EPA Region 5 Records Ctr.
209546

Declaration For the Record of Decision

SITE NAME AND LOCATION

Carter Lee Lumber Company
Indianapolis, Indiana

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Carter Lee Lumber Company site in Marion County, Indiana which was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) and is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to the extent practicable. This decision is based upon the contents of the Administrative Record for the site.

DESCRIPTION OF THE SELECTED REMEDY

U. S. Environmental Protection Agency (EPA) has selected "No Action" for the site remedy.

DECLARATION STATEMENT

EPA has determined that site related contaminants pose no current or potential threat to human health or the environment. Accordingly, no further remedial action will be undertaken at this site. The site now qualifies for inclusion on the Construction Completion List.

The State of Indiana has indicated a willingness to concur with this decision. A written confirmation is expected shortly and will be added to the administrative record upon receipt.

9/29/95
DATE

Valdas V. Adamkus
Regional Administrator

EPA Superfund
Record of Decision

Carter Lee Lumber Company Site
Indianapolis, IN
September 1995

RECORD OF DECISION
CARTER LEE LUMBER COMPANY SITE
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DECISION SUMMARY

I. Site Description

The Carter Lee Lumber Company Superfund Site (Site) is located west of downtown Indianapolis at 1621 West Washington Street. Eagle Creek is approximately one mile southwest and the White River is about nine-tenths mile east of the Site. The Site is located 7 miles upgradient of one of the groundwater pumps used to supplement the publicly owned drinking water supply for the City of Indianapolis. It is located in a commercial and industrial center primarily composed of heavy industry with the exception of some scattered areas of older single-family residential dwellings. The Site is currently used for storage for a commercial lumber yard and is, therefore, fenced and access is restricted. The Carter Lee Lumber (CLL) Company has been at its present location for over 120 years. The Site occupies a four acre trapezoid in the southeast corner of the CLL property. This parcel was acquired by CLL in 1979 for expansion of lumber storage capabilities. See Figure 1 for the Site location.

Lumber and associated materials are stored in three sheds on the Site. The Site is paved with asphalt except for the southeast corner, which is covered with about six inches of compacted gravel and soil. The Site is relatively flat. It is bordered on the east and south by Conrail railroad tracks, on the west by Reichwein Avenue and the north by CLL property. The bordering tracks are elevated as much as 6 to 8 feet above the Site. The southeast corner of the property is the lowest elevation point on the Site.

Over 36,000 people live within two-miles of CLL. The closest residence is across Reichwein Avenue. Demographics from the 1990 census data show that thirty-two percent of the residents within a two mile radius of the Site are non-white while twenty-two percent of the residents of Marion County identified themselves as non-white. In addition, the average household within a two mile radius of the Site has income thirty-three percent lower than the average household income in Marion County.

II. Site History and Enforcement Activities

Prior to 1979, the Site was owned by Penn Central Corporation and, in the period from 1960-1973, it was leased to several commercial waste hauling companies that used the Site for industrial waste product disposal. The Site was leased first for the disposal of calcium ferrosulfate containing about 30% solid. There is no evidence that this material was hazardous. It was then leased to a series of partnerships mainly for industrial waste disposal. From court records regarding these partnerships, the nature of the business was to purchase lime slurry, a waste product from Union Carbide Corporation, Linde Division, and to sell it to Ford Motor Company, in Indianapolis, Delco Electronics in Kokomo and Jones Laughlin Steel. Neutralized metal plating

sludge and neutralized calcium ferrosulfate were reportedly sprayed on the Site from 1971-1972. No other information regarding the contaminants disposed of at the Site is available.

There are unsubstantiated allegations of tank car dumping and disposal of oily filter cakes from Conrail Lines. In addition, from 1940-1985, CLL operated a small quantity, batch-load wood preserving operation immediately off-site, north of the northeast corner of the Site. This operation reportedly used consumer-grade pentachlorophenol. This information about possible contamination was used to plan the Site investigation.

CLL purchased the Site in 1979. While the property was being developed for lumber storage, red soil was discovered. When the red soil interfered with proper soil compaction, it was moved. The red soil was stored near a trench area dug to hold construction debris. Figure 2 is a map of the Site that shows the areas identified. Asphalt was laid on portions of the Site and the storage yard was fenced as part of this work. The red soil was later spread over an area of about 220 by 250 feet in the southeast corner of the Site and covered with six inches clean soil and six inches of compacted gravel, where it is currently located.

The Site was investigated by the EPA's Ecology and Environment Field Investigation Team (FIT) in 1985 because a Carter Lee Lumber Company (Company) employee reported spotting small animals with sores and patchy fur. Company employees complained of skin lesions and weight loss too. Neither reports were confirmed by local health officials. FIT collected samples of the red soil which, when tested, contained heavy metals and Semi-Volatile Organic Compounds (SVOCs). Based on the FIT investigation, the Site was scored for NPL listing due to the potential for groundwater contamination and a concern for potential dermal contact should the soils be disturbed.

Research to identify parties responsible for conditions at the Site was completed in June 1988. Potentially responsible owners, operators and generators were identified. Based on information gathered during this search and responses from information requests, special notice letters were sent out during January 1992. In accordance with U.S. EPA policy, an attempt was made to negotiate a Potentially Responsible Party (PRP) - lead response action. When the PRPs failed to respond with a timely proposal to perform the work, a fund-lead remedial investigation was initiated in 1992.

III. Highlights of Community Participation

EPA hosted a "kick off" public meeting on September 3, 1992 at the Presbyterian Church located across the street from the Site. The purpose of the meeting was to inform the local residents of

the Superfund process and the work to be conducted under the Remedial Investigation (RI). Thirty-nine people attended the meeting. Two RI update newsletters were issued to individuals on the Site specific mailing list in June 1993 and July 1995.

Information repositories for the Site have been established at Hawthorn Community Center, 2440 West Ohio Street, Indianapolis IN and the offices of the Indiana Department of Environmental Management, 100 N. Senate Avenue, N1255, Indianapolis, IN. The Administrative Record for the Site has been made available to the public at the EPA Docket Room in Region V and at the Hawthorn Community Center. The RI was released to the public in May 1995. The proposed plan was mailed July 28, 1995. A public meeting to discuss the remedial investigation and the proposed plan was held on August 10, 1995. Advertisements were placed in the Indiana Star/News and the West-Side Enterprise to announce the public meetings and comment period. Ten people attended the proposed plan meeting. The public comment period for the proposed plan extended from August 1, 1995 through August 30, 1995. The public generally supports the remedy selected. The responsiveness summary is contained in Appendix B.

