Former Ronson Metals Site
Manufacturers Place
Newark, Essex County

May 24, 2016

Presented by
Sonya Ward, Senior Project Hydrogeologist
Former Ronson Metals Site
Ronson Metals Background

- Operated from mid-1950’s until 1986 closure
- Manufactured different types of specialty metal products for lighter flints and strikers
- One of the chemicals used was Trichloroethene (TCE)
  - TCE is a common solvent and degreaser
  - TCE is one of a class of volatile organic compounds (VOCs) known as chlorinated volatile organic compounds (CVOC)
  - Volatile means it can become a vapor
Background

- Ronson soil cleanup started 1991. Included a groundwater investigation (monitoring wells)

- Groundwater samples from wells contained TCE above DEP’s Ground Water Quality Standards (GWQS)

- Soil samples also contained TCE above the DEP’s Soil Cleanup Criteria (SCC)
Background

• Soils containing TCE contamination and other volatile organic compounds (VOCs) were capped under clay and left in place under a Deed Notice (a document that notifies of environmental conditions at a property)
  – Focus is TCE, but contaminants found will be investigated and addressed
• TCE vapors are causing vapor intrusion in some buildings/homes along Manufacturers Place and Vincent Street. Sub-slab depressurization systems installed.
  – Sub-slab depressurization systems are operating and effectively removing vapors in homes
Purpose of 2015 Remedial Investigation

- Confirm source and location of impacts
- Focus on groundwater – which is commonly the source of vapor intrusion
- Evaluate groundwater flow direction
- Assess groundwater quality and area affected
- Confirm and delineate soil gas impacts (assess the area where soil gas impacts exceed Residential Soil Gas Screening Levels)
- Evaluate data – compare to DEP standards
2015 Remedial Investigation

• Utility clearance before drilling
• 13 soil gas sample points
• 22 temporary well points in neighborhood to collect groundwater samples to guide well placement
• 5 permanent groundwater monitoring wells installed & groundwater sampled
• Prepared Remedial Investigation report
Evaluation of Soil Gas and Groundwater

Compared data to DEP standards & screening levels

• Soil gas data compared to:
  – Residential Soil Gas Screening Levels (RSGSL)

• Groundwater data compared to:
  – Groundwater Quality Standards (GWQS) – Class IIA
  – Generic Vapor Intrusion Groundwater Screening Levels (VIGWSL)
2015 Soil Gas Results

Legend:
- Soil Gas Sample Location
- Exceeds NJDEP Soil Gas Screening Level
- Ronson Metals Corporation Property
- Approximate Shallow Groundwater Flow Direction

Soil Gas VOC Exceedances
August and September 2015
Former Ronson Metals Corporation
Manufacturers Place and Surrounding Properties
Newark, New Jersey
2015 Soil Gas Results

• 13 samples along Horatio & Vincent Streets and Lentz Avenue
• No TCE above Residential Soil Gas Screening Levels (RSGSL)
• 8 samples had chloroform above DEP’s RSGSL
• 4 samples also had tetrachloroethene (PCE) above DEP’s RSGSL
2015 Temporary Well Results

Temporary Well Point - Shallow Groundwater Exceedances, August & September, 2015
Former Ronson Metals Corporation
Manufacturers Place and Surrounding Properties
Newark, New Jersey

Legend:
- Temporary Well Point
- Exceeds Groundwater Quality Standards (GWQS)
- Exceeds Generic Vapor Intrusion Groundwater Screening Level (GVISWL) and GWQS
- Approximate Groundwater Flow Direction
-Ronson Metals Corporation Property Boundary
UST - Underground Storage Tank

(MAP/USD) Temporary Well Point = Shallow Groundwater VOC Exceedances Last Updated: May 23, 2018
1:22:53 PM By mapmaker
2015 Temporary Well Results

- 22 groundwater samples collected
- 12 samples contain one or more chlorinated volatile organic compounds (CVOCs, such as PCE, TCE) above DEP’s Groundwater Quality Standards
- 1 sample near former petroleum storage tank (removed March 1995) contained petroleum compounds (benzene, toluene)
- 8 samples are above DEP’s Vapor Intrusion Groundwater Screening Level (VIGWSL)
2015 Monitoring Well Samples

Legend:
- ● Ronson Metals Corporation property boundary
- ● Approximate shallow groundwater flow direction
- ○ Exceeds Groundwater Quality Standards (GWQS)
- ○ Exceeds generic Vapor Intrusion Groundwater Screening Levels (VGWSL)
- ○ Exceeds GWQS and VGWSL

Monitoring Well VOC Exceedances in Groundwater
Former Ronson Metals Corporation
Manufacturers Place and Surrounding Properties
Newark, New Jersey
2015 Monitoring Well Samples

- 4 shallow wells – 15 feet deep
- 1 deeper well – 61 feet deep
- Groundwater flows to east in shallow zone
- CVOCs present above DEP’s GWQS in all 5 wells
- 3 wells contain CVOCs at concentrations above DEP’s VIGWSL
Conclusions

• Soil Gas Testing Results
  – CVOCs in soil gas are not delineated
  – Indoor air monitoring along Manufacturers Place, Lentz Avenue and Vincent Street continues
  – If requested, DEP can collect additional samples in the area
Conclusions

• Groundwater Testing Results
  – Groundwater flow is to the east (toward railroad tracks)
  – CVOCs in shallow & intermediate well water
  – Horizontal and vertical extent of CVOCs in groundwater is not complete
  – Concentrations of CVOCs in groundwater do not appear to be source of soil gas
  – Impacted soil at the former Ronson site may be source of soil gas vapors
Next Steps
2016 Investigation

