

**REMOVAL ACTION REPORT
FOR
TIME CRITICAL REMOVAL ACTION**

St. Joe Minerals Corp - Viburnum Site

December 19, 2018

received by EPA
DEC 20 2018

Prepared by:

 NewFields

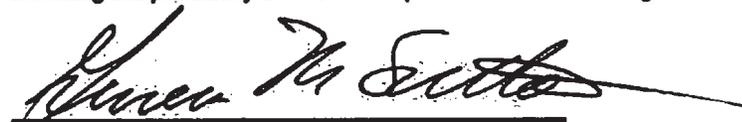
9400 Station Street, Ste 300

Lone Tree, Colorado 80124

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St. Joe Minerals Corp - Viburnum Site

Under penalty of law, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Genevieve M. Sutton

December 19, 2018

Prepared by:

 NewFields

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REMOVAL ACTION REPORT

Time Critical Removal Action St. Joe Minerals Corp – Viburnum Site

1.0 INTRODUCTION

This Removal Action Report has been prepared by NewFields on behalf of The Doe Run Resources Corporation (Doe Run). This report for the Time-Critical Removal Action (TCRA) has been prepared pursuant to an Administrative Order on Consent (AOC), U.S. Environmental Protection Agency (EPA) Docket No. CERCLA-07-2007-0013, effective date May 9, 2007 (referred herein as the TCRA AOC). This Removal Action Report is a required deliverable listed in the AOC for Time Critical Removal, VIII 24. This Removal Action Report summarizes total costs incurred in complying with the AOC, a listing of quantities and types of materials removed off-site or handled on site, a discussion of removal and disposal options considered for those materials, and a listing of the ultimate destination(s) of those materials, presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action.

Section 1.1 provides Site background and physical setting information. The TCRA objectives are described in Section 1.2. A summary of the program activities and results is provided in Section 2. Summary of project costs is contained in Section 3. References used in the preparation of this report are listed in Section 4.

1.1 Site Description

The Site is located in southeastern Missouri in Iron County, approximately 90 miles southwest of St. Louis. The Site (Figure 1) is defined in section 7(p) of the AOC and is graphically depicted in Appendix A of the TCRA AOC. The Site consists of residential properties and child high use areas that are defined in paragraph 7(p) of the AOC, “(1) within the City of Viburnum, adjacent to the City of Viburnum or within the cross-hatched area on the map attached as Appendix A to this Order; (2) adjacent to and within 200 feet of either edge of the haul roads from the City of Viburnum to the Viburnum No. 27, No. 29 and Casteel mines; (3) within 1,000 feet of the head frames of Viburnum No. 27, No. 29 and Casteel mines; and, (4) within the area within 1,000 feet from the edge of all Doe Run and St. Joe Minerals-Viburnum mine waste disposal areas (e.g. tailings piles).” The Site is located in what is commonly known as the New Lead Belt. The New Lead Belt began producing lead in the mid-1960s around Viburnum, Missouri and continues production to this day. Ore from the mines is crushed, milled, and processed in order to form lead concentrate. The lead concentrate was historically shipped by rail, truck, and/or barge to various smelters for further processing. Since 2013, all lead concentrate is trucked to barges and shipped overseas.

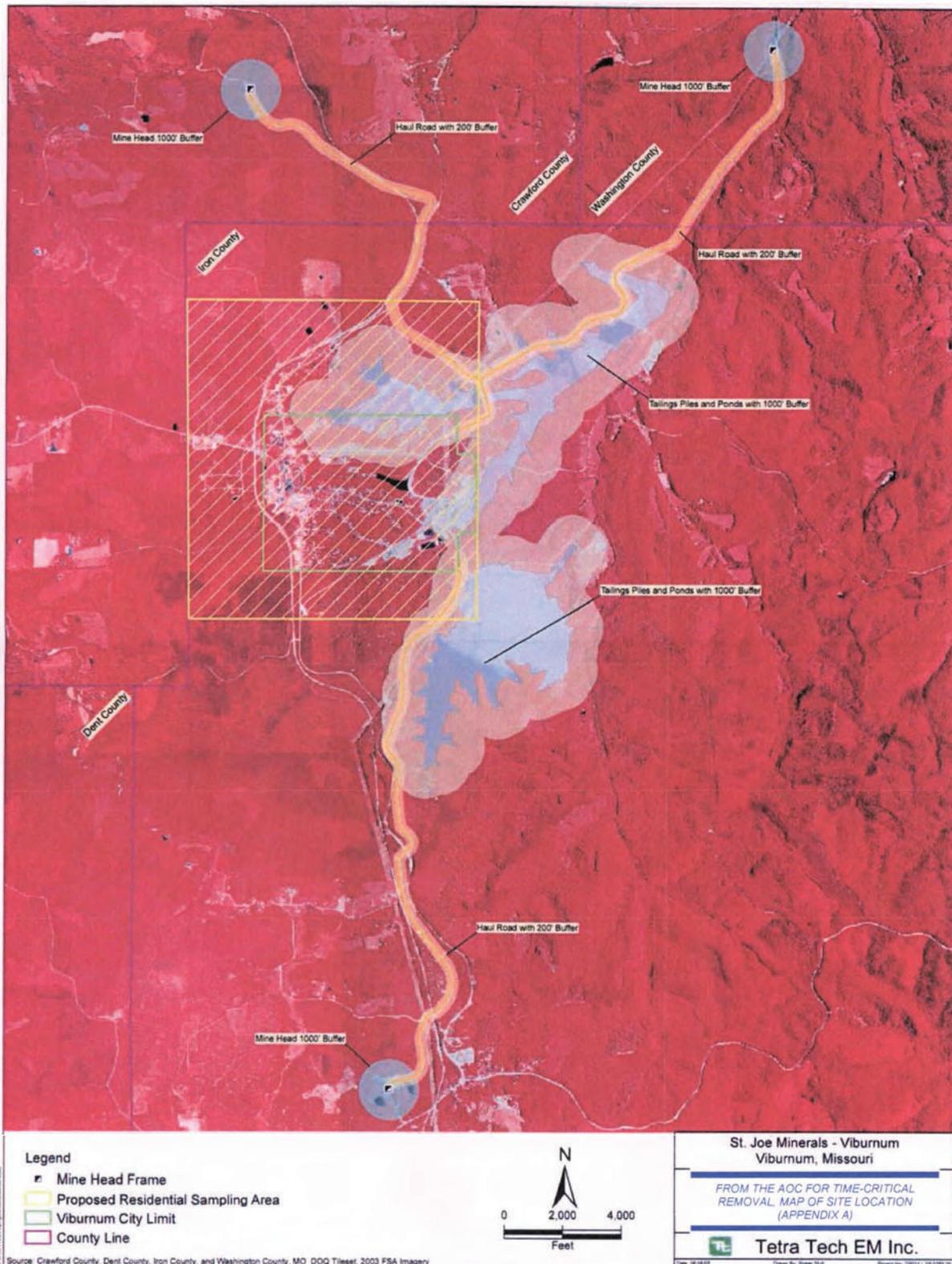


Figure 1 Site Location Map

In 2006, Doe Run conducted a Preliminary Assessment/Site Inspection (PA/SI) pursuant to the Administrative Order on Consent, EPA Docket No. CERCLA-07-2005-0339, effective date September 29, 2005 (referred herein as the PA/SI AOC). The objective of the PA/SI was to identify and characterize all lead-contaminated residential properties and child high use areas within the Site. Of the 301 yards sampled, approximately 23 percent of yards had potential hot spots with soil lead concentrations above 1,200 ppm whereas only 8 percent of yards had one or more yard quadrants with a soil lead concentration greater than 1,200 ppm. Soil lead concentrations above 1,200 ppm were found in yard quadrants and in identified areas of the yard (potential hot spots like driveways and gravel areas, drip zones and play areas). Distribution of the elevated lead concentration indicates that the lead tends to be localized within the yards.

A high visual correlation appears to exist between yard quadrants that contain driveways (gravel or paved) and the highest quadrant lead concentration in the yard. Approximately 57% of the yards where a driveway could be identified within a quadrant, the quadrant containing the driveway had the highest lead concentration. Due to this correlation, it was suspected that the elevated concentrations in the yard quadrant containing the gravel driveway, or which had previously contained a gravel driveway, might be due to gravel from the driveway eroding into the yard. Therefore, it was suspected that the elevated concentrations could be isolated to the portion of the yard nearest the driveway (within 3 to 5 feet) and not spread throughout the full yard quadrant.

1.2 Project Objectives

The objectives of this removal action, as specified in the SOW, are as follows.

1. "To conduct certain sampling activities at any previously unsampled residential property or child high-use area within the Site as defined by the AOC and identified on Appendix A to the AOC. This obligation to sample shall continue until final demobilization, as approved in writing by the On-scene Coordinator, of excavation equipment from the Site. The On-scene Coordinator shall provide his written approval of final demobilization in a timely manner. The sampling activities will be conducted consistent with applicable portions of EPA's Superfund Lead-Contaminated Residential Sites Handbook, OSWER 9285.7-50, August 2003 and the approved 'Workplan for Removal Preliminary Assessment and Site Inspection, St. Joe Minerals Corp – Viburnum Site,' NewFields, November 10, 2005.
2. "To provide a surface soil replacement program for any residential property or child high use area within the Site and contaminated as a result of mining related activities. The Respondent [Doe Run] will also provide a surface soil replacement program for properties or areas sampled pursuant to Objective No. 1 and where lead concentrations exceed 1,200 parts per million (ppm) and such lead concentrations are the result of mining related activities. The properties or areas to be remediated are those with lead concentrations in soil exceeding 1,200 ppm or those properties greater than 400 ppm where a child with an Elevated Blood Level (EBL) resides, as identified during the Preliminary Assessment/Site Inspection (PA/SI) conducted by Respondent or identified pursuant to Task 1 of the SOW.

The surface soil replacement activities will be conducted consistent with applicable portions of EPA's Superfund Lead-Contaminated Residential Sites Handbook, OSWER 9285.7-50, August 2003.

3. "To provide High Efficiency Particulate Air (HEPA) household vacuums to each home at the Site where the soils in any portion of the yard exceeded 1,200 ppm and removal activities are required under the Order to address the soil contamination.
4. "When allowed by the landowner, to conduct indoor cleaning of home interiors at each home at the Site where the soils in any portion of the yard exceeded 1,200 ppm and removal activities are required under the Order to address the soil contamination."

1.3 Definitions

The following definitions are provided to reduce redundancy and to ensure the reader has a clear understanding of the terms used in this report.

Best efforts – Doe Run will use their "best efforts" to obtain permission from the homeowner and resident for soil removal/soil replacement and interior dust cleaning. Best efforts are defined in Paragraph 35 of Section IX of the TCRA AOC as an EPA-approved letter requesting access to permit Doe Run and EPA, and their authorized representatives, to the property to conduct the soil removal, soil replacement, and interior dust cleaning activities required under the TCRA AOC and an initial visit and at least two follow-up visits, if necessary. The EPA-approved access letter were addressed to the property owner (and to resident if different than owner) and described the process and purpose of the removal action, the reason access is needed, and a telephone contact number. All follow up visits were to be conducted during weekday evening hours between 6 and 8 pm. Details of documentation are listed in Paragraph 29 of the TCRA AOC. Other details of "best efforts" may be found in Paragraph 29 of the TCRA AOC.

Child high use area (CHUA) – A play and recreational area frequented by children and not part of a residential yard (e.g., apartment or school playground, or daycare yard).

EBL child – a child under 72 months of age whose blood lead concentration is elevated, greater than or equal to 10 µg/dL. Evidence of elevated blood level is a referral from a county or state health department.

Final Demobilization – When all excavation equipment has been moved from the Site and the end of field activities has been approved in writing by the EPA On-scene Coordinator.

Non-time-critical (NTC) yard – A yard within the Response Area which contains yard soil or gravel with lead concentrations less than 1,200 ppm and greater than 400 ppm and no child aged 72 months or younger is in residence.

Priority # yard – the rank in priority for which a yard will be remediated in the TCRA (see Section 2.0) – lower the number (#) the higher the priority.

Response Area – residences and child high use areas located within the Site identified on Appendix A of the TCRA AOC (see Appendix 1 of the TCRA Work Plan) where (a) Doe Run has information prior to Final Demobilization that lead levels in soils exceed 1,200 ppm or (b) EPA provides written notice to Doe Run prior to Final Demobilization that access for soil sampling has been granted by the owner or current resident of the residence or child high use area. In the case of (b) above, such residences or child high use areas shall become subject to soil removal under the TCRA AOC only if sampling shows that the yard soils have lead concentrations exceeding 1,200 ppm. The graphic reproduction of the Response Area has been reproduced as Figure 1 of this report.

Time Critical yard – yards that qualify for remediation as part of the TCRA.

2.0 SUMMARY OF PROGRAM ACTIVITIES AND RESULTS

Those residences or child high use areas within the Site that are believed to be contaminated as a result of mining activities and with lead concentrations in soil or gravel exceeding 1,200 parts per million (ppm) are subject to this TCRA. Most of these residences were identified in the PA/SI conducted by Doe Run in 2006 (NewFields 2006). EPA also required Doe Run to begin to address some yards with lead concentrations in soil that are less than 1,200 ppm but exceed 400 ppm that have a child less than 72 months in age in residence.

In accordance with the TCRA AOC/SOW, yard soil replacement was to be conducted using the following prioritization:

- Priority 1 Residence where EBL child under 72 months of age resides and a soil area exceeds 400 ppm lead
- Priority 2 Residence where child under 72 months of age resides and a yard quadrant soil area exceeds 1,200 ppm lead
- Priority 3 All other residences or child high use area with a soil area exceeding 1,200 ppm lead
- Priority 4 Residence where child under 72 months of age resides and no yard quadrant soil area exceeds 1,200 ppm lead (but soil concentrations do exceed 400 ppm lead).

All other yards in the Response Area known to exceed 400 ppm lead but do not qualify as a Time Critical yard are referred to as NTC yards.

The TCRA field activities began upon receipt of EPA's approval of the TCRA Work Plan in August 2007 and continued through the last house cleaning in February 2009 and one additional yard removal in August 2009. Additional activities were conducted in 2017 with the final placement of the TCRA yard soils in the Repository and the addition of two additional yard removals in 2018. Some activities were conducted or were started prior to the TCRA Work Plan's approval and with EPA's prior knowledge and/or approval. TCRA activities conducted include:

- Characterization sampling of additional yards located within the Response Area
- Identification of residences with children 72 months or younger to facilitate yard prioritization
- Yard soil/gravel removal at qualifying yards
- Indoor dust cleaning.

The distribution of HEPA vacuum cleaners, one of the project objectives, was conducted during 2006, in anticipation of the TCRA AOC and the resulting removal action. Additional HEPA vacuums were provided during the removal activities, if the homeowner/resident did not receive a vacuum in 2006.

2.1 Additional Yard Soil Characterization

Pursuant to Task 1 of the SOW and prior to Final Demobilization of equipment as set forth in Objective 1 of the SOW, Doe Run was to characterize the lead concentration in surface soils/gravels of residential yards within the Site that had not been sampled during the PA/SI and where residents or owners had subsequently granted access. Four yards were identified for sampling during the TCRA. Two of the four yards were sampled prior to the TCRA Work Plan approval, but all sampling activities were conducted in accordance with the approved *Work Plan for Removal Preliminary Assessment and Site Inspection, St. Joe Minerals Corp – Viburnum Site* (NewFields 2005). Sampling results of the four yards are included in Appendix A.

One of the four sampled yards was the grandparents' home of an identified EBL child and was not within the Response Area. Doe Run elected to sample this yard [REDACTED], even though it did not qualify as part of the TCRA, as the family reported that the EBL child spent more than 32 hours a week at the residence. As lead levels in the yard soil were not above 400 ppm, no removal action was taken.

The other two yards' homeowners had refused sampling during the PA/SI but provided access during the TCRA. One of the two Response Area yards qualified for inclusion in the TCRA as a Priority 4 yard. The other yard contained lead concentrations above 400 ppm but below 1200 ppm but children less than 72 months of age did not reside at the residence; and therefore, the yard was classified as a NTC yard that will be addressed later in the non-time-critical removal action for the Site.

On February 22, 2018, EPA notified Doe Run of a yard in the St. Joe Trailer Court, sampled by EPA in late 2017, containing lead concentrations in the driveway gravel that would qualify for inclusion in the TCRA.

2.2 Identification of Residences with Children Eligible for Removal Action

Pursuant to Task 6 of the SOW, Doe Run attempted to identify all residences within the Site boundaries where children aged 72 months or younger resided. If a yard had already qualified for the TCRA but the status of children was unknown, Doe Run attempted to contact the resident to establish the presence and age of children at the qualifying yards to ensure the priority of the soil/gravel removal activities (Priority 2 versus Priority 3). Other yards identified during the PA/SI with soil lead concentrations greater than 400 ppm and where the status of children unknown were addressed. Doe Run attempted to contact the resident, pursuant to the best effort requirements, to establish the presence and age of children.

On August 13, 2007, the TCRA Work Plan approval date, 23 yards were known via PA/SI 2006 contact records to have children aged 72 months or younger in residence and had soil lead concentrations above 400 ppm. According to the PA/SI 2006 contact records, the status of children presence was unknown for thirteen yards within the Response Area. Of the thirteen yards, six of the yards had soil concentration greater than 1,200 ppm, which meant the yard was a Priority 2 yard if children aged 72 months or younger were present. Of these six yards, three were classified as Priority 2 and the other three were classified as Priority 3.

Doe Run contacted the residents at the other seven yards to determine the presence and age of any children. Four yards were ranked as Time-Critical Priority 4 yards, and the other three yards were classified as NTC yards.

All homeowners of yards ranked as Priority 3 yards were also contacted during the removal access process to ensure that no qualifying child had taken up residence prior to soil removal and that the yard then required re-ranking. Through this process one yard was re-ranked from a Priority 2 to Priority 3, and five yards were re-ranked from Priority 3 to Priority 2.