The public participation requirements of CERCLA Sections 113(k)(2)(i-v) and 117 of CERCLA have been met in the remedy selection process. This decision document presents the selected remedial action for the Carter Lee Lumber Company Superfund Site, chosen in accordance with CERCLA, as amended by SARA and, to the extent practicable, the National Contingency Plan (NCP). The decision for this Site is based on the administrative record.

IV. Scope and Role of Operable Units

EPA has determined that no further action is required at this Site. The hazardous substances remaining at the Site will allow unlimited Site use and unrestricted exposure to Site soils and groundwater since exposure presents no significant incremental risk. In accordance with Agency policy, a five-year review will not be necessary to assure human health and the environment are protected.

V. Site Characteristics

During the RI, sampling and analysis of groundwater and subsurface and surface soil occurred which allows a determination of Site conditions to be made. The investigation took place in two phases beginning in November 1992 and ending about one year later in September 1993.

During Phase I in November 1992, all surface and subsurface on-site soil samples were collected, five monitoring wells were installed and sampled and 15 of the 17 off-site soil samples were collected.

Phase II, which occurred in June, August and September of 1993, consisted of two rounds of groundwater samples, three rounds of water level measurements and the collection of two additional off-site soil samples. A groundwater user survey was implemented during this time period as well. An ecological investigation of the Site was also conducted as part of Phase II.

Using the EPA risk assessment guidance and procedures, many contaminants found at the Site, including SVOCs, Volatile Organic Compounds (VOCs), metals and cyanide were eliminated from further consideration primarily because on-site concentrations did not differ significantly from off-site concentrations in the background.

The ecological investigation consisted of review of current literature to determine whether the area contained protected plants or animals or whether sensitive habitats existed in the area. A Site visit also took place.

Based on the evaluation of Site conditions, EPA determined that there is no threat to human health and the environment through exposure by ingestion or direct contact with the pesticides/herbicides and PCBs found in the soils and groundwater on and near the Sites at concentrations above background. Background contamination was not evaluated as part of this study, although, the presence of background contaminants was the basis for eliminating some on-site contaminants from further consideration. The following is a summary of the findings.

1. Physiography

The Site is located within the commercial and industrial center of the City of Indianapolis, in central Marion County. The area is relatively flat and ranges in topographic relief from about 745 feet above mean sea level measured 2.75 miles west of the Site to about 690 feet. The Site is paved with asphalt except for the southeast corner, which is covered with compacted gravel. Drainage swales, formed by railroad track berms 6 to 8 feet high, run parallel to the eastern and southern boundaries and collect surface run-off from the Site. The southeast corner is the lowest elevation point, 691 feet above mean sea level, on the Site.

2. Geology

An extensive sand and gravel outwash deposit exists under the Site. The outwash is composed of coarse-grained material deposited by glacial meltwater streams during the Wisconsinan glaciation. Discontinuous silt and clay deposits are numerous. The outwash extends along the White River, Eagle Creek and Fall Creek and it is about 6.5 miles wide from east to west. At the outer edges of the outwash, the deposits integrate with deposits

of till. Sand and gravel deposits are discontinuous in the till plain. The thickness of the unconsolidated deposits in Marion County ranges from less than 15 feet to more than 300 feet. Within the vicinity of the Site, the bedrock beneath the outwash deposits consists of Silurian and Devonian age limestones and dolomites. Depth to bedrock is about 120 feet. West of the Site, Mississippian age shale separates the outwash deposits from the limestones and dolomites. The bedrock surface slopes gently to the west.

The Site is characterized by a series of fill layers starting at about 12 inches below the ground surface This fill material varies across the Site but generally consists of sandy gravel and clayey silty sand with miscellaneous debris including bricks, concrete and wood. Some areas of the Site are filled with black dense sand similar to a foundry sand mixed with what appeared to be fly ash. Figure 3 shows the typical Site geology.

3. Hydrology

There are two groundwater systems beneath the Site. The outwash deposits along the White River comprise the upper, unconfined aquifer. The thickness of the aquifer ranges from 30 to more than 80 feet. The limestone and dolomite formations comprise the uppermost bedrock aquifer. The average horizontal hydraulic conductivity is about 300 feet/day for the outwash aquifer and about 10 feet/day for the bedrock aquifer. The hydraulic conductivity in the bedrock aquifer can be considerably greater in areas where solution channeling has occurred.

Wells in the outwash aquifer have produced as much as 3,000 gallons per minute (gpm). Bedrock wells may yield 75 to 250 gpm. The bedrock is most productive in the upper 100 feet where it was once exposed to weathering elements and where the greatest amount of solution development has occurred.

At the Site unconfined, shallow water table was encountered at about 15 to 20 feet below ground surface. Typically, groundwater flows toward the southeast. Through the well users survey, a cone of depression was identified southeast of the Site. Most of the wells within 1 mile of the Site are used exclusively for manufacturing processes.

Marion County depends on surface water for 92% of its drinking water supply, the remainder comes from groundwater. The use of groundwater to supplement drinking water is expected to increase to about 19% by the year 2000. The closet drinking water well is seven miles south of the Site and has shown no significant levels of site related contaminants.

Groundwater elevations in Marion County range from about 830 feet in the northwestern portion of the county to less than 680 feet

near the White River in the central portion of the county. Regional groundwater flow in the western half of Marion County is to the east-southeast toward Eagle Creek and the White River. In eastern Marion County, groundwater flow is to the west-southwest toward Fall Creek and the White River.

4. Contamination

a. Soils

SVOCs and heavy metals were detected in on-site soil at depths ranging from 4 to 8 feet below the ground surface. Several pesticides were also detected in on-site soil. The findings were similar to those resulting from FIT sampling in 1985. The concentration of SVOCs and metals in on-site soils were within the ranges previously found by the FIT and the distribution of SVOCs on-site was consistent with the presence of red soil and with the black cinder fill material. Table 1 and 2 identify organic and inorganic substances found in the soils on and off Site.

b. Groundwater

Sampling of the groundwater identified low concentrations of some SVOCs including phenol, phenanthrene, di-n-butylphthalate, pyrene, and bis(2-ethyl-hexyl)phthalate. These were found sporadically in groundwater samples. Low concentrations of arsenic and cyanide were detected in several Site ground-water monitoring wells during one sampling event. Beryllium was detected at low concentrations during two sampling events. Table 3 presents the organic and inorganic substances found in the groundwater.

