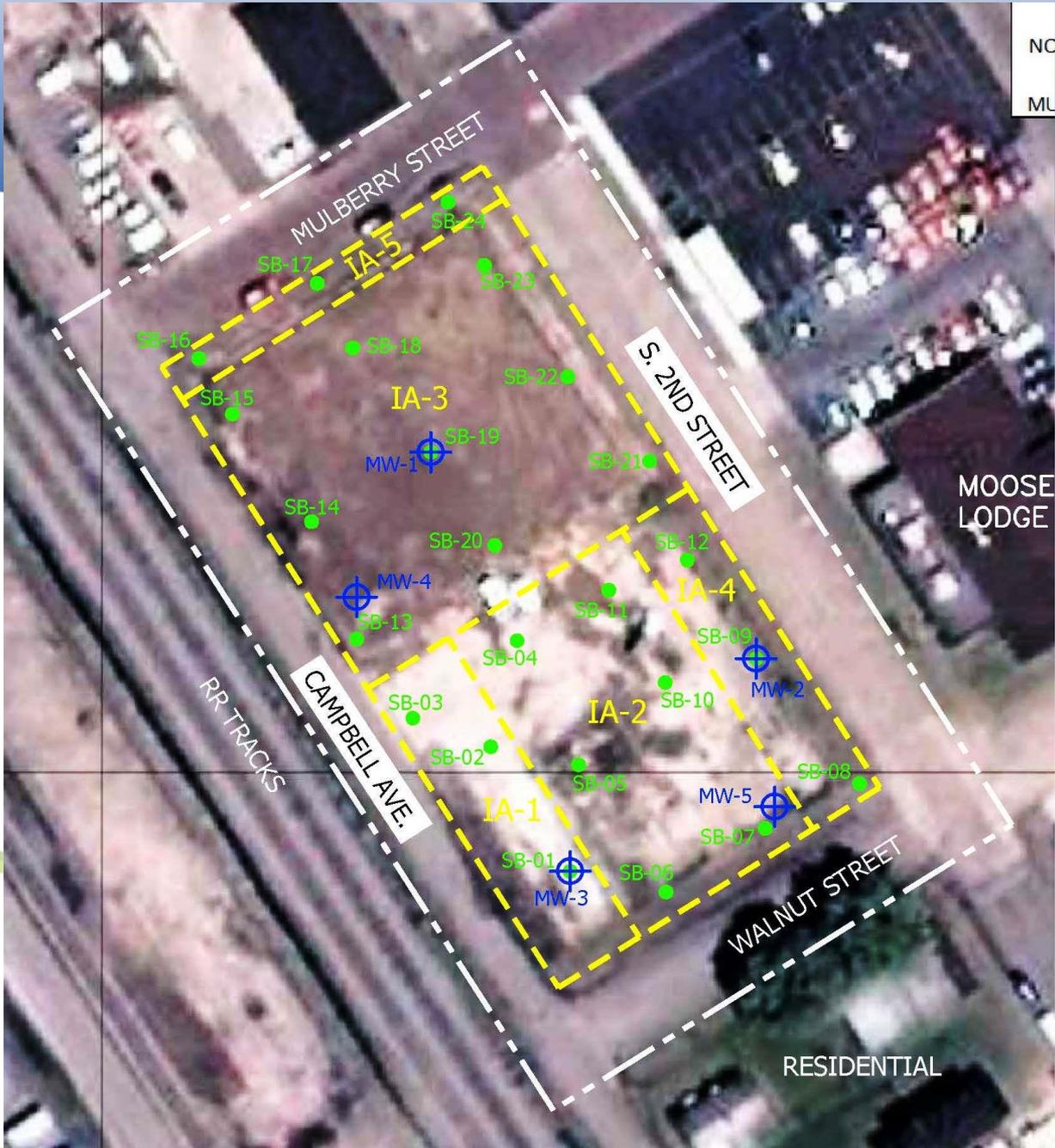
- Geophysical Survey
 - Nothing specific identified
- Soil Results Above Standards
 - IA-1 – As & Cu; pH
 - IA-2 – Pb; pH
 - IA-3 – None
 - IA-4 – None
 - IA-5 – None
- Dioxin & Furans
 - Below VAP supplemental commercial/industrial standards

Initial PIIPA Findings (continued)

- Radiological Survey
 - Gamma Spectroscopy detected 7 species
 - Ac-228; Bi-224; Cs-137; K-40; Pb-212; Pb-214; TL-208
- Groundwater Results Above Standards
 - Due to detections in MW-3, an IC for groundwater use restriction may be implemented

PIIPA Sample Locations

- IA-1: 3 soil borings & 1 well
- IA-2: 7 soil borings & 1 well
- IA-3: 10 soil borings & 2 wells
- IA-4: 3 soil borings & 1 well
- IA-5: 2 soil borings



Identify the Problem

- IDW Removal
 - Detection of radiological materials caused drum disposal contractor to ask for additional data
 - Without additional data, IDW would be removed as low-level radioactive waste (\$\$\$\$\$).

Initial Direction Summary

- In discussions with Ohio EPA about the PIIPA findings and TGC VA 30000-09-003, suggestion made to contact ODH
- Contact ODH Bureau of Radiation Protection
- Confusion on the part of ODH about their regulatory authority under VAP
- Contacted a state-licensed service provider
 - Solutient Technologies

Initial Direction Summary (continued)

- Solutient reviewed data and indicated without background data, could not determine whether site was within NORM backgrounds
- Background samples collected in accordance with VAP
- Comparison to background indicated possible above background results.

Discussion Direction

- Contacted Ohio EPA; discussion on results lead to unclear direction for site.
- Solutient conducted a site survey. Some elevated areas were identified and sampled. Conclusions indicated site was within NORM background.
- Ohio EPA contacted ODH to review report.
- An agreement was then reached that the site would be considered as a licensed facility and would be under the direction of BRP

Current Project Status

- Based upon current discussions, the site is to be considered a licensed facility for radioactive compounds.
- Under ODH standards, the site is either “unrestricted” or impacted.
- A MARSSIM Survey is required to make this determination.
- Survey **MUST** be conducted by a state-licensed service provider.

Project Billings to Address Radiological Issue

- Initial survey - \$20,600
- Data/Document Review - \$9,600
- MARSSIM Survey - \$45,000 to \$55,000

Bottom Line

- If radiological issues are suspected at your project site, contact ODH BRP early on to get their involvement!
- Utilize the services of a ODH-licensed service provider! ODH does not recognize CPs!

QUESTIONS??