

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Birchly Court - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: POLREP #4
Final Pollution Report
Birchly Court
A26Q
West Deptford, NJ
Latitude: 39.8581790 Longitude: -75.1567840

To:
From: David Rosoff, OSC
Date: 4/6/2017
Reporting Period: 10/21/16-11/14/16

1. Introduction

1.1 Background

Site Number:	A26Q	Contract Number:	EP-S2-15-02
D.O. Number:	0042	Action Memo Date:	7/25/2016
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	8/15/2016	Start Date:	8/15/2016
Demob Date:	11/14/2016	Completion Date:	11/14/2016
CERCLIS ID:	NJN000202726	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Battery Casing Disposal in a residential neighborhood

1.1.2 Site Description

On March 14 2016, EPA received a request from the New Jersey Department of Environmental Protection (NJDEP) to evaluate the Site for a CERCLA removal action. Buried crushed battery casings were discovered at the Site during a sewer lateral repair in the front yard of 35 Birchly Court in West Deptford, New Jersey on November 19, 2015. Title search information indicated that the Matteo family owned the property on which the Birchly Court Site is located until 1986. The crushed battery casings found at the site are similar to that found on the Matteo Superfund Site located at 1692 Crown Point Road less than one mile away to the south west.

During EPA assessment activities in May 2016 crushed battery casing material was found buried in the front yard of 35 Birchly Court and in the backyard of 1411 Woodlane Drive. Lead concentrations associated with these battery casings and the comingled soil were significantly elevated on these two properties.

1.1.2.1 Location

The battery casing disposal area on 35 Birchly Court and 1411 Woodlane Drive is in a residential neighborhood. Both properties are less than one-quarter of an acre and are typical landscaped residential yards with lawns, plantings, and asphalt driveways. 1411 Woodlane has an in-ground pool in the back yard.

1.1.2.2 Description of Threat

Crushed battery casings containing significantly elevated concentrations of lead were found on the surface of the ground and buried in the yards of 35 Birchly Court and 1411 Woodlane Drive. TCLP testing of this material revealed that it is a RCRA characteristic hazardous waste. Some of the battery casing samples were also contaminated with PCBs. Soil in contact with the battery casings is also contaminated with lead. Concentrations of both lead and PCBs exceed EPA RMLs. Lead was detected as high as 68,000 ppm in samples sent to the laboratory. PCBs were detected as high as 32 ppm in laboratory results. Surface soil (0-1 inch bgs) lead contamination is as high as 7,000 ppm. Residents and visitors who utilize these residential yards could be exposed to these unacceptable levels of these hazardous substances.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In May 2016, EPA conducted soil sampling to determine the nature and extent of soil contamination on the 35 Birchly Court property and on adjacent residential properties at 33 and 37 Birchly Court, and 1411 Woodlane Drive. A total of 568 discrete soil samples were collected from more than 50 boring locations advanced on these four properties. Discrete soil samples were collected from the 0-1, 1-6, 6-12, 12-18, 18-24, 24-30, 30-36, 36-42, 42-48 inch depth intervals below ground surface (bgs). Samples from each interval sample were field screened using an x-ray fluorescence (XRF) elemental analyzer. Approximately 23 percent of the samples were submitted for laboratory confirmation (TAL metals analysis). The XRF and lab result statistical correlation was evaluated for lead for the full data set and the R-squared (R^2) value calculated is 0.87. Crushed battery casing material was found buried in the front yard of 35 Birchly Court and in the backyard of 1411 Woodlane Drive. Lead concentrations associated with these battery casings and the comingled soil were significantly elevated on these two properties. Lead concentrations in samples sent to the laboratory were as high as 68,000 parts per million (ppm) on 35 Birchly Court and as high as 25,000 ppm on 1411 Woodlane Drive.