5. Ecological

The investigation determined that the area south of the Site by virtue of plant community composition and evidence of hydrology typical of wetlands, appeared to consist of palustrine emergent or scrub/shrub communities. Through research and observations during the Site visit, it was determined that this area is not a sensitive or high-value ecological habitat. Wildlife and plant communities are limited because of the urban nature of the area. During the Site visit, gross evidence of adverse impacts on the plant and animal communities from the Site were not apparent.

VI. Summary of Site Risks

Given that most of the contaminated soil on-site is either covered by asphalt or six inches of compacted gravel and soil, no workers or nearby residents are currently exposed to site related contaminants through either inhalation or dust emissions.

Occupational and residential land use scenarios were used in the risk analysis. Both showed negligible risk for exposure.

Volatilization of some contaminants to the air can pose an unacceptable risk if present at the soil surface. Because contaminants on-site are covered as described above, volatilization is not considered a likely transport mechanism at this Site. The risk analysis identified negligible risk for exposure to site contaminants.

The analytical results for SVOCs and metals for on-site and off-site samples were evaluated using a statistical comparative analysis. Table 1 and 2 show the outcome of this comparison. It was verified statistically, that there is no significant difference between the SVOCs and the heavy metal concentrations found in on-site soils compared with those found in off-site soils. The Site is located in an area with many industries which may have contributed to the metals and Polynuclear Aromatic Hydrocarbons (PAHs) found. These facts lead to the conclusion that the source of PAHs and metals contamination cannot be traced solely to the Site. Based on these considerations, PAHs and metals were not considered a Site related contaminant.

The berms on the east and southern boundary are an effective barrier to overland flow of contaminants into surface water via site run off. No evidence could be found to indicate that surface water has been impacted by site contaminants. For these reasons, the risk for the surface water pathway was determined to be negligible.

During the analysis, infiltration of rainwater to groundwater was considered as a potential transport mechanism that could leach contaminants from deeper soils into the groundwater. The RI identified Site characteristics that make leaching unlikely. The soils are covered with six inches compacted gravel and six inches clean soil, which decreases, somewhat, the amount of rain through infiltration. The soils underlying contaminants consist of clayey sands. Since contaminants tend to sorb more tightly to clay, contaminants are less likely to be released. In addition, a fate and transport analysis of the effects of the PAHs, arsenic and beryllium determined that groundwater does not appear to be threatened by Site contaminants. Based on these findings, it was determined that this pathway did not present an unacceptable risk.

The contaminants of concern evaluated quantitatively for the Site include heptachlor and arochlor-1254 in on-site soils and alpha BHC and 4,4'-DDT in groundwater. Table 4 identifies concentration ranges and frequency of detection along with other pertinent information.

The risk assessment determined that the Site contaminants do not pose a significant risk to those who may come in contact with them. Tables 5 and 6 show the estimated cumulative excess cancer risk and the hazard index for non-carcinogenic contaminants. The risk to a hypothetical future worker exposed to on-site soil and groundwater was calculated. As can be seen from Tables 5 and 6, the calculated numbers are well below EPA's acceptable risk range. A reasonable future land use anticipates the land will continue to be used as commercial/industrial property. Notwithstanding this assumption, the same calculation is performed for the hypothetical on-site resident too. As can be seen, the estimate of cumulative excess cancer risk for the hypothetical resident is at the low end of EPA's acceptable risk range for exposure to soils. For groundwater, the number calculated is below the lower end of EPA's acceptable risk range.

Given the above determinations, the no action alternative is selected because it has been demonstrated that the contamination found could not be attributed solely to CLL and the level of contamination attributable to the Site results in negligible risk.

VII. Explanation of Significant Changes

The public comment period resulted in no significant changes to the Agency's proposal for site remediation.

Table 1
Analytical Summary for Organic Compounds Detected in Soil
Carter-Lee Lumber Company site

Compound	Median Value Detected	Maximum Value Detected	Contaminant of Concern?
Volatiles (µg/kg)			
Toluene	10.8	130	No
Semi-volatiles (µg/kg)			
Naphthalene	214	2200	No
2-Methylnaphthalene	182	1400	No
Acenaphthylene	128	1800	No
Acenaphthene	166	1800	No
Dibenzofuran	140	1200	No
Fluorene	143	610	No
Phenanthrene	672	6500	No
Anthracene	270	1200	No
Carbazole	157	580	No
Di-n-butylphthalate	115	1800	No
Fluoranthene	875	8400	No
Pyrene	1022	15000	No
Benzo[a]anthracene	575	5300	No
Chrysene	631	6400	No
bis(2-Ethylhexyl)phthalate	247	3600	No
Di-n-octylphthalate	188	3600	No
Benzo[b]fluoranthene	848	12000	No
Benzo[k]fluoranthene	454	5700	No
Benzo[a]pyrene	549	7800	No
Indeno[1,2,3-cd]pyrene	327	3600	No
Dibenz[a,h]anthracene	259	3600	No
Benzo[g,h,i]perylene	388	6200	No
Pesticides/PCBs (µg/kg)			
Heptachlor (a)	1.14	4.2	Yes
Heptachlor epoxide	1.19	5.6	No
4,4'-DDE (a)	2.22	46	No
Endrin	3.09	15	No
Endosulfan II	2.38	21	No
4,4'-DDD	1.98	4.6	No
Endosulfan sulfate (a)	2.20	28	No
4,4'-DDT	4.71	140	No
Methoxychlor	10.76	46	No
Endrin ketone	2.41	33	No
alpha-Chlordane	1.57	24	No
gamma-Chlordane	1.51	25	No
Aroclor-1254 (a)	20.48	35	Yes

Table 2
Analytical Summary for Inorganic Compounds Detected in Soil
Carter-Lee Lumber Company Site

Metals (mg/kg)	Median Detected Value	Maximum Detected Value	Contaminant of Concern?
Aluminum	4821	14900	No
Antimony	5.9	10.0	No
Arsenic	11.3	197.0	No
Barium	43.4	328.0	No
Beryllium	0.6	151.0	No
Cadmium	0.7	1.3	No
Calcium	80737	198000	No
Chromium	20.5	439.0	No
Cobalt	5.9	15.3	No
Copper	22.4	114.0	No
Iron	16458	161000	No
Lead	42.8	376.0	No
Magnesium	17953	59000	No
Manganese	468	1280	No
Mercury	0.1	0.5	No
Nickel	20.7	173.0	No
Potassium	634	1250	No
Selenium	0.4	3.5	No
Silver	0.8	2.4	No
Sodium	104.8	332.0	No
Thallium	0.2	0.5	No
Vanadium	15.3	88.6	No
Zinc	76.4	564.0	No
Cyanide	0.5	2.1	No

