

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Louisa Acme Well Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III

Subject: POLREP #7
Summary of Feb 2011 Sampling
Louisa Acme Well Site

Louisa, VA
Latitude: 38.0129580 Longitude: -77.9855590

To: Mr. Jeff Lake, Virginia Department of Health
Mr. Dean Rodgers, Louisa County Water Authority

From: Christine Wagner, OSC

Date: 6/2/2011

Reporting Period: 3/15/11-6/2/11

1. Introduction

1.1 Background

Site Number:	A3RC	Contract Number:	
D.O. Number:		Action Memo Date:	11/24/2010
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	11/26/2010	Start Date:	11/26/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	VDEQ
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

An emergency sampling assessment led to a Time-Critical Removal Action which began on 11/26/10. Sampling indicated high levels of tetrachloroethylene (also known as perchloroethylene, PCE, or "perk") in the former Louisa Acme well and several residences. The removal action scope included providing bottled water to affected residents until a permanent water supply could be connected. During the week of March 7, 2011, two residential properties which had highly elevated levels of tetrachloroethylene in their drinking water wells were connected to public water.

The emergency threat to public health due to high levels of tetrachloroethylene in drinking water has been mitigated. However, EPA continues to perform a removal site evaluation as described in 30 CFR 300.410 to determine if an imminent and substantial threat to public health, welfare, or the environment continues to exist due to the presence of tetrachloroethylene in the environment.

This polrep summarizes the findings of the February 2011 sampling event. Sampling results and maps depicting sampling locations are posted in the DOCUMENTS section. However, results are not posted on these maps.

EPA's contractor is preparing a full report of this event which will include maps with data, drilling logs, data, and photos. This report will be ready for release by the end of July 2011.

Additional sampling was performed during week of Memorial Day (May 30-June 2, 2011). However, this information is not included in this polrep. See Polrep #8 for the most recent sampling information.

1.1.2 Site Description

100-200 Area of Jefferson Highway, Louisa, Virginia. Area may be expanded upon additional information. The Site boundaries have not been defined as the source of contamination is still unknown.

1.1.2.1 Location

38.012958 N
-77.985559 W

The coordinates above are for the Acme Well. This is not considered the Site source, but is being used as a reference for documentation purposes.

1.1.2.2 Description of Threat

Tetrachloroethylene (perchloroethylene, "PCE", "perc" or tetrachlorethene)

Tetrachloroethylene is a manufactured chemical used for dry cleaning and metal degreasing. It is also known as perchloroethylene or "perk"

The EPA maximum contaminant level for the amount of tetrachloroethylene in a public water drinking supply is 5 micrograms tetrachloroethylene per liter of water (0.005 mg/L).

The Occupational Safety and Health Administration (OSHA) has set a limit of 100 parts per million in air for an 8-hour workday over a 40-hour work week.

The National Institute for Occupational Safety and Health (NIOSH) recommends that tetrachloroethylene be handled as a potential carcinogen and recommends that levels in the workplace air should be as low as possible.

For more information on tetrachloroethylene, please see the "DOCUMENTS" section of the main website.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

A removal Site evaluation as described in 40 CFR 300.410 is currently underway. The EPA OSC is coordinating with the EPA Site Assessment Manager, Ms. Dawn Fulsher, to ensure that removal assessment activities are consistent with information required to perform a formal Site Inspection under 40 CFR 300.420.

The Site was brought to EPA's attention when a sample from an unused Town well (known hereafter as the "Acme Well") indicated high levels of tetrachloroethylene. The Town of Louisa contacted the Virginia Department of Environmental Quality (VDEQ). VDEQ requested EPA assistance to perform sampling.

The Virginia Department of Health and EPA collected samples from nearby residents who still use private drinking water wells. Most of the residents in the area are already connected to public water.

Results from the testing indicated elevated levels of tetrachloroethylene in several of the residential wells. EPA connected two residential properties to public water in March of 2011.

The source, nature, and extent of contamination are unknown and background information is limited.

A Real Estate Transfer Environmental Assessment was prepared for the former Acme Visible Records facility in 1992. This document is now posted in the "DOCUMENTS" section of this website.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Information in this polrep is limited to a discussion of sampling assessment activities. For background information, please see previous polreps.

2.1.2 Response Actions to Date

ASSESSMENT ACTIVITIES

January 2011

Findings of the assessment activities performed by EPA in January of 2011 are summarized in Polrep #6.

February 2011

During the week of February 14, 2011, EPA, EPA's START contractor, and VDEQ returned to the Site to perform additional groundwater, surface water, sediment, and surface soil samples. A summary of these sampling locations can be found in the DOCUMENTS section of the website. These sampling locations were primarily located on the Piedmont Metal Fabricators property. EPA received permission from the owner to sample.

Groundwater

Groundwater samples were collected from 12 separate locations from around the property. The highest level of tetrachloroethylene found in groundwater was 990 micrograms/liter (ug/l) at sampling location GW-02. This location is located in a low-lying marshy area north of the East Pond. The second highest level of tetrachloroethylene detected in groundwater was 230 ug/l, which was detected west of the Acme well. Sampling points between these locations did not indicate elevated levels of tetrachloroethylene.

Surface Water Samples

A total of eight surface water samples were collected, including a field duplicate. The highest level of tetrachloroethylene detected in the surface water samples was 17 ug/l, which was detected at location SW-06. SW-06 was collected from a small tributary to the north end of the east pond.

