U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
West Vermont Drinking Water Contamination Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #5**
New Time-Critical Removal Action Started
West Vermont Drinking Water Contamination Site
B5UJ
Indianapolis, IN
Latitude: 39.7720520 Longitude: -86.2294990

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Date: 8/19/2015
Reporting Period: June 15 - August 19, 2015

1. Introduction

1.1 Background

Site Number:	B5UJ	**Contract Number:**	EPS50905
D.O. Number:	167	**Action Memo Date:**	5/13/2010
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	11/8/2011	**Start Date:**	11/8/2011
Demob Date:		**Completion Date:**	
CERCLIS ID:	INN000510429	**RCRIS ID:**	INR000130385
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Incident Category: Groundwater plume site

1.1.2 Site Description

The following sections provide information on the site location, description of threat, and removal assessment results.

1.1.2.1 Location

The site is a Residential Area bounded by West Vermont Street to the south, Holt Road to the east, West Michigan Street to the north, and North Rybolt Avenue to the west in Indianapolis, Marion County, Indiana. The site consists of 23 homes that rely upon private drinking water wells as their only sources of water.

1.1.2.2 Description of Threat

In 2009, the Marion County Public Health Department (MCPHD) identified homes in the West Vermont-Cossell Road neighborhood that obtained drinking water from private wells. MCPHD sampled the wells and detected vinyl chloride in drinking water at three residences at concentrations above the Removal Management Level (RML) (January 2015) of 1.9 micrograms per liter (µg/L) and Maximum Contaminant Level (MCL) of 2 µg/L in groundwater used as a drinking water source

Vinyl chloride is a hazardous substance, as defined by section 101(14) of CERCLA. According to the Agency for Toxic Substances and Disease Registry (ATSDR), the effects of drinking high levels of vinyl chloride are unknown. However, the U.S. Department of Health and Human Services has determined that vinyl chloride is a known carcinogen. In addition to ingestion of contaminated water, there is potential exposure via inhalation of vinyl chloride vapors from use of contaminated water for cooking, showering, and bathing. Breathing vinyl chloride for long periods of time can result in permanent liver damage, immune reactions, nerve damage, and liver cancer.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The following section describes the U.S. Environmental Protection Agency's (EPA) assessment activities and previous actions.

November 2009 – February 2010

In November 2009 and February 2010, EPA installed temporary treatment systems in the three residences where vinyl chloride was above the 1998 Removal Action Level (RAL) of 2 µg/L in drinking water. On May 13, 2010, EPA approved an action memorandum to provide water treatment systems for these three residences.

March 2011

In March 2011, EPA's Superfund Technical Assessment and Response Team (START) contractor prepared a Technical Memorandum that evaluated and summarized information about contamination at the West Vermont Site. The 2011 Technical Memorandum identified three potential sources of contamination for the Residential Area - Allison Transmission, the Genuine Parts facility, and Michigan Plaza. Each of these facilities had releases of PCE and/or TCE into soil and groundwater.

The 2011 Technical Memorandum identified several data gaps that made it difficult to attribute contamination in the Residential Areas to the these facilities. These data gaps included a lack of monitoring wells between the Residential Area and Allison Transmission that were appropriately screened to monitor contaminant migration from Allison Transmission; an insufficient understanding of preferential pathway flow through sewer lines in the vicinity of Michigan Plaza; and a lack of monitoring wells west of Genuine Parts, the Maple Creek Village Apartments, and Michigan Plaza properties, as well as within the Residential Area.

Information about each facility is below.

Allison Transmission

Allison Transmission is located at One Allison Way, north and northwest of the Residential Area. General Motors (GM) previously operated the facility, and conducted aircraft engine testing, machining, parts cleaning, and storage. GM is conducting environmental investigations and remediation at this facility under a Resource Conservation and Recovery Act (RCRA) corrective action agreement with EPA.

GM released many hazardous substances, pollutants, or contaminants to the environment, including polychlorinated biphenyls (PCBs); transmission fluid; and volatile organic compounds (VOC), including tetrachloroethene (PCE) and its degradation daughter products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride. During a 2009 investigation of the Areas of Interest (AOI), GM discovered that chlorinated solvents contaminated groundwater at multiple AOIs. Chlorinated solvent contamination from AOI-51, a former degreaser area, had migrated south toward the West Vermont Site.