Table 3
Analytical Summary Groundwater
Carter-Lee Lumber Company Site

Compound	CLMW01 (UPGRADIENT)	CLMW02 (UPGRADIENT)	CLMW03 (downgradient)	CLMW04 (downgradient)	CLW05 (downgradient)	Drinking Water MCL
Volatiles (µg/L)						
Chloroform	< 10	1	< 10	< 10	< 10	100
Semivolatiles (µg/L)						
Phenol	< 10	3	< 10	< 10	< 10	NA
Naphthalene	< 10	< 10	< 10	< 10	< 10	NA
Diethylphthalate	< 10	< 10	< 10	< 10	< 10	NA
Phenanthrene	< 10	< 10	0.8	< 10	< 10	NA
Di-n-butylphthalate	< 10	1	0.8	< 10	< 10	NA
Fluoranthene	< 10	< 10	< 2	< 10	< 10	NA
Pyrene	< 10	< 10	0.8	< 10	< 10	NA
bis(2-Ethylhexyl)phthalate	< 10	0.6	1	< 10	< 10	6
Pesticides/PCBs (µg/L)						
alpha-BHC	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA
delta-BHC	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA
gamma-BHC (Lindane)	< 0.05	0.01	< 0.05	< 0.05	< 0.05	0.2
Heptachlor	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.4
Aldrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA
Dieldrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA
Endrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Endosulfan sulfate	< 0.1	< 0.1	0.22	< 0.1	< 0.1	NA
4,4'-DDT	< 0.1	0.012	0.22	< 0.1	< 0.1	NA
Inorganics (µg/L)						
Aluminium	32.3	< 23.5	26.5	< 24	< 23.5	50-200*
Arsenic	< 1	1.6	1.3	1.1	1.5	50
Barium	138	70.3	67.0	49.8	68.5	2000
Beryllium	1.0	< .81	1.1	< 1	2.3	4
Cadmium	<1.7	< 1.7	< 1.7	< 1.7	4.0	5
Calcium	131000	117000	194000	179000	197000	NA
Chromium	< 3	< 3	< 3	< 3	< 3	100
Cobalt	<3.8	< 3.8	< 3.8	< 3.8	< 3.8	NA
Copper	5.2	< 3.6	< 4	< 3.6	6.3	1300
Iron	127.0	51.7	10.6	23.5	112.0	300*
Lead	5.5	2.3	1.9	3.0	2.2	15
Magnesium	34400	32400	39900	45000	33100	NA
Manganese	46.7	7.8	224	11.6	90.6	50*
Mercury	< .1	< .1	< .1	< .1	< .1	2
Nickel	11.9	11.4	8.9	< 5	11.4	100
Potassium	4160	4680	4070	4490	3940	NA
Selenium	1.4	6.1	1.3	9.2	5.0	50
Sodium	54000	37200	46100	53200	40400	NA
Thallium	< .7	1.4	1.0	< .7	< 0.7	2
Vanadium	< 3	< 3	< 3	< 3	4.8	NA
Zinc	11.8	7.0	4.6	6.5	14.3	5000*
Cyanide	2.0	5.4	2.0	3.9	4.0	200
Treatment Parameters (mg/L)						
Alkalinity	399	295	442	406	372	NA
Total Organic Carbon	5.54	5.65	15.1	9.4	7.24	NA
Chemical Oxygen Demand	12.7	49.2	144	93.7	98.4	NA
Chloride	70.9	55.1	71.8	72.3	61.9	NA
Hardness, as CaCO3	651	532	827	569	592	NA
Total Dissolved Solids	686	586	830	710	664	NA
Total Suspended Solids	2410	2240	3810	3210	5510	NA

Table 4 Chemicals of Potential Concern Carter-Lee Lumber Company Site				
Chemical Parameter	Total Positive Detections	Total Analyses	Positive Detection Frequency	Range of Positive Detections
SOIL (ug/kg)				
Heptachlor	4	27	15%	1.9 - 4.2
Arochlor 1254	3	27	11%	32 - 35
GROUNDWATER (ug/l)				
alpha BHC	2	17	12%	0.001 - 0.003
4,4-DDT	2	17	12%	0.004 - 0.012

Table 5
Summary of Risk Calculations
Carter-Lee Lumber Company Site

SOIL

	EXCESS LIFETIME CANCER RISK			NON-CARCINOGENIC HAZARD QUOTIENT		
LANDUSE/RECEPTOR	Ingestion of Soil and Inhalation of Particulate	Dermal Absorption of Contaminants	Cumulative Cancer Risk	Ingestion of Soil and Inhalation of Particulate	Dermal Absorption of Contaminants	Cumulative Cancer Risk
Future Residential Child	2E - 07	8E - 07	1E - 06	4E - 05	5E - 05	9E - 05
Future Occupational Adult	3E - 08	2E - 07	2E - 07	1E - 06	2E - 05	2E - 05

Table 6
Summary of Risk Calculation
Carter-Lee Lumber Company Site

GROUNDWATER

	EXCESS LIFETIME CANCER RISK			NON-CARCINOGENIC HAZARD QUOTIENT		
LANDUSE/RECEPTOR	Ingestion of Groundwater	Dermal Absorption of Contaminants	Cumulative Cancer Risk	Ingestion of Groundwater	Dermal Absorption of Contaminants	Cumulative Hazard Index
Future Residential Child	3E - 07	5E - 11	3E - 07	7E - 04	6E - 07	7E - 04
Future Occupational Adult	8E - 08	3E - 11	8E - 08	2E - 04	4E - 07	2E - 04

