

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Aspen Park Solvents - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: POLREP #13
Aspen Park Solvents
08-6D
Conifer, CO
Latitude: 39.5414000 Longitude: -105.2936000

To:
From: Pete Stevenson, OSC
Date: 7/18/2014
Reporting Period:

1. Introduction

1.1 Background

Site Number:	08-6D	Contract Number:	
D.O. Number:		Action Memo Date:	8/22/1995
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:		Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:		Start Date:	10/25/1994
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Removal Action

1.1.2 Site Description

1.1.2.1 Location

The Site is in a residential area called Aspen Park, which is in Jefferson County, Colorado, in the foothills of the Rocky Mountains.

1.1.2.2 Description of Threat

In October of 1994 EPA found carbon tetrachloride (CCl₄) at levels as high as 120,000 parts per billion (ppb) in residential wells.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On October 25, 1994, EPA initiated the Removal Action and began supplying bottled water to 33 residents. A Treatability Study was conducted by EPA's Emergency Response Team (ERT) to determine the best method of removing the CCl₄, which ranged from 6 to 99,000 ppb. Four air strippers and 29 carbon filters were installed on 33 homes. A thorough investigation was conducted by EPA and contractors (TAT and REAC) in 1995 and 1996. A source removal system was installed in March of 1997; it consisted of 4 pumping wells, 6 reinfiltration wells, a shallow tray air stripper system, and carbon polishing tanks. The current system has 2 pumping wells feeding a carbon absorption system, and to date it has treated over 23.9 million gallons of water as of May 5, 2014. There are currently 29 residential carbon systems installed- 7 original systems were removed and 3 new systems were added, including 1 installed on a newly built house. All 4 air stripper systems have been converted to carbon-only systems.

The carbon tet plume has diminished greatly in both size and concentration. There are currently only three hot spots and the source area that show carbon tet concentrations > 5 ug/l. Plume maps for carbon tet over time have been prepared and are available on the website.

2.1.2 Response Actions to Date

The source area around Cornelius and Vosler Streets, where we are pumping and treating groundwater, continues to clean up slowly. The carbon absorption systems continue to work well. We found only one system this year experiencing breakthrough of contaminant between the primary system and secondary carbon tank.

Compared to data from 2013, the average carbon tet concentration of all residential well samples increased to 25.3 ug/L from 13.4 ug/L. After 19 years of treatment by individual home systems and 17 years of pumping and treating in the source area, the residential sampling results for carbon tet can be summarized as follows:

- 4 homes at non-detect
- 11 homes between 0 and 5 ug/L;
- 5 homes between 5 and 11 ug/L;
- 4 homes between 11 and 20 ug/L;
- 2 homes between 21 and 49 ug/L;
- 1 homes between 51 and 100 ug/L; and
- 1 home greater than 100 ug/L at 464 ug/L.

The three contaminant hot spots outside the source area are undergoing additional treatment with automatic sprinklers set up on tri-pods during the summer of 2013. These five systems are set to run daily for two to five hours during the heat of the day to see if additional contaminant reduction can be achieved. **Three of these systems seemed to decrease contaminant concentrations slightly, and these systems will be set up later in July to run into September.**

The air stripper developed a leak, and was taken off line. Two large carbon filters are now treating the contaminated water. **The pump used to pump contaminated water from tank 1 to the carbon filters was upgraded to a 2 hp pump. The last 2" pump in use in the production wells was eliminated due to it burning out after only 6 weeks. The homeowner agreed to let us modify their home pumping system. It consisted of a three phase pump, an Automation Direct Drive, pressure switches, automatic shut off valves, and a diversion to the treatment plant. This system was installed and tested on April 3, 2014. The Ametek water level controller also failed more recently, and is in the process of being replaced. This system, which pumps the most contaminated water left on site, has been off more than it has been on this spring and summer, and the rebound of contaminant concentrations at the source property can be seen in the sampling data. Once the water level controller is installed next week, the system will be turned on for a month and then off for a month, to see if this pumping pattern flushes out more contaminant.**

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

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

Install a new water level controller on the homeowner diversion. Provide homeowner with as-built pump system diagram as well as instruction sheet describing operation and maintenance.

Continue running system in a pattern of a month on and a month off until the last well is below 100 ug/l. Monitoring of the removal system and the affected homes should continue.

2.2.2 Issues

Carbon systems need monitoring, as they can slug contaminant at much higher concentrations into the homes once they saturate. Homeowners may also disconnect the systems. There is no one else willing to do this and pay for it.

Yearly sampling for plume monitoring should continue to verify continued downward trends in contaminant concentration.

The property where the treatment plant is located has been sold, and the new owner has moved in. I suspect they may not be supportive of our presence much longer.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

One OSC. Two ERRs as needed. ERT assists with yearly sampling.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.