

**U.S. Environmental Protection Agency
Region 5**

**STATEMENT OF BASIS
For the PLM Properties, LLC Site
Formerly Steel Products Engineering Company (SPECO)
2941 Baker Road
Springfield, OH
OHD 097 537 609**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
INTRODUCTION	3
PROPOSED REMEDY	3
FACILITY BACKGROUND	3
Figure 1 - Facility Location Map	6
Figure 2 – Detailed Facility Map	7
Figure 3 - Facility Map with Ground Water Monitoring Wells	8
SUMMARY OF FACILITY RISKS	9
SCOPE OF CORRECTIVE ACTION	16
DESCRIPTION OF PROPOSED REMEDY	17
REMEDY SELECTION CRITERIA	19
PUBLIC COMMENT AND PARTICIPATION	22

INTRODUCTION

This Statement of Basis for PLM Properties, LLC (formerly Steel Products Engineering Company, Inc., (SPECO) site in Springfield Ohio) explains the process for cleaning up contaminated soils and groundwater, protecting against future harm from the site, and provides the rationales for the proposal. The U.S. Environmental Protection Agency (U.S. EPA) is issuing this Statement of Basis as part of its public participation responsibilities under the Resource Conservation and Recovery Act (RCRA). As described below, members of the public are being afforded an opportunity to review and comment on the cleanup and protection proposal set forth below.

This document summarizes information that can be found in greater detail in the Administrative Record for this Site (Attachment 1). The U.S. EPA and the Ohio Environmental Protection Agency (OEPA), which directed the closure of regulated units at the site, encourage interested members of the public to review these documents in order to gain a more comprehensive understanding of the site and the RCRA-related activities that have been conducted, and are being proposed, at the site.

PROPOSED REMEDY

The U.S. EPA, in conjunction with the OEPA, is proposing that PLM Properties, Inc. will implement the following remedy to address the contaminated soils and groundwater at the site:

- Maintenance of the existing Institutional Control which limits the use of land to industrial/commercial, and prohibits the use of groundwater on the site,
- Monitored Natural Attenuation (MNA) of the groundwater contamination, with a contingent remedy to be implemented if MNA is not successful, and
- Financial Assurance to demonstrate that funds will be available for implementation of the selected remedy.

FACILITY BACKGROUND

The PLM Properties, Inc. facility is located in a rural/suburban area three miles northwest of Springfield, Ohio (see Figure 1, Facility Map). It is now occupied by Lewisburg Container Corporation, a company which makes cardboard boxes and does not use hazardous chemicals.

Most of the property now owned by PLM Properties, Inc. (about 50 acres) was owned and operated by the former SPECO company. At this location, SPECO manufactured gears and other metal products for the aircraft industry. The original site covered 71 acres and was surrounded on three sides by farmland. The Mad River is located

approximately 1000 feet southeast of the plant. Pondy Creek, a tributary to the Mad River, crosses the site about 500 feet to the west of the plant. Railroad Tracks are present along the western boundary of the site. The site includes a plant, an administration building, and undeveloped areas of farmland and woods.

The site was occupied by farmland until 1956, when SPECO initiated their manufacturing operation there. While in operation, SPECO manufactured metal parts for the aircraft industry. The manufacturing process consisted primarily of precision machining on forgings, castings, and bar stock of high temperature alloys such as magnesium, titanium, aluminum and steel. Processes conducted there included heat treating, plating, anodizing, sand blasting, painting, metal cleaning with volatile organic solvents, and product testing.

SPECO ceased regulated operations in 1996, when the company went into bankruptcy proceedings. Part of the bankruptcy settlement with the Ohio Attorney General's Office, was the dissolution of assets and payment of proceeds to creditors. Under this settlement, some of the remaining property not sold to PLM Properties, Inc. was deeded to a Mr. Ed Lockwood, who owned Springfield Environmental, Inc./Lockwood Laboratories. Mr. Lockwood received the property as back payment for environmental remediation work done for SPECO over a number of years. PLM Properties, LLC purchased the eastern 50+ acres of the former SPECO site in December, 1998.

The Site Location Map, Detailed Facility Map, and Facility Map with Groundwater Well Locations are shown in Figures 1, 2 and 3 respectively, in the pages that follow:

SPECO operated two hazardous waste storage units regulated under the Resource Conservation and Recovery Act. Those units were the Hazardous Waste Drum Storage Area (SWMU 11) and the Waste Paint Solvent Storage Tank (SWMU 13).

Hazardous Drum Storage Area (SWMU 11)

Drums that contained spent cleaning solvents such as spent TCE, spent plating solutions and waste paint-related materials were stored in this unit prior to off site disposal. This unit was characterized as having a high release potential based upon PA/VS document reviews and company records.

Waste Paint Solvent Storage Tank (SWMU 13)

A tank that contained waste paint solvents was stored in this area. This unit was characterized as having a high release potential based upon document reviews and company records. It was purported to have contained toluene, methyl ethyl ketone, and other organic solvents.

SPECO submitted Closure Plans for both of these units to OEPA and OEPA approved them. Closure activities began in 1989. Hazardous wastes were removed from the units and the structures were removed. By 1996, the contaminated soils had been removed and the remaining soils were determined not to pose a threat to human health

or the environment; however, some contaminants had leached into the groundwater. The principal groundwater contaminant at the facility is trichloroethylene (TCE), and the concentrations of TCE downgradient of this area were as high as 350 parts per billion (ppb). Most of the values ranged from 40 to 60 ppb, which were approximately 10 times higher than the US EPA's and OEPA's maximum contaminant level (MCL) of 5 ppb for drinking water. Accordingly, a groundwater remediation system was installed near these two units. It was designed to reduce the concentrations of TCE and related volatile organic compounds (VOCs) in shallow groundwater to levels to below the MCLs.

As a result of the SPECO bankruptcy settlement with the Ohio Attorney General's office, the system was to be operated for five (5) years after installation. The groundwater extraction and treatment system was removed at the end of the 5-year period. Although the TCE concentrations have been reduced significantly, they are still approximately twice the EPA Maximum Contaminant Level (MCL) of 5 parts per billion (ppb) near the source (approximately 10 ppb), and approximately 30 ppb at MW 19 (the most downgradient well near the Mad River).