Doe Run also notified all the residents of the City of Viburnum that any residence with a child aged 72 months or younger may participate in the Removal Action dependent on soil lead concentration. These notifications were made through a public notice posted at the Viburnum City Hall and newspaper advertisements.

2.3 Soil Removal

All quadrants and other parts of the yard or child high use area that are characterized by a soil sample with a lead concentration greater than 1,200 ppm qualified for removal. In addition, if a Time Critical yard had other areas of the yard that lead levels in soil/gravel exceeded 400 ppm,

then these areas were also addressed. However, if the only area within the Time Critical yard that exceeded 1,200 ppm was a gravel area associated with a driveway, the soil areas less than 1,200 ppm will be addressed under a non-time-critical order (these yards are ranked Priority 3 Driveway only [TC-3-DW]). Doe Run also conducted soil replacement in any Priority 4 yard where soil lead levels were greater than 400 ppm and Doe Run was aware, through notification or activities described in Section 2.2, that a child 72 months of age or younger resides.

Appendix B contains the documentation of the TCRA yard removals and refusals. The documentation includes a summary of all activities pertaining to each TCRA yard and for each yard: contact logs for yards in which the homeowners refused access verbally; signed access agreements or refusals; individual yard work plan, subsurface soil data forms recording lead concentrations at the bottom of the excavation and barrier presence, if any; access status for indoor dust cleaning, and pre & post interior dust cleaning inspection sheet and completion form.

2.3.1 Yard Priority

The TCRA Work Plan listed targeted yards by priority as shown in Table 1. Over the course of the TCRA, as well as the time between Work Plan submittal and approval, some yards were re-prioritized after results of the child survey (see Section 2.2) and information from the county health departments regarding EBL children. Notification that three yards had EBL children changed the priority of the yards to Priority 1 from a Priority 3-DW only, a Priority 4, and a NTC yard. All Priority 1 yards were identified by the time of Work Plan Final Approval (August 13, 2007).

Table 1 Property Removal Prioritization

Priority	Number of Yards Identified in the Work Plan	Number of Yards at the end of the Removal Action				
		Total	Removed	Action by Homeowner	Refused Action	
1	1	4	4		0	
2	Known Children	15-21 ⁽¹⁾	22	21 ⁽²⁾		1 ⁽²⁾
	Child High Use Area ⁽³⁾	2	2	2		0
3	Entire Yard	42 ⁽⁴⁾	40	36		4
	Driveway Only ⁽⁴⁾	22 ⁽⁶⁾	23	23		0
4	Known Children	TBD ⁽⁷⁾	27	23	1 ⁽⁸⁾	3
	Child High Use Area ⁽³⁾	1	1	1		0
Total	89+	119	110	1	8	

Notes:

- (1) Six yards were identified in the Work Plan as tentatively Priority 2 until the absence of children could be confirmed. Of those six yards, three were finalized as Priority 2 and other three were Priority 3, with one as a driveway only.
- (2) One Priority 2 yard was originally refused in April 2008, in 2018 a new owner inquired about the yard status and yard removal was included as part of the TCRA though no children were associated in 2018 with the yard, priority ranking was not revised.
- (3) Priority 2 Child High Use Areas (CHUAs) are the South Ballfield and the City Park. Priority 4 CHUA is Viburnum Lower Elementary School. The soils and gravels within the CHUAs were removed prior to the approval of the TCRA Work Plan
- (4) Five yards were reclassified as Priority 2, upon identification of children in residence during the removal action.
- (5) Other areas within the yard may be addressed under the Non-Time Critical Removal Action as the only time-critical area (≥ 1200 ppm lead) is a driveway and no children have been identified in residence.
- (6) One yard was later reclassified as Priority 1, upon identification of an EBL child in residence
- (7) No specific number was identified in the TCRA Work Plan.
- (8) Property homeowner had taken action prior to TCRA. The yard was resampled and soil lead in all areas of the yard with soil lead concentrations less than 400ppm. The yard was reclassified as "No Action".

The yard identified in Table 1 as “Action by Homeowner” is actually a reclassification to “No Action” as the homeowner’s own actions have remediated the yard. The homeowner of a Priority 4 yard (VS06127) had resodded the yard after the PA/SI sampling and prior to the TCRA and, therefore, refused the removal action. The yard was resampled and was found to have all areas of the yard with soil lead concentrations less than 400 ppm and therefore does not meet the criteria for the removal action. The resampling results are included in Appendix A.

As discussed in Section 2.1, one additional yard or driveway in the St. Joe Trailer Court was added to the TCRA in early 2018. While arranging for removal of the driveway rock, the new owners of one of the TCRA properties that had not granted access prior to 2009, contacted Doe Run inquiring about their yard (VS06109). This yard was also addressed in 2018. These two yards were remediated in accordance with the recently EPA-approved “Work Plan for Non-Time-Critical Removal Action, Viburnum Trend Lead Haul Roads Site” (NewFields 2017).

2.3.2 Pre-Work Plan Approval Removal Activities

Doe Run expedited, after notifying EPA, the soil removal activities for all CHUAs and any identified Priority 1 yards (four yards), prior to the approval of the Work Plan. The affected areas of the City Park (VS06287) and the city ball fields (VS06286S) were removed and replaced in April 2006 prior to the busy summer season. Removal action at the Viburnum Elementary School (VS06288), ranked as a Priority 4, was conducted in July 2007, prior to school starting. Removal action at one of the Priority 1 yards was conducted in July 2007 and a second was conducted in September 2007 due to homeowner requested delays. The other two Priority 1 yards were in the Abney Trailer Court, where removal action in August 2007 included all yards in the trailer court.

Doe Run requested that EPA allow the removal of all yard soil/gravel areas within the Abney Trailer Court, regardless of priority, prior to the approval of the Work Plan. The Abney Trailer Court was selected for early removal as 71 percent of the yards were time-critical yards based on yard soil/gravel concentrations only (greater than 1,200 ppm lead) and 86 percent of the trailer court yards were time critical yards when the presence of children are also considered (two Priority 1, four Priority 2, five Priority 3, and one Priority 4). Over 50 percent of the trailer court lots had children less than 72 months of age in residence. Not only were the yard soil and in-yard gravel areas removed during the removal action but the common driveway or gravel road was also removed and replaced.

All yard removals conducted prior to Work Plan approval were conducted in accordance with the procedures specified in the Work Plan. These procedures are discussed in greater detail in Section 2.3.4. Documentation of all soil/gravel removal actions is included in Appendix B.

2.3.3 Access to Remove

As part of Doe Run's best efforts to obtain permission to conduct soil removal, letters to most of the homeowners of yards qualifying for the TCRA were sent on April 9, 2007, or hand-delivered on April 16, 2007. Attached to each access letter was a general soil removal work plan that noted areas of the yard that would be removed. EPA approved the TCRA Work Plan on August 13, 2007. As the final Work Plan had added the drip zone areas as a qualifying sample for TCRA inclusion, letters providing a revised "work to be performed" were sent on August 16, 2007, to all homeowners which had already granted access. Doe Run conducted a second access letter campaign in August 2007. Letters were sent on August 16, 2007, to any Priority 2 and 3 yards that had not received letters in April 2007 (these yards now qualified for the TCRA due to the inclusion of the drip zone concentration). Letters were sent on August 17, 2007, to all Priority 4 yards that could be identified using the PA/SI database. The task of identifying other Priority 4 yards (see Section 2.2) began upon approval of the Work Plan. Letters requesting access to remove yard soil were sent to these Priority 4 homeowners upon identification. All Priority 1 homes were contacted immediately upon identification and typically the access letter was hand delivered. Doe Run received access from all four of the Priority 1 yards prior to the approval of the TCRA Work Plan.

Doe Run used its best efforts, as defined in Paragraph 29 of the AOC for Time-Critical Removal, to obtain access for soil removal. After the August mailings, door-to-door canvassing began to acquire sampling access from homeowners who had yet to respond to the access requests. If no one was home when initial contact was attempted, a copy of the original mailing was left. The letter contained a name and local telephone number to call regarding the removal. Two follow-up contact attempts, if needed, were made during weekday evening hours (6-8 pm) with additional follow-up contact attempts made during the day (prior to 6 pm). As a result of these efforts, only 11 "best effort letters" (letter to homeowner for which access for soil removal was not obtained) were required, and six letters were to homeowners that would not respond to contact attempts (the other five letters were to homeowners who had refused soil removal). Three homeowners of the six "no response" yards did contact Doe Run (one in immediate response to the best effort letter, one in response to the 2009 community outreach letter, and one in 2018 after property transfer), and the removal action was conducted at these three yards.

2.3.4 Soil / Gravel Removal Activities

For all yards qualifying as a time-critical yard (Priority 1 through 4), with the exception of yards ranked Priority 3 Driveway Only, soil with a lead concentration greater than 400 ppm were excavated to a depth of 12 inches and replaced with clean fill. For yards ranked Priority 3 Driveway Only, the gravel or driveway area was excavated to a depth of 12 inches and replaced with clean fill. If yard soil lead concentrations at a depth of 12 inches exceeded 1,200 ppm, plastic construction barrier was placed prior to backfilling the area with clean fill. Where gravel was replaced and the gravel was deeper than one (1) foot and greater than 1,200 ppm lead at the

bottom of the excavation, the excavation continued until all of the gravel and associated fine material was removed prior to receiving clean fill.

Clean fill, obtained from the Doe Run West Fork property, was brought in to bring the excavated areas to approximate pre-excavation grade. The backfill material was assayed by XRF (x-ray fluorescence meter) periodically during excavation to ensure that the lead concentration was well below the 240 ppm lead limit (see Appendix C for initial characterization sampling of the borrow site). Backfilled areas were seeded with lawn grass and covered with straw. Trees or large shrubs were not removed. Some small trees and shrubs were removed and not replaced, on owner's request. It was the responsibility of the property owner to water and care for the lawn after planting, though Doe Run paid for the extra watering required for lawn establishment for the first two months after seeding.

Excavated soils were transported in covered trucks to the Doe Run owned soil repository at the tailings impoundment at Mine 28 where they were used to cap exposed tailings and improve revegetation efforts as part of the closure plan for the metallic mineral processing wastes. Doe Run placed approximately 17,000 cubic yards of yard soils/gravels in the Viburnum repository. Placement was completed on January 10, 2018. Two additional yards were remediated in 2018 and the resulting excavated yard soils/gravels were placed in the repository in July 2018. All excavated materials were characterized to determine pretreatment with phosphate requirements prior to repository placement. Appendix D provides the toxicity leaching characterization procedure (TCLP) testing required for pretreatment and post treatment characterization.

Of the 116 residential yards that qualified for removal, 111 were remediated (one by homeowner) and 8 homeowners refused soil removal. Of the eight yards that refused removal action, three were verbal refusals and three did not respond to any of the access attempts. One homeowner (VS06278) requested additional work not required under the TCRA Work Plan and when the additional work was denied, refused. Another homeowner provided access for removal but refused to move old cars to allow the work to be performed. Appendix B presents a list of the yards qualifying for removal and the remediation status as of project closure.

At one Priority 3-Driveway Only yard (VS06175), the homeowner put down over the entire yard (including the drip zone) one foot of clean fill in conjunction with the Doe-Run remediation of his driveway. As the drip zone would have qualified the yard as an NTC yard and therefore could lead to a future removal under a non-time critical removal action. Doe Run provided barrier material to the homeowner for the drip zone area. This yard is now classified as "No Action" for any NTC removal action.

2.4 Indoor Dust Cleaning

Prior to initiating the indoor dust cleaning, Doe Run verified that the resident or owner had granted permission for indoor dust cleaning and that soil removal/replacement activities were completed. The timing and cleaning process for the indoor dust cleaning was coordinated with the residents to reduce any inconvenience to them and to minimize the actions required by them. Indoor dust cleaning was planned to be conducted within 30 days after the excavated yard area(s) were reseeded but typically contacting and obtaining permission to clean and scheduling the cleaning took much longer than 30 days. Doe Run conducted its best efforts to obtain permission from each residence to conduct indoor dust cleaning at each Time Critical yard that was remediated.

The indoor dust cleaning and post-cleaning sampling was conducted in accordance with the Work Plan for Time-Critical Removal Action (NewFields 2007). All vacuuming was conducted using a HEPA vacuum system that is equipped with a filter that at a minimum is capable of removing particles of dust of 0.3 microns or greater from the vacuum exhaust air at 99.97% efficiency or greater to minimize airborne dust generation. Any wet wipe process necessary used a readily available household chemical detergent where appropriate. Post-cleaning sampling was performed at least one hour after the final cleaning in order to allow any airborne dust to settle prior to sampling. The sampling was conducted using methods consistent with ASTM E 1728–03: *Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination*. Doe Run or its contractor met with each resident/owner to complete a Pre & Post Interior Dust Cleaning Inspection Sheet and Completion Form prior to cleaning and after sampling results indicated that the cleaning standards were met. Documentation of indoor dust cleaning of each residence is provided by yard identification number (YardID) in Appendix B.

Of the 107 residential yards for which Doe Run performed a soil removal action, almost 50 percent of the homeowner/residents allowed indoor dust cleaning; 57 house/apartment units were cleaned at 52 of the remediated yards. Three of these 52 yards were multiunit residences where one of the unit residents refused indoor dust cleaning. The two houses located on two of the 53 remediated yards for which the homeowners/residents refused indoor dust cleaning (VS06260 and VS06261) were actually storage facilities and the homeowner had provided access for dust cleaning. However, since the houses were used only for storage with all power and water turned off, Doe Run did not perform indoor dust cleaning. The houses associated with two yards remediated in 2018 (SJTC20 and VS06109) were not offered indoor dust cleaning but were provided HEPA vacuums as specified in the 2017 work plan (NewFields 2017), see documentation in Appendix B.

3.0 SUMMARY OF PROJECT COSTS

The following table presents the remediation costs for the City of Viburnum. The costs do not include the cost of oversight and confirmation sampling by EPA, Doe Run or any other party.

Activity	Cost
Work Plan preparation and access letter preparation prior to Work Plan approval	██████████
Soil/Gravel Removal Activities	
<i>Excavating, Hauling, Backfilling</i>	██████████
<i>Yard Watering Reimbursement</i>	██████████
<i>Soil testing, treatment, and management in Repository</i>	██████████
Subtotal	██████████
Indoor dust cleaning	
<i>Contract Cleaning and HEPA vacuums to 2018 houses</i>	██████████
<i>Laboratory Wipe Samples</i>	██████████
Subtotal	██████████
<i>Repository Permitting</i>	██████████
Data reporting and BEL preparation, mailing, and tracking (2007-2018)	██████████
Project Total	██████████

4.0 REFERENCES

ASTM E 1728–03: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination.

EPA 2003. Superfund Lead-Contaminated Residential Sites Handbook. Prepared by the Environmental Protection Agency Lead Sites Workgroup (LSW), OSWER 9285.7-50, August.

NewFields 2005. Work Plan for Removal Preliminary Assessment and Site Inspection, St. Joe Minerals Corp - Viburnum Site. November 10.

NewFields 2006. Preliminary Assessment/Site Inspection Report, St. Joe Minerals Corp. – Viburnum Site, Iron County, Missouri

NewFields 2007. Work Plan for Time-Critical Removal Action, St. Joe Minerals Corp - Viburnum Site. July 31.

NewFields 2017. Work Plan for Non-Time-Critical Removal Action, Viburnum Trend Lead Haul Roads Site. May 30.



APPENDIX A

POST PA/SI YARD SOIL LEAD RESULTS

Appendix A Lead (ppm) in Residential Yards, XRF Data

Samples collected during the Time-Critical Removal Action (or post PA/SI)

Site	Front	Front	Back	Back	Drip	Drive Way(s)	Gravel Areas	Garden(s)	Play Area(s)	Sand Box(s)	Swing Set
Sampling Date	Left	Right	Left	Right	Zone		or Paths				
VS06127 10 Crescent St, Viburnum 3/12/2006 & 9/24/2007	140(524.8*) 203	203	149	144	224	--	--	--	--	--	--
VS07304 20 Maple St, Viburnum 3/13/2007	192	287	191	179	<u>422</u>	154	--	--	--	--	--
VS07305 HCR 82 Box 360, Viburnum 7/19/2007	70	59	60	60	60	57	--	160	--	--	--
VS08306 2 St Joseph St, Viburnum 7/1/2008	378	390	222	117	406	--	--	--	--	--	--

-- under one of the yard quarters indicates the quarter is paved or rocked; in any other category the area did not exist in the yard.

Concentrations underlined and struck out indicate sample results taken prior to removal. Due to soil removal, the concentration no longer represents that portion of the yard

* Concentration removed by Homeowner, current reading is the concentration post-replacement.

