U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Villa Mobile Home Park Battery Dump Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #10**
Progress Report - Removal Phase 2 Complete
Villa Mobile Home Park Battery Dump Site
B4C3
Kannapolis, NC
Latitude: 35.4857860 Longitude: -80.6078920

To:
From: Alyssa Hughes, OSC
Date: 2/6/2013
Reporting Period: 1/28/13 - 2/5/13

1. Introduction

1.1 Background

Site Number:	B4C3	**Contract Number:**	EP-S4-07-04
D.O. Number:	155	**Action Memo Date:**	9/12/2012
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	10/29/2012	**Start Date:**	10/22/2012
Demob Date:		**Completion Date:**	
CERCLIS ID:	NCN000410983	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

TIme- Critical Removal Action

1.1.2 Site Description

A Removal Site Evaluation (RSE) was conducted in response to a request from the North Carolina Department of Environment and Natural Resources (DENR). The Villa Mobile Home Park Battery Dump Site (the Site) is isolated to a small portion of the Villa Mobile Home Park located in Kannapolis, Cabarrus County, North Carolina. The mobile home park is comprised of several parcels over 10 acres of land containing approximately 54 mobile homes. It is bound to the north and west by Verona Street, to the south by Irene Street and to the east by McLain Road. The primary area of concern is located to the southeast of the intersection of Verona and Venice Streets. The extent of the buried battery casings and associated contamination is unknown at this time, although estimated to be contained within three parcels of the property.

According to residents at the Villa Mobile Home Park, during periods of heavy precipitation, the current piped stream cannot contain the water flow and the stream overflows from the headwall located on the north side of Venice Street and flows overland to the open area approximately 100 feet downstream. This overland flow is estimated to be partially responsible for the erosion of the stream, causing the battery casings to be exposed.

1.1.2.1 Location

The Villa Mobile Home Park (the Site) is located near the intersection of Venice Street and Verona Street in Kannapolis, Cabarrus County, North Carolina. The geographic coordinates are 35.485786 ° N, -80.607892 ° W. The surrounding land use to the north, south and west is residential. The area to the east is wooded. Groundwater is expected to flow to the stream channel that transects the Site, which then flows east approximately 500 feet through piping where it discharges to Coldwater Creek, which ultimately flows into Lake Concord approximately ½ mile from the boundary of the mobile home park.

1.1.2.2 Description of Threat

Lead is a hazardous substance as listed in 40CFR302.4, and referred to in Section 101(14) of CERCLA, as amended. Human exposure to lead contaminated soil at the Site poses a significant threat to public health. Direct contact, ingestion and inhalation are the primary pathways of exposure. Continued exposure

to the soil contaminated with concentrations of lead exceeding the Removal Management Level (RML) of 400 ppm of lead may pose chronic health effects to persons living nearby. During a demographic survey conducted in July 2012, NCDENR IHSB discovered approximately 70 adults and 70 children reside in the mobile home park.
Analytical results reveal that elevated lead levels are present in surface soils and in the open channel creating a potential for downstream migration. Visual inspection indicates battery casings throughout the banks of the drainage ditch. The presence of battery chips in the vicinity of the McLain Road outfall supports the possibility of contaminant migration through the culvert due to high flow rate following periods of heavy precipitation. Lead concentrations in samples collected from the drainage ditch exceed the residential RML by an order of magnitude.

The neighboring City of Concord utilizes Lake Concord as a source for its municipal water supply. Potential contamination of this water body exists due to the possibility that lead could migrate via the piped channel into Coldwater Creek which ultimately discharges into Lake Concord. Coldwater Creek is designated WS-IV; CA (Water Supply-IV/Highly developed; Critical Area).