Figure 1 – Facility Map

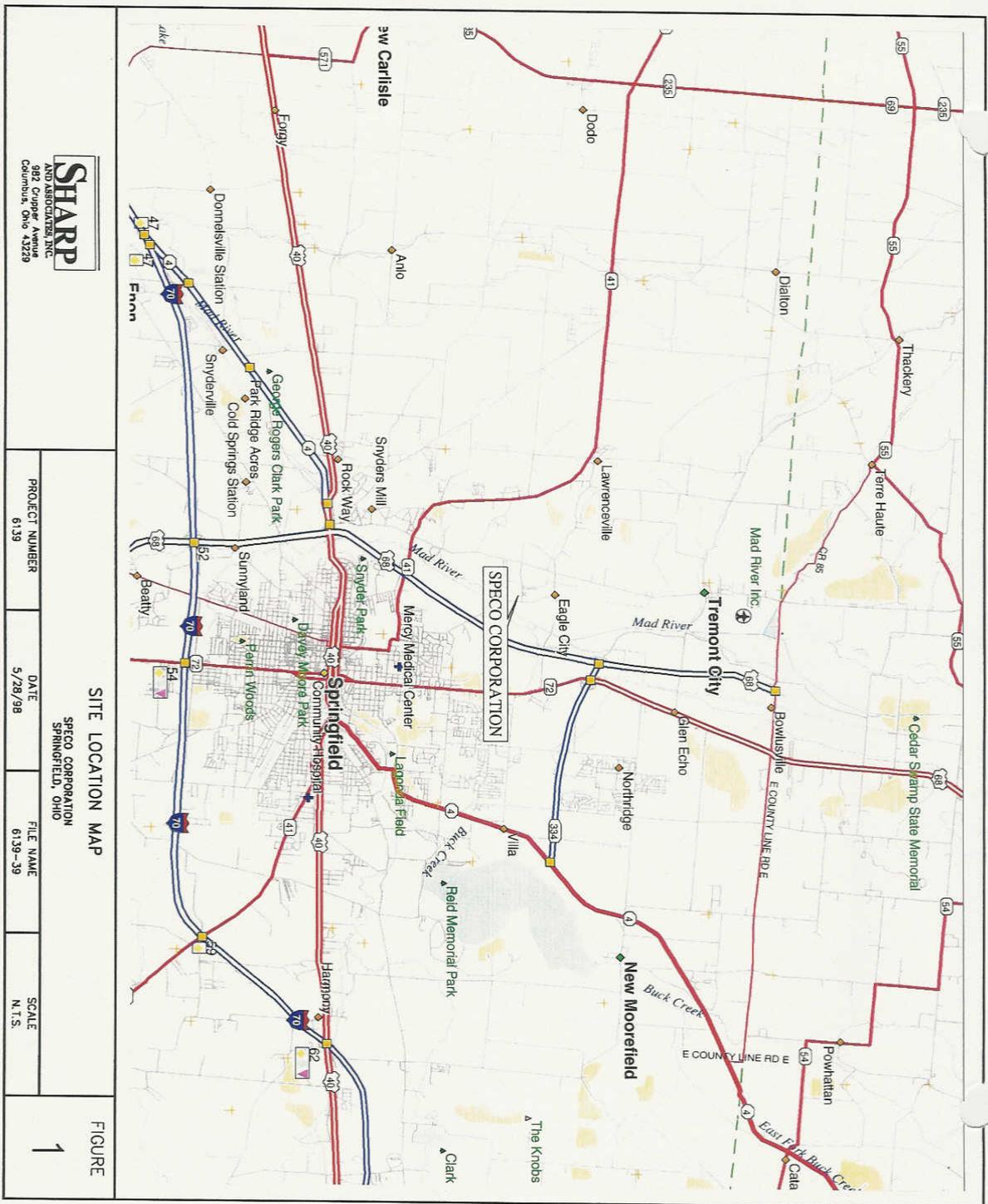


Figure 2 – Detailed Facility Map

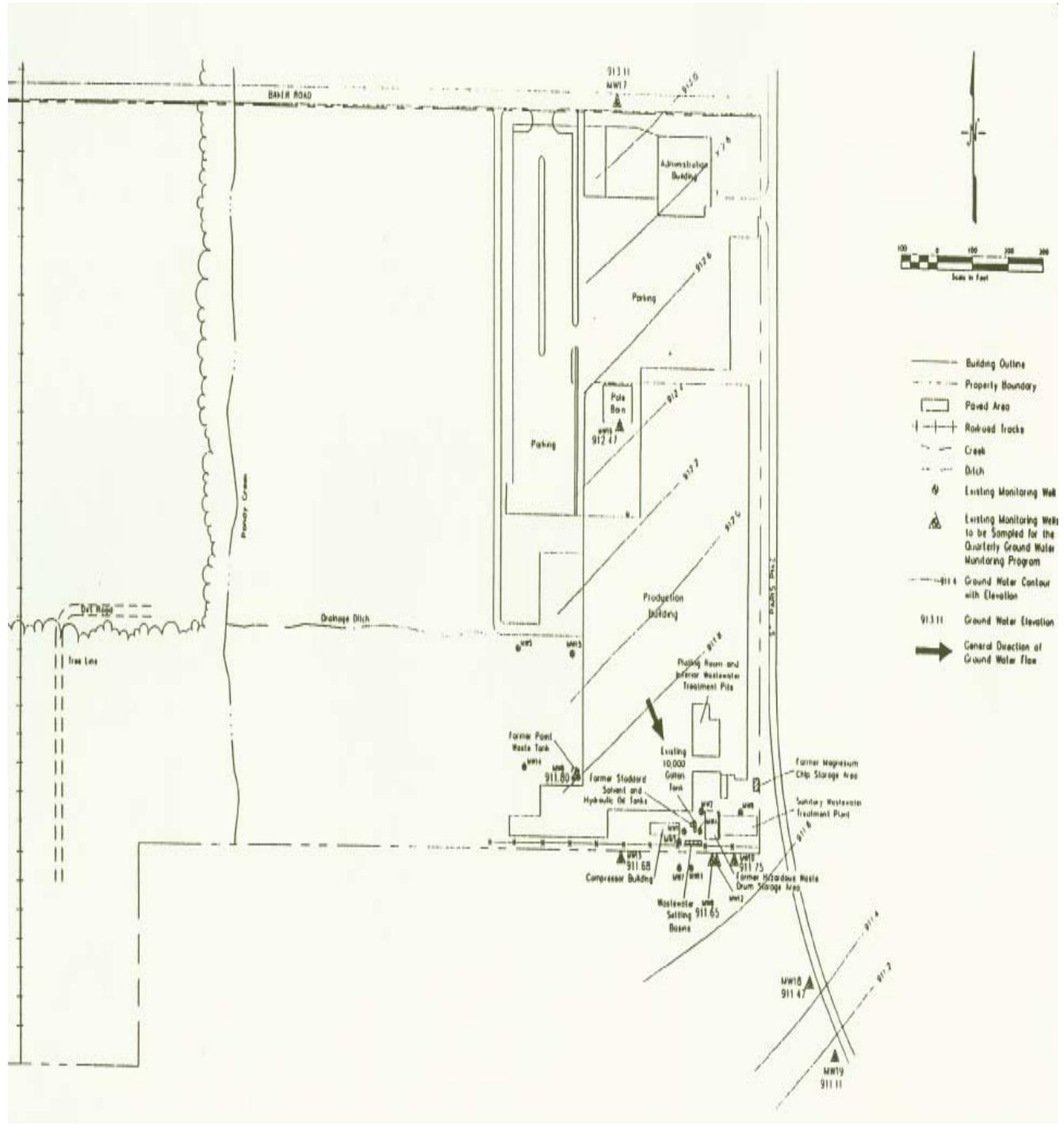
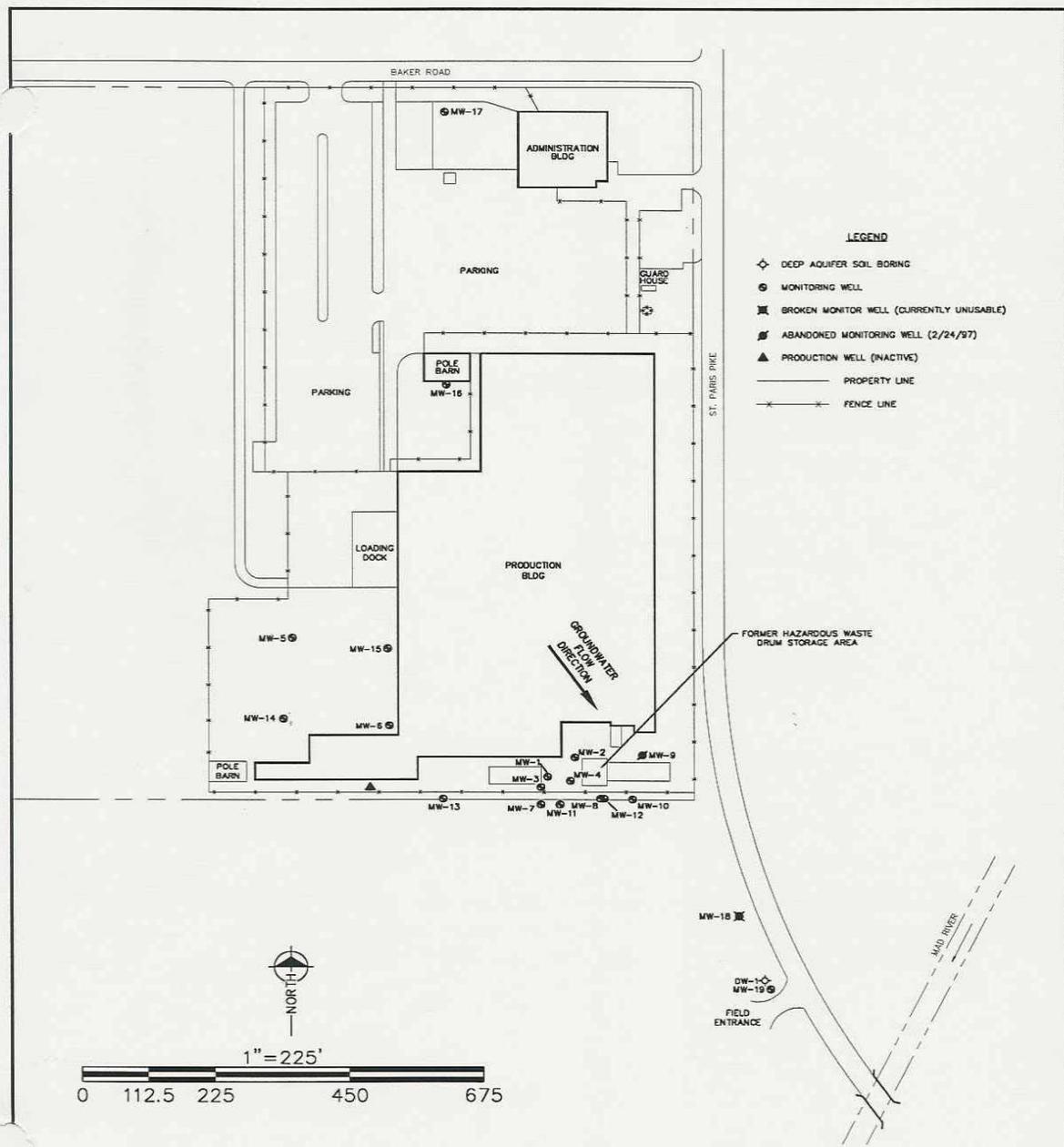


Figure 3 – Facility Map with Groundwater Monitoring Well Locations



<p>SHARP AND ASSOCIATES, INC. 982 Crupper Avenue Columbus, Ohio 43229</p>	GROUNDWATER MONITORING LOCATIONS			FIGURE 3
	SPECO CORPORATION SPRINGFIELD, OHIO			
PROJECT NUMBER 6139	DATE 7/13/98	FILE NAME 6139-59	SCALE 1" = 225'	

SUMMARY OF FACILITY RISKS

The principal contaminants of concern from the former SPECO operations were the plating wastes that contained chromium, cadmium, silver, cyanide, and volatile organic compounds used for parts cleaning, specifically TCE. The TCE degradation products DCE and VC are also principal contaminants of concern.

In 1997, the U.S. EPA produced a Preliminary Assessment/Visual Site Investigation (PA/VSI) report. This PA/VSI included a file review of SPECO records provided by SPECO's contractor, Sharp and Associates, Inc. along with an inspection to delineate and characterize release potential of hazardous waste operations at the site.

Twenty two other Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs) were identified and the potential for release of hazardous contaminants was assessed. A descriptive table of these areas is shown in Table 1 below.

Table 1 – Other Solid Waste Management Units operated by SPECO, Inc.

SWMU / AOC No.	Unit Name / Operation (all units were removed at time of PA/VSI, so release potential of some equipment is not applicable)	Characterized Release Potential	Status