Table 1: Page 1 of 1

V506127
2007

THE
DOE RUN
COMPANY

Soil Sample and Access
Data Form

Property 10 Crescent Dr Date 24 Sept 07
Owner Name [REDACTED] Phone 573 244 3164
Owner address if different from above _____
Person Authorizing Access _____ Phone _____
Signature Verbal Relation to owner _____

Sample ID	Sample Description	Sample Result	Site Schematic
V506127FL	Front Left	140 ppm	<p>x</p> <p>x x</p> <p>V506127FL</p> <p>x x</p>
Notes:	<p><u>Retest</u> owner did not want soil removed. He had sodded yard after initial testing was done in 2006. Retested FL at request of owner</p>		
Sampling Team Initials	<u>[Signature]</u>		

Soil Sampling Data Form

Yard ID V507304

Property Address 20 Maple St. Date 13 Mar 07

Village MO 65566

Owner Name

Owner address (if different from above)

Person Authorizing Access:

Signature (optional):

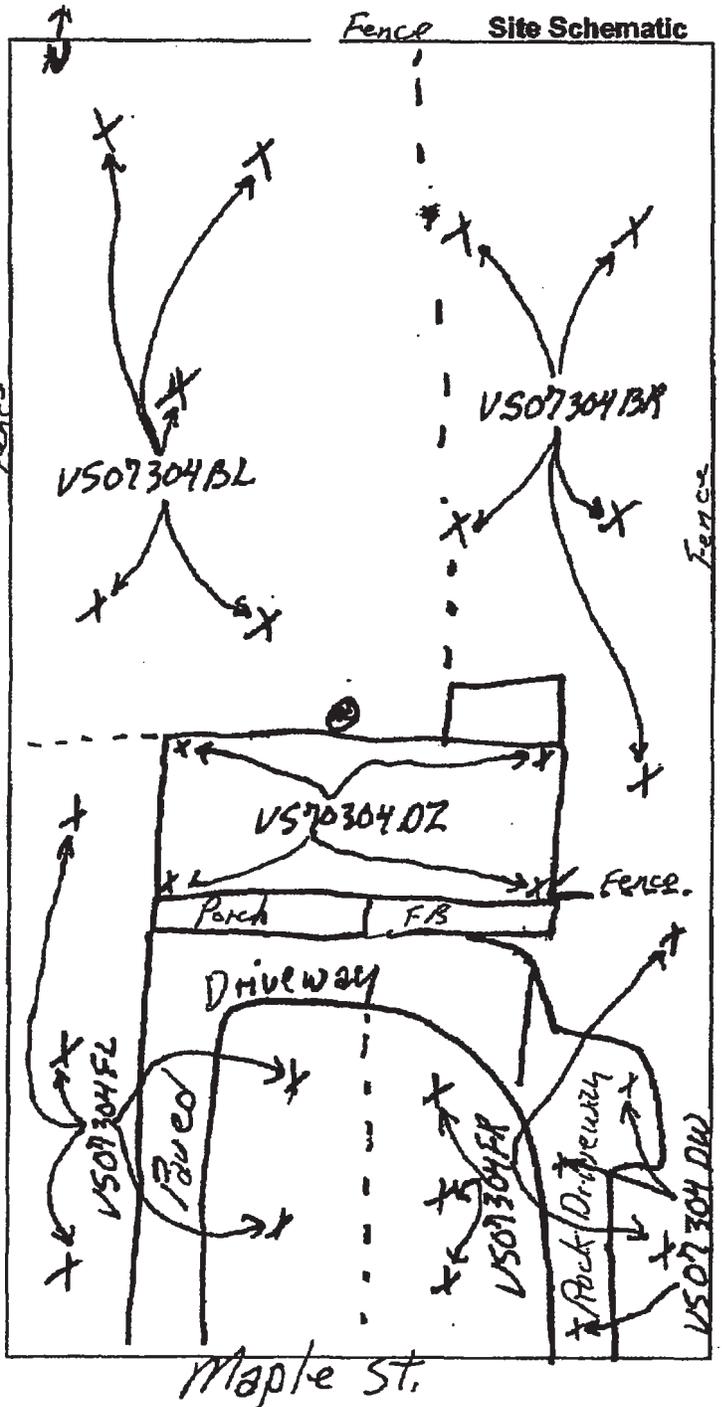
Relation to owner

Sample ID	Sample Description	Sample Result
V507304FR	FR - front right	192 ppm
V507304FL	FL - front left	287 ppm
V507304BR	BR - back right	191 ppm
V507304BL	BL - back left	179 ppm
V507304DZ	DZ - drip zone	422 ppm
V507304DW	DW - Driveway	154 ppm
		ppm
		ppm
		ppm
		ppm
		ppm
		ppm
		ppm

Notes:

Sampling Team Initials:

PH



Soil Sampling Data Form

Yard ID US07304A⁵

Property Address HCR 82 Box 360 Date 19 July 07

~~Viburnum MO 65506~~ Bixby MO 65439

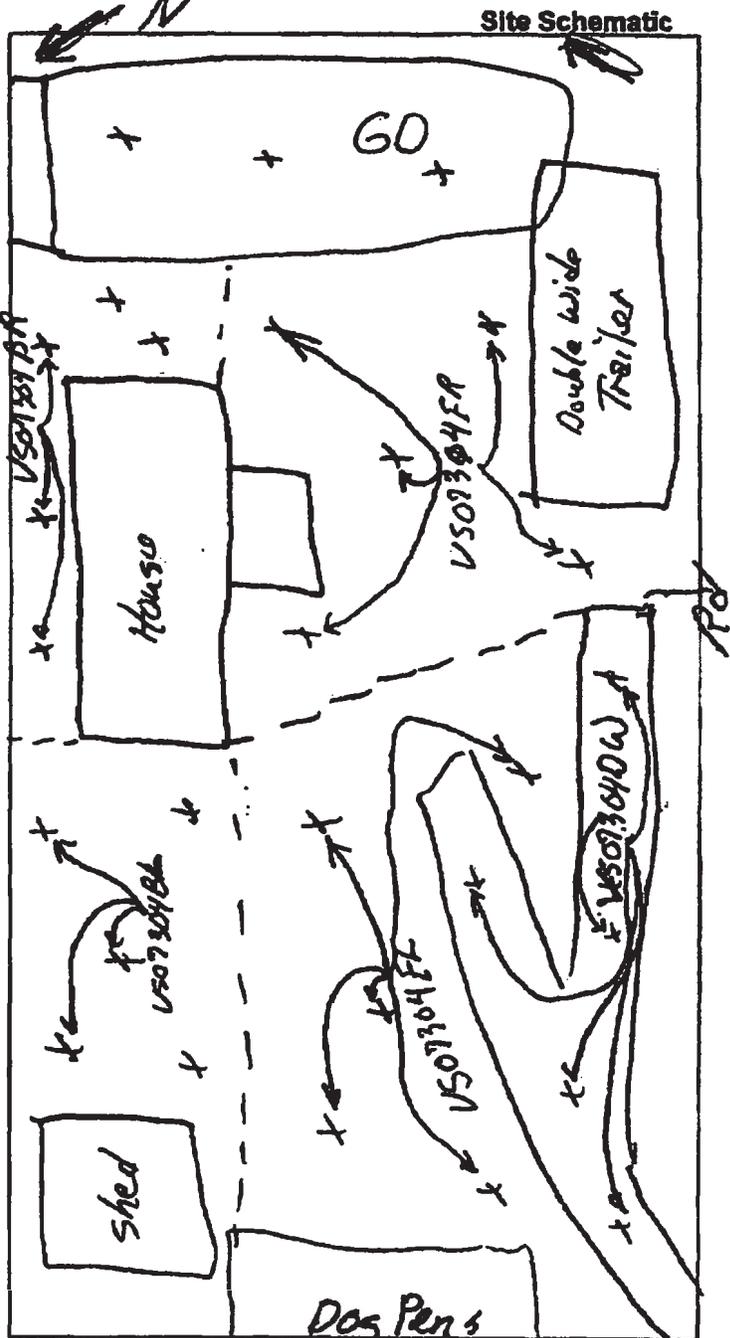
Owner Name [REDACTED]

Owner address (if different from above) Grandparents

Person Authorizing Access: Verbal from son Phone [REDACTED]

Signature (optional): _____ Relation to owner _____

Sample ID	Sample Description	Sample Result
⁵ US07304FR	FR - front right	BDL < 59 ppm
US07304FL	FL - front left	70.4 ppm
US07304BR	BR - back right	BDL < 60 ppm
US07304BL	BL - back left	BDL < 60 ppm
US07304DZ	DZ - drip zone	BDL < 60 ppm
US07304DW	DW - Driveway	BDL < 57 ppm
US07304GD	GD - Garden	160 ppm
		ppm
		ppm
		ppm
		ppm
		ppm
		ppm



Notes:

37° 37' 33.960 N
91° 01' 45.250 W

Sampling Team Initials: [Signature]



APPENDIX B

SOIL/GRAVEL REMOVAL DOCUMENTATION

Yard Information		Removal Action Information				Yard Soil Removal Information								
YardID	Yard Address or Location	Removal Action Design.	Time Critical Rank	Areas Identified as part of the TCRA	Areas Above 400 in TC DW only yards	Date of Access Request Letter	Yard Status (Removal or Refusal)	Date of Removal Access	Date of Removal	Yard Areas of Soil Removal as part of the TCRA	Barrier	Date of Refusal of Removal	Date of Yard Soil Best Effort Letter	Best Effort Response
VS05001	21 Maple St	TC	TC-2	DW DZ		4/9/2007	Removed	4/16/2007	9/26/2007	DW DZ	No Barrier			
VS06003	6 Briarcrest Dr	TC	TC-3	DZ		8/16/2007	Refusal-NR	8/18/2007				11/30/2007	4/18/2008	BEL delivered, no response
VS06100	16 Briarcrest Dr	TC	TC-4	DZ		8/17/2007	Refusal-Verbal	4/2/2008				7/20/2008	9/10/2008	HO changed mind
VS06134	4 Crescent St	TC	TC-4	FR DZ		3/21/2008	Refusal-NR					4/9/2008	4/18/2008	BEL returned, unclaimed
VS06127	10 Crescent St	TC	No Action	FL		8/17/2007	Homeowner Action	8/31/2007		Resampled No Action	No Barrier	9/9/2008		Homeowner put down new sod, resampled 9/24/08 NoAction Req
VS06128	12 Crescent St	TC	TC-3	FL BL DW FR DZ		4/9/2007	Removed	4/19/2007	10/12/2007	FL FR BL DZ DW	Barrier DZ			
VS06010	15 Crescent St	TC	TC-3	DZ		9/6/2007	Removed	9/10/2007	11/20/2007	DZ	No Barrier			
VS06136	18 Crescent St	TC	TC-3-DW	DW	BR DZ	4/9/2007	Removed	11/8/2007	7/17/2008	BR DZ DW	No Barrier			
VS06012	22 Crescent St	TC	TC-3	Cell 1 3 5 7		8/16/2007	Removed	8/21/2007	11/6/2007	Cell 1 3 5 7	Barrier Cell 1			
VS06087	28 Crescent St	TC	TC-3	DZ FR		8/16/2007	Removed	8/20/2007	10/17/2007	FR DZ	No Barrier			
VS06102	4 Conway St	TC	TC-3	DZ		8/16/2007	Removed	3/27/2008	6/16/2008	DZ	No Barrier			
VS06303	7 Conway St	TC	TC-3	FL DW FR BR DZ		4/9/2007	Removed	5/2/2007	10/16/2007	FL FR BR DZ DW	No Barrier			
VS06104	10 Conway St	TC	TC-4	FL FR BL BR DZ		8/17/2007	Removed	8/27/2007	9/20/2007	FL FR BL BR DZ	No Barrier			
VS06105	12 Conway St	TC	TC-3	DZ FR BR		8/16/2007	Removed	8/22/2007	10/16/2007	FR BR DZ	Barrier FR			
VS06106	17 Conway St	TC	TC-4	FR BR DW		8/17/2007	Removed	8/21/2007	11/2/2007	FR BR DW	Barrier BR			
VS06107	19 Conway St	TC	TC-4	FL FR BL BR PA DZ		8/17/2007	Removed	8/17/2007	11/1/2007	ALL	No Barrier			
VS06141	4 A&B Elm St	TC	TC-2	DZ FL		8/16/2007	Removed	8/21/2007	10/12/2007	FL DZ	No Barrier			
VS06194	1 Hawthorne Ct	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	6/3/2007	10/25/2007	DW	No Barrier			
VS06088	3 Hickory St	TC	TC-4	DW DZ		8/17/2007	Removed	9/10/2007	7/3/2008	DZ DW	No Barrier			
VS06017	11 Hickory St	TC	TC-4	DW		8/17/2007	Removed	8/28/2007	9/20/2007	DW	No Barrier			
VS06146	22 Hickory St	Both	TC-3-DW	DW	FR DZ	4/9/2007	Removed	4/16/2007	10/23/2007	DW	No Barrier			
VS06109	25 Hickory St	TC	TC-2	FR DZ		4/9/2007-	Removed	3/30/2018	5/11/2018	FR DZ	No Barrier		4/18/2008	No Response by 4/9/08; BEL Returned, New owner 2018 -access
VS06148	31 Hickory St	TC	TC-2	GL DZ		4/9/2007	Removed	4/2/2008	7/3/2008	DZ GL	No Barrier			
VS06149	6 Live Oak Ct	TC	TC-3-DW	DW	FL DZ	4/9/2007	Removed	4/2/2008	6/24/2008	FL DZ DW	No Barrier			
VS06030	9 Maple St	Both	TC-3-DW	DW	FR	4/9/2007	Removed	4/15/2007	9/24/2007	DW	No Barrier			
VS06031	12 Maple St	TC	TC-3	FR BR		4/9/2007	Removed	4/16/2007	10/1/2007	FR BR	No Barrier			

Yard Information		Interior Dust Cleaning Information										Best Effort Response
YardID	Yard Address or Location	Date of Access Request Letter	Tenant Present	Dust Cleaning Status	Date of Dust Cleaning Access	Date of Access by HO if not resident	Date of final Dust Cleaning	Number of Units Cleaned at Yard	Number of Units Refused at Yard	Date of Refusal	Date of Dust Cleaning Best Effort Letter	
VS05001	21 Maple St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received; P_Acc 9/4/07 w/No Sch
VS06003	6 Briarcrest Dr	8/30/2007	No	Refused Soil	9/21/2007			0	1	11/30/2007	4/18/2008	Refused Soil
VS06100	16 Briarcrest Dr	7/8/2008	No	Refused Soil				0	1	7/20/2008	9/10/2008	Refused Soil
VS06134	4 Crescent St		Yes	Refused Soil				0	1	4/9/2008	4/18/2008	Refused Soil
VS06127	10 Crescent St	9/6/2007	No	NA-NoAction	9/13/2007			0	1			NA
VS06128	12 Crescent St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06010	15 Crescent St	9/27/2007	No	Cleaned			2/18/2008	1	0			NA
VS06136	18 Crescent St	7/8/2008	No	Cleaned	10/29/2008		12/4/2008	1	0		10/15/2008	BEL rec-access
VS06012	22 Crescent St	8/30/2007	No	Cleaned	10/18/2008		11/11/2008	1	0		10/15/2008	BEL rec-access; P_Acc 9/5/07 w/No Sch
VS06087	28 Crescent St	8/30/2007	No	Refused	10/20/2008			0	1	12/4/2008	10/15/2008	BEL rec-Refusal V; P_Acc 9/19/07; P_Ref 11/29/07
VS06102	4 Conway St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06303	7 Conway St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06104	10 Conway St	9/6/2007	No	Cleaned	9/10/2007		11/27/2007	1	0			NA
VS06105	12 Conway St	8/30/2007	No	Cleaned	9/11/2007		12/19/2007	1	0			NA
VS06106	17 Conway St	8/30/2007	No	Cleaned	9/8/2007		1/9/2008	1	0			NA
VS06107	19 Conway St	8/30/2007	Yes	Refused	9/5/2007			0	1	11/18/2007	4/10/2009	BEL received - no response; Refused prior BEL
VS06141	4 A&B Elm St	8/30/2007	Yes	Refused				0	1	9/11/2007	10/5/2007	Refused on returned letter; No response to BEL
VS06194	1 Hawthorne Ct	10/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06088	3 Hickory St	9/27/2007	No	Cleaned	10/22/2008		11/25/2008	1	0		10/15/2008	BEL rec-access
VS06017	11 Hickory St	9/6/2007	No	Cleaned	9/10/2007		11/27/2007	1	0			NA
VS06146	22 Hickory St	10/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06109	25 Hickory St	NA - Removal action conducted pursuant to VTLHR Non-Time-Critical Removal Action Work P						0	1	4/9/2008	4/18/2008	Originally Refused Soil, 2018 NA soil removed under VTLHR WP
VS06148	31 Hickory St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06149	6 Live Oak Ct	7/8/2008	Yes	Cleaned	10/21/2008		11/24/2008	1	0		10/15/2008	BEL rec-access
VS06030	9 Maple St	8/30/2007	No	Cleaned	9/7/2007		1/15/2008	1	0			NA
VS06031	12 Maple St	8/30/2007	No	Cleaned	9/5/2007		12/3/2007	1	0			NA

