



**STATEMENT OF BASIS**

**J.W. FERGUSON & SONS, INC.  
(VAD003109360)**

**September 2012**

# TABLE OF CONTENTS

I.	Introduction.....	1
II.	Facility Background.....	1
III.	Summary of Environmental Investigation .....	2
	A. Closure – Container Storage Area.....	2
	B. LUST Program Cleanup Activities.....	2
	C. Environmental Site Assessment .....	3
	D. Voluntary Remediation Program Cleanup Activities .....	3
	E. RCRA Corrective Action Program Activities.....	4
IV.	Corrective Action Objectives .....	5
	A. Soils .....	5
	B. Groundwater.....	5
V.	Summary of Proposed Remedy .....	5
	A. Groundwater.....	5
	B. Compliance with and Maintenance of Institutional Controls .....	5
	C. Implementation.....	7
	D. Reporting Requirements.....	7
VI.	Evaluation of EPA’s Proposed Remedy.....	7
	A. Threshold Criteria.....	7
	B. Balancing/Evaluation Criteria .....	8
VII.	Public Participation .....	10

## List of Figures

- Figure 1 Site Location Map
- Figure 2 Map of Location of Solid Waste Management Units
- Figure 3 Map of Monitoring Well Locations

## **I. Introduction**

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the J.W. Fergusson & Sons, Inc. facility located at 4107 Castlewood Road, Richmond, Virginia (Facility or Site). EPA's proposed remedy consists of the following two components: 1) performance and maintenance of a groundwater monitoring program 2) compliance with and maintenance of existing Institutional Controls (ICs) that restrict certain land and groundwater uses at the Facility. This SB highlights key information relied upon by EPA in making its proposed remedy.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. For unpermitted facilities, EPA retains primary authority in Virginia for the Corrective Action Program.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section VII, Public Participation, for information on how you may review the AR.

## **II. Facility Background**

The Facility consists of approximately 3.35 acres and is surrounded by a Dominion Virginia Power storage yard, Castlewood Road, a railroad, and commercial developments. The Site is zoned M-1-Light Industrial and is fenced on all sides to restrict access to the Site. A location map is attached as Figure 1.

J.W. Fergusson and Sons, Inc. purchased the Facility in 1962. Prior to this time, the Site was a vacant lot that had not been used in any prior business. The printing operations began in 1964. The Facility was used for that purpose until September 2006 at which time all operations ceased. All manufacturing equipment, process raw materials, and waste materials were removed and transported off-site for reclamation, re-use, or disposal. In addition, all process material tanks and waste tanks were decontaminated and closed in place or removed.

The Facility operated a hazardous waste container storage area with a storage capacity of 2,500 gallons under Interim Status effective November 19, 1980. The Virginia Department of Health (VDH), Division of Solid and Hazardous Waste Management, issued correspondence, dated December 14, 1983, formally requesting the Facility to submit a RCRA Part B Permit Application for management and storage of hazardous waste at the Facility. The VDH was responsible for management of hazardous waste in the Commonwealth prior to the creation of Virginia Department of Environmental Quality (VDEQ) in 1993. The Facility decided to close the container storage area, and subsequently, this area was Certified Clean Closed in accordance with Virginia's Hazardous Waste Management Regulations on October 9, 1984.

The Facility generated hazardous wastes from chrome plating operations and chrome stripping operations, including caustic waste from washing equipment in the printing plant, waste solvents, and still bottoms. Raw materials used at the Site included acetone, toluene, methyl ethyl

ketone (MEK), isopropyl acetate, hexane, alcohols, esters, and ethylene vinyl acetate. The Facility maintained underground storage tanks (USTs) containing raw materials used in the manufacturing process. Additionally, the Facility operated a solvent recovery system that consisted of large granular activated carbon vessels and several above ground storage tanks for containing recovered solvent and waste water from the carbon stripping steam down process.

The Facility was sold to Fergusson Associates LLC in 1996. The Facility has not been occupied or used for any purposes since 2006. Future use of the property is reasonably expected to be industrial based on its location and current zoning status by local jurisdiction (M-1 Light Industrial). Potable water is supplied to the Facility by the City of Richmond Water Supply system.

### **III. Summary of Environmental Investigation**

EPA identified a number of Solid Waste Management Units (SWMUs) at the Facility after reviewing its own files and those maintained by the VDEQ. Environmental investigations and cleanup activities associated with these SWMUs focused on the hazardous waste container storage area (SWMU 4), underground storage tanks containing raw materials used in the manufacturing process (SWMUs 8 and 9), and a solvent recovery system (SWMU 6). A map showing the SWMUs locations is attached as Figure 2. Environmental investigations and cleanup activities were performed in accordance with the VDEQ's Leaking Underground Storage Tank (LUST) Program, the Virginia Voluntary Remediation Program (VRP), and the EPA-authorized Corrective Action program. (The citations to these programs may be found in the Administrative Record.)