SWMU 1	Former Hazardous Waste Storage Building	Low	Removed/Cleaned
SWMU 2	Former Outside Equipment Storage Area	High	Removed/Cleaned
SWMU 3	Former Final Pit	Moderate	Removed/Cleaned
SWMU 4	Former Wastewater Piping and Sump	Moderate	Removed/Cleaned
SWMU 5	Former Wastewater In-Ground Settling Tank	Moderate	Removed/Cleaned
SWMU 6	Former Solvent Staging Area	Low	Removed/Cleaned
SWMU 7	Former Paint Filet Drum Staging Area	Low	Removed/Cleaned
SWMU 8	Former Paint Related Waste Storage Area	Low	Removed/Cleaned
SWMU 9	Former Paint Booths and Cleaning Booth Area	Low	Removed/Cleaned
SWMU 10	Former Containment Pits and Trenches Bay 2&4	Low	Removed/Cleaned
SWMU 12	Former Test Area Trenches	High	Removed/Cleaned
SWMU 14	Former Bag Filters	None/Removed	Removed/Cleaned
SWMU 15	Former De-burring Rm. Dust Collection System	Low	Removed/Cleaned
SWMU 16	Former Bay 4 Storage Area	None/Removed	Removed/Cleaned
SWMU 17	Former Steel Pickling Tubs	None/Removed	Removed/Cleaned
SWMU 18	Former Residue Dump	None/Removed	Removed/Cleaned
SWMU 19	Former Acid Pickling Catch Basins	None/Removed	Removed/Cleaned
SWMU 20	Former Solvent Dumping Area	None/Removed	Removed/Cleaned
SWMU 21	Former Rinse Solution Tank	None/Removed	Removed/Cleaned
SWMU 22	Former Wastewater Treatment Plant	Low	Removed/Cleaned
SWMU 23	Former Plating Waste Disposal Area	High	Removed/Cleaned
SWMU 24	Former French Drains	High	Removed/Cleaned
AOC 1	Former Pole Barn	High	Removed/Cleaned
AOC 2	Former Wastewater Discharge Areas	High	Removed/Cleaned