Yard Information		Removal Action Information				Yard Soil Removal Information								
YardID	Yard Address or Location	Removal Action Design.	Time Critical Rank	Areas Identified as part of the TCRA	Areas Above 400 in TC DW only yards	Date of Access Request Letter	Yard Status (Removal or Refusal)	Date of Removal Access	Date of Removal	Yard Areas of Soil Removal as part of the TCRA	Barrier	Date of Refusal of Removal	Date of Yard Soil Best Effort Letter	Best Effort Response
VS06032	15 Maple St	TC	TC-1	FR BR DZ		7/9/2007	Removed	7/23/2007	7/24/2007	FR BR DZ	No Barrier			
VS06152	16 Maple St	TC	TC-3	FR GL DZ		4/9/2007	Removed	4/16/2007	10/1/2007	FR GL (DZ-refused)	No Barrier			
VS06033	17 Maple St	TC	TC-4	FR DZ		3/21/2008	Removed	3/27/2008	6/12/2008	FR DZ	No Barrier			
VS06153	18 Maple St	TC	TC-4	FL FR SS		8/17/2007	Removed	8/20/2007	5/16/2008	FL FR (SS)	No Barrier; swing set was removed by HO			
VS07304	20 Maple St	TC	TC-4	DZ		4/17/2008	Removed	9/8/2008	10/6/2008	DZ	No Barrier			
VS06036	15 Meadow Crest Dr	TC	TC-3	DW DZ		4/9/2007	Removed	4/16/2007	10/5/2007	DW (DZ-refused)	No Barrier			
VS06042	4 St Joseph St	TC	TC-3-DW	DW	FR DZ	4/9/2007	Removed	4/2/2008	6/17/2008	FR DZ DW	No Barrier			
VS06157	6 St Joseph St	TC	TC-3	FL DZ		4/9/2007	Removed	4/2/2008	6/17/2008	FL DZ	No Barrier			
VS06044	11 St Joseph St	Both	TC-3-DW	GV	DZ	4/9/2007	Removed	4/7/2007	11/6/2007	GV	No Barrier			
VS06155	17 St Joseph St	TC	TC-3	DZ FR		8/16/2007	Removed	8/22/2007	11/12/2007	FR DZ	No Barrier			
VS06160	20&20A St Joseph St	TC	TC-4	FL FR DZ		8/17/2007	Removed	8/28/2007	9/21/2007	FL FR DZ	Barrier DZ			
VS06161	22 St Joseph St	TC	TC-4	FL FR DZ		4/17/2009	Removed	4/24/2009	8/6/2009	FL FR DZ	Barrier FR			
VS06006	23 St Joseph St	TC	TC-3-DW	DW	DZ	4/9/2007	Removed	4/9/2008	6/24/2008	DW DW2 DZ	No Barrier			
VS06162	24 St Joseph St	TC	TC-4	FL FR BL GL DZ		8/17/2007	Removed	4/16/2009	8/6/2009	FL FR BL DZ GL	Barrier FL FR		4/18/2008	BEL delivered, NR-4/8/09; Respn to 09 child ltr
VS06302	27 St Joseph St	TC	TC-4	DZ		8/17/2007	Removed	8/21/2007	11/19/2007	DZ	No Barrier			
VS06047	28 St Joseph St	TC	TC-4	FR DZ		8/17/2007	Removed	9/18/2007	5/22/2008	FR DZ	No Barrier			
VS06163	29 St Joseph St	TC	TC-3	FR FL DZ		4/9/2007	Removed	3/31/2008	6/3/2008	FL FR DZ	No Barrier			
VS06051	38 St Joseph St	TC	TC-3	DZ DW		8/16/2007	Removed	8/20/2007	11/9/2007	DZ DW	No Barrier			
VS06298	39 St Joseph St	TC	TC-3	DZ		8/16/2007	Removed	8/23/2007	11/14/2007	DZ	No Barrier			
VS06168A	43 St Joseph St	TC	TC-3	DW DZ		4/9/2007	Removed	3/27/2008	6/9/2008	DW DZ	No Barrier			
VS06112	55 St Joseph St	TC	TC-2	DZ		8/16/2007	Removed	8/20/2007	10/12/2007	DZ	No Barrier			
VS06170	59 St Joseph St	TC	TC-3	DZ FL BL		8/16/2007	Removed	8/20/2007	10/17/2007	FL BL DZ	No Barrier			
VS06054	9 Spruce St	TC	TC-2	FR DW DZ		4/9/2007	Removed	5/14/2008	7/28/2008	FR DZ DW	No Barrier		4/18/2008	NR by 4/9/08;BEL delivered, signed ltr 5/14/08
VS06294	11 Spruce St	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/27/2007	10/19/2007	DW	No Barrier			
VS06055	15 Spruce St	TC	TC-3	FR DZ		4/9/2007	Removed	4/2/2008	7/17/2008	FR DZ	No Barrier			
VS06115	18 Spruce St	TC	TC-4	FL		8/17/2007	Removed	8/20/2007	10/5/2007	FL	No Barrier			

Yard Information		Interior Dust Cleaning Information										
YardID	Yard Address or Location	Date of Access Request Letter	Tenant Present	Dust Cleaning Status	Date of Dust Cleaning Access	Date of Access by HO if not resident	Date of final Dust Cleaning	Number of Units Cleaned at Yard	Number of Units Refused at Yard	Date of Refusal	Date of Dust Cleaning Best Effort Letter	Best Effort Response
VS06032	15 Maple St	8/30/2007	No	Cleaned	9/7/2007		11/28/2007	1	0			NA
VS06152	16 Maple St	8/30/2007	No	Cleaned	6/5/2007		12/6/2007	1	0			NA
VS06033	17 Maple St	7/8/2008	No	Cleaned			9/16/2008	1	0			NA
VS06153	18 Maple St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS07304	20 Maple St		Yes	Cleaned	10/19/2008	BEL received	11/10/2008	1	0		10/15/2008	BEL rec-access; Tenant change, BEL rtn-Rsnt 10/28
VS06036	15 Meadow Crest Dr	8/30/2007	No	Cleaned	10/17/2008		11/13/2008	1	0		10/15/2008	BEL rec-access; P_Acc 9/5/07; P_Ref 12/28/07
VS06042	4 St Joseph St	7/8/2008	No	Refused				0	1	10/24/2008	10/15/2008	BEL rec-Refusal verbal
VS06157	6 St Joseph St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06044	11 St Joseph St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06155	17 St Joseph St	8/30/2007	No	Cleaned	10/20/2008		12/9/2008	1	0		10/15/2008	BEL rec-access; P_Acc 9/5/07 w/No Sch
VS06160	20&20A St Joseph St	9/11/2007	Yes	Cleaned 20A; Refusal NR 20	10/29/2008	Yes; 10/29/08	12/10/2008	1	1		10/15/2008	20: BEL ND-hand delivered; 20A: BEL rec-access
VS06161	22 St Joseph St	4/17/2009	Yes	Refused				0	1	4/24/2009	6/3/2009	BEL rec-Refuse at soil cleanup
VS06006	23 St Joseph St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06162	24 St Joseph St	4/17/2009	No	Refused				0	1	4/24/2009	6/3/2009	BEL rec-Refuse at soil cleanup
VS06302	27 St Joseph St	8/30/2007	No	Refused				0	1	12/9/2007	10/15/2008	BEL rec; P_Acc 9/13/07; Refused prior BEL
VS06047	28 St Joseph St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL rtn-unclaimed
VS06163	29 St Joseph St	7/8/2008	Yes	No Response BEL		BEL received		0	1	12/15/2008	10/15/2008	BEL received - no response
VS06051	38 St Joseph St	8/30/2007	No	Cleaned	10/18/2008		11/5/2008	1	0		10/15/2008	BEL rec-access; P_Acc 9/5/07 w/No Sch
VS06298	39 St Joseph St	8/30/2007	No	BEL NonDel				0	1	12/15/2008	10/15/2008	BEL rtn-No Forward
VS06168A	43 St Joseph St	7/8/2008	No	Cleaned	10/17/2008		11/17/2008	1	0		10/15/2008	BEL rec-access
VS06112	55 St Joseph St	8/30/2007	No	Refused				0	1	12/8/2007	10/15/2008	BEL rec; P_Acc 9/6/07; Refused prior BEL
VS06170	59 St Joseph St	8/30/2007	No	Cleaned	9/4/2007		12/20/2007	1	0			NA
VS06054	9 Spruce St	7/8/2008	No	Cleaned	11/30/2008		2/6/2009	1	0		10/31/2008	BEL rec-rptd as NR; acc rec 12/31/08
VS06294	11 Spruce St	8/30/2007	No	BEL NonDel				0	1	12/15/2008	10/15/2008	BEL rtn ND, attpt hand divry
VS06055	15 Spruce St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06115	18 Spruce St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response

Yard Information		Removal Action Information				Yard Soil Removal Information								
YardID	Yard Address or Location	Removal Action Design.	Time Critical Rank	Areas Identified as part of the TCRA	Areas Above 400 in TC DW only yards	Date of Access Request Letter	Yard Status (Removal or Refusal)	Date of Removal Access	Date of Removal	Yard Areas of Soil Removal as part of the TCRA	Barrier	Date of Refusal of Removal	Date of Yard Soil Best Effort Letter	Best Effort Response
VS06172	22 Spruce St	TC	TC-2	DW DZ FL		6/1/2006	Removed	6/1/2006	6/1/2006	DW DZ FL				
VS06290	24 Spruce St	TC	TC-3-DW	DW	BL DZ	4/9/2007	Removed	4/9/2008	7/15/2008	BL DZ DW	No Barrier			
VS06173	29 Spruce St	TC	TC-2	FL		4/9/2007	Removed	4/12/2007	9/12/2007	FL	No Barrier			
VS06116	30 Spruce St	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/16/2007	10/22/2007	DW	No Barrier			
VS06060	34 Spruce St	TC	TC-2	DW DZ		4/9/2007	Removed	4/9/2008	7/17/2008	DZ DW	No Barrier			
VS06198	35 Spruce St	Both	TC-3-DW	DW	FL	4/9/2007	Removed	6/3/2007	11/8/2007	DW	No Barrier			
VS06061	42 Spruce St	TC	TC-3	BL BR DW DZ		4/9/2007	Removed	4/16/2007	9/12/2007	BL BR DW DZ	No Barrier			
VS06062	43 Spruce St	TC	TC-2	DW FL DZ		4/9/2007	Removed	4/16/2007	9/20/2007	DW	No Barrier			
VS06175	48 Spruce St	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/8/2008	6/3/2008	DW; DZ by homeowner	Barrier DZ			Homeowner put down 1 ft clean fill entire yard
VS06066	49 Spruce St	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/16/2007	10/22/2007	DW	No Barrier			
VS06067	52 Spruce St	TC	TC-3	BL DZ		4/9/2007	Removed	4/20/2007	9/12/2007	BL	No Barrier			
VS06068	53 Spruce St	TC	TC-2	DW BL DZ		4/9/2007	Removed	8/18/2007	9/12/2007	DW	No Barrier			original acc on 4/15
VS06069	54 Spruce St	Both	TC-3-DW	DW	FL BL BR DZ	4/9/2007	Removed	4/11/2007	9/12/2007	DW	No Barrier			
VS06070	55 Spruce St	TC	TC-3-DW	DW		4/9/2007	Removed	4/30/2007	9/12/2007	DW	No Barrier			
VS06073	61 Spruce St	TC	TC-3	DZ		8/16/2007	Removed	8/18/2007	11/5/2007	DZ	No Barrier			
VS06176	63 Spruce St	TC	TC-3	DZ FL		8/16/2007	Removed	8/26/2007	11/5/2007	FL DZ	No Barrier			
VS06179	27&27A Walnut St	TC	TC-3	DZ		8/16/2007	Removed	9/20/2007	11/20/2007	DZ	No Barrier			
VS06282	28 Walnut St	TC	TC-2	DZ		8/16/2007	Removed	8/18/2007	11/20/2007	DZ	No Barrier			
VS06077	33 Walnut St	TC	TC-4	FL BL BR DW SS DZ		8/17/2007	Removed	8/20/2007	5/30/2008	FL BL BR DZ SS (DW paved by HO)	No Barrier; DW paved prior to Removal			
VS06079	38 Walnut St	TC	TC-4	DW DZ		8/17/2007	Removed	8/20/2007	7/1/2008	DZ DW	No Barrier			
VS06080	43 Walnut St	TC	TC-4	DZ		8/17/2007	Refusal-NR to removal materials	9/28/2007				9/9/2008	10/30/2008	HO does not respond to request to move old cars
VS06081	48 Walnut St	TC	TC-4	BL DW DZ		4/17/2008	Removed	9/15/2008	10/1/2008	BL DZ DW	No Barrier			
VS06188	54 Walnut St	TC	TC-4	DZ		8/17/2007	Removed	9/1/2007	7/7/2008	DZ	No Barrier			
VS06190	58 Walnut St	TC	TC-4	DZ		8/17/2007	Removed	4/9/2008	7/7/2008	DZ	No Barrier			
VS06130	63 Walnut St	TC	TC-1	BL DZ		8/1/2007	Removed	8/13/2007	9/4/2007	BL DZ	No Barrier			
VS06122	76 Walnut St	TC	TC-2	DZ DW DW2		8/16/2007	Removed	8/22/2007	10/11/2007	DW DW2 DZ	Barrier DW			

Yard Information		Interior Dust Cleaning Information										
YardID	Yard Address or Location	Date of Access Request Letter	Tenant Present	Dust Cleaning Status	Date of Dust Cleaning Access	Date of Access by HO if not resident	Date of final Dust Cleaning	Number of Units Cleaned at Yard	Number of Units Refused at Yard	Date of Refusal	Date of Dust Cleaning Best Effort Letter	Best Effort Response
VS06172	22 Spruce St	8/30/2007	No	No Response BEL				0	0	12/15/2008	10/15/2008	BEL received - no response
VS06290	24 Spruce St	7/8/2008	Yes	No Response BEL		BEL rtn-unclaimed		0	1	12/15/2008	10/15/2008	BEL rtn-unclaimed
VS06173	29 Spruce St	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	9/4/2007	1	0			NA
VS06116	30 Spruce St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06060	34 Spruce St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL rtn Moved; Rsnt 10/28 to Res-rec
VS06198	35 Spruce St	8/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received; P_Acc 9/11/07 w/No Sch
VS06061	42 Spruce St	8/30/2007	No	Refused				0	1	10/24/2008	10/15/2008	BEL rec-Refusal verbal
VS06062	43 Spruce St	8/30/2007	No	Cleaned	9/15/2007		1/22/2008	1	0			NA
VS06175	48 Spruce St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06066	49 Spruce St	8/30/2007	No	Refused				0	1	10/25/2008	10/15/2008	BEL rec-Refusal W-10/25/08 & V-10/24; P_Acc 9/10/07
VS06067	52 Spruce St	8/30/2007	No	Cleaned	9/30/2007		1/23/2008	1	0			NA
VS06068	53 Spruce St	8/30/2007	No	Refused				0	1	10/24/2008	10/15/2008	BEL rec-Refusal W-NoDate & V-10/24; P_Acc 9/8/07
VS06069	54 Spruce St	8/30/2007	No	Cleaned	9/4/2007		11/20/2007	1	0			NA
VS06070	55 Spruce St	8/30/2007	No	Refused				0	1	9/11/2007	9/27/2007	Refused prior to BEL; No response to BEL
VS06073	61 Spruce St	8/30/2007	No	Refused				0	1	10/29/2008	10/15/2008	BEL rec-Refusal verbal; P_Acc 9/4/07
VS06176	63 Spruce St	8/30/2007	No	Refused				0	1	9/18/2007	10/5/2007	Refused prior to BEL; No response to BEL
VS06179	27&27A Walnut St	9/27/2007	Yes	No Response BEL		BEL received		0	1	12/15/2008	10/15/2008	BEL received - no response
VS06282	28 Walnut St	8/30/2007	No	Cleaned	10/21/2008		11/6/2008	1	0		10/15/2008	BEL rec-access; P_Acc 9/4/07 w/No Sch
VS06077	33 Walnut St	8/30/2007	No	Cleaned	9/6/2007		8/25/2008	1	0			NA
VS06079	38 Walnut St	8/30/2007	No	BEL NonDel				0	1	12/15/2008	10/15/2008	BEL rtn no Forward, Rsnt 10/28 to Res; Rtn Vacant?
VS06080	43 Walnut St	7/8/2008	No	Refused Soil				0	1	9/9/2008	10/30/2008	Refused Soil
VS06081	48 Walnut St		No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06188	54 Walnut St	7/8/2008	No	Cleaned			8/18/2008	1	0			NA
VS06190	58 Walnut St	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL rtn-unclaimed
VS06130	63 Walnut St	8/30/2007	No	Cleaned	10/17/2008		11/20/2008	1	0		10/15/2008	BEL rec-access
VS06122	76 Walnut St	8/30/2007	Yes	Cleaned	9/5/2007		12/13/2007	1	0			NA

Yard Information		Removal Action Information				Yard Soil Removal Information								
YardID	Yard Address or Location	Removal Action Design.	Time Critical Rank	Areas Identified as part of the TCRA	Areas Above 400 in TC DW only yards	Date of Access Request Letter	Yard Status (Removal or Refusal)	Date of Removal Access	Date of Removal	Yard Areas of Soil Removal as part of the TCRA	Barrier	Date of Refusal of Removal	Date of Yard Soil Best Effort Letter	Best Effort Response
VS06123	77 Walnut St	Both	TC-3-DW	DW DW2	DZ	4/9/2007	Removed	4/16/2007	9/4/2007	DW DW2 DZ	No Barrier			
VS06085	79 Walnut St	TC	TC-3	DZ FL		8/16/2007	Removed	8/18/2007	10/19/2007	FL DZ	No Barrier			
VS06206	82 Walnut St	TC	TC-3	DZ FR		8/16/2007	Refusal-Verbal					4/17/2008	4/18/2008	BEL delivered, no response
VS06086	84 Walnut St	TC	TC-2	DZ FL FR BR DW		8/16/2007	Removed	8/18/2007	10/5/2007	FL FR BL DZ DW	No Barrier			
VS06095	19 Wayfarer Ln	TC	TC-3	DW DZ FL BL		4/9/2007	Removed	4/16/2007	10/12/2007	FL BL DZ DW	No Barrier			
VS06210	24 Wayfarer Ln	TC	TC-3	DW DZ		4/9/2007	Refusal-NR					9/9/2008	9/10/2008	Provided verbal on 4/9/08, no written access
VS06299	Hwy 49 3rd house west of railroad on Hwy 49	TC	TC-3	DZ FL		9/11/2007	Removed	9/17/2007	11/7/2007	FL DZ	No Barrier			
VS06219	Hwy 49 HC 86 BOX 6565; Iron Co Rte 2, first house on	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/26/2007	10/24/2007	DW	No Barrier			
VS06222	Hwy 49 Iron Co Rte 2, first trailer on left	TC	TC-3	FR FL DZ		4/9/2007	Removed	4/9/2008	7/23/2008	FL FR DZ	No Barrier			
VS06227	Hwy Y #68	TC	TC-3-DW	DW		4/9/2007	Removed	4/16/2007	10/5/2007	DW	No Barrier			
VS06296	Hwy Y BOX 6540	TC	TC-3-DW	DW	FR	4/9/2007	Removed	4/4/2008	7/2/2008	FR DW	No Barrier			
VS06232	Hwy Y First trailer	TC	TC-2	BR		4/9/2007	Removed	4/15/2007	10/2/2007	BR	No Barrier			
VS06235	Hwy Y	TC	TC-2	DW DZ		4/9/2007	Removed	4/2/2008	5/22/2008	DW (DZ)	No Barrier; DZ replaced by homeowner			
VS06237	Hwy Y	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/16/2007	10/24/2007	DW	No Barrier			
VS06239	Hwy Y HC 86 BOX 6565	Both	TC-3-DW	DW	DZ	4/9/2007	Removed	4/26/2007	10/24/2007	DW	No Barrier			
VS06243	Iron Co Rte 87 BOX 6529	TC	TC-3	DW FL		4/9/2007	Refusal-Verbal	4/16/2007				9/13/2007	9/20/2007	BEL returned, unclaimed
VS06297	Iron Co Rte 88 Second house on left	TC	TC-3	FL DW FR DZ		4/9/2007	Removed	4/9/2008	7/21/2008	FL FR DZ DW	No Barrier			
VS06254	3 W St Joseph St Vib Apt Bldg 4	TC	TC-4	FR		8/17/2007	Removed	9/7/2007	7/29/2008	FR	No Barrier			
VS06257	3 W St Joseph St Vib Apt Bldg 7	TC	TC-4	DZ		8/17/2007	Removed	9/7/2007	5/21/2008	DZ	No Barrier			
VS06258	1 Ogle St	TC	TC-2	FR DW DZ		4/9/2007	Removed	4/16/2007	8/31/2007	FR DW DZ	No Barrier			
VS06259	2 Ogle St	TC	TC-3	BR DW DZ FL FR BL		4/9/2007	Removed	4/16/2007	8/31/2007	ALL	No Barrier			
VS06260	4 Ogle St	TC	TC-3	DW DZ BL BR		4/9/2007	Removed	4/16/2007	8/31/2007	DW DZ BL BR	No Barrier			
VS06261	5 Ogle St	TC	TC-3	FR BL BR		4/9/2007	Removed	4/16/2007	8/31/2007	FR BL BR	No Barrier			
VS06262	Abney Trailer Ct, Frisco Ln Trl # 1	TC	TC-3	BL DW BR DZ		4/9/2007	Removed	4/12/2007	8/17/2007	BL DW BR DZ	Barrier BL BR DW DZ			
VS06263	Abney Trailer Ct, Frisco Ln Trl # 2	TC	TC-2	DZ BL BR DW		8/13/2007	Removed	8/13/2007	8/17/2007	DZ BL BR DW	Barrier DW			