#### **A. Closure - Container Storage Area**

On July 2, 1984, the VDH received a Closure Plan for the container storage area (SWMU 4; 2,500 gallons storage capacity). The Closure Plan for the container storage area was approved by the VDH on September 20, 1984. VDH received the J.W. Fergusson & Sons, Inc. Certification of Closure by letter dated October 9, 1984. After clean closure approval, the Facility actively operated the same container storage area as a less than 90-day storage area, until the Facility operations were terminated due to foreclosure in September 2006.

#### **B. LUST Program Cleanup Activities**

In 1993, releases of toluene and n-propyl acetate occurred from two USTs (SWMU 8) located on the south side of the manufacturing building. In accordance with the LUST Program the Facility investigated the nature and extent of the releases under the oversight of the Virginia Water Control Board (VWCB). Soil results indicated the presence of toluene and acetone below EPA Risk Screening Levels (RSLs) for Residential Soils for direct contact with soils. N-propyl acetate was not detected in soil. No free product was encountered during the investigation. Groundwater results indicated a toluene concentration of 9,125 microgram per liter (ug/L), which is above the drinking water standard of 1,000 ug/L. Drinking water standards are established by maximum contaminant levels (MCLs), promulgated at 40 CFR 141, pursuant to Section 1412 of the Safe Drinking Water Act (SDWA), 42 USC Section 300g-1. For contaminants of concern without an applicable MCL, EPA RSL for tap water was used. Acetone was detected in groundwater at 23.3 ug/l, below its risk-based tap water RSL of 22,000 ug/l and n-propyl acetate

was not detected in groundwater. Subsequently, residual fluids were removed from the USTs, and the USTs were closed in place by filling them with concrete. The area overlying the USTs was surfaced with concrete. Subsequently, VDEQ determined that no further action was necessary in accordance with LUST Program requirements.

In 1998, two 12,000 gallon USTs (SWMU 9), one containing a water/MEK mixture and the other containing isopropyl alcohol, were decommissioned and subsequently closed in place using the same methods as described above. The Facility verified the tank's contents by analyzing residual fluids found in the tanks prior to removing the fluids for disposal. Additionally, the Facility collected soil samples adjacent to the USTs to verify that a release had not occurred. Soil sample results did not indicate the presence of hazardous constituents. Subsequently, the USTs were closed in place by filling them with concrete.

### **C. Environmental Site Assessment**

In 2004, an environmental site assessment (ESA) was conducted by GaiaTech for the Facility. The ESA consisted of advancing seventeen soil borings site-wide. Fourteen of the seventeen borings were converted to temporary piezometers, utilizing direct push technology to sample soil and groundwater. Soil and groundwater samples were collected across the Site and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and eight RCRA metals. Soil results indicated that VOCs and SVOCs were below risk-based residential RSLs for direct contact. Groundwater results collected from within the area associated with SWMU 8 (discussed above) at sample location GP-3 (see Figure 3) did not indicate the presence of toluene and acetone as detected previously during the UST investigations. However, groundwater results associated with the southern (SWMU 8) and western portions (SWMU 6) of the property exceeded applicable MCLs and/or risk-based RSLs for tap water for a number of VOCs, including benzene and 1,1-dichloroethylene (1,1-DCE).

### **D. Voluntary Remediation Program Cleanup Activities**

The Facility further investigated groundwater conditions associated with the western portion of the property from 2004 to 2007 pursuant to VRP requirements. This area of the property was impacted by releases from the Facility's solvent recovery system as discovered during the ESA. Groundwater monitoring wells were installed upgradient and downgradient of the area to characterize groundwater conditions. During this time the Facility stopped manufacturing activities and the solvent recovery system, including manufacturing equipment, were removed from the property. The Facility performed on-going groundwater monitoring from 2005 to 2007. Results of this monitoring indicated that in 2007 primarily benzene, arsenic, and chromium exceeded MCLs. Groundwater results indicate contamination is confined to the Site. The Facility performed a risk assessment under the VRP, which concluded that contamination in the soil and groundwater at the Facility does not present an unacceptable risk to human health or the environment provided that the groundwater beneath the property is not used for any purpose other than environmental monitoring and testing, and provided that the property is not used for residential purposes or for children's facilities, schools or playground purposes. As a result of the risk assessment, the VRP required that the Facility impose a land use restriction on the entire property to ensure current and future use of the property as industrial and impose a property use restriction on the entire property prohibiting the use of the groundwater from beneath the property for purposes other than environmental testing. A Declaration of Restrictive Covenants was signed on March 25, 2008 by the owner of the property detailing the land

restriction. Subsequently, the Facility was issued a "Certification of Satisfactory Completion" in accordance with the VRP in 2008.