Soils and Solid Wastes

SWMU 1

During facility closure and decommissioning in 1997, SPEC0 removed all waste and product drums and materials. This building had a concrete pad on which there was no visible evidence of a release, and as such, no further work was required at this unit.

SWMU 2

As with SWMU 1, during facility closure and decommissioning in 1997, SPEC0 removed all outside equipment. There was no visible evidence of releases, and as such, no further work was required at this unit.

SWMU 11 - The Hazardous Drum Storage Area (Subject to RCRA Closure)

Drums that contained spent solvents, plating solutions and waste paint-related materials were stored in this unit prior to off site disposal. SPEC0 conducted removal activities during the early to mid 1990s. Finally, in 1996, closure activities included:

- Removal and disposal of drums and wastes in accordance with federal regulations. This was accomplished by Enviroserv, Inc., a SPEC0 contractor.
- The Drum Storage concrete pad removal, decontamination, and investigation derived waste (IDW) disposal was conducted according to federal regulations (Enviroserv, Inc.)
- Soil sampling and analysis was performed (Sharp and Assoc.) and resulting in contaminated soil being excavated and removed. (Enviroserv, Inc.)
- Soil sampling to verify contaminated soil removal and define extent of contamination was performed. (Sharp and Assoc.)
- Human health risk assessment to determine risks. (Sharp and Assoc.)
- Groundwater analysis and modeling to determine nature and extent of contamination, necessary extraction rates, and implementation of 25 gallon per minute groundwater extraction and a treatment system including a multi-tray air stripper and reinjection of the treated groundwater. (Sharp and Assoc.)

The SPEC0 Closure Plan for this unit was approved by OEPA on September 11, 1998.

SWMU 13 - The Waste Paint Solvent Storage Tank (Subject to RCRA Closure)

This area contained a tank which was purported to contain spent paint solvents, including volatile organic compounds such as toluene and MEK. This tank was removed in 1989 along with the surrounding soils. Ten soil samples were taken at that time. A few cubic feet of contaminated soils were disposed off-site in accordance with federal regulations. The highest concentration (1.7ppm) of perchloroethylene (PERC) was found in the soil that was shipped off-site. Most of the excavated soil was used to backfill the excavation.

Confirmation sampling was completed in 1990 and in 1997/98. No volatile organic compounds were detected. The highest concentrations of metals that were detected were: arsenic at 20.3 ppm, lead at 14.1 ppm, barium at 298 ppm and chromium at 23.3 ppm. These concentrations are acceptable to OEPA because they are not significantly

higher than the naturally-occurring background levels found in soils throughout the state.

Groundwater associated with this unit is covered later in the Groundwater section on Page 13.

As a result of SPECO's cleanup and measurement activities, no further action was required by OEPA to finalize closure of this unit. The closure plan for this unit (along with SWMU 11) was approved by OEPA on September 11, 1998.

SWMUs 3-10, SWMU 12, SWMU 14 to 22 and SWMU 24

The PA/VS1 Report identified twenty four SMWUs and two (2) AOCs. The exact location of SWMUs 3-10, SWMU 12, SWMUs 14-22 and SWMU 24 in Table 1 could not be identified individually, but were identified by Techlaw for US EPA as SWMUs from SPECO file reviews and discussions with Sharp and Associates (a PLM contractor). SPECO prepared a Closure Report in 1999 for the OEPA for an area described as the "Plating Area". Upon further review of this report in conjunction with discussions with OEPA and Sharp followed by inspections at the site, EPA concluded that these areas were originally a part of the larger "Plating Area" in the plant building. This report describes the area in great detail, concerning the cleaning of concrete pads, surface and subsurface soil and groundwater sampling, and contaminants associated with this location. It also gives detail about the removal of wastes found in the various units.

During 1997, SPECO retained a removal and facility decommissioning contractor, North American Environmental Corporation (NAEC), to remove drums of waste and product material in the Plating Area. NAEC was retained to characterize, analyze and clean and plane all concrete surfaces, conduct surface and subsurface soil and groundwater analysis, install groundwater monitoring wells, and manifest subsequent shipped hazardous wastes to a treatment facility, Chemical Waste Management, Inc. Concrete was washed, planed and contents analyzed, as well as subsurface soils, and soils from around the building where drain lines and pipes existed. Highly contaminated soils were removed from these areas, and shipped under manifest offsite as well. Confirmatory sampling verified that resulting metals levels did not exceed Ohio risk based contamination levels for industrial use.

At the request of OEPA in 1998, Sharp and Associates conducted additional soil analysis in the plating area and performed a baseline human health risk assessment to evaluate potential risks to human health and the environment resulting from contaminant concentrations in Plating Area soils. Results of this site-specific assessment indicate that contaminant concentrations in soil exceed acceptable levels for a residential land use scenario. Constituents contributing the highest hazards are chromium, cadmium and silver. However, the risk assessment indicated that the risks are acceptable under a restricted industrial land use scenario.

Plating Area Soil Sampling Results and Cleanup Standards (ppm)

Contaminant	Cleanup Standards for Residential Land Use	Site-specific Cleanup Standards for Restricted Industrial Land Use	Highest Concentration Detected
Chromium	81.5	845	845
Cadmium	5	144	144
Silver	12	158	158

A deed restriction limiting land use to industrial purposes is already in place specifically covering the plating area, as well as for shallow groundwater use from that area, under a Declaration of Covenant and Restriction negotiated between SPECO and the Ohio Attorney General’s Office as a part of the bankruptcy settlement.

SWMU 23 – The Former Plating Waste Disposal Area

This SWMU was identified during the PA/VSI conducted by Techlaw as “the Wooded Area”, an area where plating wastes were thought to be disposed by SPECO. During the 1990s when SPECO was conducting closure activities, Springfield Environmental Inc, a SPECO contractor, was employed to assess and remediate this area. This area is west of the SPECO site, and borders Pondy Creek, a tributary to the Mad River, on the west side. In June of 2000, a US EPA Team accompanied by Techlaw, Inc sampled Mad River surface water and sediments, and Pondy Creek sediments, as well as surface water and sediments adjacent to outfalls from the SPECO plant. No evidence of metals or organic compounds was found in any of the samples.