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July 2012, EPA ERRB, START contractor OTIE and DENR IHSB met on-site to perform X-Ray Fluorescent (XRF) screening and lab analysis of samples at several locations in the vicinity of the test pits excavated during the S&ME investigation. Ten locations were screened at the surface, near surface (0-6”), and subsurface (ranging from 1-3’ below ground surface). Of the ten locations, five samples were collected for lab analysis. Elevated lead concentrations for near surface screening ranged from 478 mg/kg to 5,940 mg/kg. Five out of seven locations where subsurface screening was performed indicate lead concentrations that exceed the residential RML for lead. Values range from 597 to 3,451 mg/kg of lead.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The Villa Mobile Home Park Battery Dump consists of an area containing exposed and buried battery casings. The area of the footprint is estimated to be approximately 20,000 square feet, with casings extending to various depths. The buried battery casings are exposed due to significant gully erosion. Several factors contribute to the severe erosion that has occurred in this open channel area between the two piped portions of the culvert. According to residents, during periods of heavy precipitation water flows in sheets across the property, which slopes down to the outfall at McLain Road. The culvert to the west of Venice Street is improperly sized which causes an increase in sheet flow and an increase in velocity of the water through the pipe which leads to substantial scouring in this open area. The continuing erosion increases the surface area of the exposed battery casings. For these reasons, the entire source of buried battery casings will be removed.

2.1.2 Response Actions to Date

On Monday, January 28th the steel above-ground storage tanks were picked up for recycling. The results of the two samples sent for TCLP analysis were returned non detection indicating that the material is clear for non hazardous waste disposal.

On Tuesday, January 29th delivery of backfill material resumed. During this reporting period a total of 3036 cubic yards of material was delivered to the Site.

On Wednesday, January 30th crews arrived on-site and backfill delivery continued in the morning. Operations were halted late morning due to impending precipitation. Crews repaired silt fencing, covered the stockpiled material with poly sheeting secured with sand bags, and prepared the Site for inclement weather. A narrow channel was excavated to facilitate the movement of stormwater across the Site and into the culvert that leads to the outfall at McLain Road. From January 30-31 approximately 1 inch of rainfall was measured in the vicinity of the Site.

On Thursday, January 31st disposal of the remaining stabilized non hazardous waste material commenced. Transportation and disposal was completed on Tuesday, February 5th. A total of 3577 tons of material were disposed of at the Ansel Landfill.

The table below tracks all of the material hauled off-site.

On February 4th and 5th the Site was restored to grade in preparation for the stream restoration project. Once the NCDENR lead stream design is implemented the final step will be to seed and mat the property.

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

The Villa Mobile Home Park was owned by the Wyrick Estate. Mr. Wyrick filed for bankruptcy in 2010 and shortly thereafter passed away. The property is now held by the bankruptcy court.

2.1.4 Progress Metrics

Manifest#	Date	Tonnage	TOTAL
25192	11/29/2012	23.74	23.74
25193	11/29/2012	16.1	39.84
25194	11/29/2012	18.98	58.82
25243	11/29/2012	22.52	81.34