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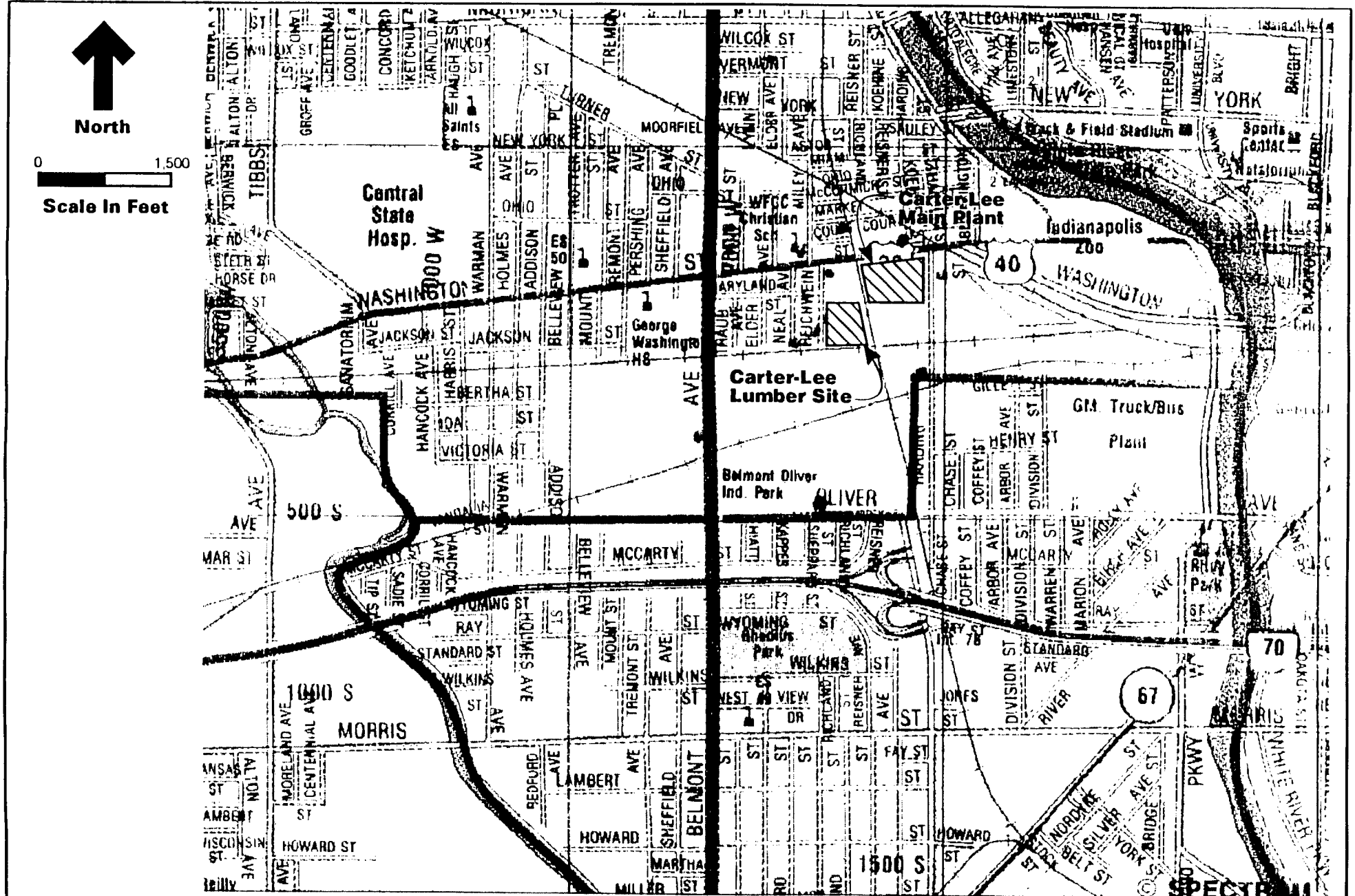
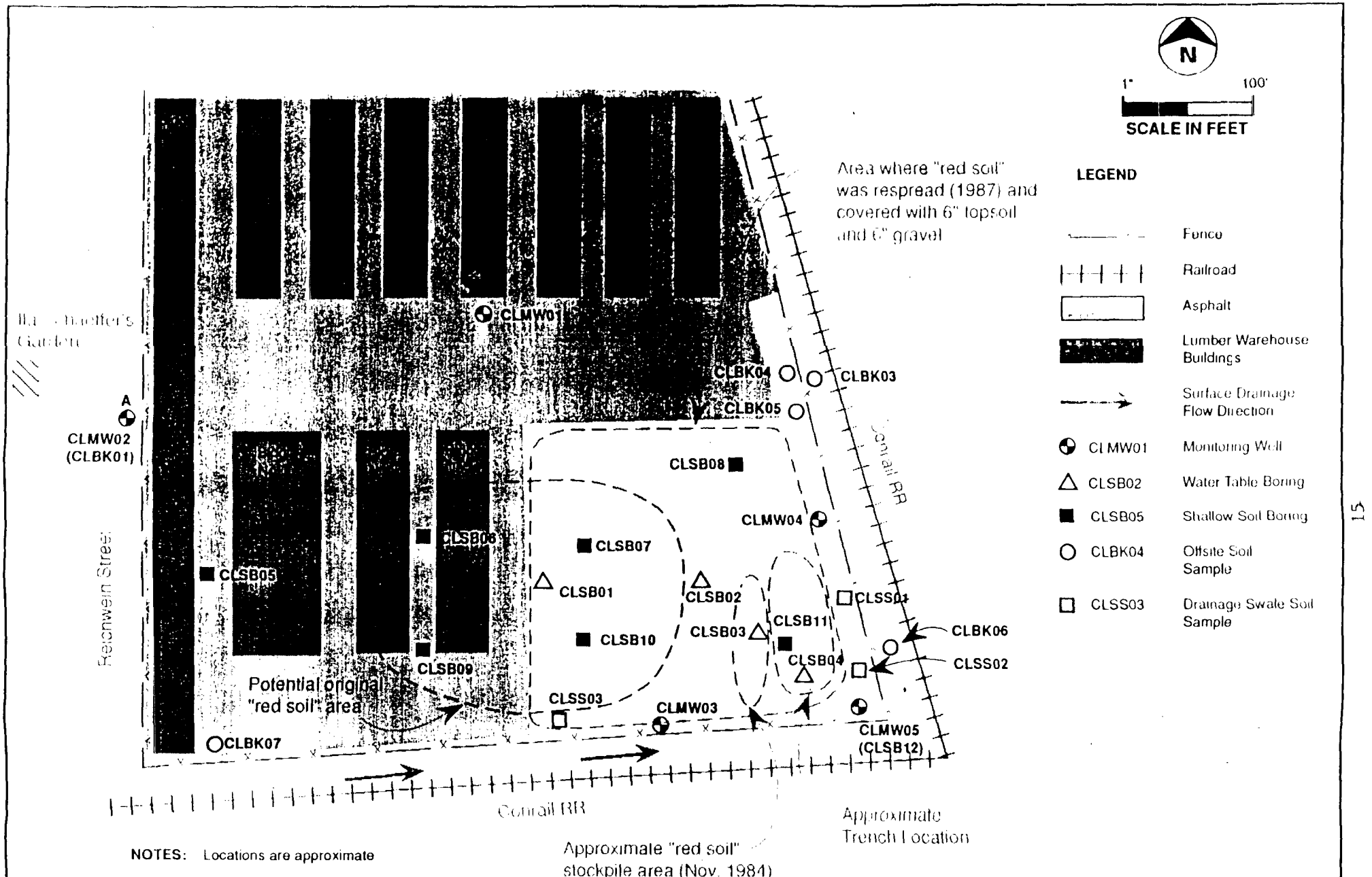


FIGURE 1
Vicinity Map
Carter-Lee Lumber Co.