Yard Information		Interior Dust Cleaning Information										Best Effort Response
YardID	Yard Address or Location	Date of Access Request Letter	Tenant Present	Dust Cleaning Status	Date of Dust Cleaning Access	Date of Access by HO if not resident	Date of final Dust Cleaning	Number of Units Cleaned at Yard	Number of Units Refused at Yard	Date of Refusal	Date of Dust Cleaning Best Effort Letter	
VS06123	77 Walnut St	8/30/2007	No	Refused				0	1	10/24/2008	10/15/2008	BEL rec-Refusal verbal
VS06085	79 Walnut St	8/30/2007	No	Cleaned	9/5/2007		1/8/2008	1	0			NA
VS06206	82 Walnut St		Yes	Refused Soil				0	1	4/17/2008	4/18/2008	Refused Soil
VS06086	84 Walnut St	10/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL rtn-unclaimed
VS06095	19 Wayfarer Ln	8/30/2007	No	Cleaned	9/4/2007		12/8/2007	1	0			NA
VS06210	24 Wayfarer Ln	7/8/2008	No	Refused Soil				0	1	9/9/2008	9/10/2008	Refused Soil
VS06299	Hwy 49 3rd house west of railroad on Hwy 49	9/27/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06219	Hwy 49 HC 86 BOX 6565; Iron Co Rte 2, first house on	10/30/2007	Yes	Cleaned	11/10/2008	BEL received	2/6/2009	1	0	12/15/2008	10/15/2008	BEL rec; VACANT - rptd as NR; HO acc rec 12/31/08
VS06222	Hwy 49 Iron Co Rte 2, first trailer on left	7/8/2008	No	Refused				0	1	9/19/2008	10/15/2008	BEL received; Refused prior to BEL
VS06227	Hwy Y #68	8/30/2007	No	Cleaned	9/19/2007		12/11/2007	1	0			NA
VS06296	Hwy Y BOX 6540	7/8/2008	Yes	No Response BEL		BEL received		0	1	12/15/2008	10/15/2008	BEL received - no response
VS06232	Hwy Y First trailer	8/30/2007	Yes	Cleaned	9/5/2007		12/11/2007	1	0			NA
VS06235	Hwy Y	7/8/2008	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06237	Hwy Y	8/30/2007	No	Cleaned	11/15/2008		2/6/2009	1	0		10/15/2008	BEL rec-rptd as NR; acc rec 12/31/08
VS06239	Hwy Y HC 86 BOX 6565	10/30/2007	No	No Response BEL				0	1	12/15/2008	10/15/2008	BEL received - no response
VS06243	Iron Co Rte 87 BOX 6529	8/30/2007	No	Refused Soil				0	1	9/13/2007	9/20/2007	Refused Soil
VS06297	Iron Co Rte 88 Second house on left	7/8/2008	No	BEL NonDel				0	1	12/15/2008	10/15/2008	BEL rtn - Box Closed No Forward, attpt hand dlrvy
VS06254	3 W St Joseph St Vib Apt Bldg 4	9/27/2007	Yes	Cleaned Apts 10(9/9), 11(9/8),	10/3/2007		9/10/2008	3	1	9/18/2008	10/31/2008	Apt 9-BEL-rtn, Vacant?; P_Ref 9/18/08
VS06257	3 W St Joseph St Vib Apt Bldg 7	9/27/2007	Yes	Cleaned Apts 21&23 (9/25), 22&24 (9/23)			9/25/2008	4	0			NA
VS06258	1 Ogle St	8/30/2007	Yes	Cleaned			11/19/2007	1	0			NA
VS06259	2 Ogle St	8/30/2007	Yes	Cleaned	9/5/2007		11/15/2007	1	0			NA
VS06260	4 Ogle St	8/30/2007	Yes	Storage-Not Cleaned	10/17/2008	BEL rec-acc 10/17/08		0	1	11/30/2008	10/15/2008	BEL received by owner; house VACANT, access
VS06261	5 Ogle St	8/30/2007	Yes	Storage-Not Cleaned	10/17/2008	BEL rec-acc 10/17/08		0	0	11/30/2008	10/15/2008	BEL received by owner; house VACANT, access
VS06262	Abney Trailer Ct, Frisco Ln Trl # 1	8/30/2007	Yes	Refused		Yes; 9/4/07		0	1	9/11/2007	9/27/2007	Refused prior to BEL; No response to BEL
VS06263	Abney Trailer Ct, Frisco Ln Trl # 2	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	10/23/2007	1	0			NA

Yard Information		Removal Action Information				Yard Soil Removal Information								
YardID	Yard Address or Location	Removal Action Design.	Time Critical Rank	Areas Identified as part of the TCRA	Areas Above 400 in TC DW only yards	Date of Access Request Letter	Yard Status (Removal or Refusal)	Date of Removal Access	Date of Removal	Yard Areas of Soil Removal as part of the TCRA	Barrier	Date of Refusal of Removal	Date of Yard Soil Best Effort Letter	Best Effort Response
VS06264	Abney Trailer Ct, Frisco Ln Trl # 3	TC	TC-3	FR DZ BL BR		4/9/2007	Removed	4/12/2007	8/17/2007	FR DZ BL BR	Barrier FR DZ BL BR			
VS06265	Abney Trailer Ct, Frisco Ln Trl # 4	TC	TC-3	BL DZ BR DW		4/9/2007	Removed	4/12/2007	8/17/2007	BL DZ BR DW	Barrier BR			
VS06266	Abney Trailer Ct, Frisco Ln Trl # 5	TC	TC-1	DW FR BL BR DZ		4/9/2007	Removed	4/12/2007	8/17/2007	ALL	Barrier DW			
VS06267	Abney Trailer Ct, Frisco Ln Trl # 6	TC	TC-3	DW DZ FL BL BR		4/9/2007	Removed	4/12/2007	8/22/2007	ALL	No Barrier			
VS06268	Abney Trailer Ct, Frisco Ln Trl # 7	TC	TC-2	FR BL DW DZ		4/9/2007	Removed	4/12/2007	8/22/2007	FR BL DW DZ	Barrier FR			
VS06269	Abney Trailer Ct, Frisco Ln Trl # 8	TC	TC-2	FR DZ FL BL BR		8/13/2007	Removed	8/13/2007	8/23/2007	ALL	No Barrier			
VS06270	Abney Trailer Ct, Frisco Ln Trl # 9	TC	TC-2	DW DZ FL		4/9/2007	Removed	4/12/2007	8/23/2007	DW DZ FL	No Barrier			
VS06271	Abney Trailer Ct, Frisco Ln Trl #10	TC	TC-3	BL DZ		8/16/2007	Removed	8/17/2007	8/23/2007	FL BL (Cell 1&3)	No Barrier			
VS06274	Abney Trailer Ct, Frisco Ln Trl #13	TC	TC-4	FL DW DZ		8/16/2007	Removed	8/21/2007	8/23/2007	FL DW DZ	No Barrier			
VS06275	Abney Trailer Ct, Frisco Ln Trl #14	TC	TC-1	DZ		8/6/2007	Removed	8/6/2007	8/6/2007	DZ	No Barrier			
VS06277	16 N Missouri Ave	TC	TC-4	FL FR BR		8/17/2007	Removed	4/9/2008	7/8/2008	FL FR BR	No Barrier			
VS06278	Wayfarer & Hwy 49	TC	TC-2	FL FR BL BR DZ		4/9/2007	Refusal-NR/Verbal					4/17/2008	4/18/2008	BEL rec- only allow cleanup per owner requirement
VS06286S	City Ballfields South	TC	TC-CHUA	B GR DZ			Removed	4/1/2007	4/9/2007	B GR	No Barrier			
VS06287	City Park	TC	TC-CHUA	F G DZ D			Removed	4/1/2007	4/2/2007	D F G	No Barrier			
VS06288	Viburnum Lower Elementary School	TC	TC-CHUA	BL PA3 DZ		7/9/2007	Removed	7/10/2007	7/25/2007	BL PA3 DZ	Barrier BL			
SJTC20	St Joe Trailer Court, Lot 20	TC	TC-3-DW	DW		EPA referral	Removed	3/8/2018	5/10/2018	DW2	No Barrier			

Notes:

FL = Front Yard Left, FR = Front Yard Right, BL = Back Yard Left, BR = Back Yard Right, DW = Driveway, DZ = Drip Zone, PA = Play Area, GD = Garden, GR/GV = gravel area, other area designations see yard sketches.

BEL = Best Effort Letter, CHUA = child high use area

Shaded areas under "Areas Above 400 in TC DW only yards" were removed during the Removal Action

Yard Information		Interior Dust Cleaning Information										
YardID	Yard Address or Location	Date of Access Request Letter	Tenant Present	Dust Cleaning Status	Date of Dust Cleaning Access	Date of Access by HO if not resident	Date of final Dust Cleaning	Number of Units Cleaned at Yard	Number of Units Refused at Yard	Date of Refusal	Date of Dust Cleaning Best Effort Letter	Best Effort Response
VS06264	Abney Trailer Ct, Frisco Ln Trl # 3	8/30/2007	No	Cleaned	9/11/2007	Yes; 9/4/07	10/30/2007	1	0			NA
VS06265	Abney Trailer Ct, Frisco Ln Trl # 4	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	10/25/2007	1	0			NA
VS06266	Abney Trailer Ct, Frisco Ln Trl # 5	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	11/12/2007	1	0			NA
VS06267	Abney Trailer Ct, Frisco Ln Trl # 6	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	11/1/2007	1	0			NA
VS06268	Abney Trailer Ct, Frisco Ln Trl # 7	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	9/4/2007	1	0			NA
VS06269	Abney Trailer Ct, Frisco Ln Trl # 8	8/30/2007	No	Cleaned	9/11/2007	Yes; 9/4/07	11/20/2007	1	0			NA
VS06270	Abney Trailer Ct, Frisco Ln Trl # 9	8/30/2007	Yes	Cleaned	9/11/2007	Yes; 9/4/07	11/14/2007	1	0			NA
VS06271	Abney Trailer Ct, Frisco Ln Trl #10	8/30/2007	Yes	Cleaned	12/31/2008	Yes; 9/4/07	2/6/2009	1	0		10/15/2008	BEL rtn ND-HD; Rpt NR,acc rec; P_Acc 9/11/07 w/NS
VS06274	Abney Trailer Ct, Frisco Ln Trl #13	8/30/2007	Yes	BEL NonDel		Yes; 9/4/07		0	1	12/15/2008	10/15/2008	BEL rtn ND - attpt hand dlrvy; P_Acc 9/11/07 w/NS
VS06275	Abney Trailer Ct, Frisco Ln Trl #14	8/30/2007	Yes	Cleaned		Yes; 9/4/07	2/18/2009	1	0	12/15/2008	10/15/2008	BEL rtn ND - attpt hand dlrvy; P_Acc 9/11/07 w/NS
VS06277	16 N Missouri Ave	7/8/2008	Yes	Cleaned 1/A(9/24); Rfd 2/B (8/19)			9/24/2008	1	1	8/19/2008	10/31/2008	Apt 2/B BEL rtn Vacant?; P_Ref 8/19/08
VS06278	Wayfarer & Hwy 49		No	Refused Soil				0	1	4/17/2008	4/18/2008	Refused Soil
VS06286S	City Ballfields South		No	NA-CHUA								NA-CHUA
VS06287	City Park		No	NA-CHUA								NA-CHUA
VS06288	Viburnum Lower Elementary School		No	NA-CHUA								NA-CHUA
SJTC20	St Joe Trailer Court, Lot 20	NA - Removal action conducted pursuant to VTLHR Non-Time-Critical Removal Action Work Plan										

Notes:

BEL = Best Effort Letter, CHUA = child high use area (no building to clean)

acc- access; rec - received; rtn- returned; ref/Rfd - refused; NR - no response to contact attempts; ND - no delivery by USPS; HD - hand delivered by Doe Run; attpt hand dlrvy - Doe Run attempted to hand deliver BEL without success

P_Acc - previous access; P_Ref - previous refusal; No Sch or NS- could not schedule cleaning date with resident; HO - homeowner

VS05001 21 Maple St

Priority: TC-2

Yard Soil and Gravel Removal Status

Date of Access Letter: 4/9/07

Yard Soil Removal Status Removed

Date of Access 4/16/07

Date of Removal: 9/26/07 **Area (sq ft) Removed (1000 min)** 1,290

Areas of Yard Removed: DW DZ

Barrier Status: No Barrier

Date of Refusal: NA

Date of Best Effort Letter, if applicable NA

Indoor Dust Cleaning Status

Date of Dust Access Letter: 8/30/07

Status: No Response BEL

Date of Access: NA

Date of Dust Cleaning NA

Date of Dust Cleaning Refusal 12/15/08

Date of Dust Cleaning Best Effort Letter 10/15/08

BEL received; P_Acc 9/4/07 w/No Sch

Multiple Unit Statu Number of Occupied Houses/Units on the property: 1

Number of Cleaned Units 0

Number of Refused Units 1

Notes:

CHUA - child high use area - no building to clean; BEL - best effort letter; acc- access; rec - received; rtn- returned; ref - refused; NR - no response to contact attempts; P_Acc - previous access; P_Ref - previous refusal; No Sch or NS- could not schedule cleaning date with resident; HO - homeowner

Vacuum Cleaner Receipt and Acknowledgment

I/we own/live at the residence located at the following address: 21 Maple Street
Vipurnum, Missouri _____

This will acknowledge receipt from The Doe Run Company of a true-HEPA filter vacuum cleaner, serial number _____, at no cost to me but subject to the following terms and conditions:

- ✓ The vacuum cleaner being provided today, Fuller Brush HEPA #FB80 Vacuum System, is for use at the above-designated residence and is to remain at the above-designated residence if I/we should sell it, move to another residence or for any reason vacate the property
- ✓ The Doe Run Company will not be responsible for repair costs or HEPA filter replacement costs
- ✓ The vacuum cleaner was purchased by The Doe Run Company from *The Vacuum House* at 16 East Main Street in Park Hills, Missouri and that facility may be contacted at 573-431-4626 if there are any questions about or operational problems with the unit
- ✓ This vacuum cleaner may not be returned to *The Vacuum House* for a cash refund
- ✓ The Doe Run Company is not responsible for any accidents incurred due to the use of this vacuum cleaner
- ✓ If this vacuum cleaner needs to be left with a repairman for more than a few days, a loaner vacuum cleaner may be obtained from The Doe Run Company (573-244-8404) for use during the repair period

Name(s): _____

(PLEASE PRINT)

(PLEASE PRINT)

Signature(s): _____

Date: _____

10-8-06



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

April 9, 2007

[Redacted]
21 Maple St
Viburnum MO 65566

RE: ACCESS AGREEMENT FOR YARD SOIL/GRAVEL REPLACEMENT
21 Maple St, Viburnum, Missouri
VS05001

Dear [Redacted]

The Doe Run Company is conducting a removal action under an agreement with The U.S. Environmental Protection Agency to remove yard soil and driveway gravel at residences in the City of Viburnum, Iron County, Missouri which contain lead concentrations of 1,200 ppm or greater. Doe Run will also remove those portions of the yard with lead concentrations between 400 and 1,200 ppm, unless the only area greater than 1,200 ppm lead is a gravel area associated with a driveway. In which case, the soil areas will be addressed during future Non-Time-Critical work. Test results of your residential property at 21 Maple St, Viburnum, Missouri indicate that your property should be included in this removal action.

Attached is a generalized work plan, which tells what will be done and a tentative timetable for completion. The Final work plan applicable to your property will be developed prior to start-up of the project to further detail what will be done.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The record prior to start-up will be pictures and video indicating plants, shrubs, trees and other structural features of your yard and house. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

In return, by the signature below, Doe Run pledges that the work, as scheduled in the work plan will be performed by our contractor, Compass Environmental, Inc. in a workman-like manner.

The Doe Run Company

John E. Carter, Project Manager
Approval, permission and commitment given

[Redacted Signature Line]

Owner(s)

April 16 2007
Date
4-16-07
Date

**YARD/DRIVEWAY REPLACEMENT
WORK PLAN**
21 Maple St, Viburnum, Missouri
VS05001

WITH ESTIMATED TIMETABLE FOR ACTION
Spring-Summer 2007
(The timetable will be updated based on participants)

The residential yard/driveway replacement actions are pursuant to an agreement between The Doe Run Company and the U.S. Environmental Protection Agency will begin in the Spring of 2007. The residential yard/driveway replacement action should proceed over a period of a several months, depending on weather conditions, especially rain.

