

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Southside Chattanooga Lead - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #23
Residential Removal Actions Continue
Southside Chattanooga Lead

Chattanooga, TN
Latitude: 35.0333793 Longitude: -85.3057271

To:
From: Perry Gaughan, On Scene Coordinator
Date: 9/18/2013
Reporting Period: Sept 1 through Sept 15th, 2013

1. Introduction

1.1 Background

Site Number:	B4J4	Contract Number:	
D.O. Number:		Action Memo Date:	8/19/2012
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	9/17/2012	Start Date:	9/24/2012
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Lead contaminated soil on 80 properties being removed as a time critical removal under CERCLA.

1.1.2 Site Description

The Tennessee Department of Environmental Conservation (TDEC) requested the EPA Region 4 Emergency Response and Removal Branch's (ERRB's) assistance after discovering that the lawns of one residence and potentially several more were contaminated with lead along Read Avenue near downtown Chattanooga. Initially, one resident along Read Avenue presented to the emergency room with severe fatigue and abdominal pain. Emergency room blood work indicated lead levels approaching 20 micrograms per deciliter (ug/dl) which alerted TDEC to conduct follow up assessments. TDEC requested assistance from ERRB to characterize the soil around the home and an initial assessment was conducted with SESD (Science and Ecosystem Support Division) Athens in which three homes were assessed as well as a public park and playground area at 1700 Mitchell Avenue. Ten samples were collected and two samples showed elevated lead levels exceeding 400 ppm.

1.1.2.1 Location

The Southside Chattanooga Lead Site is located along Read, Mitchell and Carr Avenues south of Main Street in Chattanooga, Hamilton County, Tennessee (Latitude: 35.0456, Longitude: -85.3097). The area is a blend of young, middle income couples who are renovating older constructed homes and low to middle income retired couples who have resided in the area for 20 plus years. The vast majority of homes were built in the early 1900's.

The Southside Chattanooga area is immediately adjacent to downtown Chattanooga and was prone to flooding during the early 1900's and prior to the development of damming and flood control measures by the Tennessee Valley Authority (TVA). Several of the homes along Read and Mitchell Avenues appear to have been built on 4-5 feet of clay fill.

1.1.2.2 Description of Threat

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In response to a request from TDEC, the EPA Region 4 ERRB with assistance from SESD Athens, conducted two follow up assessments of the Read and Mitchell Avenue area in January and April 2012. Of the 81 homes (162 front and back yards) assessed near downtown Chattanooga, 68 lawns (42 %) have lead

levels exceeding 400 ppm. Lead levels range from 400 – 4000 ppm. The 4000 ppm sample was collected from a lawn along the 1600 block of Read Ave and the sample contained very dark fine material, most likely a high concentration of bag-house dust.

In addition, the Battle Academy Elementary School which neighbors the site was sampled in mid June 2012. A 20' by 20' grid was laid over the school property and 140 grids were screened using X-ray fluorescence spectroscopy (XRF). No significant lead contamination was found and all lead levels were below 55 ppm.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Sept 2nd through Sept 6th

Monday, Sept 2nd, no operations due to Labor Day holiday.

On Tuesday, Sept 3rd, the crew obtained two rented dump trucks on site and made sure contaminated soil tarps were secure at the staging area. No additional work was completed this day due to lack of funding.

On Wednesday, Sept 4th, operations were cancelled because WRS had not received a task order modification to extend the project. The OSC made additional calls to ERRB finance manger, Monty Bates in an effort to facilitate the approved additional funding.

On Thursday, Sept 6th, the ERRs crew removed a small area of contaminated soil from the back yards of 1706 and 1708 Mitchell, and a small area of the front yard of 1706 Mitchell. These areas were backfilled with top soil and compacted. The fence along 1706/1708 Mitchell and backside of 1708 Mitchell was reconstructed. Once these tasks were completed, the crew began removal efforts at the front yard of 1612 Mitchell. This front yard was accessed via the front yard of 1608 MA, as access between the homes was way too narrow for heavy equipment. During removal of shrubs at the request of the owner, a large hornet's nest was observed. The crew stopped work to obtain bee spray, addressed the hornets, and continued removal efforts. Once the front yard was completed, the crew moved over to the front yard of 1610 MA. While working at the left side of the front yard, a yellow jacket's nest was observed in the ground under a small tree. The crew evacuated the area, obtained more bee spray and waited until the bees left the nest. Later the crew removed the comb of the nest to ensure the bees had vacated the area.