Toxic Characteristic Leaching Procedure (TCLP) analysis of battery casing material revealed that it is a Resource Conservation and Recovery Act (RCRA) characteristic hazardous waste based on toxicity. Lead TCLP results were as high as 415 milligrams per liter (mg/l), well above the 5 mg/L threshold for hazardous waste. In addition, poly chlorinated biphenyl (PCB) analysis of the battery material indicates that the waste has been contaminated with PCBs (Aroclor 1254). PCB concentrations of up to 32 ppm were detected in battery casing samples from 35 Birchly Court.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The objective of this removal action was to address the threat from hazardous substances within buried waste and associated contaminated soils at the Site. The following response actions were implemented to achieve this objective:

- Developed and implement a Site health and safety plan, quality assurance project plan, and community air monitoring plan.
- Mobilized an Emergency and Rapid Response Services (ERRS) contractor to establish support zones, contaminant reduction zones, and exclusion zones. Initial work would include marking out any underground utilities and establishing excavation and staging areas.
- Established engineering controls to assure proper management of excavated materials (i.e. dust suppression, soil staging areas, erosion and sedimentation control).
- Conducted perimeter air monitoring in order to monitor Site management of excavated soil.
- Excavated and disposed of 1936.4 tons of hazardous waste and contaminated soil off-site.
- Restored excavated areas with certified clean backfill material. Backfill material met the NJDEP residential soil cleanup standards. The Site was re-landscaped and restored to original condition after backfill was placed. This included sodding, replacement of plants or trees removed during the excavation, replacement of hard surfaces removed or damaged during the work and replacement of utilities removed during the excavation.
- Temporary Relocation of residents was completed.

Excavation depths ranged from six inches to seven feet below ground surface (bgs). Post excavation sampling was conducted to document lead concentrations in the soil remaining. All off-site disposal facilities utilized are in compliance with the EPA Off-Site Rule.

2.1.2 Response Actions to Date

Excavation and backfilling on 1411 Woodlane Drive were complete as of August 24th. Sod was placed on the backfilled topsoil in the backyard on August 25th. Excavation and backfilling of the yard at 35 Birchly Court was complete as of October 21st. Battery waste was found to extend approximately 20 feet into the property at 37 Birchly Court mixed in with construction debris. This waste and associated contaminated soil was removed along with that of the contaminated material at 35 Birchly Court. Utilities at 35 Birchly

Court were restored at the end of October 2016 and the residents moved back in on October 31st. Restoration of the 35 and 37 Birchly Court yards (including landscaping and replacement of sidewalk and driveway concrete) was completed by November 4, 2016 and the Site was demobilized on November 14, 2016. November 14, 2016 marked the last day of removal action activities on the Site.

Further assessment work in Birchly Court indicated several other residential properties contained battery waste in the soil of the yards. One such property, 27 Birchly Court, has 2 young children living there. In order to reduce potential exposure to contaminated surface soil, EPA built a 20x50 foot play area using 4 inches of rubber mulch as flooring in early November 2016. This play area is a temporary measure until further remediation can occur at this property. Future remediation work at the Site will be handled by EPA's Remedial program.

On November 14, 2016 an ERRs subcontractor performed pressure washing services on the residences at 1411 Woodlane Drive, 37 Birchly Court, 35 Birchly Court and 33 Birchly Court.

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

104E letters have been sent to potentially responsible parties and parties of interest.

2.1.4 Progress Metrics (Final)

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
ID-27	Soil	550 tons		None	Gloucester County Muni LF
Hazardous	Soil	1386.4tons		Stabilization	GROWS LF

2.2 Planning Section

2.2.1 Anticipated Activities

None - the Removal Action is complete

2.2.1.1 Planned Response Activities

None at this time.

2.2.1.2 Next Steps

EPA has included the Birchly Court Site as part of the Matteo and Sons, Inc. NPL site located approximately half a mile away. As a result, EPA's Remedial Program is preparing a Remedial Investigation and Focused Feasibility Study to support a Record of Decision. The Site's new name is Matteo and Sons, Inc. Operable Unit 2 (formerly Birchly Court). The remediation of the Site will address all residential properties in the neighborhood impacted by battery casing waste and contaminated soil.

2.2.2 Issues

A temporary play area was added to the back yard at 27 Birchly Court when assessment data indicated young children were playing in lead contaminated surface soil in the back yard associated with battery waste. This play area is 20x50 and uses rubber chips to disassociate the children from the soil. This area will be looked at for permanent remediation during the Remedial Action.

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

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.