GM installed groundwater monitoring wells and collected soil and groundwater samples along West Michigan Street north of the Residential Area. Results from these samples indicated that contamination from AOI-51 and Allison Transmission had not migrated as far south as West Michigan Street and the Residential Area. However, EPA identified horizontal and vertical gaps in GM' data. For example, monitoring well MW-1103-S3/S4, located on West Michigan Street north to northwest of the Residential Area, was screened just above bedrock (85 to 95 feet below ground surface [bgs]). Monitoring well MW-1101-S4, also installed along West Michigan Street, was screened between 92 and 97 feet bgs. However, because both monitoring wells were screened in zones deeper than AOI-51 contamination and deeper than the residential wells, the two wells were not effective for monitoring contaminant migration from AOI-51. Therefore, EPA identified a data gap that required additional investigation.

Genuine Parts

The Genuine Parts facility, also known as the Former Allison Plant 10, is located at 700 North Olin Avenue, northeast of the West Vermont Site. BHT Corporation (BHT) operated the facility as a carburetor remanufacturing and brake overhaul facility. BHT and its successor, the Genuine Parts Company, owned and operated the facility from 1956 until 1974. Currently, the Genuine Parts Company is conducting environmental remediation at this facility through the Indiana Department of Environmental Management (IDEM) Voluntary Remediation Program (VRP).

In May 2000, Genuine Parts discovered buried drums and waste on the western portion of the property during installation of remediation system piping. Soil and groundwater at the facility were contaminated with chlorinated VOCs including TCE and breakdown products, such as cis-1,2- DCE, trans-1,2-DCE, and vinyl chloride; polynuclear aromatic hydrocarbons (PAH); and metals such as cadmium, chromium, and lead.

Contamination from Genuine Parts migrated to the south, flowed beneath Little Eagle Creek, and impacted the Maple Creek Village Apartments (formerly the Michigan Meadows Apartments). Groundwater results from January 2002 indicated that a vinyl chloride plume extended south to monitoring well MW-170D, which is located about 200 feet northeast of the Residential Area. Vinyl chloride concentrations in January 2002 ranged from 1,500 µg/L near Genuine Parts to 80 µg/L in monitoring well MW-170D. Between 2002 and 2007, no groundwater data were collected south-southwest of the Maple Creek Village Apartments, near the Residential Area.

Recent groundwater sampling data shows that the Genuine Parts facility continues to have elevated concentrations of TCE, cis-1,2-DCE, and vinyl chloride in groundwater on-site and off-site.

Michigan Plaza
Michigan Plaza is a strip mall located at 3801-3823 West Michigan Street, northeast of the West Vermont Site. One of the former tenants, Accent Cleaners, operated a dry cleaning business, from which chlorinated solvents were released into the sanitary sewer. Contamination flowed along this preferential pathway, and impacted soil and groundwater at Michigan Plaza and the Maple Creek Village Apartments to the north.

From 2007-2015, Aimco and/or its subsidiary, Aimco Michigan Meadows Holding (AMMH), LLC, conducted work under IDEM's VRP at Michigan Plaza. IDEM terminated the Voluntary Remediation Agreement (VRA) with Aimco for the Michigan Plaza Site on June 30, 2015 for failure to take appropriate and timely response actions to address hazardous substances at the site.

Aimco conducted *in-situ* bioremediation at the facility, which included injections of CAP18 and CAP18 ME. CAP18 is a vegetable oil product that can enhance the dechlorination process by anaerobically stimulating biological processes to transform contaminants such as PCE to ethane or ethene. CAP18 ME has the addition of methyl esters to the CAP18 proprietary blend. Aimco injected 6,506 gallons of CAP18 in August 2007; 1,884 gallons of CAP18 ME in February 2009; and 2,208 gallons of CAP18 ME and and 70.3 liters of BAC-9 in July 2013. BAC-9 is an enriched bioaugmentation culture capable of degrading chlorinated solvents.