Based upon Ed Lockwood’s statement to the US EPA, during the 1990s, Springfield Environmental (which he owned) cleaned up the solid waste management unit known as “the wooded area” (SWMU 23) where plating waste had been disposed. He said that 187 tons of soils were excavated based on analytical results of soil borings. The contaminated soil was tested and disposed of according to federal regulations.

“Wooded Area” sample results and cleanup standards (ppm)

	Highest level detected*	Residential cleanup standards
Chromium	11	81.5
Cadmium	2	5

* According to Ed Lockwood’s statement

The site was subsequently sold to Baisden Excavating, Inc., An EPA ID OHR 000 040 642 was opened for the Baisden site to record the achievement the EI for the record, and the EPA number was subsequently closed out achieving the EI determinations. Baisden is an excavating company and does not handle hazardous wastes.

AOC 1 – The Former Pole Barn

All materials and equipment was removed from the pole barn, and concrete pads were power-washed, with the rinsate disposed according to Federal Regulations. There was no indication of any soil contamination.

AOC 2 – The Former Wastewater Discharge Areas

All materials and concrete was removed from these areas, power-washed and rinsates were disposed according to Federal Regulations. Soil samples taken by Techlaw, Inc. on behalf of US EPA in 2000 noted no contamination of soils from waste water outfalls from this area, nor to surrounding creeks, tributaries, or to the Mad River.

Soil below the outfall sample results and cleanup standards

	Highest level detected	Residential cleanup standard
Chromium	6.9	81.5
Cadmium	0.7	5

Soil and Solid Wastes Summary

The results of closure activities conducted before 1999 indicate to US EPA and OEPA that:

- a) Wastes derived as a part of operations at SPECO have been removed and disposed of according to Federal Regulations
- b) A majority of the residual soil contamination from RCRA units has been excavated and disposed according to Federal Regulations
- c) Soils remaining at the site do not currently pose a risk to human health or the environment under industrial/commercial use scenarios, and
- d) Any remaining soil contaminant concentrations meet risk based cleanup standards for industrial use without additional soil excavation.
- e) EPA approval of additional cleanup work would be needed if current or future owners wish to convert the property for industrial land use to residential land use.

Groundwater

Groundwater monitoring and aquifer characterization were conducted at SPECO to identify groundwater contamination resulting from hazardous waste storage operations and to determine actions necessary for groundwater remediation. Initial groundwater investigation started in 1990 and proceeded until 1998. These activities included:

- installation and sampling of 18 shallow groundwater monitoring wells.

- installation and sampling of one deep groundwater monitoring well (MW12)
- aquifer sampling downgradient of the SPECO property
- hydraulic conductivity testing
- groundwater modeling

A background well (MW 17) was installed in 1992 which is upgradient of the SPECO facility, just south of Baker Road. Quarterly monitoring of this well over the period May 1992 through June 1998 yielded VOC and metals results either at or below method reporting limits, or below US EPA Maximum Contaminant Limits (MCLs) (See Table 2 on the next page).

MW 5 and 6 were installed within and downgradient of the area of SWMU 13, and the Plating Area to monitor contamination resulting from the operation of the Waste Paint Solvent Storage Tank and the potential for metals contamination. Other wells were installed as background wells, or measurement/treatment wells for contamination resulting from SWMU 11, the Hazardous Drum Storage Area. Groundwater investigations were conducted from 1990 through 2004 by several contractors of SPECO including Environ Corporation, ATEC Environmental Consulting Services (1990-1997), and from 1998 thereafter by Sharp and Associates.

Table 2 below shows the sampling and analysis results for VOC and metals contaminants in MW 5 and MW 6 between 1990 and 1997:

None of the contaminants measured in these wells exceed US EPA's MCLs, thus it appears that the source contamination from this unit was successfully removed.

Table 2 - Monitoring Wells associated with SWMU 13 - Waste Paint Solvent Storage Tank and the Plating Area (MW 5, MW 6)

	MCL	MW05 4/3/90	MW05 7/17/90	MW05 10/2/90	MW05 1/30/97	MW05 2/4/97	MW05 4/2/97
VOC's (ug/L)							
1,1-Dichloroethane	NA	2.2	1.0	0.5 U	5.0 U	NS	5.0 U
1,1-Dichloroethene	7	1.0 U	1.0	2.6	5.0 U	NS	5.0 U
1,1,1-Trichloroethane	200	2.9	1.7	2.3	5.0 U	NS	5.0 U
INORGANICS (mg/L)							
Cadmium (total)	0.005	NF	0.010 U	0.015 U	0.0022	NS	0.0050 U
Chromium (total)	0.1	NF	0.030 U	0.050 U	0.0353	NS	0.0630
Lead (total)	0.015	NF	0.050 U	0.100 U	0.0918	NS	0.1400
Nickel (total)	0.1	NF	0.030 U	0.040 U	0.0951	NS	0.1700
Arsenic (total)	0.05	NF	NF	NF	0.006	NS	0.2200
Barium (total)	2	NF	NF	NF	0.562	NS	0.6800
Chromium (dissolved)	0.1	NF	NF	NF	NS	0.0073	0.0100 U
Arsenic (dissolved)	0.05	NF	NF	NF	NS	0.0015	0.0100 U
Barium (dissolved)	2	NF	NF	NF	NS	0.2590	0.2200
TDS	NA	NF	320	412	NS	NS	NS
TPH	NA	2 U	1 U	NS			

Notes:
 U - Concentration was less than method detection limits
 NA - Not Available
 NF - (Data) Not Found
 NS - Not Sampled
 MCL - Maximum Contaminant Level