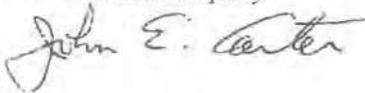
The Doe Run Company (Doe Run) has contracted with Compass Environmental, Inc, an environmental firm located in Indianapolis IN, to do the soil/gravel replacements work. The work on the properties listed above will begin in May/June and will take 2 - 4 days per property. The yard soil/gravel replacement will be done in two stages. The first stage will be to remove the soil/gravel. The second stage will be to replace the soil/gravel. Seeding and strawing will be done at the end of the work on those areas where soil has been placed. The gravel areas will be graded smooth.

Doe Run will provide the property owner with a hose and sprinkler and will pay the water bill for the first two months after the yard soil removal action. It will be the property owner's responsibility to water the yard to insure grass growth. Pictures and videos will be taken of the yard before removal begins. A copy of the pictures and video will be given to the individual homeowners along with this work plan.

The timetable may change by the time the last part of the project is completed. However, homeowners will be notified of our progress. The work in your yard will include:

- Soil/gravel in **DW** removed to a depth of approximately 12 inches
- 12 inches of new soil or gravel will be put in place
- Areas where soil is removed seeded and strawed as appropriate.
- Replacement driveway gravel will be graded smooth.

The Doe Run Company



By: John E. Carter, Project Manager

April 9, 2007
Date

Approval, permission and commitment given



Owner(s)

April 16 2007
Date

Subgrade Soil Sampling Data Form

Yard ID V505001

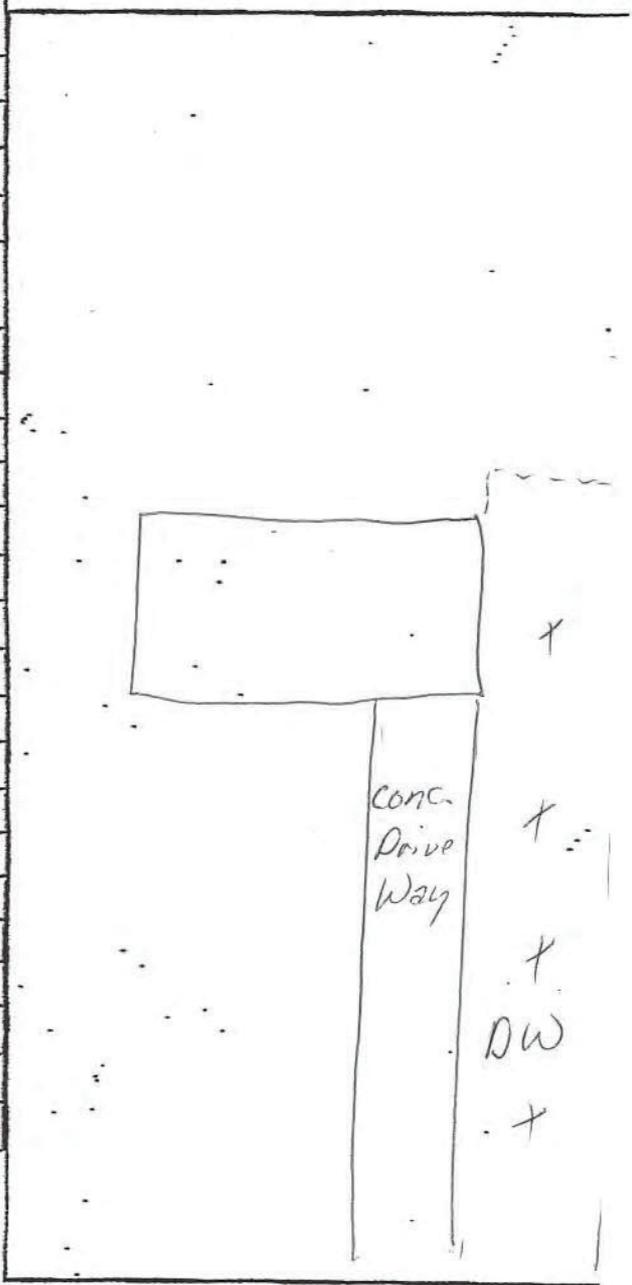
Date 24 Sept 06

Property Address 21 Maple St

Area to remove DW

Site Sch

Sample ID	XRF #	Note	Sample Result
1	547	V505001 DW	BDL < 90 ppm
2			ppm
3			ppm
4			ppm
5			ppm
6			ppm
7			ppm
8			ppm
9			ppm
10			ppm
11			ppm
12			ppm
13			ppm
14			ppm
15			ppm
16			ppm
17			ppm
18			ppm
19			ppm
20			ppm
21			ppm
22			ppm
23			ppm
24			ppm



Notes:

No barrier

Sampling Team Initials: AGH



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

August 30, 2007

[Redacted]
21 Maple St
Viburnum MO 65566

RE: Access Agreement for Interior Dust Cleaning
21 Maple St, Viburnum, Missouri
VS05001

Dear [Redacted]

The Doe Run Company is conducting a removal action under an agreement with the US Environmental Protection Agency to remove certain soil in residential yards in Iron County in and near the City of Viburnum, which may contain elevated lead concentrations. As you are aware your yard qualified for this removal and you have provided access for The Doe Run Company to perform the soil/gravel removal at your property at 21 Maple St, Viburnum, Missouri. As you agreed to allow portions of your yard soils to be removed, the house on the property qualifies for a cleaning for interior dust.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the attached generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

Sincerely,
The Doe Run Company

John E. Carter
Project Coordinator

Approval, permission and commitment given

[Redacted Signature Line]
Owner(s)

9-4-07
Date

Resident(s)

Date

CITY OF VIBURNUM REMOVAL ACTION
INTERIOR DUST CLEANING WORK PLAN

21 Maple St, Viburnum, Missouri
VS05001

The City of Viburnum Removal Action is being conducted pursuant to an Administrative Order on Consent between The Doe Run Company and the US Environmental Protection Agency.

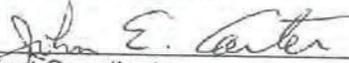
The Doe Run Company has contracted with an environmental firm to do the interior dust cleaning. This cleaning generally takes 6 to 8 hours to complete. You may choose to remain during the cleaning. The work inside the property's house will include:

- House walk through to identify areas to clean and the most effective cleaning method per area, replace disposable furnace air filter(s), and complete the house inventory and video record documenting the condition of areas to be cleaned;
- Cleaning consisting of any or all the following methods: HEPA and/or water extraction vacuuming and wet wiping, mopping, and/or brush scrubbing using household cleaners and/or 5% trisodium phosphate (TSP);
- Clearance wipe sampling of cleaned area; and,
- Non-intrusive lead-based paint survey of both indoor and outdoor painted surfaces

After The Doe Run Company has received the clearance samples, our contractor will meet again with the resident/owner to complete the Pre & Post Interior Cleaning Inspection Sheet and Completion Form. Results of the sampling will be provided to the homeowner and resident.

During interior dust cleaning, residents are requested to remove and properly secure valuables prior to cleaning and to remove other materials that would interfere with the cleaning process.

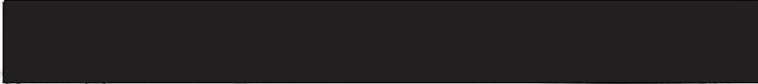
The Doe Run Company



Project Coordinator
John E. Carter

August 30, 2007
Date

Approval, permission and commitment given



Owner(s)

9-4-07
Date

Resident(s)

Date

Refusal by no schedule. BEL 10/2008, no response 12/15/08

THE
DOE RUN
COMPANY

SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

August 30, 2007

[REDACTED]
21 Maple St
Viburnum MO 65566

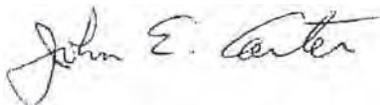
RE: Access Agreement for Interior Dust Cleaning
21 Maple St, Viburnum, Missouri
VS05001

Dear [REDACTED]

The Doe Run Company is conducting a removal action under an agreement with the US Environmental Protection Agency to remove certain soil in residential yards in Iron County in and near the City of Viburnum, which may contain elevated lead concentrations. As you are aware your yard qualified for this removal and you have provided access for The Doe Run Company to perform the soil/gravel removal at your property at 21 Maple St, Viburnum, Missouri. As you agreed to allow portions of your yard soils to be removed, the house on the property qualifies for a cleaning for interior dust.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the attached generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

Sincerely,
The Doe Run Company



John E. Carter
Project Coordinator

Approval, permission and commitment given

REFUSED

Owner(s)

Date

Resident(s)

Date

**CITY OF VIBURNUM REMOVAL ACTION
INTERIOR DUST CLEANING WORK PLAN**

**21 Maple St, Viburnum, Missouri
VS05001**

The City of Viburnum Removal Action is being conducted pursuant to an Administrative Order on Consent between The Doe Run Company and the US Environmental Protection Agency.

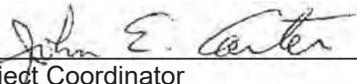
The Doe Run Company has contracted with an environmental firm to do the interior dust cleaning. This cleaning generally takes 6 to 8 hours to complete. You may choose to remain during the cleaning. The work inside the property's house will include:

- House walk through to identify areas to clean and the most effective cleaning method per area, replace disposable furnace air filter(s), and complete the house inventory and video record documenting the condition of areas to be cleaned;
- Cleaning consisting of any or all the following methods: HEPA and/or water extraction vacuuming and wet wiping, mopping, and/or brush scrubbing using household cleaners and/or 5% trisodium phosphate (TSP);
- Clearance wipe sampling of cleaned area; and,
- Non-intrusive lead-based paint survey of both indoor and outdoor painted surfaces

After The Doe Run Company has received the clearance samples, our contractor will meet again with the resident/owner to complete the Pre & Post Interior Cleaning Inspection Sheet and Completion Form. Results of the sampling will be provided to the homeowner and resident.

During interior dust cleaning, residents are requested to remove and properly secure valuables prior to cleaning and to remove other materials that would interfere with the cleaning process.

The Doe Run Company



Project Coordinator
John E. Carter

August 30, 2007
Date

Approval, permission and commitment given

Owner(s)

REFUSED

Date

Resident(s)

Date

Provided verbal access on 9/4/07 but would not commit to a schedule.



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

October 15, 2008

[REDACTED]
21 Maple St
Viburnum MO 65566

RE: **Access to Your Property for Residential Interior Dust Cleaning Work**
21 Maple St
VS05001

Dear [REDACTED]

The Doe Run Company is required under an Administrative Order on Consent (AOC) with the US Environmental Protection Agency (EPA) with an effective date of May 9, 2007, and an accompanying Statement of Work (SOW), to use "best efforts" as defined in Section IX, Paragraph 35 to obtain all necessary access agreements to conduct, if certain criteria are met, residential yard soil removal in specific areas of Iron County in and near the City of Viburnum.

The Doe Run Company provided soil removal at the residence you own at 21 Maple St. A copy of the letter and the sampling results were mailed to you approximately thirty days after the sampling. As you agreed to allow your yard soils to be removed and replaced, the house on the property qualifies for a cleaning for interior dust per above-referenced AOC between The Doe Run Company and the EPA.

Representatives of The Doe Run Company have either contacted, or attempted to contact, you in an effort to obtain an access agreement in order to do the interior dust cleaning at the residence listed above. Since no such agreement has resulted from these attempts, The Doe Run Company is by this certified letter fulfilling its "best efforts" to obtain an access agreement to do the interior dust cleaning of the residence listed above.

A copy of the Access Agreement is enclosed. I ask that you please sign it and return it by mail to:
John E. Carter
The Doe Run Company
PO BOX 500
Viburnum MO 65566

If you have questions, feel free to call me at 573-244-8152. The Doe Run Company will make no further effort to contact you on this matter. However, a copy of this letter is being sent to the EPA. These agencies may be in contact with you to urge signing of the Access Agreement.

Sincerely,
The Doe Run Company

A handwritten signature in black ink that reads "John E. Carter". The signature is written in a cursive style with a large, stylized "J" and "C".

John E. Carter
Project Coordinator

cc: Jeffrey Weatherford, EPA



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

October 15, 2008

[Redacted]
21 Maple St
Viburnum MO 65566

RE: Access Agreement for Interior Dust Cleaning
21 Maple St
VS05001

Dear Steve & Brooke Pyatt:

The Doe Run Company is conducting a removal action under an agreement with the US Environmental Protection Agency to remove certain soil in residential yards in Iron County in and near the City of Viburnum, which may contain elevated lead concentrations. As you are aware your yard qualified for this removal and you have provided access for The Doe Run Company to perform the soil/gravel removal at your property at 21 Maple St. As you agreed to allow portions of your yard soils to be removed, the house on the property qualifies for a cleaning for interior dust.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the attached generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

Sincerely,
The Doe Run Company

John E. Carter
Project Coordinator

Approval, permission and commitment given

Owner(s)

Date

Resident(s)

Date

**CITY OF VIBURNUM REMOVAL ACTION
INTERIOR DUST CLEANING WORK PLAN**

**21 Maple St
VS05001**

The City of Viburnum Removal Action is being conducted pursuant to an Administrative Order on Consent between The Doe Run Company and the US Environmental Protection Agency.

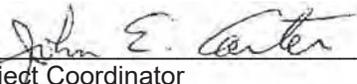
The Doe Run Company has contracted with an environmental firm to do the interior dust cleaning. This cleaning generally takes 6 to 8 hours to complete. You may choose to remain during the cleaning. The work inside the property's house will include:

- House walk through to identify areas to clean and the most effective cleaning method per area, replace disposable furnace air filter(s), and complete the house inventory and video record documenting the condition of areas to be cleaned;
- Cleaning consisting of any or all the following methods: HEPA and/or water extraction vacuuming and wet wiping, mopping, and/or brush scrubbing using household cleaners and/or 5% trisodium phosphate (TSP);
- Clearance wipe sampling of cleaned area; and,
- Non-intrusive lead-based paint survey of both indoor and outdoor painted surfaces

After The Doe Run Company has received the clearance samples, our contractor will meet again with the resident/owner to complete the Pre & Post Interior Cleaning Inspection Sheet and Completion Form. Results of the sampling will be provided to the homeowner and resident.

During interior dust cleaning, residents are requested to remove and properly secure valuables prior to cleaning and to remove other materials that would interfere with the cleaning process.

The Doe Run Company



Project Coordinator
John E. Carter

October 15, 2008
Date

Approval, permission and commitment given

Owner(s)

Date

Resident(s)

Date

BEL received, no response

VS06003 6 Briarcrest Dr

Priority: TC-3

Yard Soil and Gravel Removal Status

Date of Access Letter: 8/16/07

Yard Soil Removal Status Refusal-NR

Date of Access 8/18/07

Date of Removal: NA **Area (sq ft) Removed (1000 min)**

Areas of Yard Removed:

Barrier Status:

Date of Refusal: 11/30/07

Date of Best Effort Letter, if applicable 4/18/08

BEL delivered, no response

Indoor Dust Cleaning Status

Date of Dust Access Letter: 8/30/07

Status: Refused Soil

Date of Access: 9/21/07

Date of Dust Cleaning NA

Date of Dust Cleaning Refusal 11/30/07

Date of Dust Cleaning Best Effort Letter 4/18/08

Refused Soil

Multiple Unit Statu Number of Occupied Houses/Units on the property: 1

Number of Cleaned Units 0

Number of Refused Units 1

Notes:

CHUA - child high use area - no building to clean; BEL - best effort letter; acc- access; rec - received; rtn- returned; ref - refused; NR - no response to contact attempts; P_Acc - previous access; P_Ref - previous refusal; No Sch or NS- could not schedule cleaning date with resident; HO - homeowner

Soil Sampling Data Form

Yard ID V506003

Property Address 6 Briarcrest Dr.
Viburnum MD 65566

Date 3-12-06

Owner Name [REDACTED] Phone [REDACTED]

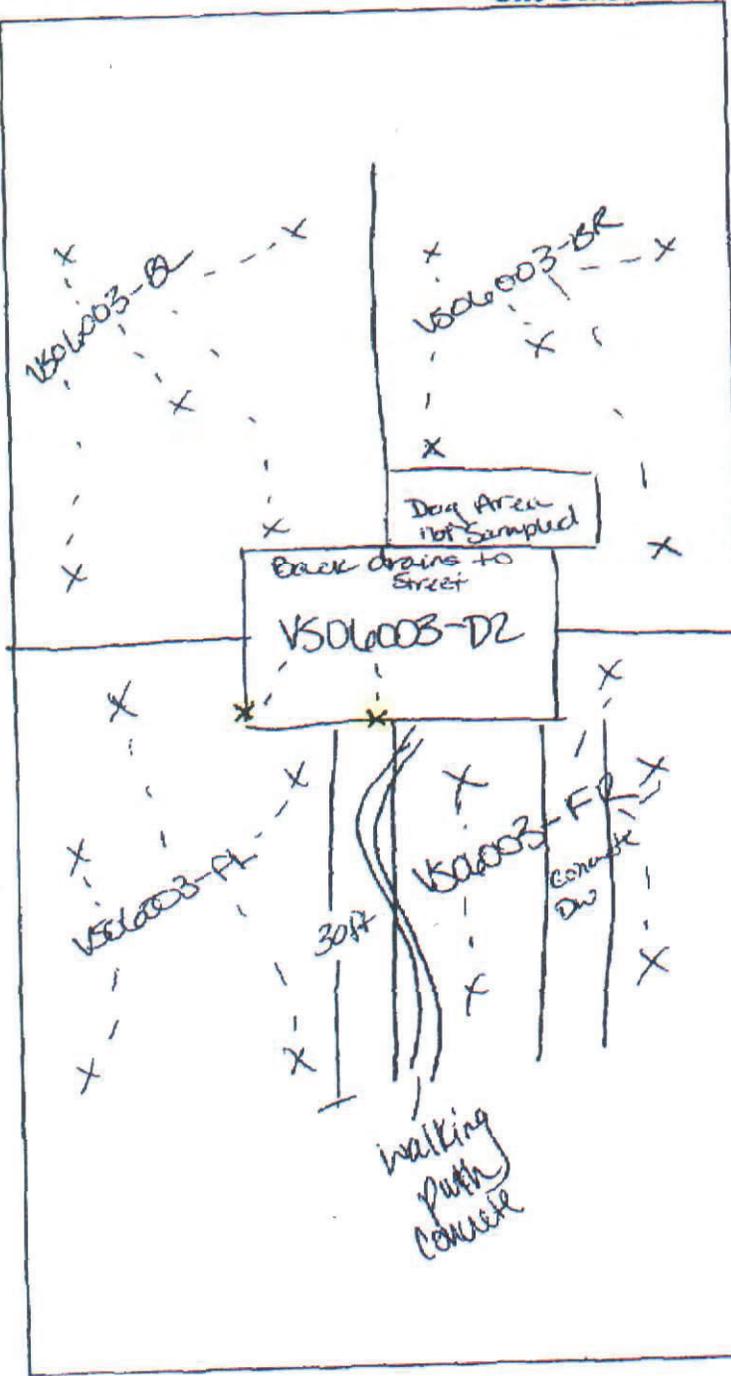
Owner address (if different from above) _____ Phone _____