Vinyl chloride concentrations increased significantly after CAP18 injections. Prior to the CAP18 injections in 2007, there was a low-concentration vinyl chloride plume at Michigan Plaza. For example, in groundwater monitoring well MMW-P-06, vinyl chloride increased from non-detect (ND) (less than 2 µg/L) in February 2007 to 15,600 µg/L in July 2011. Vinyl chloride concentrations in monitoring well MW-170D, located between Michigan Plaza and the Residential Area, increased from 105 µg/L in February 2007 to 230 µg/L in June 2008, following the first CAP18 injection.

According to IDEM, "the aggressive bioremediation effort has increased [vinyl chloride] concentrations over 1000 times in some locations and has changed the equilibrium of the aquifer." The Interstate Technology Regulatory Council (ITRC) documented that limitations on *in-situ* bioremediation included incomplete degradation and the buildup of cis-1,2-DCE or vinyl chloride, referred to as "stall," caused by insufficient microbial populations. Additionally, ITRC stated that "if receptors are located close to the source zone, they may be at risk of exposure to incomplete degradation products (e.g., VC [vinyl chloride]). As such, CAP18 and CAP18 ME injections appear to be the direct cause of increased vinyl chloride concentrations in groundwater.

In addition to creating high levels of vinyl chloride, another consequence of CAP18 injections was the generation of methane in groundwater and soil gas. At Michigan Plaza, methane has been detected in groundwater as high as 30,600 µg/L in monitoring well MMW-P-03D. According to the *Protocol for In-Situ Bioremedition of Chlorinated Solvents Using Edible Oil*, methane is a metabolic byproduct of edible oil injections where strongly reducing conditions exist.

PCE, TCE, DCE, and vinyl chloride concentrations remained high in groundwater monitoring wells on- and off-site. In May 2014, PCE was detected at a maximum concentration of 456 µg/L in on-site well MMW-P-11S. TCE was detected at a maximum concentration of 16.4 µg/L in off-site well MW-168S. cis-1,2-DCE was detected at a maximum concentration of 923 µg/L in on-site well MMW-P-10D. Vinyl chloride was detected at concentrations of 1,160 µg/L in on-site well MMW-P-06; 1,490 µg/L in on-site well MMW-P-10D; and as high as 269 µg/L in off-site well MMW-20-LA. Additionally, methane was detected in MMW-P-03D at 28,900 µg/L.

September 2011 – December 2011
On September 26, 2011, EPA approved an action memorandum to conduct a hydrogeologic assessment to fill data gaps identified in the 2011 Technical Memorandum. In November and December 2011, EPA activities included: reviewing historical reports of environmental investigations from the three potential release sources; drilling and collecting samples at five vertical aquifer sample (VAS) locations; installing 13 groundwater monitoring wells; gauging 151 groundwater monitoring wells; and sampling 68 groundwater monitoring wells, 4 private drinking water wells, and 5 soil borings. EPA installed 13 nested monitoring wells (MW-WES-01a to MW-WES-05c) to fill data gaps, including drilling monitoring wells west or southwest of Genuine Parts and Michigan Plaza along Holt Road; south of the Residential Area on West Vermont Street; and south of Allison Transmission along West Michigan Street. The hydrogeologic assessment was detailed in the *Technical Memorandum, Hydrogeological and Analytical Evaluation, West Vermont Site*.

The bullets below summarize the findings from EPA's investigation and subsequent review of information. Groundwater flow near the Residential Area was to the south-southwest and was possibly influenced by numerous factors including, but not limited to, pumping of residential wells.