	MCL	MW6 5/11/93	MW6 8/5/93	MW6 3/14/94	MW6 8/15/94	MW6 12/20/94	MW6 1/30/97	MW6 2/4/97	MW6 4/1/97
ORGANICS (ug/L)									
Chloroform	100	4.2	0.5 U	4.7	3.7	6.4	5.0 U	NS	5.0 U
1,2-Dichlorobenzene	600	NF	NF	NF	NF	NF	7.0	NS	NA
1,1-Dichloroethane	NA	3.0	0.5 U	0.5 U	0.5 U	5.0 U	5.0 U	NS	5.0 U
1,2-Dichloroethane	5	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	5.0 U	NS	5.0 U
1,1-Dichloroethene	7	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	5.0 U	NS	5.0 U
trans-1,2-Dichloroethene	100	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	5.0 U	NS	NA
Tetrachloroethene	5	4.0	0.5 U	2.7	0.5 U	5.0 U	10.0	NS	5.0 U
1,1,1-Trichloroethane	200	20.0	0.5 U	0.5 U	0.5 U	7.96	12.0	NS	16.0
Trichloroethene	5	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U	5.0 U	NS	5.0 U
INORGANICS (mg/L)									
Cadmium (total)	0.005	0.005 U	0.005 U	0.005 U	0.005 U	0.020 U	0.0009	NS	0.0050 U
Chromium (total)	0.1	0.018	0.071	0.005 U	0.017	0.070	0.0093	NS	0.0100
Lead (total)	0.015	0.006	0.078	0.005 U	0.013	0.006	0.0138	NS	0.0110
Nickel (total)	0.1	0.025	0.139	0.019	0.032	0.030 U	0.0217	NS	0.0400 U
Silver (total)	0.1*	0.005 U	0.009	0.009 U	0.010 U	0.020 U	0.0003 U	NS	0.0100 U
Arsenic (total)	0.05	NF	NF	NF	NF	NF	0.0020	NS	0.0150
Barium (total)	2	NF	NF	NF	NF	NF	0.1310	NS	0.2000 U
Selenium (total)	0.05	NF	NF	NF	NF	NF	0.0018	NS	0.0050 U
Chromium (dissolved)	0.1	0.006	0.017	0.005 U	0.005 U	0.020 U	NS	0.0079	0.0100 U
Lead (dissolved)	0.015	0.005 U	0.011	0.005 U	0.005 U	0.006	NS	0.0003 U	0.0030 U
Nickel (dissolved)	0.1	0.007	0.024	0.005 U	0.005 U	0.030 U	NS	0.0100 U	0.0400 U
Arsenic (dissolved)	0.05	NF	NF	NF	NF	NF	NS	0.0005	0.0100 U
Barium (dissolved)	2	NF	NF	NF	NF	NF	NS	0.0774	0.2000 U
Selenium (dissolved)	0.05	NF	NF	NF	NF	NF	NS	0.0014	0.0050 U
TDS	NA	430	490	275	288	420	NS	NS	NS
TPH	NA								

Notes:
 U - Concentration was less than method detection limits
 NA - Not Available
 NF - (Data) Not Found
 NS - Not Sampled
 MCL - Maximum Contaminant Level
 * - Secondary Maximum Contaminant Level

However, monitoring wells adjacent to and downgradient from the former Hazardous Drum Storage Area (SWMU 13) have consistently contained concentrations of TCE greater than the MCL (see Tables 3 and 4 below). This was due to PCE and TCE contamination in the soil around and under cracks in the concrete pad where waste solvent drums were stored in that unit. Even though the concrete pad was cleaned and removed, and soils containing source contaminants were excavated and removed with confirmation sampling completed, there is still a residual effect on the shallow groundwater there.

TABLE 3
Monitoring Wells Associated with the Hazardous Drum Storage Area (SWMU 13)

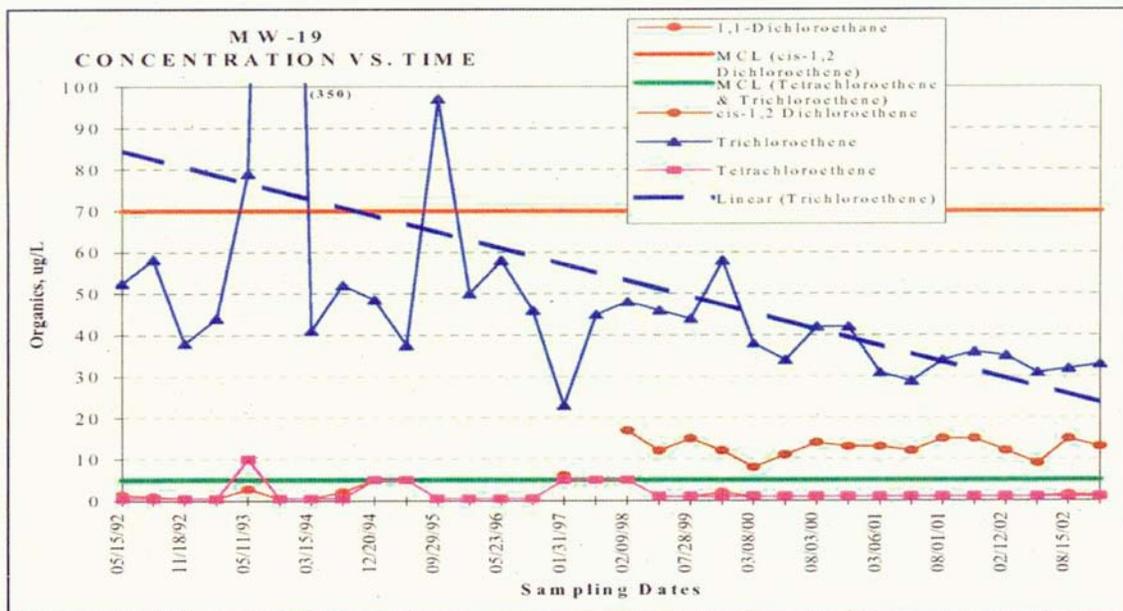
MW 8 – Next to Sources, Downgradient*				MW10 – Near MW 8	MW12	
*(Found by OEPA to be inoperable in 11/2006 Substituted MW 10 in 11/2006 sampling)				50-200 ft. downgradient (MW 8 broken-became inoperable)	(deep well, next to MW 10)	
Date	Jan 2004	June 2004 ⁺	November 2007	November 2007	June 2004	November 2006
Contaminant						
TCE	11.0	9.3	9.0	8.5	N/D**	N/D
1,2 DCE	1.3	0.85	N/D @5 DL***	2.3	N/D	N/D
VC	ND	ND	ND	N/D	N/D	N/D

*Immediately after VOC Groundwater Treatment System Shut Down per Ohio Atty General's Order, and Approved OEPA Closure Plan.

**ND = Not Detected at Method Reporting Limit

***Run at a higher detection limit of 5 ug/l for DCE, and 10 ug/l for VC. Earlier samples in 2004 were run at a DL of 1 ug/l, and may exist below these higher limits.

TABLE 4
MW19 (Most Downgradient Well) – Historical Data, 1992-2003



As discussed earlier in the Facility Background section above, a volatile organics air

stripping system was installed near the units to treat volatile organic compounds (VOCs) in groundwater in accordance with the Ohio Attorney General's Office settlement.

Groundwater Remediation Summary

All contaminated soils and wastes were removed and/or excavated as part of closure activities. A plume of TCE and TCE degradation products remains in the shallow aquifer, and concentrations have steadily declined.