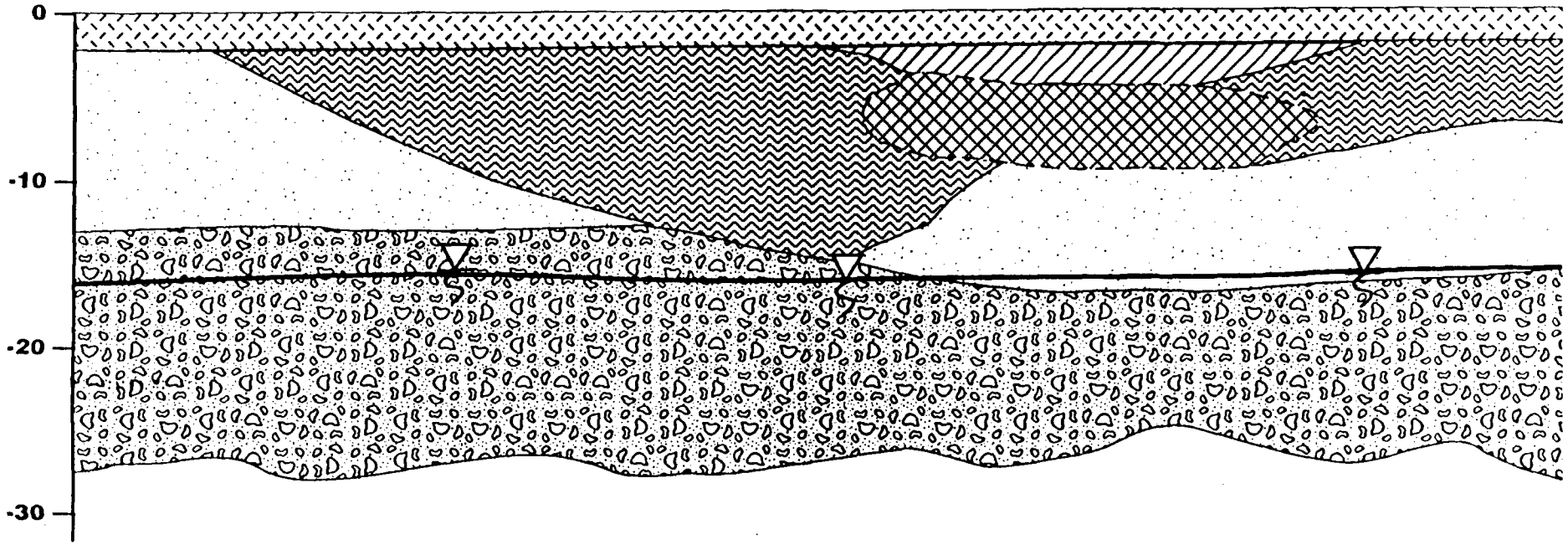


NOTES: Locations are approximate

The railroad tracks are elevated about 6-8 ft. above the relative ground surface

FIGURE 2
Monitoring Well and Soil Sample Locations
Carter-Lee Lumber Co.

124618.ES.PM Fig. 2 Mon. Well Onsite 8-17-95



LEGEND

- Compacted Gravel Cover
- Red Soil
- Clayey Sand Fill
- Black Silty Sand
- Poorly-graded Sand
- Well-graded Sand & Gravel
- Water Table

FIGURE 3
Generalized Site Geology
Carter-Lee Lumber Co.

RESPONSIVENESS SUMMARY
CARTER LEE LUMBER COMPANY
INDIANAPOLIS, INDIANAPOLIS

PURPOSE

This responsiveness summary has been prepared to meet the requirements of Section 113(k)(2)(b) and 117(b) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), which requires the United States Environment Protection Agency (U.S. EPA) to respond to each of the significant comments, criticisms, and new data submitted in written or oral presentations, on a proposed plan for remedial action. The responsiveness summary provides a summary of citizens's comments and concerns identified and received during the public comment period, and U.S. EPA's responses to those comments and concerns. All comments received by U.S. EPA during the public comment period will be considered in the selection of the remedial alternative for the Site. The responsiveness summary serves two purposes: It provides U. S. EPA with information about community preferences and concerns regarding the remedial alternatives, and it shows members of the community how their comments were incorporated into the decision-making process.

This document summarizes written and oral comments received during the public comment period of August 1 to August 30, 1994. The comments have been paraphrased to efficiently summarize them in this document. The public meeting was held at 7:00 p.m. on August 10, 1995 at the Hawthorne Community Center, Indianapolis, Indiana. Written comments were submitted during the public meeting by one resident. Five comments were mailed to U.S. EPA.

OVERVIEW

The proposed remedial action for the Carter Lee Lumber Superfund Site was announced to the public just prior to the beginning of the public comment period. U.S. EPA proposed "No Action."

Community Comments

1. Comment: The commenter states that the term "no action clean up" is a contradiction in terms. The commenter expressed concern for groundwater and surface water contamination and its impact on the residents of Indianapolis and those living and working near the Site. The commenter also expressed concern about the effects past exposure to the contaminants in the soil has had on area workers and residents and the impact of leaving contaminated soils at the site as well as contaminants identified in background soils.

Response: The commenter's observation regarding "no action clean

up" is probably valid. The term, which appears in the newspaper announcement of the date for the public meeting, is not easily understood although it is used as a measure of accomplishment by U.S. EPA. The proposed plan fact sheet that was mailed to individuals on the mailing list, however, is more detailed, makes for easier reading and explains how the U.S. EPA uses the term. It recommends that no action be used to address the contaminants at this site.

The U.S. EPA shares the commenter's concerns regarding the impact this Site has on groundwater. Concern for groundwater was one of the reasons the site was put on the National Priorities List in 1989. As a result of site listing, the investigation at this site included sampling and analysis of groundwater, a groundwater user survey and a study of the site geology. The soils underlying the site are just one factor considered in arriving at the remedy at the site. The fate and transport analysis concluded that contaminants would have to be present in the soil in much higher concentrations before groundwater use would be compromised. Based on the results of that investigation, it has been concluded that the contaminants at this site do not pose an unacceptable risk to groundwater users. We believe this concern has been addressed thoroughly.