Person Authorizing Access: Access Letter Phone _____

Signature (optional): _____ Relation to owner _____

Site Schematic

Sample ID	Sample Description	Sample Result	
V506003-FR	FR - front right	101	ppm
V506003-FL	FL - front left	192	ppm
V506003	BR - back right	171	ppm
V506003	BL - back left	139	ppm
V506003	DZ - drip zone	1587	ppm
			ppm



Notes:

Homeowner told us no children live at residence

Sampling Team Initials: JCZ

Vacuum Cleaner Receipt and Acknowledgment

I/we own/live at the residence located at the following address: _____

6 BRIARCREST _____, VIBURNUM _____, Missouri _____

This will acknowledge receipt from The Doe Run Company of a true-HEPA filter vacuum cleaner, serial number _____, at no cost to me but subject to the following terms and conditions:

- ✓ The vacuum cleaner being provided today, Fuller Brush HEPA #FB80 Vacuum System, is for use at the above-designated residence and is to remain at the above-designated residence if I/we should sell it, move to another residence or for any reason vacate the property
- ✓ The Doe Run Company will not be responsible for repair costs or HEPA filter replacement costs
- ✓ The vacuum cleaner was purchased by The Doe Run Company from *The Vacuum House* at 16 East Main Street in Park Hills, Missouri and that facility may be contacted at 573-431-4626 if there are any questions about or operational problems with the unit
- ✓ This vacuum cleaner may not be returned to *The Vacuum House* for a cash refund
- ✓ The Doe Run Company is not responsible for any accidents incurred due to the use of this vacuum cleaner
- ✓ If this vacuum cleaner needs to be left with a repairman for more than a few days, a loaner vacuum cleaner may be obtained from The Doe Run Company (573-244-8404) for use during the repair period

Name(s): _____
(PLEASE PRINT)

(PLEASE PRINT)

Signature(s): _____

Date: JUNE 27, 06



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

April 18, 2008

██████████
6 Briarcrest Dr
Viburnum MO 65566

RE: **Access to Your Property for Residential Yard Soil Removal/Replacement and Interior Dust Cleaning Work**
6 Briarcrest Dr, Viburnum, Missouri
VS06003

Dear ██████████

The Doe Run Company is required under an Administrative Order on Consent (AOC) with the US Environmental Protection Agency (EPA) with an effective date of May 9, 2007, and an accompanying Statement of Work (SOW), to use "best efforts" as defined in Section IX, Paragraph 35 to obtain all necessary access agreements to conduct, if certain criteria are met, residential yard soil removal in specific areas of Iron County in and near the City of Viburnum.

The Doe Run Company sampled the yard at the residence you own at 6 Briarcrest Dr, Viburnum, Missouri. A copy of the letter and the sampling results were mailed to you approximately thirty days after the sampling. The lead levels in the yard are high enough to qualify for removal and replacement under the criteria outlined in the above-referenced AOC between The Doe Run Company and the EPA. If you agree to allow your yard soils to be removed and replaced, the house on the property will qualify for a cleaning for interior dust.

Representatives of The Doe Run Company have either contacted, or attempted to contact, you in an effort to obtain an access agreement in order to do the residential yard soil removal/replacement work required in the yard and the interior dust cleaning at the residence listed above. Since no such agreement has resulted from these attempts, The Doe Run Company is by this certified letter fulfilling its "best efforts" to obtain an access agreement to do the residential yard soil removal/replacement work in the yard and interior dust cleaning of the residence listed above.

A copy of the Access Agreement is enclosed. I ask that you please sign it and return it by mail to:

John E. Carter
The Doe Run Company
PO BOX 500
Viburnum MO 65566

If you have questions, feel free to call me at 573-244-8152. The Doe Run Company will make no further effort to contact you on this matter. However, a copy of this letter is being sent to the EPA. These agencies may be in contact with you to urge signing of the Access Agreement.

Sincerely,
The Doe Run Company

A handwritten signature in black ink that reads "John E. Carter". The signature is written in a cursive style.

John E. Carter
Project Coordinator

cc: Jeffrey Weatherford, EPA



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

April 18, 2008

[Redacted]
6 Briarcrest Dr
Viburnum MO 65566

**RE: ACCESS AGREEMENT FOR YARD SOIL/GRAVEL REPLACEMENT
6 Briarcrest Dr, Viburnum, Missouri
VS06003**

Dear [Redacted]

The Doe Run Company is conducting a removal action under an agreement with The U.S. Environmental Protection Agency to remove yard soil and driveway gravel at residences in the City of Viburnum, Iron County, Missouri which contain lead concentrations of 1,200 ppm or greater. Doe Run will also remove those portions of the yard with lead concentrations between 400 and 1,200 ppm, unless the only area greater than 1,200 ppm lead is a gravel area associated with a driveway. In which case, the soil areas will be addressed during future Non-Time-Critical work. The agreement also states that Doe Run will remove yard soil which contains lead concentrations between 400 and 1,200 ppm if a child less than 72 months is in residence. Test results of your residential property at 6 Briarcrest Dr, Viburnum, Missouri indicate that your property should be included in this removal action.

Attached is a generalized work plan, which tells what will be done and a tentative timetable for completion. The Final work plan applicable to your property will be developed prior to start-up of the project to further detail what will be done.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The record prior to start-up will be pictures and video indicating plants, shrubs, trees and other structural features of your yard and house. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

In return, by the signature below, Doe Run pledges that the work, as scheduled in the work plan will be performed by our contractor, Compass Environmental, Inc. in a workman-like manner.

The Doe Run Company

John E. Carter, Project Manager
Approval, permission and commitment given

Owner(s)

Date

**YARD/DRIVEWAY REPLACEMENT
WORK PLAN
6 Briarcrest Dr, Viburnum, Missouri
VS06003**

**WITH ESTIMATED TIMETABLE FOR ACTION
Spring and Summer 2008**
(The timetable will be updated based on participants)

The residential yard/driveway replacement actions are pursuant to an agreement between The Doe Run Company and the U.S. Environmental Protection Agency began in the August 2007. The residential yard/driveway replacement action proceed over a period of a several months, depending on weather conditions, especially rain.

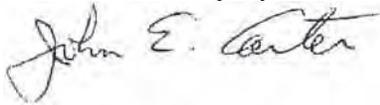
The Doe Run Company (Doe Run) has contracted with Compass Environmental, Inc, an environmental firm located in Indianapolis IN, to do the soil/gravel replacements work. The work on the properties listed above will begin in August and will take 2 – 4 days per property. The yard soil/gravel replacement will be done in two stages. The first stage will be to remove the soil/gravel. The second stage will be to replace the soil/gravel. Seeding and strawing will be done at the end of the work on those areas where soil has been placed. The gravel areas will be graded smooth.

Doe Run will provide the property owner with a hose and sprinkler and will pay the water bill for the first two months after the yard soil removal action. It will be the property owner's responsibility to water the yard to insure grass growth. Pictures and videos will be taken of the yard before removal begins. A copy of the pictures and video will be given to the individual homeowners along with this work plan.

The timetable may change by the time the last part of the project is completed. However, homeowners will be notified of our progress. The work in your yard will include:

- Soil/gravel in **DZ** removed to a depth of approximately 12 inches
- 12 inches of new soil or gravel will be put in place
- Areas where soil is removed seeded and strawed as appropriate.
- Replacement driveway gravel will be graded smooth.

The Doe Run Company



By: John E. Carter, Project Manager

April 18, 2008

Date

Approval, permission and commitment given

Owner(s)

Date

Soil Sampling Data Form

Yard ID V506003

Property Address 6 Briarcrest Dr.
Viburnum MD 65566

Date 3-12-06

Owner Name [REDACTED] Phone [REDACTED]

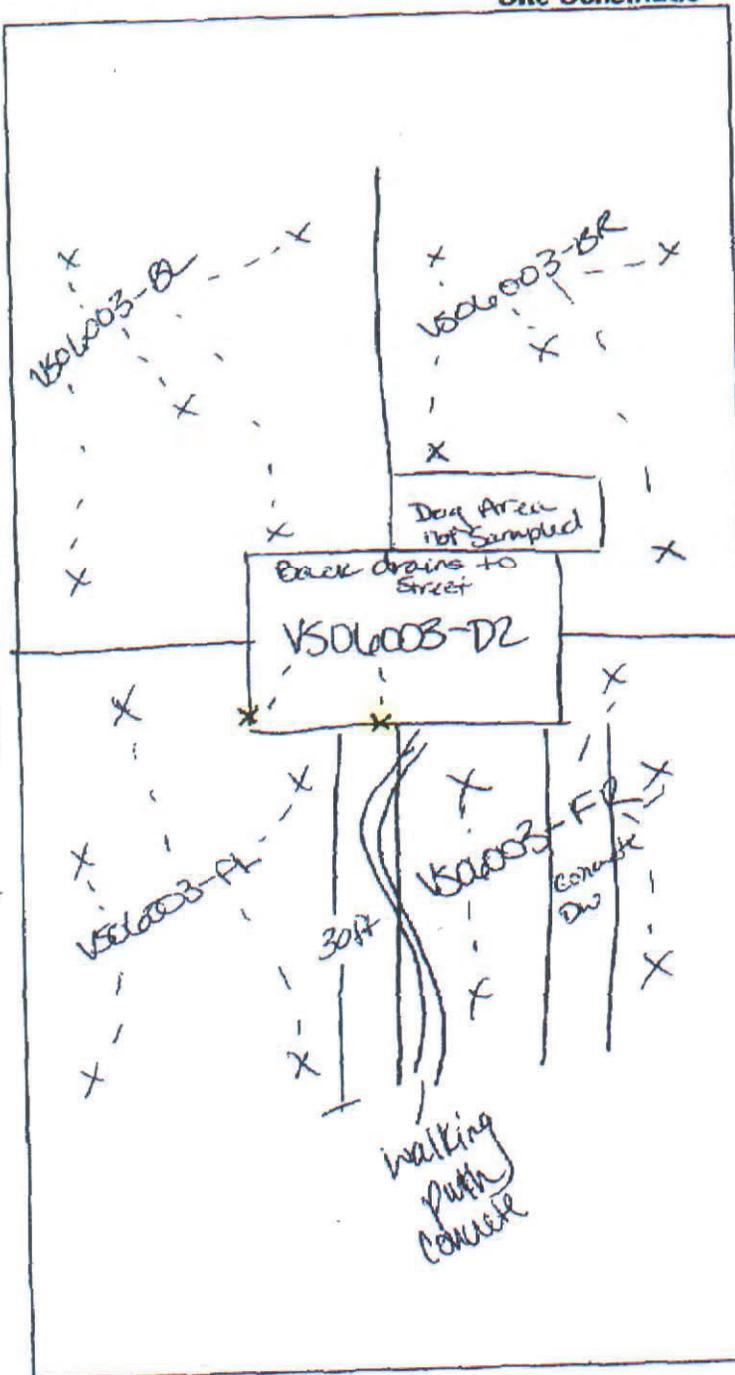
Owner address (if different from above) _____ Phone _____

Person Authorizing Access: Access Letter Phone _____

Signature (optional): _____ Relation to owner _____

Site Schematic

Sample ID	Sample Description	Sample Result	
V506003-FR	FR - front right	101	ppm
V506003-FL	FL - front left	192	ppm
V506003	BR - back right	171	ppm
V506003	BL - back left	139	ppm
V506003	DZ - drip zone	1587	ppm
			ppm



Notes:

Homeowner told us no children live at residence

Sampling Team Initials: [Signature]

VS06006 23 St Joseph St

Priority: TC-3-DW

Yard Soil and Gravel Removal Status

Date of Access Letter: 4/9/07

Yard Soil Removal Status Removed

Date of Access 4/9/08

Date of Removal: 6/24/08 **Area (sq ft) Removed (1000 min)** 1,522

Areas of Yard Removed: DW DW2 DZ

Barrier Status: No Barrier

Date of Refusal: NA

Date of Best Effort Letter, if applicable NA

Indoor Dust Cleaning Status

Date of Dust Access Letter: 7/8/08

Status: No Response BEL

Date of Access: NA

Date of Dust Cleaning NA

Date of Dust Cleaning Refusal 12/15/08

Date of Dust Cleaning Best Effort Letter 10/15/08

BEL received - no response

Multiple Unit Statu Number of Occupied Houses/Units on the property: 1

Number of Cleaned Units 0

Number of Refused Units 1

Notes:

CHUA - child high use area - no building to clean; BEL - best effort letter; acc- access; rec - received; rtn- returned; ref - refused; NR - no response to contact attempts; P_Acc - previous access; P_Ref - previous refusal; No Sch or NS- could not schedule cleaning date with resident; HO - homeowner

DW

Soil Sampling Data Form

Yard ID V506006

Property Address 23 St. Joseph St.

Date 3-16-06

Viburnum MO 65566

Owner Name

Phone

Owner address (if different from above)

Person Authorizing Access: Access Letter

Phone

Signature (optional):

Relation to owner

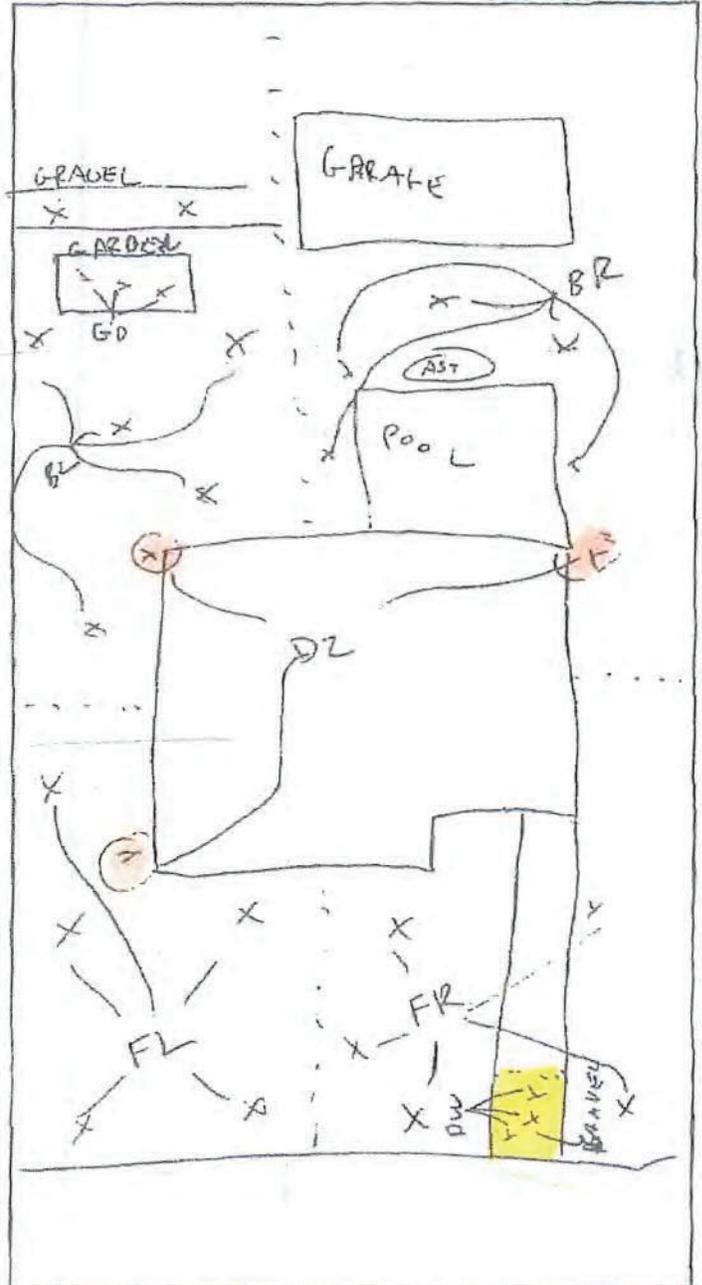
Site Schematic

Sample ID	Sample Description	Sample Result
V506006	FR - front right	310 ppm
V506006	FL - front left	282 ppm
V506006	BR - back right	137 ppm
V506006	BL - back left	127 ppm
V506006	DZ - drip zone	143 ppm
V506006	Garden	101 ppm
V506006	DW Driveway-Gravel	2639 ppm
		ppm
		ppm
		ppm
		ppm
		ppm
		ppm

Notes:

Sampling Team Initials:

MJ/BDC



Vacuum Cleaner Receipt and Acknowledgment

I/we own/live at the residence located at the following address:



This will acknowledge receipt from the Doe Run Company of a true-HEPA filter vacuum cleaner at no cost to me but subject to the following terms and conditions.