• Evaluation of soil as potential source of CVOCs at the residential properties in footprint of former Ronson site

• Collect soil samples at 18 properties
  – Up to 9 sample locations at each property
  – Sampling soil
  – Sample clay cap, where found
  – Collect 4 groundwater samples from temporary wells

• Resampling of the 5 existing monitoring wells
Step 1 – Obtain Permission from Property Owner

STATE OF NEW JERSEY
Department of Environmental Protection
Site Remediation Program

SITE ACCESS AGREEMENT

[hereinafter, "the Property Owner"] at _______ Manufacturers Place hereby grants permission to the State of New Jersey and/or its contactor(s) [hereinafter "the State"] to enter upon certain property known as Block _______ Lot _______, in the City of Newark, Essex County [hereinafter "the Property"] for one or more of the following purposes (check every item as appropriate):

YES X NO
1. To drill - _X_ test well(s), _X_ boring(s) or _ Insert other activity at this location _ probe hole(s) to remove samples of the soil and/or consolidated geologic formation(s);
2. To geophysically or otherwise log the well(s) or boring(s);
3. To conduct hydrologic testing on the well(s);
4. To install, operate and maintain, upon the premises _ Insert other activity at this location _ monitoring well(s), observation well(s), boring(s), probe hole(s), piezometer(s), or water level recorder(s) to be operated by the State until such time as the State deems it no longer necessary to do so;
5. To conduct a land survey, recover boundary markers or locate property corners;
6. To conduct a surface geophysical investigation;
7. To seal _X_ test well(s), _ Insert other activity at this location _ observation well(s), _ Insert other activity at this location _ monitoring well(s), _ Insert other activity at this location _ boring(s), _ Insert other activity at this location _ probe hole(s) or _ Insert other activity at this location _ piezometer(s);
8. Locations for monitoring well(s), observation well(s), boring(s), probe hole(s) or piezometer(s) will be determined by mutual agreement between the State and the Property Owner;
9. Locations for monitoring well(s), observation well(s), boring(s), probe hole(s), or piezometer(s) will be determined by the State;
10. Other __________ (To be continued on Page 2)

The State, for itself, its successors and assigns, agrees to indemnify the Property Owner, (its, his, her, their) heirs, successors and assigns, from any and all liability, claims, damages and actions which may result from the negligent use or occupancy of the Property by the State, subject to the following exceptions: 1) The State shall have no obligation to indemnify or hold harmless the Property Owner; (its, his, her, their) heirs, successors or assign, or any of them, for any claims or damages for which the State would have no liability under the New Jersey Tort Claims Act (N.J.S.A. 59:12-1 et seq.) and the New Jersey Contractual Liability Act (N.J.S.A. 59:13-1 et seq.); 2) The liability, if any, of the State shall be subject to the availability of State of New Jersey’s funds; and 3) The agreement of the State to indemnify, as set forth in this paragraph, shall not apply to any claims, actions or damages which may arise out of, be occasioned by or result from any condition existing on, or which did exist on, the Property at the time of the execution of this agreement, or at any time prior to the execution of this agreement.

In return for granting the rights of access and maintenance set forth hereinafore, the Property Owner acknowledges that (it, he, she, they) has received the following good and sufficient consideration.

a. The State will make available to the Property Owner the analyses of any samples taken from the well, boring, or probe hole.
b. The State agrees to return the Property to the general condition which existed prior to its use or occupancy by the State.
c. Any well, boring, probe hole or piezometer which is installed by the State or its contractors will be closed and sealed by the State in compliance with applicable procedures or rules of the New Jersey Department of Environmental Protection when it is no longer needed.
d. The Property Owner shall, when the well is no longer needed by the State, have, at the discretion of the State, the option of retaining ownership of the well for the Property Owner’s private use, with the understanding that all State requirements governing the well’s present or intended use, including abandonment, shall become the responsibility of the Property Owner at the time of the transfer.

This agreement shall take effect on the date on which it is signed by both parties.

For the New Jersey Department of Environmental Protection

________________________
(date)

________________________
(Print Name and Title)

For the Property Owner

________________________
(date)

________________________
(Print Name and Title)
Step 2 – Make Sure No Utilities Present
Step 3 – Sampling Equipment (Soil and Groundwater)
Step 4 – Restore Sample Locations

- Remove soil daily from property and maintain safe and clean work area
- Refill soil boring with grout
- Restore existing surface materials
  - Concrete
  - Asphalt
  - Soil
  - Pavers moved then put back
Step 5 – Property Boundary & Sample Location Survey
Step 6 - Groundwater Monitoring Well Sampling
Step 7 – Prepare Report
### Estimated Timeline

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<td>1</td>
<td>Property Access</td>
<td>May – June 24, 2016</td>
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<td>2</td>
<td>Utility Clearance</td>
<td>July 2016</td>
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<td>3</td>
<td>Soil &amp; Groundwater Sampling</td>
<td>July - August 2016</td>
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<td>4</td>
<td>Restore Sample Locations</td>
<td>July - August 2016</td>
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<td>5</td>
<td>Property Boundary</td>
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<td>Monitoring Well Sampling</td>
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<td>Sample Analysis</td>
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<td>8</td>
<td>Laboratory Data Validation</td>
<td>November 2016</td>
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<td>9</td>
<td>Prepare Report</td>
<td>November – January 2017</td>
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Questions