- Chlorinated solvents were detected in groundwater at Allison Transmission. Contamination was not detected in monitoring wells between Allison Transmission and the Residential Area. It appeared that GM's remedial activities reduced chlorinated solvent concentrations and restricted groundwater plumes to the Allison Transmission property.
- TCE, DCE, and vinyl chloride were detected in several monitoring wells associated with Genuine Parts. Historically, a contamination plume migrated south from Genuine Parts toward the Residential Area. However, contamination was not detected in monitoring wells or borings between Genuine Parts and the Residential Area during the 2011 investigation.
- Contamination from Genuine Parts migrated south and co-mingled with a plume from Michigan Plaza that migrated north through the sanitary sewer onto the Maple Creek Village Apartment property. As such, it was impossible to distinguish between contamination to attribute it to Genuine Parts or Michigan Plaza.
- Vinyl chloride concentrations increased several orders of magnitude following aggressive bioremediation at Michigan Plaza. A large chlorinated solvent plume was present beneath Michigan Plaza; this plume extended off the Michigan Plaza property in all directions because of releases to leaky sanitary sewers, soil, and groundwater. During EPA's investigation, vinyl chloride was detected at a maximum concentration of 10,500 µg/L in monitoring well MMW-P-06 at the Michigan Plaza facility. DCE and vinyl chloride were detected in monitoring wells and borings between the Michigan Plaza property and the Residential Area.
- Vinyl chloride was detected in two samples collected from drinking water wells in the Residential Area in December 2011, at concentrations ranging from 4.8 to 26.1 µg/L.

EPA concluded that contamination from Allison Transmission had not affected the Residential Area. A co-mingled plume from Genuine Parts and Michigan Plaza contaminated drinking water wells in the Residential Area. Aggressive bioremediation at Michigan Plaza significantly increased vinyl chloride concentrations in groundwater.

January 2013

Soil Gas Assessment
EPA and START collected soil gas samples to assess if vapor intrusion posed a threat to nearby residents. EPA installed 15 soil gas wells between the Potentially Responsible Party (PRP) facilities and the Residential Area and within the Residential Area. Analytical results were compared to November 2011 Vapor Intrusion Screening Levels (VISL) for soil gas using a target risk for carcinogens of $1x10^{-4}$.

At sample location SG10 in the Residential Area, the PCE concentration was 330 parts per billion by volume (ppbv), which exceeded the VISL of 62 ppbv. TCE was also detected in SG10 at 310 ppbv, which exceeded the VISL of 4 ppbv.

Based on the analytical results and potential threat to human health, EPA requested that IDEM require the PRPs to sample sub-slab and indoor air at residential properties. As of August 2015, the PRPs have not sampled for vapor intrusion in the Residential Area.

Groundwater Assessment
In January 2013, EPA installed additional groundwater monitoring wells to better understand hydrogeology and contaminant migration from the PRP sites into the Residential Area. Aimco claimed that an intermediate till unit was a confining layer that prevented migration from their facility to the Residential Area.

EPA installed three nested well sets west of the Michigan Plaza property. Each well nest contained two groundwater monitoring wells, one screened in the sand directly above the till and one screened in the sand directly beneath the till (WES-6S/D, WES-8S/D, and WES-9S/D). EPA also installed a groundwater monitoring well (WES-7) screened beneath the till in the Residential Area near the most contaminated drinking water well.

During drilling activities, professional geologists examined soil cores from each boring. Above the till, EPA identified predominantly sand and gravel with some interbedded silt and clay. EPA identified the till unit at approximately 33 to 45 feet bgs. The till was ranged in thickness between 2 and 10 feet. Beneath the intermediate till unit, EPA identified a sand unit, ranging in thickness from 1 to 9 feet.

EPA and Aimco collected gaging data from EPA's monitoring wells. Groundwater gaging showed that hydraulic head in EPA's nested well sets varied by 0.02 to 0.27 feet.

Analytical data indicated that the lower sand unit was contaminated with vinyl chloride and cis-1,2-DCE. Vinyl chloride was detected in each of the seven new wells at concentrations ranging from 3.2 µg/L to 115 µg/L
in wells screened above and below the till unit. Additionally, cis-1,2-DCE was detected in groundwater monitoring wells WES-8S and WES-8D at concentrations of 28.3 and 298 µg/L, respectively.

A U.S. Geological Survey (USGS) Hydrologist, working under an Interagency Agreement to EPA, reviewed the West Vermont data and concluded that the till was a poor confining layer. The till was not laterally contiguous and was absent north of Michigan Plaza's Source Area C. Additionally, there was little difference in hydraulic head in wells screened above and below the till. The data showed upward and downward vertical movement across the till, which varied seasonally. Based on this information, EPA concluded that that the upper and lower sand units were in hydraulic communication and the till unit was a poor barrier to contaminant migration. This conclusion is further supported by high concentrations of cis-1,2-DCE and vinyl chloride in the sand beneath the till.