- ✓ The vacuum cleaner being provided today, Fuller Brush HEPA #FB80 Vacuum System, is for use at the above-designated residence and is to remain at the above-designated residence if I/we should sell it, move to another residence or for any reason vacate the property
- ✓ The Doe Run Company will not be responsible for repair costs or HEPA filter replacement costs
- ✓ The vacuum cleaner was purchased by The Doe Run Company from *The Vacuum House* at 16 East Main Street in Park Hills, Missouri and that facility may be contacted at 573-431-4626 if there are any questions about operational problems with the unit
- ✓ This vacuum cleaner may not be returned to *The Vacuum House* for a cash refund
- ✓ The Doe Run Company is not responsible for any accidents incurred due to the use of this vacuum cleaner
- ✓ If this vacuum cleaner needs to be left with a repairman for more than a few days, a loaner vacuum cleaner may be obtained from The Doe Run Company (573-244-8404) for use during the repair period

Name(s):



(Please Print)

Signature:

Date:

6-29-06

THE
DOE RUN
COMPANY

SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

April 9, 2007

[REDACTED]
23 St Joseph St
Viburnum MO 65566

RE: ACCESS AGREEMENT FOR YARD SOIL/GRAVEL REPLACEMENT
23 St Joseph St, Viburnum, Missouri
VS06006

Dear [REDACTED]:

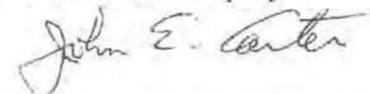
The Doe Run Company is conducting a removal action under an agreement with The U.S. Environmental Protection Agency to remove yard soil and driveway gravel at residences in the City of Viburnum, Iron County, Missouri which contain lead concentrations of 1,200 ppm or greater. Doe Run will also remove those portions of the yard with lead concentrations between 400 and 1,200 ppm, unless the only area greater than 1,200 ppm lead is a gravel area associated with a driveway. In which case, the soil areas will be addressed during future Non-Time-Critical work. Test results of your residential property at 23 St Joseph St, Viburnum, Missouri indicate that your property should be included in this removal action.

Attached is a generalized work plan, which tells what will be done and a tentative timetable for completion. The Final work plan applicable to your property will be developed prior to start-up of the project to further detail what will be done.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The record prior to start-up will be pictures and video indicating plants, shrubs, trees and other structural features of your yard and house. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

In return, by the signature below, Doe Run pledges that the work, as scheduled in the work plan will be performed by our contractor, Compass Environmental, Inc. in a workman-like manner.

The Doe Run Company



John E. Carter, Project Manager
Approval, permission and commitment given

[REDACTED]

Owner(s)

Date

**YARD/DRIVEWAY REPLACEMENT
WORK PLAN**
23 St Joseph St, Viburnum, Missouri
VS06006

WITH ESTIMATED TIMETABLE FOR ACTION
Spring-Summer 2007 *2008 05/11*
(The timetable will be updated based on participants)

The residential yard/driveway replacement actions are pursuant to an agreement between The Doe Run Company and the U.S. Environmental Protection Agency will begin in the Spring of ~~2007~~ *2008 05/11*. The residential yard/driveway replacement action should proceed over a period of a several months, depending on weather conditions, especially rain.

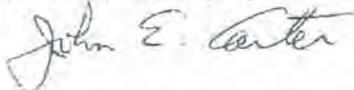
The Doe Run Company (Doe Run) has contracted with Compass Environmental, Inc, an environmental firm located in Indianapolis IN, to do the soil/gravel replacements work. The work on the properties listed above will begin in May/June and will take 2 – 4 days per property. The yard soil/gravel replacement will be done in two stages. The first stage will be to remove the soil/gravel. The second stage will be to replace the soil/gravel. Seeding and strawing will be done at the end of the work on those areas where soil has been placed. The gravel areas will be graded smooth.

Doe Run will provide the property owner with a hose and sprinkler and will pay the water bill for the first two months after the yard soil removal action. It will be the property owner's responsibility to water the yard to insure grass growth. Pictures and videos will be taken of the yard before removal begins. A copy of the pictures and video will be given to the individual homeowners along with this work plan.

The timetable may change by the time the last part of the project is completed. However, homeowners will be notified of our progress. The work in your yard will include:

- Soil/gravel in **DW** removed to a depth of approximately 12 inches
- 12 inches of new soil or gravel will be put in place
- Areas where soil is removed seeded and strawed as appropriate.
- Replacement driveway gravel will be graded smooth.

The Doe Run Company



By: John E. Carter, Project Manager

April 9, 2007

Date

Approval, permission and commitment given



4-9-08
Date

DW

Soil Sampling Data Form

Yard ID VSD6006

Property Address 23 St. Joseph St.

Date 3-16-06

Viburnum MO 65566

Owner Name

Phone

Owner address (if different from above)

Person Authorizing Access:

Access Letter

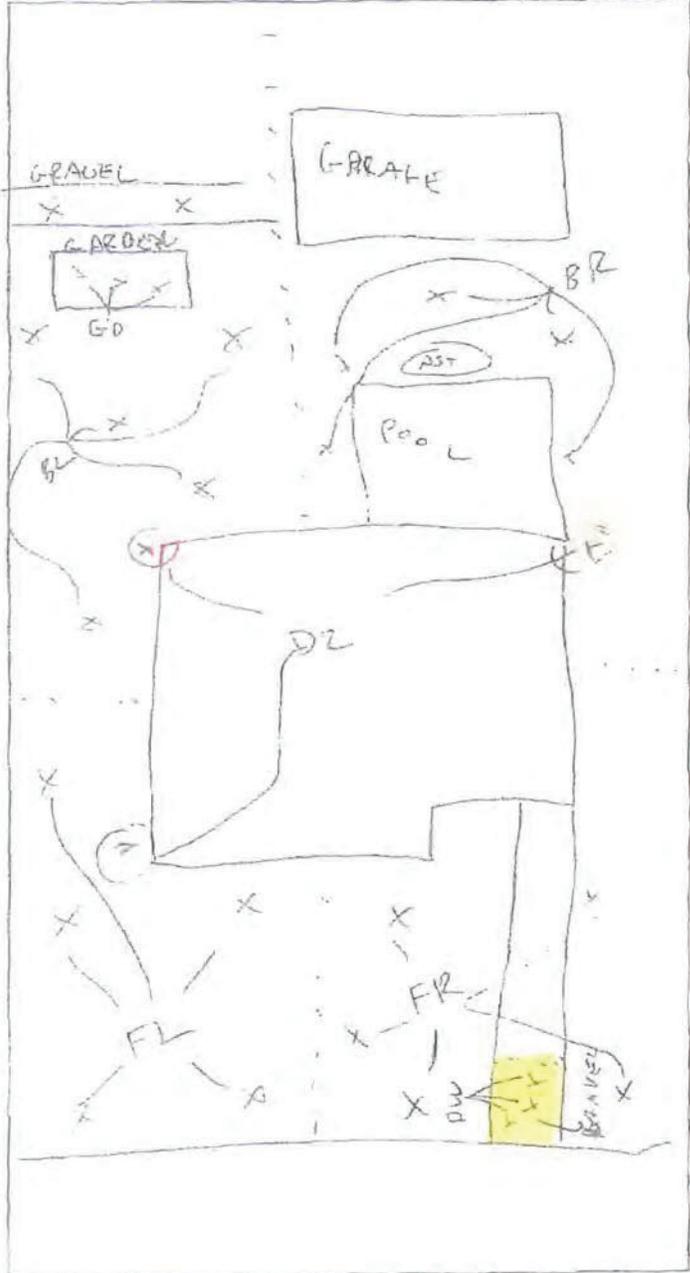
Phone

Signature (optional):

Relation to owner

Site Schematic

Sample ID	Sample Description	Sample Result
VSD6006	FR - front right	360 ppm
VSD6006	FL - front left	281 ppm
VSD6006	BR - back right	127 ppm
VSD6006	BL - back left	143 ppm
VSD6006	DZ - drip zone	105 ppm
VSD6006	Garden	161 ppm
VSD6006	Driveway - Gravel	2639 ppm
		ppm
		ppm
		ppm
		ppm
		ppm
		ppm



Notes:

Notes section with several horizontal lines for writing.

Sampling Team Initials:

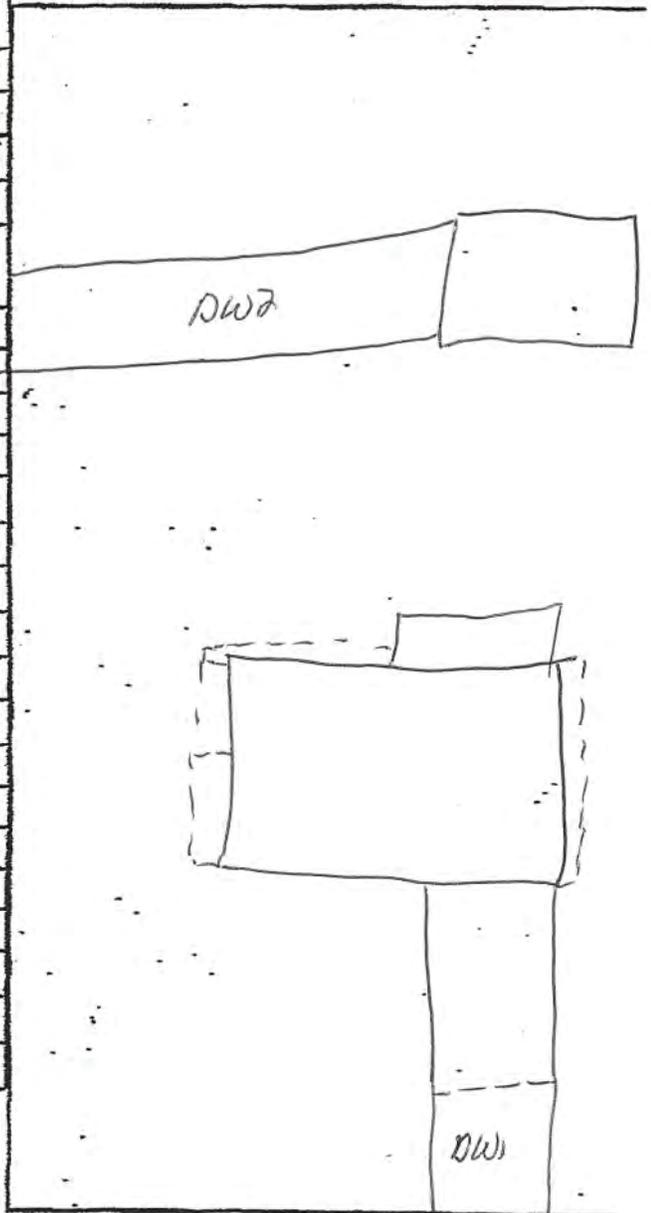
MJ / BDL

Subgrade Soil Sampling Data Form

Yard ID V506006 Date 24 Jun 08
 Property Address 23 St. Joseph
 Area to remove DW1, DW2, DZ 1522 sq ft

Site Schematic

Sample ID	XRF #	Note	Sample Result
1	547	V506006 DW1	130 < 66 ppm
2	548	" DW2 sub	130 < 71 ppm
3	549	" DZ sub	130 < 71 ppm
4			ppm
5			ppm
6			ppm
7			ppm
8			ppm
9			ppm
10			ppm
11			ppm
12			ppm
13			ppm
14			ppm
15			ppm
16			ppm
17			ppm
18			ppm
19			ppm
20			ppm
21			ppm
22			ppm
23			ppm
24			ppm



Notes: No barrier

Sampling Team initials: AS/H



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

October 15, 2008

[REDACTED]
23 St Joseph St
Viburnum MO 65566

RE: **Access to Your Property for Residential Interior Dust Cleaning Work**
23 St Joseph St
VS06006

Dear [REDACTED]

The Doe Run Company is required under an Administrative Order on Consent (AOC) with the US Environmental Protection Agency (EPA) with an effective date of May 9, 2007, and an accompanying Statement of Work (SOW), to use "best efforts" as defined in Section IX, Paragraph 35 to obtain all necessary access agreements to conduct, if certain criteria are met, residential yard soil removal in specific areas of Iron County in and near the City of Viburnum.

The Doe Run Company provided soil removal at the residence you own at 23 St Joseph St. A copy of the letter and the sampling results were mailed to you approximately thirty days after the sampling. As you agreed to allow your yard soils to be removed and replaced, the house on the property qualifies for a cleaning for interior dust per above-referenced AOC between The Doe Run Company and the EPA.

Representatives of The Doe Run Company have either contacted, or attempted to contact, you in an effort to obtain an access agreement in order to do the interior dust cleaning at the residence listed above. Since no such agreement has resulted from these attempts, The Doe Run Company is by this certified letter fulfilling its "best efforts" to obtain an access agreement to do the interior dust cleaning of the residence listed above.

A copy of the Access Agreement is enclosed. I ask that you please sign it and return it by mail to:
John E. Carter
The Doe Run Company
PO BOX 500
Viburnum MO 65566

If you have questions, feel free to call me at 573-244-8152. The Doe Run Company will make no further effort to contact you on this matter. However, a copy of this letter is being sent to the EPA. These agencies may be in contact with you to urge signing of the Access Agreement.

Sincerely,
The Doe Run Company

A handwritten signature in black ink that reads "John E. Carter". The signature is written in a cursive style with a large initial "J".

John E. Carter
Project Coordinator

cc: Jeffrey Weatherford, EPA



SEMO MINING AND MILLING DIVISION
P.O. BOX 500
VIBURNUM, MO 65566

October 15, 2008

[Redacted]
23 St Joseph St
Viburnum MO 65566

RE: Access Agreement for Interior Dust Cleaning
23 St Joseph St
VS06006

Dear [Redacted]:

The Doe Run Company is conducting a removal action under an agreement with the US Environmental Protection Agency to remove certain soil in residential yards in Iron County in and near the City of Viburnum, which may contain elevated lead concentrations. As you are aware your yard qualified for this removal and you have provided access for The Doe Run Company to perform the soil/gravel removal at your property at 23 St Joseph St. As you agreed to allow portions of your yard soils to be removed, the house on the property qualifies for a cleaning for interior dust.

In order to facilitate and document the work, a record will be made of the condition of the property prior to start-up, as the work proceeds, and on completion. This will enable us to ensure that the work is performed according to plan and in a manner satisfactory to you. The start-up record will be made upon receiving a signed agreement. For us to proceed, we need your approval of the attached generalized work plan, your permission authorizing us to enter your property and perform the work as attached, and your commitment to participate and cooperate with the clean-up plan. Therefore, please sign the extra copy of this letter as indicated below and deliver that copy to us.

Sincerely,
The Doe Run Company

John E. Carter
Project Coordinator

Approval, permission and commitment given

Owner(s)

Date

Resident(s)

Date

**CITY OF VIBURNUM REMOVAL ACTION
INTERIOR DUST CLEANING WORK PLAN**

**23 St Joseph St
VS06006**

The City of Viburnum Removal Action is being conducted pursuant to an Administrative Order on Consent between The Doe Run Company and the US Environmental Protection Agency.

The Doe Run Company has contracted with an environmental firm to do the interior dust cleaning. This cleaning generally takes 6 to 8 hours to complete. You may choose to remain during the cleaning. The work inside the property's house will include:

House walk through to identify areas to clean and the most effective cleaning method per area, replace disposable furnace air filter(s), and complete the house inventory and video record documenting the condition of areas to be cleaned;

Cleaning consisting of any or all the following methods: HEPA and/or water extraction vacuuming and wet wiping, mopping, and/or brush scrubbing using household cleaners and/or 5% trisodium phosphate (TSP);

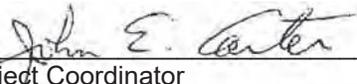
Clearance wipe sampling of cleaned area; and,

Non-intrusive lead-based paint survey of both indoor and outdoor painted surfaces

After The Doe Run Company has received the clearance samples, our contractor will meet again with the resident/owner to complete the Pre & Post Interior Cleaning Inspection Sheet and Completion Form. Results of the sampling will be provided to the homeowner and resident.

During interior dust cleaning, residents are requested to remove and properly secure valuables prior to cleaning and to remove other materials that would interfere with the cleaning process.

The Doe Run Company



Project Coordinator
John E. Carter

October 15, 2008
Date

Approval, permission and commitment given

Owner(s)

Date

Resident(s)

Date

VS06010 15 Crescent St

Priority: TC-3

Yard Soil and Gravel Removal Status

Date of Access Letter: 9/6/07

Yard Soil Removal Status Removed

Date of Access 9/10/07

Date of Removal: 11/20/07 **Area (sq ft) Removed (1000 min)** 1,000

Areas of Yard Removed: DZ

Barrier Status: No Barrier

Date of Refusal: NA

Date of Best Effort Letter, if applicable NA

Indoor Dust Cleaning Status

Date of Dust Access Letter: 9/27/07

Status: Cleaned

Date of Access: NA

Date of Dust Cleaning 2/18/08

Date of Dust Cleaning Refusal NA

Date of Dust Cleaning Best Effort Letter NA

NA

Multiple Unit Statu Number of Occupied Houses/Units on the property: 1

Number of Cleaned Units 1

Number of Refused Units 0

Notes:

CHUA - child high use area - no building to clean; BEL - best effort letter; acc- access; rec - received; rtn- returned; ref - refused; NR - no response to contact attempts; P_Acc - previous access; P_Ref - previous refusal; No Sch or NS- could not schedule cleaning date with resident; HO - homeowner

Soil Sampling Data Form

Yard ID ✓

Property Address 15 Crescent Dr
Viburnum MO 65566

Date 3/12/06

Owner Name [REDACTED]

Phone [REDACTED]

Owner address (if different from above) [REDACTED]

Person Authorizing Access: Access Letter

Phone _____

Signature (optional): _____

Relation to owner _____

Sample ID	Sample Description	Sample Result
⁶⁰¹⁰ VS06010	FR - front right FR	238.3 ppm
VS06010	FL - front left FL	285.5 ppm
VS06010	BR - back right BR	230.6 ppm
VS06010	BL - back left BL	306.0 306.0 ppm
VS06010	DZ - drip zone DZ	1205 ppm
VS06010	PA - Plum Area	244.2 ppm
VS06010	SS - Swing Set	245.4 ppm
		ppm
VS06010	BRC	306.0 ppm
		ppm
		ppm
		ppm
		ppm

Notes:

NOTE: PA has slide, small swing, trampoline

SS has slide, swing

~~DX~~ = Drip Zone from Downspout

DZ = Drip Zone from corner w/o Downspout

DX + DZ - combined into single composite

VS06010 BRC - 306.0 Confirmation

Sampling Team Initials: JR/PE