Even though contamination has reduced significantly, it still is at a level approximately twice the MCL near the source (TCE concentration of 10 ppb), and approximately 30 ppb at MW 19 (the most downgradient well). Since groundwater is not currently used for any purpose on the site, and the Mad River is a hydraulic boundary for this aquifer, there is no current human health risk pathway for contaminated groundwater. However, in order to restore its maximum beneficial use, continued groundwater monitoring is required as the groundwater undergoes natural attenuation.

SCOPE OF CORRECTIVE ACTION

Most of the necessary remediation work required to mitigate contamination at the site was completed by SPECO under the Ohio EPA's oversight. The remaining corrective action work has three goals:

- Our first goal is to ensure there are no unacceptable human exposures to contaminated soil or groundwater. In the areas where human exposure to the contaminated soil is acceptable for industrial use but not for residential use, we must make sure that the property will not be converted to residential land use unless further soil cleanup is conducted. The groundwater on the site is currently contaminated above drinking water standards, but no one is currently using the contaminated groundwater as a source of drinking water. We must make sure that the groundwater will not be used as a source of drinking water as long as it remains contaminated. Institutional controls can provide adequate assurance that these unacceptable human exposures will be prevented.
- Our second goal is to bring the groundwater situation into compliance with state requirements within a reasonably short time (about 5 years). State rules do not allow contaminated groundwater to be discharged to surface water unless a discharge permit has been issued and discharge limits have been met. PLM currently does not have such a permit.

MW-19 is no longer operational, so a new well will be needed within the plume reasonably close to the Mad River. The groundwater contaminant concentrations as represented by the new monitoring well will have to meet drinking water standards (MCLs) within a reasonable time frame. In addition,

Chapter 6111 within the Ohio Revised Code (ORC) is the authority utilized by the O agency's Division of Surface Water to regulate all discharges to waters of the State of Ohio. The following prohibition is noted:

6111.04. Acts of pollution prohibited; exceptions.

(A) Both of the following apply except as otherwise provided in division (A) or (F) of this section:

(1) No person shall cause pollution or place or cause to be placed any sewage, sludge, sludge materials, industrial waste, or other wastes in a location where they cause pollution of any waters of the state.

(2) Such an action prohibited under division (A)(1) of this section is hereby declared to be a public nuisance. Divisions (A)(1) and (2) of this section do not apply if the person causing pollution or placing or causing to be placed wastes in a location in which they cause pollution of any waters of the state holds a valid, unexpired permit, or renewal of a permit, governing the causing or placement as provided in sections 6111.01 to 6111.08 of the Revised Code or if the person's application for renewal of such a permit is pending. Therefore, in accordance with applicable Ohio Law, PLM will be prohibited from conducting any un-permitted discharges containing contaminants to waters of the state.

We think that substantial progress was made while SPECO's groundwater extraction and treatment system was operating near the source of the contamination. In addition, we think that natural attenuation of the contaminants downgradient of that point has been occurring all along. However, SPECO stopped operating the system before the cleanup goal could be met. Likewise, SPECO's monitoring of the downgradient natural attenuation stopped prematurely.

- Our third goal is to restore the groundwater to its maximum beneficial use by meeting the drinking water standards throughout the plume within a reasonable time frame (no longer than 30 years). We think that substantial progress was made toward this goal was made as well. However, SPECO's groundwater extraction and treatment system stopped operating before our goal could be met. Likewise, SPECO's monitoring of the downgradient natural attenuation stopped prematurely. Another new monitoring well will be needed about half-way between the source of the contamination and the Mad River. The purpose of this well is to monitor the natural attenuation of the contaminants as they migrate toward the river. A third well is also needed in the vicinity of Pondy Creek, near the southern boundary of the site to verify that contaminants are not migrating in that direction.

DESCRIPTION OF THE PROPOSED REMEDY

- The proposed remedy includes maintaining the existing institutional control to ensure that the land use will remain industrial or commercial, and the land use

will not be changed to residential unless further cleanup is conducted. A Declaration of Covenant and Restriction was tied to the deed by court order, and has already been recorded in Clark County Recorder of Deeds Office restricting land use at SWMU 11, SWMUs 3-10, SWMU 12, SWMU 14 to 22 and SWMU 24 to industrial purposes only. No land use controls are needed at SWMU 1, SWMU 2, SWMU 13, SWMU 23, AOC 1, or AOC 2 because there was no release or because the soils were cleaned up to standards allowing unrestricted land use. Maintaining the existing institutional control is also needed to make sure that the groundwater will not be used as a source of drinking water as long as it remains contaminated.

- The proposed remedy also includes Monitored Natural Attenuation of the groundwater contamination to ensure that the groundwater will not exceed the MCLs as it enters the Mad River in reasonably short time frame (5 years), and throughout the plume within a reasonable but longer time frame (no longer than 30 years). We propose that PLM Properties, Inc. submit a monitored natural attenuation work plan to the U.S. EPA for approval. The work plan will include installation of three new groundwater monitoring wells to meet the needs described above. Under the plan, PLM will take samples from these three new wells and two of the existing wells quarterly for the first two years. The samples will be analyzed by a capable commercial laboratory, and the results will be reported to the U.S. EPA. The MNA work plan will also describe a contingent remedy that PLM would construct and operate if the MNA is not making satisfactory progress toward meeting our goals within the time frames described above. Based on our experience with SPECOS groundwater extraction and treatment system, we expect that PLM's contingent remedy would probably be quite similar to SPECOS groundwater treatment system.

After the initial two-year period, PLM will submit a report to U.S. EPA for review and approval describing the progress of the monitored natural attenuation. Based on the findings, this report could propose changing the frequency of the sampling events as appropriate, and would recommend to U.S. EPA whether immediate implementation of the contingent remedy will be needed or not.

- The proposed remedy also includes the provision of Financial Assurance. PLM will have to demonstrate that funds will be available to U.S. EPA to implement the selected remedy if PLM should become unable or unwilling to implement the selected remedy. The types of allowable financial assurance mechanisms would be limited to those described in 40 CFR 264 Subpart H.
- The U.S. EPA and PLM will negotiate an Administrative Order on Consent to cover the implementation of the selected remedy. U.S. EPA has the authority to issue an order unilaterally to PLM if it should become necessary.
- Based on the long history of the site and the progress that has already been

made to date, we have not identified any reasonable alternatives to the proposed remedy. SPECO's groundwater extraction and treatment equipment has been removed, so it cannot be restarted unless equipment is installed. The "No Action" alternative is not a reasonable alternative because it would fail to meet the state requirements regarding the discharge of contaminated groundwater to the Mad River, and would fail to meet the other goals described above.

REMEDY SELECTION CRITERIA

U.S. EPA has the following expectations for remediation to be incorporated into Resource Conservation and Recovery Act (RCRA) Corrective Action. We think that the proposed remedy adequately addresses the following criteria:

1. Protect human health and the environment:

Contaminated soils and wastes were removed from the site as a result of closure activities. Soil contamination does not pose any unacceptable risk to human health and the environment if the land use remains industrial.