Sediment Samples

A total of eight sediment samples were collected, including a field duplicate. Sediment samples were collected from the pond and from three additional locations. Tetrachloroethylene was not detected in any of the sediment samples at levels above the contract-required quantitation limit of 5 micrograms/liter.

Two surface soil samples were collected from debris areas around the Site. Tetrachloroethylene was not detected in any of the surface soil samples at levels above the contract-required quantitation limit of 5 micrograms/liter.

Six subsurface samples were collected from soil borings from the Geoprobe locations. The highest level of tetrachloroethene detected was 70 micrograms/kilogram at sample location SS-05. This is the same location as the groundwater sample GW05. As stated earlier, the groundwater sample GW-05 contained 230 micrograms/liter of tetrachloroethene.

As the geoprobe borings were extricated, they were screened using a photoionization detector which detects volatile organic contaminants (VOCs) in the parts per billion range. However, this instrument does not distinguish individual compounds. This is a common field screening technique to identify areas for further consideration.

EPA's contractor detected VOCs in subsurface locations in the southeast area, closest to the Acme Well. Soil gas was screened in several areas. Readings from the soil gas screening indicated the presence of volatile organic compounds in levels from 1.2 - 32.4 parts per million. This information will be used to identify areas for further testing.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The source, nature, and extent of contamination have not yet been identified. EPA will continue to work on enforcement issues as the assessment progresses.

2.2 Planning Section

2.2.1 Anticipated Activities

EPA performed additional sampling in late May/early June of 2011. This information will be summarized in the next polrep.

2.2.1.1 Planned Response Activities

EPA is working to obtain access from the owners of additional properties further from the Site. Several downgradient residences have been identified as having private drinking water wells. However, to the knowledge of EPA and VDH, no one is currently using these drinking water wells.

2.2.2 Issues

Piedmont Metal Fabricators is cooperating with EPA's investigation. Piedmont Metal Fabricators does not and has not in the past ever used tetrachloroethylene in its manufacturing process.

The two residents affected by the presence of tetrachloroethylene have now been connected to public water. Bottled water distribution has been discontinued.

Additional sampling is necessary to determine the possible source and extent of contamination.

An EPA Fact Sheet was distributed to the residents in the area on May 12, 2011. This Fact Sheet is available in the DOCUMENTS section of the website.

OSC Wagner requested assistance with groundwater modeling from EPA's Environmental Response Team (ERT). EPA-ERT is a group of subject matter experts who provide field assistance to EPA Project Managers. EPA-ERT Don Bussey visited the Site on May 12, 2011. Mr. Bussey will make recommendations to the OSC on information gaps and additional information needed.

Sampling will be conducted consistent with protocols for a Remedial Site Evaluation as defined by 40 CFR 300.420.

Maps depicting sampling locations are now located in the DOCUMENTS section of the website. These maps do not have sampling results listed. The maps with the results are currently being developed.

A draft trip report summarizing EPA's sampling activities for Jan-Feb 2011 is being modified and will be released by the end of July 2011.

2.3 Logistics Section

The following agencies/companies are assisting EPA with logistics

TechLaw, Inc.

- Sampling support

WRS Infrastructure, Inc.

- Water connection

Town of Louisa

- Well access and temporary storage of investigative derived wastes (non-hazardous wastewater)

Piedmont Metal Fabric Works

- Access to selected sampling locations

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

A Health and Safety Plan has been developed for the Site. EPA personnel oversee all field activities.

2.6 Liaison Officer

2.7 Information Officer

2.7.1 Public Information Officer

Dr. Maureen Dempsey - VDH

Dr. Lilian Peake, VDH

Roy Seneca - EPA

2.7.2 Community Involvement Coordinator

Trish Taylor - EPA

3. Participating Entities

3.1 Unified Command

Town of Louisa

Brad Humphrey - Asst Town Mgr

Louisa County Water Authority

Mr. Dean Rodgers, Director

VDEQ

Devlin Harris - Site Assessment Manager

Richard Doucette - NRO Waste Program Manager

VDH

Dr. Maurenn Dempsey, VDH, Deputy Commissioner

Dr. Lilian Peake, VDH, Thomas Jefferson Health District

Mr. Jeff McDaniel, VDH, Thomas Jefferson Health District

G. Steven Rice, VDH, Louisa County

DCLS

Mr. Greer Mills

VDEM

Mr. Rob Phillips, HazMat Officer

EPA

Chris Wagner, OSC

Todd Richardson OSC

Francisco Cruz, OSC

Trish Taylor, CIC

Victoria Binetti, Water Protection Division

Carlyn Prisk, Cost Recovery

Dawn Fulsher, Site Assessment Manager

ATSDR

Lora Werner

3.2 Cooperating Agencies

4. Personnel On Site

EPA - Chris Wagner, Trish Taylor

5. Definition of Terms

Maximum contaminant level means the maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system; except in the case of turbidity where the maximum permissible level is measured at the point of entry to the distribution system. Contaminants added to the water under circumstances controlled by the user, except for those resulting from corrosion of piping and plumbing caused by water quality are excluded from this definition. (40 CFR 142.2)

6. Additional sources of information

6.1 Internet location of additional information/report

The following documents have been added to the website under the DOCUMENTS Section

Map depicting groundwater and subsurface sampling locations (note: data is not posted on this map)

Map depicting surface water and sediment sampling locations (note: data is not posted on this map)

Soil, Groundwater, Water, and Sediment sample results. Note, these results are posted as they were received by the laboratory. Results will be summarized in the upcoming EPA report expected by the end of July

6.2 Reporting Schedule

None

7. Situational Reference Materials

None