25244	11/29/2012	17.62	98.96
25245	11/29/2012	16.75	115.71
25246	11/29/2012	18.05	133.76
25247	11/29/2012	18.59	152.35
25248	11/29/2012	19.01	171.36
25249	11/29/2012	21.81	193.17
25251	11/29/2012	20.27	213.44
25250	11/29/2012	19.16	212.33
25195	11/29/2012	23.77	236.1
25196	11/29/2012	25.58	261.68
25197	11/29/2012	26.62	288.3
25198	11/29/2012	22.76	311.06
25252	11/29/2012	17.84	328.9
25253	11/29/2012	20	348.9
25254	11/29/2012	23.31	372.21
25255	11/29/2012	18.1	390.31
25199	11/29/2012	22.82	413.13
25200	11/29/2012	23.51	436.64
25201	11/29/2012	23.24	459.88
25202	11/29/2012	22.59	482.47
25256	11/29/2012	20.59	503.06
25257	11/29/2012	19.4	522.46
25258	11/29/2012	23.7	546.16
25203	11/30/2012	24.64	591.07
25259	11/30/2012	19.14	610.21
25260	11/30/2012	17.33	627.54
25204	11/30/2012	21.34	648.88
25205	11/30/2012	22.91	671.79
25206	11/30/2012	23.22	695.01
25261	11/30/2012	19.18	714.19
25262	11/30/2012	17.61	731.8
25263	11/30/2012	22.07	753.87
25264	11/30/2012	19.4	773.27
26265	11/30/2012	16.1	789.37
25207	11/30/2012	18.03	807.4
25208	11/30/2012	23.95	831.35
25209	11/30/2012	22.85	854.2
25266	11/30/2012	18.03	872.23
25210	11/30/2012	23.5	895.73
25267	11/30/2012	21.23	916.96
25318	11/30/2012	19.37	936.33
25269	11/30/2012	19.78	956.11
25270	11/30/2012	20.17	976.28
25309	11/30/2012	19.52	995.8
25271	11/30/2012	23.03	1018.83
25272	11/30/2012	20.49	1039.32
25273	12/5/2012	18.35	1044.1
25274	12/5/2012	19.44	1063.54
25275	12/5/2012	20.12	1083.66
25276	12/5/2012	23.41	1107.07
25277	12/5/2012	25.27	1132.34
25278	12/5/2012	21.56	1153.9
25279	12/5/2012	21.1	1175
25211	12/5/2012	24.53	1199.53
25212	12/5/2012	25.91	1225.44
25280	12/5/2012	30.55	1255.99
25281	12/5/2012	28.33	1284.32
25282	12/5/2012	20.95	1305.27
25283	12/5/2012	22.82	1328.09
25284	12/5/2012	18.31	1346.4
25285	12/5/2012	20.9	1367.3
25286	12/5/2012	21.47	1388.77
25287	12/5/2012	20.56	1409.33
25288	12/5/2012	20.23	1429.56
25289	12/5/2012	21.79	1451.35
25290	12/5/2012	22.02	1473.37
25291	12/5/2012	21.05	1494.42
25213	12/5/2012	22.03	1516.45
25214	12/5/2012	20.47	1536.92
25215	12/5/2012	24.42	1561.34
25292	12/5/2012	18.03	1579.37
25293	12/5/2012	19.73	1599.1
25294	12/5/2012	22.3	1621.4
25295	12/5/2012	19.2	1640.6
25296	12/5/2012	19.2	1659.8