### **E. RCRA Corrective Action Program Activities**

In 2010 the Facility conducted limited groundwater monitoring of the existing wells previously installed under the VRP. Results of this monitoring indicated that benzene, vinyl chloride, lead, and arsenic exceeded MCLs. The MCL for benzene is 5 ug/L and for vinyl chloride it is 2 ug/L. Benzene and vinyl chloride in groundwater were observed above MCLs in MW-5 at 21 ug/l and 2.63 ug/l, respectively. Lead in groundwater was observed just above its MCL (15 ug/L) in MW-3 at 16.2 ug/l and arsenic in groundwater was observed above its MCL (10 ug/L) in MW-2 (19.8 ug/l), MW-3 (50 ug/l), and MW-5 (32.5 ug/l). Lead and arsenic were not managed at this Facility and are not associated with identified SWMUs. The lead and arsenic levels were suspected to be elevated due to the high turbidity levels in the shallow wells and the use of bailers in sampling. These groundwater monitoring results are consistent with previous results from 2007. Additionally, the low levels of benzene and vinyl chloride verify that source areas have been removed effectively.

In addition to groundwater, soil sample results for organic and inorganic constituents collected during the previous investigations were re-evaluated using the most current screening criteria, which consisted of risk-based residential and industrial RSLs for direct contact and transfer from soil to groundwater. Site screening levels utilizing a dilution attenuation factor of 1. Results of this evaluation indicated that several organic and inorganic constituents exceeded residential RSLs for direct contact. However, except for arsenic in two soil samples, industrial RSLs were not exceeded in soil at the Site. Based on the 2004 ESA data, arsenic exceeded its industrial RSL of 1.6 mg/kg in soil in samples GP-3 (2.5 mg/kg) and GP-8 (9.6 mg/kg). Sample GP-3 was collected from 10 to 12 feet below ground surface, which is below the potentiometric surface of the groundwater table at the Site. Sample GP-8 was collected from 4 to 6 feet below ground surface. It should be noted that based on historical records arsenic was not managed at this Facility. The arsenic concentrations are consistent with regional background concentrations for arsenic in soil.

In 2011 and 2012, the Facility completed additional activities that consisted of installing and sampling of two new groundwater monitoring wells in efforts to show: 1) that previously detected concentrations of inorganics, specifically arsenic and chromium, in groundwater at the Site were most likely influenced by poor groundwater quality conditions (turbidity) at existing site wells and 2) to verify attenuation and/or stability of 1,1-DCE in groundwater within the area of SWMU 8. Results of these activities confirmed that, based on unfiltered groundwater sample results, concentrations of arsenic and chromium were below MCLs, which indicates that inorganics are significantly influenced by turbidity at this Site and that previous results were high due to poor groundwater quality conditions associated with the existing monitoring wells. Lead was not analyzed since there was only one previous exceedance. In addition, sample results indicated that 1,1-DCE in groundwater associated with SWMU 8 had attenuated, but was still present above its MCL of 7ug/l.

Based on the available data for this Facility, it appears that the MCLs for benzene, vinyl chloride, and 1,1-DCE are not met. The most recent concentrations for these constituents include 21.5 ug/l of benzene in MW-5, 2.63 ug/l of vinyl chloride in MW-5, and 7.13 ug/l of 1,1-DCE in MW-7 (duplicate sample 9.94 ug/l). However, stabilization and/or attenuation of these constituents has been observed in review of the historical data. The Facility implemented a

groundwater monitoring program in accordance with a VDEQ approved Groundwater Monitoring Plan, dated May 31, 2012 to continue monitoring constituents that exceed MCLs.

#### **IV. Corrective Action Objectives**

##### **A. Soils**

EPA has determined that industrial RSLs are protective of human health and the environment for individual contaminants at this Facility provided that the Facility is not used for residential purposes. Therefore, EPA's Corrective Action Objective for Facility soils is to control exposure to the hazardous constituents remaining in soils by requiring the compliance with and maintenance of land use restrictions at the Facility.

##### **B. Groundwater**

EPA has determined that MCLs are protective of human health and the environment for individual contaminants at this Facility. EPA's Corrective Action Objectives for Facility groundwater are the following:

1. To control exposure to the hazardous constituents remaining in the groundwater by requiring the compliance with and maintenance of groundwater use restrictions at the Facility as long as groundwater clean-up standards, namely MCLs, are exceeded.
2. To monitor long-term stability of hazardous constituents in groundwater.