The commenter asserts that the west side of Indianapolis has many sites that are or could be addressed by Superfund and that several areas have contaminants similar to those found at the Carter Lee Lumber Company. U.S. EPA's remedial investigation confirmed that there are nearby areas which are either currently being studied, have studies which have been completed by various local, state and/or federal agencies or will be the subject of future studies. U.S. EPA concluded, after collecting soil samples and analyzing the resulting data, that in some instances, the contaminants at the site do not differ significantly from those found in the area surrounding the site. In fact, off-site concentrations, primarily because of the industrial nature of the area, are often higher than those detected on-site. According to the Agency for Toxic Substances and Disease Registry (ATSDR) report, The Toxicological Profile for Polycyclic Aromatic Hydrocarbons, the constituents of the soils in and around the Site are generally consistent with other urban areas. Our investigation determined that these constituents did not originate at Site. And, further, it was determined that the contaminants unique to the site could be dealt with in an effective and timely manner now. Our investigation concluded that there is no significant incremental risk caused by the Site.

ATSDR, along with the Indiana Public Health Department, has been tasked with the responsibility of evaluating health conditions. They have already solicited health concerns from the public. The 1990 Preliminary Health Assessment outlines the efforts made at that time. They are currently updating their evaluation based on

the remedial investigation data available. The public will be provided an opportunity to review their findings in the near future.

2. Comment: The commenter questioned whether any of the men who worked at Carter Lee Lumber Company complained about illnesses, the commenter questioned whether U.S. EPA activity would bring down residential property values and, finally, the commenter asked if anyone other than the Carter Lee Lumber Company had been questioned regarding the contaminants at the site.

Response: In response to the commenter's question regarding the health of Carter Lee Lumber Company employees, a record review was implemented. According to site files, the investigation of this site resulted from a report by a Carter Lee Lumber Company employee of spotting small animals with sores and patchy fur and complaints by employees of skin lesions and weight loss. These reports were investigated by the Indiana Department of Health and Human Services and these claims could not be substantiated. The site investigation was continued, however, to determined if soil contamination could pose a health hazard. The remedial investigation examined the probability of health hazards resulting from site related contaminants and concluded these contaminants do not pose an unacceptable risk.

The commenter's concerns regarding the effects that hazardous waste in the neighborhood will have on real estate property values are understandable. In areas where uncontrolled hazardous substances have been identified, there are instances where property values have been lowered and it has been difficult to get home mortgages or home improvement loans. Fortunately, that is not the case for the Carter Lee Lumber Company property we just completed investigating. Through study, we have developed sufficient information to conclude that this property does not pose a threat to human health and the environment. This finding should eliminate problems that may have resulted from having a Superfund site in the area.

The last comment questioned U.S. EPA contact with past property owners. CERCLA, the law being implemented in the Superfund process, provides that public dollars used to investigate and clean-up hazardous waste sites be recovered from liable parties. These generally include all past owners, past operators and hazardous waste generators that can be connected to the site contaminants. The research to identify parties responsible for conditions at the site was completed in June 1988. Potentially responsible owners, operators and generators were identified. Based on this information, five (5) companies identified as potentially responsible parties were provided notice of the U.S. EPA's intent to investigate the site by letter in January 1992. The U.S. EPA has attempted to work with the current owner and tried not to disrupt commercial activities during the

investigation. We have also kept them informed of our actions. We have been pleased with the cooperative working relationship that has been established with the Carter Lee Lumber Company and believe it has obtained in beneficial results.

3. Comment: The commenter states the belief that the employees within a one-mile radius of the Site are at risk and should have blood work to determine any and all health problems. The commenter also asks if Carter Lee Lumber Company employees have been given blood tests to detect carcinogens and the commenter request the results of such testing and finally, the commenter ask if the arsenic, cyanide and beryllium detected in the groundwater can be found in the blood stream of individuals in the area and if exposure would cause health problems for individuals in the immediate area.

Response: In response to the concern regarding employees within a one-mile radius of the Site, the remedial investigation concluded that the contaminants at the site do not pose an unacceptable risk to area workers or residents. This conclusion is based on findings determined during the investigation which included sampling and analysis of groundwater and subsurface and surface soil both on and off-site, a groundwater user survey and an ecological investigation. Our investigation did not include blood tests for Carter Lee Lumber Company employees since blood testing was not warranted. The Indiana Public Health Department looked into allegations of weight loss and skin lesions reportedly occurring among Carter Lee Lumber employees and could not substantiate these claims. No health problems have been reported in the area as a result of contact with the contaminants at the site.

In response to the commenter's questions regarding the groundwater, both cyanide and beryllium levels can be measured in the blood. Arsenic, however, is better measured in urine samples. The presence of these compounds in the blood or urine does not necessarily mean that health hazards exist. It is believed by many, for instance, that trace amounts of arsenic may be essential to good health. Our investigation revealed that no one is currently drinking water contaminated with site related chemicals. Because the contamination found does not pose unacceptable risks, testing individuals is not warranted. In evaluating the risk associated with groundwater, we determined that contaminants at the site would have to be much higher before groundwater quality is degraded and human consumption affected.

4. Comment: The commenter asks the U.S. EPA to remove the contaminated soils from the site rather than the leave the soils as proposed. The reasons for the request include;

1. The remedial investigation failed to examine the impact the site has on the health and stability of the neighborhood.

2. A community impact study should have been completed before a plan is proposed.

3. The recommended action outlined in the proposed plan does not prohibit contaminated soil from being disturbed by Carter Lee Lumber.

4. Facts about the soils underlying the site were presented at the proposed plan meeting that was not presented in the proposed plan fact sheet.

4. The U.S. EPA is not learning from past experiences. The Avanti site clean-up did not prevent community and workers' exposure to lead-contaminated soil. A similar problem can be avoided if the soils are removed.

Response: The U.S. EPA shares the commenter's concern regarding the impact this site has on the community. In accordance with our guidelines, we implemented a community relations plan that is designed to keep the community informed of the activities at the Site and help the U.S. EPA anticipate and respond to community concerns. Past activities included interviews with interested people in the community, public meetings, establishing a information repository at the community center and releasing news letters, final reports and other work products. In addition, the Agency for Toxic Substances and Disease Registry (ATSDR), in conjunction with the Indiana Health Department, has published a preliminary health assessment and is completing work on a final health assessment based on the data collected during our investigation. We are not familiar with the details of the "community impact study" that the commenter referenced, but believe adequate efforts have been made to promote community involvement; we have been responsive to community needs and we have evaluated the impact the Site has had on the community.

