

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Lapwai School District Dry Well - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region X

Subject: POLREP #3
Progress
Lapwai School District Dry Well
10LT
Lapwai, ID
Latitude: 46.3963900 Longitude: -116.8043200

To:
From: Greg Weigel, OSC
Date: 3/3/2014
Reporting Period:

1. Introduction

1.1 Background

Site Number:	10LT	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Assessment
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	2/24/2014	Start Date:	
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	Yes
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

CERCLA Removal Site Investigation.

1.1.2 Site Description

The Lapwai School District performs maintenance and repair of school buses and equipment at the Bus Transportation and Maintenance facility. The facility contains a building with two repair bays and an office. In June 2012, the EPA Region 10 Underground Injection Control (UIC) Program conducted an inspection at the facility. The inspection identified a floor drain in the bus bay and a drain from a shop sink that emptied into a nearby dry well located underneath an asphalt parking lot next to the building. The dry well was made of concrete blocks and was 4' in diameter and 6' deep, with about 4 feet of sludge in it.

A sample of the dry well contents showed elevated concentrations in the well of chlorinated solvents and other VOCs including tetrachloroethylene at 22.5 milligrams/kilogram (mg/Kg), trichloroethylene at 168 mg/Kg. On the same property within approximately 110 feet of the contaminated dry well is one of two public drinking water supply wells installed and operated by the Bureau of Indian Affairs (BIA). The BIA wells supply drinking water for approximately 300 people in Lapwai, including the Lapwai Elementary School that is adjacent to the school district bus maintenance facility. The BIA wells were sampled in January 2013 for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), including the contaminants found in the dry well. As of that time the BIA wells did not indicate any contamination associated with contaminants in the dry well.

On January 16, 2013 EPA Region 10 issued a CERCLA Unilateral Administrative Order (UAO) to the Lapwai School District, requiring removal of the dry well contents and the dry well itself, and cleanup of associated contaminated soils. Work per the UAO was completed by the School District on February 5, 2012. Sample analytical results reported on February 25, 2013 indicated that high levels of TCE, PCE and some other VOCs remained in soils beyond the 14.5 foot extent of excavation. Excavation depth was limited by proximity of the excavation pit to the bus garage building footing.

On March 7, 2013 the OSC, the Lapwai School District and their contractor held a teleconference to discuss data and a proposed investigative approach to evaluate remaining contamination at the site. EPA had proposed an investigative approach that would require installation of soil borings and monitoring wells. The School District had scoped the cost of doing such work and had determined that they did not have the financial resources to carry on the necessary work, and requested that EPA take over the lead for additional necessary work at the site.

1.1.2.1 Location

The site address is 204 District Road, Lapwai, Idaho. The site is adjacent to the Lapwai Elementary School. The site property is owned by the Lapwai School District and is within the Nez Perce Tribal Reservation.

1.1.2.2 Description of Threat

Chlorinated solvents (TCE and PCE) and other volatile organic compounds that contaminated the former dry well present a threat of vertical migration through vadose zone soils to groundwater. The contaminant that is most elevated above applicable screening levels is PCE. Penetration into the lower aquifer would contaminate a drinking water supply. TCE and PCE soil vapors can also migrate and present a threat of vapor intrusion into nearby occupied structures.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Analytical results of samples taken from the final excavation depth of 14.5 feet showed remaining PCE, TCE and other VOC contamination in unexcavated soils. In June, 2013 EPA mobilized to the site to perform a soil gas survey to assist with delineation of a possible chlorinated solvent groundwater plume within shallow unconfined groundwater. The survey included the installation of 49 passive shallow soil gas samplers deployed in a grid around the former dry well. The laboratory data showed elevated concentrations of PCE in soil vapors at the site, with the highest concentration at the former dry well and lower concentrations moving away in any direction. The data does not indicate a PCE contamination plume direction from the source. Within the footprint of PCE shallow soil vapors is the bus maintenance facility and offices, the BIA #1 municipal drinking water well, and a residential double-wide trailer that is on school district property but occupied privately by a family with children. The BIA #1 drinking water well is within approximately 110 feet of the former dry well. It was reportedly constructed in 1926 and there is no well log, nor is it known if the well is cased.

The results of the soil gas survey indicated to EPA the need to conduct additional assessment including soil boring and installation of monitoring wells necessary to characterize the threat of contaminant migration to the drinking water aquifer, and soil vapor intrusion survey to characterize potential indoor exposure of residents and building occupants within the PCE soil vapor footprint.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA and START contractor and subcontractor personnel mobilized to the site on February 24, 2013 to initiate soil boring and installation on monitoring wells.

2.1.2 Response Actions to Date

In early February, 2014 the START contractor's cultural resources subcontractor (Applied Archeological Resources, Inc.) completed an archeological assessment of the site. The assessment recommended that the proposed work has the potential to affect unidentified subsurface historic artifacts or properties and that a cultural resources monitor be present during site investigation activities that unearth or disturb ground at the site. The Nez Perce Tribe agreed to provide a qualified cultural resources monitor to be present during drilling activities.

On February 19 and 20 a geophysical survey subcontractor conducted electromagnetic and geophysical survey of the site area to identify utilities and underground features that would assist in determining bore hole locations.

On February 24 the EPA OSC, START contractor and drilling subcontractor (Cascade Drilling) mobilized to the site and scoped out bore hole locations and logistics. A local subcontractor erected a temporary fence around the site area to keep out children who frequently pass through the property.

From February 25 through 28 five bore holes were drilled and monitoring wells installed, with four arrayed around the former dry well, including between the former dry well and the BIA well #1, and one monitoring well located about 10 feet down gradient from the former dry well. Soil samples were analyzed using Region 10's mobile laboratory and field portable GC/MS equipment. Only traces of contamination were identified during field analysis. Confirmation samples were sent to a commercial laboratory for comprehensive analysis.

On March 1 the drilling subcontractor largely demobilized from the site, except for two personnel that remained developing the installed monitoring wells. START contractor initiated a soil vapor intrusion survey of one residence within the previous soil gas survey footprint of potential contamination. Analysis of air from the enclosed crawl space area of the double wide trailer did not show any PCE or TCE contamination above background ambient air concentrations. Because there was no detection in the crawl space above background, the OSC determined that there was not a likely completed contamination pathway from soil vapor to indoor air inside the residence, and no monitoring or sampling was done inside the residence. A summa cannister air sampler was set up to sample air over 24 hours from the crawl space that will be sent for laboratory confirmation analysis. Another summa cannister was set up to sample background ambient air.

The EPA OSC demobilized from the site afternoon of March 1. START contractor and subcontractor personnel were all demobilized by March 2.

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

Owner and operator of the facility is the Lapwai School District.

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

START contractor will return to the site in a couple weeks to collect groundwater samples from the five installed monitoring wells, and will sample sample the BIA drinking water wells. Final laboratory analytical results and a site investigation report will likely not be available until some time in April.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

After evaluating the data and site investigation report, EPA will meet with stakeholders, including the Nez Perce Tribe, Lapwai School District, Bureau of Indian Affairs and Indian Health Service, to discuss recommended next steps with respect to actions needed, if any, to protect the drinking water supply from contamination and/or removal, if needed, of remaining mobile contamination at the site necessary to protect public health.

2.2.2 Issues

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

3.1 Incident Command

EPA

3.2 Cooperating Agencies

Nez Perce Tribe

Lapwai School District

4. Personnel On Site

From 2/24/2014 through 3/1/2014:

EPA - up to 2

Nez Perce Tribe - 2

START contractor - 4

START drilling subcontractor - up to 5

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.