<u>Constituent</u>	<u>Cleanup Standard</u>
Benzene	MCL, as listed in 40 CFR Part 141, Subpart G
Vinyl Chloride	MCL, as listed in 40 CFR Part 141, Subpart G
1,1-DCE	MCL, as listed in 40 CFR Part 141, Subpart G

#### **V. Summary of Proposed Remedy**

##### **A. Groundwater**

The continuation of the groundwater monitoring program under the VDEQ approved groundwater monitoring plan to monitor progress and to confirm long-term stability of hazardous constituents in groundwater until groundwater standards are met.

##### **B. Compliance with and Maintenance of Institutional Controls**

ICs are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination by limiting land or resource use and inform subsequent purchasers of the environmental conditions at the Facility and of EPA's final remedy for the Facility. Under this proposed remedy, some contaminants remain in the groundwater and

soil at the Facility above levels appropriate for residential uses. Because some contaminants remain in the soil and groundwater at the Facility at levels which exceed residential use, EPA's proposed remedy requires the compliance with and maintenance of land and groundwater use restrictions.

The ICs shall include, but not be limited to, the following land and groundwater use restrictions, access, and reporting requirements:

1. Groundwater at the Facility shall not be used for any purpose other than monitoring activities required by VDEQ and EPA, unless it is demonstrated to EPA, in consultation with VDEQ, that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy and EPA, in consultation with VDEQ, provides written approval for such use;
2. The Facility property shall not be used for residential purposes unless it is demonstrated to EPA, in consultation with VDEQ, that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy and EPA, in consultation with VDEQ, provides written approval for such use;
3. EPA and VDEQ must provide advance written approval for the installation of new groundwater wells on the Facility property;
4. The Facility will not be used in a way that will adversely affect or interfere with the integrity or protectiveness of the final remedy;
5. Owner agrees to allow EPA, state, and/or their authorized agents and representatives access to the property to inspect and evaluate the effectiveness of the final remedy and if necessary, to conduct additional remediation to ensure the protection of public health and safety and the environment based upon the final remedy to be selected by EPA in the Final Decision and Response to Comments (FDRTC);
6. Owner agrees to provide EPA and VDEQ with a "Certified, True and Correct Copy" of any instrument that conveys any interest in the Facility property or any portion thereof;
7. Require that vapor mitigation be utilized in or beneath new, totally enclosed structures designed for occupation within the footprint of the contaminated groundwater plume identified above protective levels, unless it is demonstrated to EPA and VDEQ that it is not necessary to protect human health;
8. All earth moving activities, including excavation, drilling and construction activities, in the SWMUs and/or areas of concern at the Facility shall be conducted in accordance with a materials management plan approved by EPA in consultation with VADEQ and in such a manner that such activity will not pose a threat to human health and the environment or adversely affect or interfere with

the final remedy.

### **C. Implementation**

EPA proposes to implement the institutional controls through an enforceable mechanism such as an order, permit or an Environmental Covenant, pursuant to the Virginia Uniform Environmental Covenants Act, Title 10.1, Chapter 12.2, Sections 10.1-1238 through 10.1-1250 of the Code of Virginia. Therefore, EPA does not anticipate any regulatory constraints in implementing its proposed remedy.

### **D. Reporting Requirements**

EPA's proposed remedy includes the following reporting requirements for the J.W. Fergusson & Sons, Inc. Facility:

1. Compliance with and effectiveness of institutional controls and engineering controls implemented at the J.W. Fergusson & Sons, Inc. Facility shall be evaluated every three (3) years. The evaluation will include, but not be limited to, a review of groundwater and land uses within one mile of the Facility property boundary and zoning maps or planning documents that may affect future land use in the impacted area. A report documenting the findings of the evaluation shall be provided to EPA and VDEQ.
2. Compliance with and effectiveness of the proposed remedies at the Facility in reducing contaminant concentrations and restoring the groundwater to MCLs shall be evaluated and included in a biennial Groundwater Monitoring Report as required by the approved Groundwater Monitoring Plan. Groundwater results from the Facility shall also be reported in the Groundwater Monitoring Report.

## **VI. Evaluation of EPA's Proposed Remedy**

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three decision threshold criteria as general goals. In the second phase, for those remedies that meet the threshold criteria, EPA then evaluates seven balancing criteria to determine which proposed decision alternative provides the best relative combination of attributes.

### **A. Threshold Criteria**

#### **1. Protect Human Health and the Environment**

This proposed remedy protects human health and the environment from exposure to contamination for current and anticipated future land use. Based on the results of previous investigations and cleanup activities all known sources of contamination have been characterized and addressed. Further investigation or engineering controls are not necessary to protect human health or the environment.