The groundwater aquifer under the site is not used for any purpose, thus no pathway exists for human exposure to contaminated drinking water. The contaminated groundwater discharges to the Mad River. Although PLM does not have a permit to discharge the contaminated groundwater, our calculations indicate that the mixing with surface water sufficiently dilutes VOC contaminants to mitigate human health risk. Likewise, we think that the mixing with surface water sufficiently dilutes the VOC contamination such that there is no significant ecological risk. The Covenant mentioned above also prohibits the use of on-site groundwater for drinking purposes. The deed restriction will be maintained into the future. Groundwater treatment and monitoring will be conducted by PLM Properties, Inc. and their future successors and assigns under the proposed EPA Administrative Order to ensure that suitable reduction of groundwater contaminants continues.

2. Achieve media cleanup objectives:

Sampling and analytical data resulting from prior closure activities, in addition to additional sampling and analysis conducted by US EPA and OEPA has confirmed that the soils at the Facility are safe for industrial use.

Groundwater currently meets the objective of industrial, non drinking use and the available data indicate that no off-site impact to groundwater has occurred. The proposed groundwater treatment and monitoring program will provide sufficient information to confirm this through statistical evaluation of the data.

3. Control the source of the release to prevent further releases at levels that may pose a threat to human health or the environment:

The most highly contaminated soils have been removed. The remaining soils are not currently considered to be a source of groundwater contamination. However, if the proposed groundwater treatment and monitoring does not effectively reduce the groundwater contamination, US EPA will require additional control measures to be taken by PLM Properties, Inc.

4. Compliance with Standards for Management of Wastes:

This criterion assesses how alternatives assure that management of wastes during corrective measures is conducted in a protective manner. The owners and operators of the facility must comply with regulations enacted pursuant to RCRA, the Clean Air Act, and the Clean Water Act to assure the proper management of wastes generated in implementing the remedial actions.

For groundwater, the proposed remedy for groundwater will involve proper management of investigation derived wastes (IDW) generated from groundwater sampling. IDW will be collected and disposed pursuant to federal regulations.

Contaminated soils have been removed previously; no additional soil will be excavated and disposed.

5. Long-Term Reliability and Effectiveness:

This evaluation criterion addresses the results of a remedial alternative in terms of the risks remaining to human health and the environment at the site after remediation goals have been met. The following factors characterize the potential risks remaining at the site following completion of the remedy implementation:

1. The magnitude of potential risk remaining due to treated waste or treatment residuals following the completion of the remedial alternative; and
2. The adequacy and reliability of controls that are used to manage untreated wastes or treatment residuals remaining at the site.

Soils:

The soils at the site are safe for industrial land use. The proposed institutional controls must be properly maintained to reliably and effectively prevent the property from being converted to residential land use in the future.

Groundwater:

The performance standard for the remedy for groundwater at and beyond the Point of Compliance (POC) in the downgradient area of the plume is to prevent the migration of TCE and other organic constituents above appropriate regulatory levels (i.e., MCLs)

beyond the POC. This POC will be established at the approximate boundaries of the current plume. Thus, the remedy is designed to prevent any further expansion of the TCE plume. It is expected that expansion of the plume will be prevented by its natural stabilization. The TCE and related organic compounds that emanate from the source are generally biodegradable in groundwater. On-site monitoring has confirmed that natural attenuation stabilizes the dissolved plume emanating from the TCE plume.

Consequently, it is expected that the migration of the dissolved plume will be controlled by MNA. Monitoring of the plume is key; therefore sampling will be conducted quarterly for the first two years, and less frequently thereafter, (staggered to account for seasonality). This performance monitoring will confirm if MCLs for groundwater will be exceeded at the monitoring wells near the POC wells described above. However, should the plume migrate or the dissolved constituents above MCLs appear in the POC wells, PLM will implement its contingency plan.

PLM will evaluate contingency alternatives, such as installing groundwater extraction and treatment equipment near the source of the contamination, installing perimeter groundwater treatment systems, or implementation of other corrective measures if necessary to meet the performance standards of allowing no migration of TCE or other organic constituents above MCLs beyond the POC. PLM will evaluate alternatives and submit its recommended alternative to U.S. EPA for approval.

6. Reduction of Mobility, Toxicity, or Volume of Wastes or Contaminants:

This evaluation criterion assesses the level to which the remedial alternative reduces the potential toxicity, mobility, or volume of wastes or contaminants based on the following factors:

1. Treatment process used and materials treated;
2. Amount of hazardous materials destroyed or treated;
3. Degree of expected reductions in toxicity, mobility, or volume;
4. Degree to which treatment is irreversible; and
5. Type and quantity of residuals remaining after treatment.

The measures that have already been implemented have greatly reduced the toxicity, and volume of the wastes and contaminated media. The institutional controls and remedy proposed will address the remainder of contamination at the site.

7. Short-Term Effectiveness:

This criterion addresses the remedial alternative's effect on human health and the environment during the construction and implementation phase of the remedial action. Short-Term effectiveness is based on the following four factors:

- Protection of community during remedial actions;

- Protection of the workers during remedial actions;
- Potential for adverse impacts on the environment due to implementing the remedial action; and
- Time required to meet the remedial response objectives.

Construction workers who build and operate the groundwater treatment and measurement system will be required to possess the required training and wear the appropriate personal protective equipment necessary to minimize exposures having risks to human health. As such, all field activities employed in implementing the remedy (such as operating sampling equipment and collecting samples) will be conducted in accordance with a health and safety plan.

8. Implementability:

The proposed institutional controls to address potential risks from soil and groundwater involve no further construction.

9. Cost:

The proposed remedy has been used to a lesser scale for nearly five years at the site, and has manageable construction and maintenance costs.

PUBLIC COMMENT AND PARTICIPATION

The U.S. EPA solicits input from the community, and interested members of the public, on the cleanup and protection methods chosen. The U.S. EPA has set a public comment period of April 28, 2008 to June 13, 2008 to encourage public participation in the cleanup process. If significant comments at odds with the proposal are received, a Public Meeting will be arranged, at which U.S. EPA will present this Statement of Basis, answer questions, and accept both oral and additional written comments. Written comments on this proposal should be addressed to:

Project Manager, PLM Properties Facility
U.S. EPA Region 5
RCRA Enforcement and Compliance Assurance Branch
Corrective Action Section
77 W. Jackson, DE-9J
Chicago, Illinois 60604

All written comments received during the public comment period will be answered in

writing. The Administrative Record for this Statement of Basis is available at:

U.S. EPA - Region 5
77 W. Jackson
Federal Records Center - 7th Floor
Chicago, Illinois 60604

And, at

Clark County Public Library
Reference Desk
102 S. Fountain
Springfield, OH 45502
(937) 328-6903