25297	12/5/2012	18.9	1678.7
25298	12/5/2012	22.32	1701.02
25299	12/5/2012	19.36	1720.38
25300	12/5/2012	20.33	1740.71
25307	12/5/2012	22.04	1762.75
25308	12/5/2012	23.48	1786.23
25488	12/5/2012	20.49	1806.72
25301	12/5/2012	19.66	1826.38
21488	12/5/2012	23.27	1849.65
25302	12/5/2012	19.97	1869.62
25303	12/6/2012	23.37	1892.99
25304	12/6/2012	20.52	1913.51
25305	12/6/2012	20.86	1934.37
25306	12/6/2012	24.11	1958.48
25311	12/6/2012	20.31	1978.79
25312	12/6/2012	21.56	2000.35
25313	12/6/2012	24.86	2025.21
25315	12/6/2012	23.67	2048.88
25314	1/31/2013	18.98	2067.86
25310	1/31/2013	20.46	2088.32
25316	1/31/2013	19.54	2107.86
25317	1/31/2013	20.63	2128.49
25369	1/31/2013	17.9	2146.39
25370	1/31/2013	17.92	2164.31
25371	1/31/2013	19.56	2183.87
25372	1/31/2013	19.56	2203.43
25373	1/31/2013	17.18	2220.61
25374	1/31/2013	18.58	2239.19
25216	1/31/2013	22.24	2261.43
25217	1/31/2013	20.56	2281.99
21489	1/31/2013	22.49	2304.48
25375	1/31/2013	16.97	2321.45
25376	1/31/2013	18.55	2340
25377	1/31/2013	18.48	2358.48
25378	1/31/2013	17.96	2376.44
25379	1/31/2013	21.62	2398.06
25380	1/31/2013	19.05	2417.11
25382	1/31/2013	16.84	2433.95
25381	1/31/2013	20.38	2454.33
25383	1/31/2013	19.47	2473.8
21490	1/31/2013	21.38	2495.18
21491	1/31/2013	24.82	2520
21492	1/31/2013	25.36	2545.36
25399	1/31/2013	16.62	2561.98
25398	1/31/2013	22.42	2584.4
25397	1/31/2013	18.26	2602.66
25396	1/31/2013	20.92	2623.58
25395	1/31/2013	18.58	2642.16
25394	1/31/2013	21.67	2663.83
25393	1/31/2013	20.03	2683.86
25392	1/31/2013	18.84	2702.7
25391	1/31/2013	17.6	2720.3
25390	1/31/2013	20.41	2740.71
25389	1/31/2013	19.38	2760.09
21493	1/31/2013	23.77	2783.86
21494	1/31/2013	24.75	2808.61
21495	1/31/2013	22.62	2831.23
25388	1/31/2013	19.38	2850.61
25387	1/31/2013	17.13	2867.74
25385	1/31/2013	19.97	2887.71
25386	1/31/2013	20.29	2908
25384	2/1/2013	19.32	2927.32
21496	2/1/2013	22.33	2949.65
21497	2/1/2013	30.1	2979.75
21426	2/1/2013	16.83	2996.58
21498	2/1/2013	20.99	3017.57
21427	2/1/2013	24.15	3041.72
21428	2/1/2013	21.71	3063.43
21429	2/1/2013	21.84	3085.27
21430	2/1/2013	22.57	3107.84
21431	2/1/2013	21.62	3129.46
21432	2/1/2013	20.39	3149.85
21433	2/1/2013	19.28	3169.13
21434	2/1/2013	20.06	3189.19
21435	2/1/2013	19.2	3208.39
21436	2/1/2013	21.12	3229.51

21437	2/1/2013	16.82	3246.33
21499	2/1/2013	19.25	3265.58
21500	2/1/2013	21.33	3286.91
21438	2/1/2013	21.29	3308.2
21439	2/1/2013	16.23	3324.43
21440	2/1/2013	21.44	3345.87
21441	2/1/2013	21.82	3367.69
21442	2/1/2013	21.51	3389.2
21443	2/1/2013	20.35	3409.55
21445	2/4/2013	22.29	3431.84
21444	2/4/2013	19.35	3451.19
21447	2/4/2013	22.42	3473.61
21446	2/4/2013	19.25	3492.86
21449	2/4/2013	19.72	3512.58
21448	2/4/2013	21.57	3534.15
21501	2/4/2013	21.31	3555.46
21502	2/5/2013	22.25	3577.71

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

The following removal activities are expected to take place:
- Excavate soil in which battery casings are observed
- Evaluate the need to remove soil from the drainage pathway exceeding the residential removal management level for lead of 400 ppm
- Provide temporary on-site storage of contaminated soils generated during removal activities
- Conduct in-situ and ex-situ screening and/or collect samples at the floor of the excavation
- Arrange for off-site transportation and disposal/treatment of hazardous substances according to applicable regulations

2.2.1.2 Next Steps

- Final restoration upon completion of NCDENR-lead stream design construction

2.2.2 Issues

Significant rainfall events continue to cause erosion on-site. This will likely continue until the new stormwater management design is implemented.

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

2.5.1 Safety Officer

N/A

2.5.2 Liaison Officer

N/A

2.5.3 Information Officer

The community involvement coordinator for this site is Angela Miller.

3. Participating Entities

DENR IHSB

4. Personnel On Site

EPA - 1
START - 1
ERRS - 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.