The Facility property is currently vacant with the exception of the old manufacturing building, concrete slab, and paved areas and there are no active SWMUs present. Potable water is supplied to the property by the City of Richmond Water Supply System. Groundwater use, for purposes other than environmental testing and residential use of the property are currently restricted via environmental covenant. The Facility is required to maintain these existing restrictions, which will ensure ongoing protection of human health and the environment. The Facility is required to continue the groundwater monitoring program to monitor progress and to confirm containment of hazardous constituents at the Facility.

## **2. Achieve Media Cleanup Objectives**

EPA's proposed remedy meets the appropriate cleanup objectives based on current and reasonably anticipated future land and water resource use. The current use of the property is industrial and the reasonably anticipated future use of the property is industrial based on current zoning status (M-1 Light Industrial) and existing property use restrictions. The property is currently unoccupied and potable water is supplied to the Facility by the City of Richmond. For soil, several constituents in the subsurface were detected above residential screening criteria. However, with the exception of arsenic in two soil samples, constituents were below industrial screening criteria. The arsenic concentrations are within EPA Region 3's acceptable risk range of 10E-6 to 10E-4, are consistent with regional background levels, and were also shown to not present an unacceptable risk to human health or the environment based on the results of a human health risk assessment performed pursuant to the VRP. With the existing land use restrictions in place, EPA has determined that media cleanup objectives for soil under an industrial land use scenario have been attained.

For groundwater, benzene, vinyl chloride, and 1,1-DCE are still above media cleanup standards (MCLs). However, there is no current use of the groundwater from beneath the property as a drinking water source. Existing institutional controls restricting the use of groundwater from beneath the property will remain in place and groundwater monitoring will continue until groundwater cleanup standards (MCLs) for these constituents have been met. Groundwater monitoring data will be evaluated periodically to ensure that contaminants continue to decline.

## **3. Remediating the Source of Releases**

In all proposed remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. Since 1984, the Facility has removed all potential and/or known sources of releases and remediated impacts from those releases in accordance with various program requirements. In 2006, the Facility permanently closed. At that time, the Facility completed a Facility-wide shutdown that involved the demolition and removal of all manufacturing equipment and related product and waste storage tanks, including the solvent recovery system. No known sources or source areas remain at the Facility.

## **B. Balancing/Evaluation Criteria**

### **1. Long-Term Effectiveness**

The proposed remedy will maintain protection of human health and the environment over

time by controlling exposure to the hazardous constituents remaining in soil and groundwater. EPA's proposed remedy requires on-going compliance with and maintenance of the land use and groundwater use restrictions at the Facility. EPA anticipates that the land use and groundwater use restrictions will be implemented through an enforceable mechanism such as an order, permit, or an environmental covenant to be recorded with the deed for the Facility property. Groundwater at the Facility will be monitored periodically to ensure that contaminant levels continue to decline and do not leave the Facility.

## **2. Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents**

The reduction of toxicity, mobility and volume of hazardous constituents at the Facility has already been achieved by previous cleanup activities summarized above pursuant to the Virginia Solid and Hazardous Waste Regulations and environmental cleanup programs, LUST, VRP and RCRA Corrective Action.

## **3. Short-Term Effectiveness**

EPA's proposed remedy does not involve any activities, such as construction or excavation that would pose short-term risks to workers, residents, and the environment. In addition, the land use and groundwater use restrictions have already been implemented through an environmental covenant recorded with the deed for the Facility property.

## **4. Implementability**

EPA's proposed remedy is readily implementable. Land use and groundwater use restrictions are already in place for the Facility. A Groundwater Monitoring Plan for continued monitoring of the contaminants in groundwater was approved by the VDEQ on June 11, 2012 and was immediately implemented subsequent to the approval.

## **5. Cost**

EPA's proposed remedy is cost effective. Given that a land use restriction has already been recorded in the title for the Facility property, and that all necessary components of the groundwater monitoring program are in place and are currently operational, the only recurring costs are operation and maintenance (O&M) and reporting costs of the monitoring network. These costs are minimal.

## **6. Community Acceptance**

EPA will evaluate Community acceptance of the proposed remedy during the public comment period and will be described in the Final Decision and Response to Comments.

## **7. State/Support Agency Acceptance**

EPA will evaluate State acceptance of the proposed remedy during the public comment period and will describe the State's position in the Final Decision and Response to Comments.