June 2013 – March 2014
EPA began monthly sampling of its groundwater monitoring well network in June 2013 in advance of a third

CAP18 injection at Michigan Plaza in July 2013. Historically, vinyl chloride concentrations increased several months after each injection. EPA sampled the wells to determine if there was an increased threat to residential drinking water wells from byproducts of the injection. EPA sampled wells for VOCs and methane.

During the period from June 2013 to March 2014, EPA detected vinyl chloride in 13 monitoring wells at a maximum concentration of 151 µg/L. EPA detected cis-1,2-DCE in six monitoring wells at concentrations as high as 298 µg/L. PCE was detected in monitoring well MW-WES-01C in June and October 2013 at 6 and 7.4 µg/L, respectively. Methane was detected in 13 monitoring wells at a maximum concentration of 551 µg/L in MW-WES-01C in November 2011. Methane and chlorinated solvent detections were in monitoring wells east or northeast of the Residential Area or within the Residential Area.

October - November 2014
EPA collected groundwater samples in October 2014 to provide data for a Documentation Record. EPA sampled concurrently with the PRPs to develop a site-wide synoptic picture of groundwater conditions. Additionally, EPA installed two background monitoring wells (MW-WVS-10 and MW-WVS-11) at Olin Park in November 2014, upgradient of both Genuine Parts and Michigan Plaza. EPA subsequently sampled both wells.

A 3-D model prepared for EPA show a small, deep plume migrating south from Genuine Parts and a high-concentration, laterally-extensive plume migrating in all directions from Michigan Plaza. The October 2014 data supports EPA’s previous conclusions that a co-mingled groundwater plume from Genuine Parts and Michigan Plaza is impacting residential drinking water wells. The model also shows a lack of monitoring wells deep in the aquifer at the Genuine Parts facility, Maple Creek Village Apartments, and the Michigan Plaza facility.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On May 1, 2015, EPA approved an action memorandum to conduct a time-critical removal action to connect residential properties to a municipal drinking water supply; properly abandon private drinking water wells; conduct sub-slab and indoor air sampling at residential properties; perform vapor mitigation, as necessary; and transport and dispose off-site any hazardous substances, pollutants and contaminants at a CERCLA-approved disposal facility in accordance with U.S. EPA's Off-Site Rule (40 Code of Federal Regulations [CFR] § 300.440).

2.1.2 Response Actions to Date

During the reporting period, EPA conducted the following activities:

- On June 15, 2015, EPA, IDEM, MCPHD, and Citizens Energy Group held a community meeting for residents of the Cossell-Vermont neighborhood to discuss upcoming removal actions;
- Worked with residents to gain access to their properties for water line installation, sampling, and well abandonment. As of August 19, 2015, EPA received access to 18 properties. Two properties were vacant lots. One property had a vacant house. Three properties had not granted access;
- EPA and the Emergency and Rapid Response Services (ERRS) contractor began working with Citizens Energy Group and their contractors on water-line design;
- The weeks of August 10th and 17th, EPA, ERRS, and START begin sampling residential properties for vapor intrusion. EPA sampled 15 homes.

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

Enforcement strategies are contained in a confidential Enforcement Addendum to the Action Memorandum.

2.1.4 Progress Metrics

Progress metrics include waste generated during assessment activities and previous removal actions.