On Friday, Sept 7th, the ERRs crew began digging at the narrow strip of contaminated soil at the right side of 1612 Mitchell, as this structure is located at the corner of Mitchell Avenue and 17th Street adjacent to the public sidewalk. During hand dig work, one crewman cut a plastic gas line, located approximately four inches from ground surface. The area was immediately evacuated, the resident of the home was evacuated, the road was blocked off and all surrounding vehicles were turned off. The field foreman called the ERRS project manager, who called Chattanooga Gas (CG). While waiting for the gas company, the crew bent the plastic line in half, cutting off the release of gas from the plastic line. The cut end was also bent in half and taped with duct tape to stop any low flow release from the line. One representative from CG arrived first to assess the situation, followed by two other CG representatives to repair the line. CG representatives stated that the line was not to code, due to the type of line that was installed (~1 inch diameter plastic gas line) and the depth the gas line was located (four inches from ground surface). There was a metal gas pipe present where the plastic line had been attached to, and this should have been extended as a metal pipe connection to the home. The CG representatives said that the ERRS crew was not liable for the damage, due to the illegal gas line placement. The CG crewmen repaired the line and the ERRS crewmen dug into the ground to bury the line at the appropriate depth. The CG crewmen left and the ERRS crew continued their hand dig. Once the remaining contaminated material was removed, the area was backfilled with clay and top soil. This area will not receive grass per the home owner. Instead it will receive compost, as the owner cannot mow this area very well.

Sept 9th through Sept 13th 2013

On Monday, Sept 9th, the ERRs crew began removal efforts at the back yard of 1612 Mitchell. Dead wood, old buckets and other random items were removed before excavation started. The back yard was very small, and one side of the back yard had several trees. The area under the trees was only scraped to not damage the root system, and other areas were excavated down to depth. Once this area was addressed, the crew dug several holes between 1610 and 1608 Mitchell. START observed exceedances for lead in this location, primarily alongside 1608 Mitchell, built around 1905. In this location there were several readings for lead well over 1,000 ppm lead. START also screened the paint on the structure, but no readings for lead were detected. The crew began removing contaminated soils at this location and continued to the back alley to the east. During this day, ten pallets of sod was also delivered.

On Tuesday, Sept 10th, the crew placed sod at 1706 and 1708 Mitchell back yards, and a small exposed area at the front yard of 1706 Mitchell. Top soil was placed and compacted at 1610 and 1612 Mitchell. Once these tasks were completed, the crew continued removal at the front north side yard of 1610 Mitchell. The area adjacent to the limestone rock wall along Mitchell had to be hand dug. All excavated areas were backfilled and compacted. The soil at the adjacent front yard of 1608 Mitchell was observed to be a light tan soil with an apparent high clay content and low lead levels.

On Wednesday, Sept 11th, the crew hand dug a small area of contamination at the front yard of 1606 Mitchell. This location was challenging due to the close proximity to the bulging rock wall and an older,

large tree – several small and large roots. Once this location was addressed, the crew moved the excavation between 1606 and 1608 Mitchell. The majority of contamination was on the 1608 Mitchell side, where two parallel gas lines ran under a flower bed that extends along the home. The crew dug into this area by a foot before the pipelines were exposed. Material atop the gas lines was observed to be a light tan soil that may have been brought in by the owner. The crew continued work into the back yard of 1606 and 1608 Mitchell. Also observed at the back yard of 1608 Mitchell was an area of light tan soil off the paved patio. Beyond this location the material began to thin out and contaminated soil began to be present at the surface. The crew began removing soil from this point toward the alley way. During removal operations, the crew also had a few loads of clay delivered and spread while the last remaining bit of contaminated soil was removed.

On Thursday, Sept 12th, the crew continued to backfill at 1606 and 1608 Mitchell. Sod was delivered to the site at approximately 0945 hrs. Once a clay layer was graded at 1606 and 1608 Mitchell, a top soil layer was placed and compacted. The crew then began removal at 1602 Mitchell. 1604 Mitchell was skipped at the time due to the owner forgetting to put his three dogs inside his home. The sides of the 1602 MA back yard had mostly clay extending toward the front and a large tree at the right side, center where contamination began, so this area was only a scrape. Soil toward the alley way was dug further to depth. During backfill operations, the crew inadvertently cracked the paved driveway at this location. The crew will cut the driveway and re-cement the damaged area.

On Friday, Sept 13th, the crew placed sod at 1608, 1610 and 1612 Mitchell. Once all the sod had been placed, the crew continued backfill efforts at the back yard of 1602 Mitchell. Crush-n-run was added to the parking areas behind 1608 and 1610 Mitchell where the equipment had tracked for access to the properties.

START contractors continue to assist with technical support, daily operations, post-excavation confirmation sampling using X-ray fluorescence spectroscopy (Xrf) and air sampling during excavation and staging of contaminated soils.

The OSC continues to coordinate clean up efforts and assessments with Tenn Dept of Environmental Conservation (TDEC) and Tenn Dept of Health as well as Hamilton County health officials. TDEC and the OSC plan to update Chattanooga City Council during February 2013. A specific date has not been set by City Council.

The OSC, Tenn Dept of Health and Tenn Dept of Environmental Conservation (TDEC) are currently preparing an assessment strategy for Chattanooga City Council addressing future lead assessments in the downtown area.

2.1.2 Response Actions to Date

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

No information available at this time.

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 Unified Command

3.2 Cooperating Agencies

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4. Personnel On Site

No information available at this time.

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.