## VII. Public Participation

Before EPA makes a final decision on its proposed remedy for the Facility, the public may participate in the decision selection process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed remedy. It is available for public review during normal business hours at:

U.S. EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103  
Contact: Mike Jacobi  
Phone: (215) 814-3435  
Fax: (215) 814-3114  
Email: [jacobi.mike@epa.gov](mailto:jacobi.mike@epa.gov)

or

Virginia Department of Environmental Quality  
629 East Main Street  
P.O. Box 1105  
Richmond, Virginia 23218  
Contact: Mr. Brett Fisher  
Phone: (804) 698-4219  
Email: [Brett.Fisher@deq.virginia.gov](mailto:Brett.Fisher@deq.virginia.gov)

Interested parties are encouraged to review the AR and comment on EPA's proposed remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Mike Jacobi. EPA will hold a public meeting to discuss this proposed remedy upon request. Requests for a public meeting should be made to Mike Jacobi.

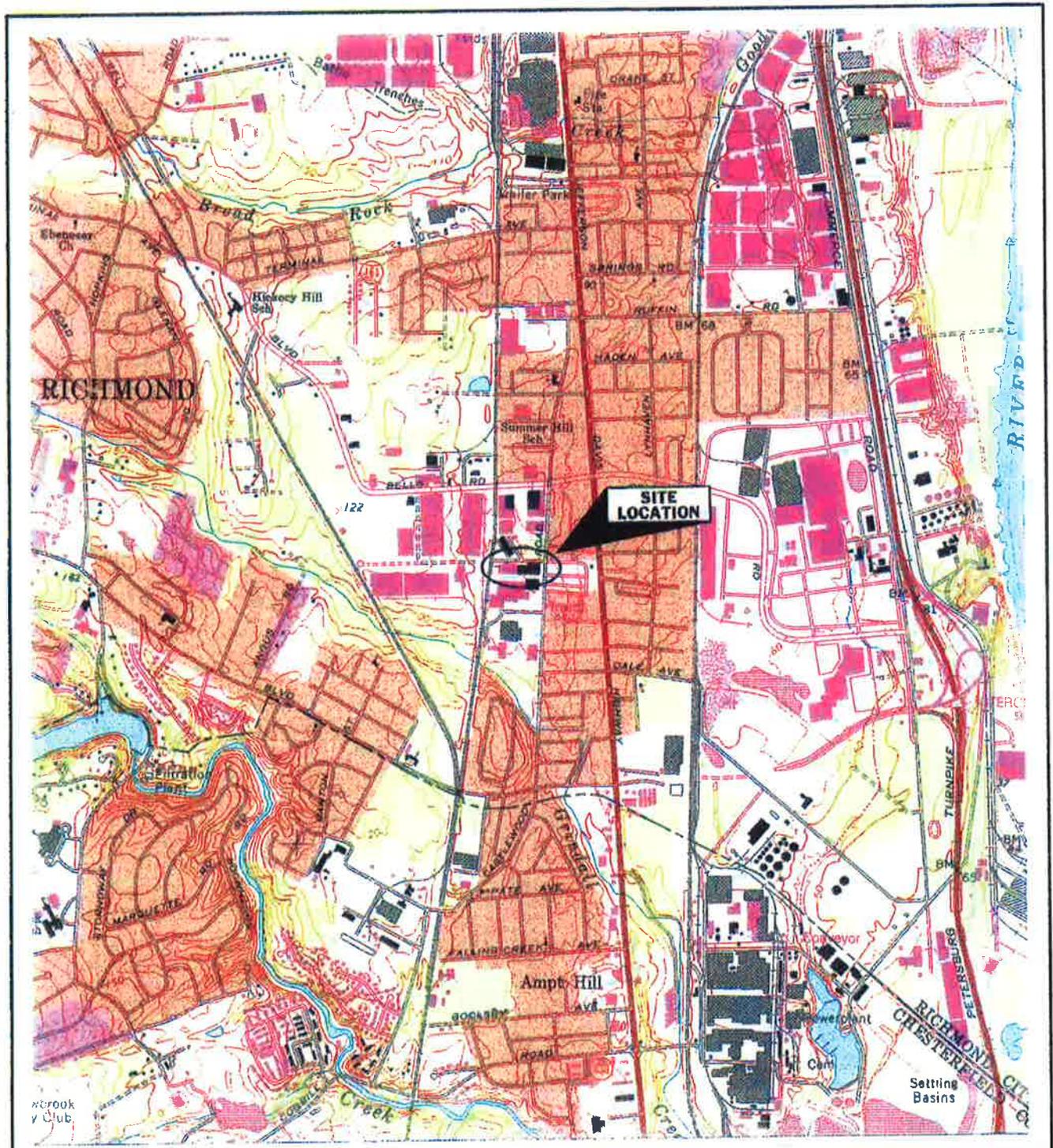
EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed remedy, EPA will modify the proposed remedy or select other alternatives based on such new information and/or public comments. EPA will announce its final decision and explain the rationale for any changes in a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed remedy will receive a copy of the FDRTC. Others may obtain a copy by contacting Mike Jacobi at the address listed above.