Our investigation concludes that no unacceptable incremental level of risk will result from the leaving the soils at the Site. The baseline risk assessment provided an evaluation of the potential threat to human health and the environment if no remedial action takes place. This risk assessment was conducted consistent with U.S. EPA guidance. On the basis of these assessments, no action was proposed.

The commenter's concern that new information was presented at the proposed plan meeting is understandable. Be assured, however, that no new facts were introduced at the meeting. Site geology is discussed at great length in the remedial investigation report. The presentation at the meeting went over the content of the remedial investigation report. A copy of the report was placed in the information repository on June 1, 1995. The proposed plan fact sheet summarized the data collected during the investigation since it is not in the nature of a fact sheet to

include details.

The commenter's desire that we use the lessons learned is consistent with current U.S. EPA policy. It should be noted, however, the situations at the Avanti removal site and the Carter Lee Lumber Superfund Site are not at all similar. Because of the differences, it is not appropriate to deal with the sites in the same manner. The facts have been assembled regarding the Carter Lee Lumber Superfund Site in the remedial investigation and based on those facts, it has been determined the no action alternative is protective of human health and the environment and, therefore, has been proposed.

Potentially Responsible Party Comments

5. Comment: The commenter clarified information in the remedial investigation report about the small batch wood treatment unit operated by the Carter Lee Lumber Company, which, according to the commenter, can be misinterpreted to mean that pentachlorophenol was part of the material spread on the southern portion of the site. The commenter concludes that since pentachlorophenol was not detected in any samples except at very low concentrations, pentachlorophenol did not contribute to the site contamination. The commenter discussed the contents of the trench. The proposed plan and remedial investigation states that the excavated soil was placed in the trench. The commenter states that red soils did not go into the trench and referenced affidavits supplied to the U.S. EPA to support that position. Finally, the commenter informed the U.S. EPA that most of the Site will be covered in asphalt in the spring of 1996.

Response: U.S. EPA acknowledges the clarifications. There was never an intent to imply that pentachlorophenol was spread over the site. If that can be inferred from the text, we'd like to thank you for the opportunity to clarify. During the site investigation, the historical use of pentachlorophenol was examined. It was determined that it was not a contaminant of concern because it did not meet the criteria used to evaluate contamination at Superfund sites.

Relative to the comments on the placement of the red soil, notwithstanding the affidavits received, soil sampling during the investigation found some of the highest concentration in soils in the trench area.

The proposed plan recommends no action at this site. And further, the hazardous substances remaining at the Site will allow unlimited Site use and unrestricted exposure to Site soils and groundwater. Given the conclusions drawn based on the examination of site facts, plans for site development can proceed.

U.S. EPA ADMINISTRATIVE RECORD
REMEDIAL ACTION
CARTER-LEE LUMBER SITE
INDIANAPOLIS, INDIANA
ORIGINAL
07/26/95

COPY AR

DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	08/13/84	Dalton, M. and Kolze, L., ISBH	U.S. EPA	Preliminary Assessment	5
2	07/23/85	U.S. EPA	File	Chain of Custody Records and Sampling Data for Case #4730	45
3	03/06/86	CH2M-Hill	U.S. EPA	Site Inspection Report	73
4	09/06/90	USDHHS/USPHS/ATSDR; ISBH	U.S. EPA	Preliminary Health Assessment	7
5	06/00/92	CH2M-Hill	U.S. EPA	Quality Assurance Project Plan (Including Field Sampling Plan and Health and Safety Plan) w/Attached U.S. EPA Memorandums re: (1) June 28, 1992 Approval of the QAPP and (2) June 28, 1993 Addendum to Appendix A	318
6	08/04/92	CH2M-Hill	U.S. EPA	Work Plan for the RI/FS	57
7	02/03/93	Peterson, L., CH2M-Hill	Orr, D., U.S. EPA	Letter Forwarding Attached Revisions to the January 25, 1993 Technical Memorandum	71
8	02/07/94	Peterson, L., CH2M-Hill	Orr, D., U.S. EPA	Letter Forwarding Attached September 1993 Soil and Groundwater Analytical Data	229
9	04/13/94	Orr, D., U.S. EPA	Schaible, R., IDEM; et al.	Letter Transmitting September 1993 Soil and Groundwater Analytical Data	2
10	05/00/95	CH2M-Hill	U.S. EPA	Remedial Investigation Report (Includes Chain of Custody Forms)	286
11	07/13/95	Cragan, J., CH2M Hill	Orr, D., U.S. EPA	Technical Memorandum re: Fate and Transport Analysis	8

GUIDANCE ADDENDUM
CARTER-LEE LUMBER SITE
DOCUMENTS MAY BE VIEWED AT
U.S. EPA REGION 5
77 W. JACKSON BLVD., CHICAGO, IL 60604-3590
07/26/95

DOC#	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	00/00/80	Indiana Department of Natural Resources		Report: "Geology for Environmental Planning in Marion County, Indiana" (Geological Survey Special Report 19)	0
2	00/00/83	Smith, B.		Report: "Availability of Water From the Outwash Aquifer, Marion County, Indiana" (Geological Survey Water Resources Investigation Report 83-4144)	0
3	09/24/86	U.S. EPA	U.S. EPA	Guidelines for Carcinogenic Risk Assessment (Federal Register 51: 33992-34013)	0
4	09/24/86	U.S. EPA	U.S. EPA	Guidelines for Estimating Exposure (Federal Register 51: 34042-34045)	0
5	09/24/86	U.S. EPA	U.S. EPA	Guidelines for the Health Risk Assessment of Chemical Mixtures (Federal Register 51: 34014-34041)	0
6	12/00/89	U.S. EPA	U.S. EPA	Risk Assessment Guidance for Superfund: Human Health Evaluation Manual (Part A) [Interim Final] (EPA/540/1-89/002)	0
7	03/00/91	U.S. EPA/OSWER	U.S. EPA	Standard Default Exposure Factors [Interim Guidance] (OSWER Directive 9285.6-03)	0
8	04/00/91	U.S. EPA/OSWER	U.S. EPA	Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions (OSWER Directive 9355.0-03)	0
9	12/00/91	U.S. EPA/OERR	U.S. EPA	Health Effects Summary Tables [Annual FY 1991] (OERR 9200.6-303 [90-3])	0
10	12/00/91	U.S. EPA	U.S. EPA	Risk Assessment Guidance for Superfund: Human Health Evaluation Manual (Part B) [Interim Final] (Publication 9285.7-01B)	0
11	00/00/92	U.S. EPA/ORD	U.S. EPA	Integrated Risk Information System: Background Information (U.S. EPA Integrated Risk Information System Database)	0