Waste Stream	***Medium***	***Quantity***	***Manifest #***	***Treatment***	***Disposal***
Non-hazardous liquids	Liquid	2,310 gallons	008531239JJK	NA	Apollos Water
Non-hazardous liquids	Liquid	1,400 pounds	012065653JJK	NA	EQIS Transfer & Processing
Non-hazardous liquids	Liquid	2,500 pounds	098955	NA	EQIS Transfer & Processing
Non-hazardous liquids	Liquid	3,200 pounds	098552	NA	EQIS Transfer & Processing
Non-hazardous liquids	Liquid	165 gallons	014166998JJK	NA	Waste Management Twin Bridges RDF
Non-hazardous soil	Solid	1,150 pounds	083035	NA	EQIS Transfer & Processing

Non-hazardous soil	Solid	9,600 pounds	098692	NA	EQIS Transfer & Processing
Non-hazardous soil	Solid	5,600 pounds	014166998JJK	NA	Waste Management Twin Bridges RDF
Non-hazardous soil	Solid	13 drums	12630	NA	Southside Landfill

2.2 Planning Section

2.2.1 Anticipated Activities

The following sections discuss planned response activities and next steps.

2.2.1.1 Planned Response Activities

During the next reporting period, EPA is planning the following activities:

- Will attempt to gain access from the three homeowners that have not yet consented;
- Will continue to schedule sub-slab and indoor air sampling; and
- Will evaluate analytical results from vapor intrusion sampling. Once the results are received, EPA will determine if any further action is needed.

2.2.1.2 Next Steps

Water line installation is anticipated to begin in September or October.

2.2.2 Issues

EPA has not yet received access to three properties.

2.3 Logistics Section

Not applicable (NA)

2.4 Finance Section

2.4.1 Narrative

The costs below represent contractor costs for this removal action only. Past costs are not represented.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$860,000.00	$33,891.34	$826,108.66	96.06%
TAT/START	$20,000.00	$1,461.68	$18,538.32	92.69%
Intramural Costs				
Total Site Costs	$880,000.00	$35,353.02	$844,646.98	95.98%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

EPA's On-Scene Coordinator (OSC) is the overall safety officer. The START contractor has prepared a Health and Safety Plan (HASP) for the Site. Site personnel attend daily health and safety briefings.

2.5.2 Liaison Officer

NA

2.5.3 Information Officer

EPA prepared and mailed fact sheets to residents to notify them of field activities. EPA held a community meeting on June 15, 2015. Additionally, EPA and START canvassed the neighborhood in July to obtain access to properties.

3. Participating Entities

3.1 Unified Command

NA

3.2 Cooperating Agencies

IDEM
MCPHD
Citizens Energy Group

4. Personnel On Site

The following personnel were on-site during the reporting period:

Role	# Personnel
EPA OSC	2
START Contractor	1
ERRS Contractor	2

Various IDEM employees accompanied EPA the weeks of August 10th and 17th for training on sub-slab and indoor air sampling.

5. Definition of Terms

µg/L	micrograms per liter
AOI	Areas of Interest
AMMH	Aimco Michigan Meadows Holding
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
BHT	BHT Corporation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cis-1,2-DCE	cis-1,2-Dichloroethene
EPA	Environmental Protection Agency
ERRS	Emergency and Rapid Response Services
GM	General Motors
HASP	Health and Safety Plan
IDEM	Indiana Department of Environmental Management
ITRC	Interstate Technology Regulatory Council
MCL	Maximum Contaminant Level
MCPHD	Marion County Public Health Department
NA	Not applicable
ND	Not detected
OSC	On-Scene Coordinator
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated biphenyls
PCE	Tetrachloroethene
ppbv	parts per billion by volume
PRP	Potentially Responsible Parties
RAL	Removal Action Level
RCRA	Resource Conservation and Recovery Act
RML	Removal Management Level
START	Superfund Technical Assessment and Response Team
TCE	Trichloroethene
trans-1,2-DCE	trans-1,2-Dichloroethene
USGS	U.S. Geological Survey
VAS	Vertical aquifer sample
VC	Vinyl chloride
VISL	Vapor Intrusion Screening Levels
VOC	Volatile Organic Compounds
VRA	Voluntary Remediation Agreement
VRP	Voluntary Remediation Program

6. Additional sources of information

6.1 Internet location of additional information/report

Refer to www.epaosc.org/westvermont or http://epa.gov/region5/cleanup/cossellvermont/index.html for additional information.

6.2 Reporting Schedule

The OSC will submit reports monthly.

7. Situational Reference Materials

NA

POLREP #5 Last Updated 8/19/2015