Date:

9/27/12



Abraham Ferdas, Director  
Land and Chemicals Division



Brook & Club



SCALE: 1" = 2,000'

Source: USGS Topographic Survey, Drewry's Bluff, Virginia (1969)

**Former J.W. Fergusson & Sons Site  
Richmond, Virginia**

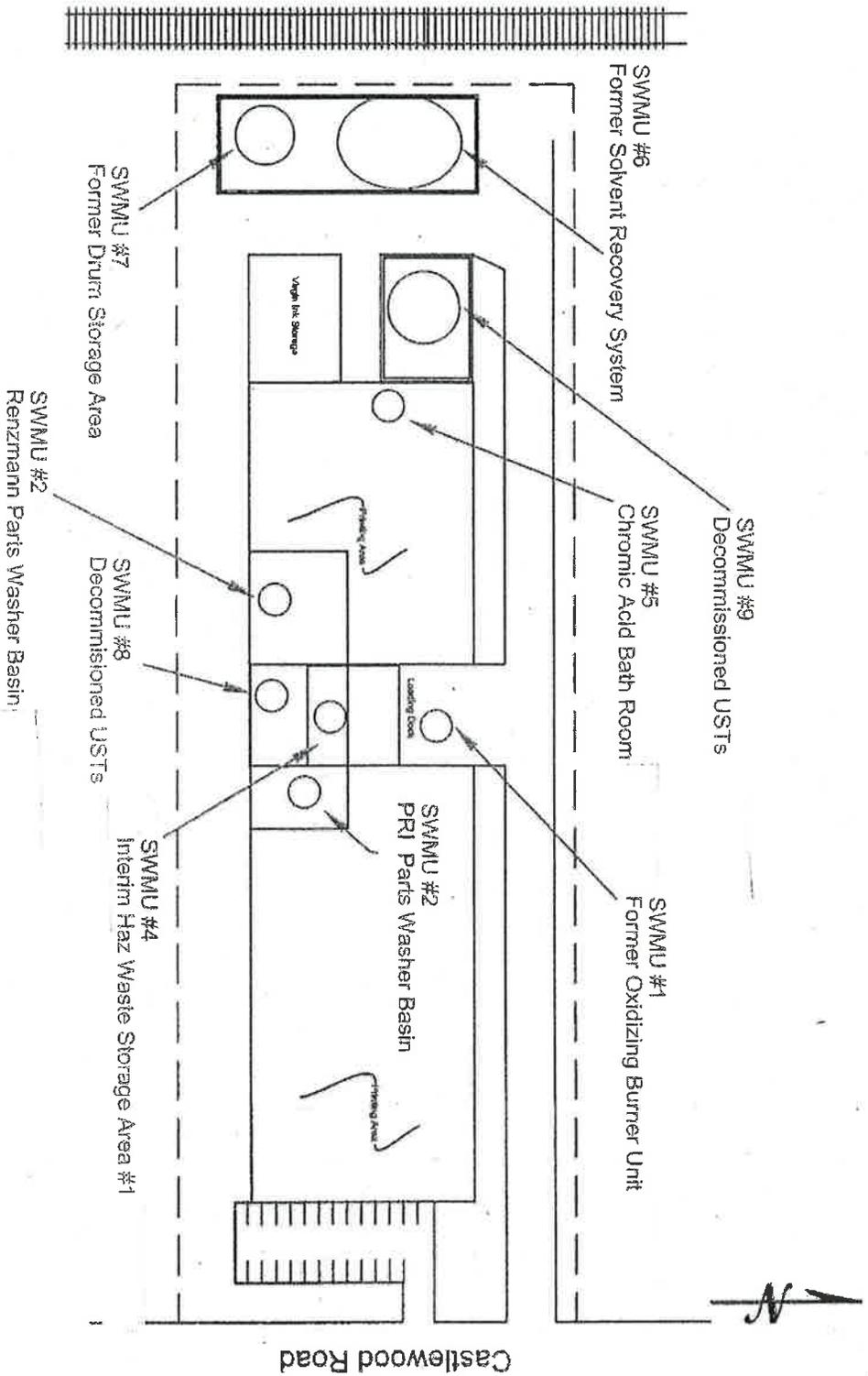
**Figure 1**

DATE  
10/8/10 - QFN-11.dwg

**Site Location**

SCALE  
1" = 2,000'

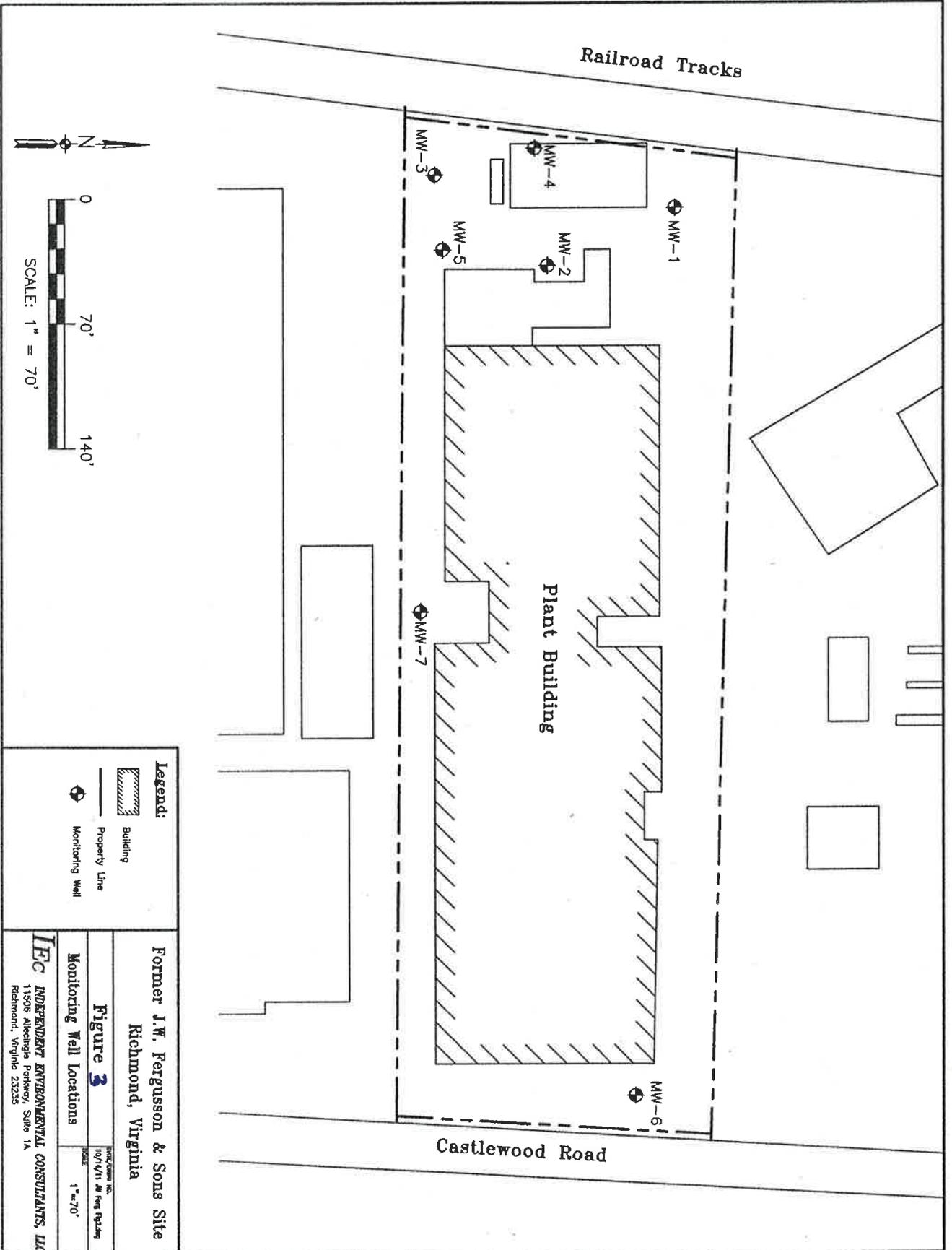
**IEC** INDEPENDENT ENVIRONMENTAL CONSULTANTS, LLC  
11506 Allecingle Parkway, Suite 1A  
Richmond, Virginia 23235



Utah Army Corps  
of Engineers  
Western District

Former J. W. Fergusson  
Solid Waste Management Units

FIGURE 2



**Legend:**

- Building
- Property Line
- Monitoring Well

**Former J.W. Fergusson & Sons Site**  
 Richmond, Virginia

**Figure 3**

Project Name No.	10/11/11 at Red Building
Scale	1" = 70'

**Monitoring Well Locations**

**IEC** INDEPENDENT ENVIRONMENTAL CONSULTANTS, LLC  
 11505 Albedingia Parkway, Suite 1A  
 Richmond, Virginia 23235