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Office of
Emergency and
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June 1988

EPA

Superfund Record of Decision:

Westline, PA

50272-101

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15. Supplementary Notes

16. Abstract (Limit: 200 words)

The Westline site, located in the town of Westline, McKean County, Pennsylvania, is a 40-acre tract of land formerly used as a lumber processing facility. Between 1901 and 1952, the onsite chemical plant converted lumber into charcoal, methanol, and acetic acid. In 1952, the plant was closed due to equipment deterioration and declining profits. Waste tars containing high levels of polynuclear aromatic hydrocarbons (PAHs) and various phenolic compounds were left onsite. An Emergency Removal Action was implemented in 1983 to remove the largest tar deposit, and a Record of Decision was signed in July, 1986, to address the excavation and offsite incineration of remaining tar deposits and contaminated soil. This second operable unit addresses potential ground water contamination. In 1985 high levels of benzene were found in two onsite monitoring wells. Additional tests indicated the presence of toluene, trichloroethane, phenol, and other VOCs; however, benzene was the only contaminant that exceeded Federal Maximum Contaminant Levels (MCLs) of 5 ug/l, and is, therefore, the primary contaminant of concern.

The selected remedial action for the ground water operable unit at the Westline site is no further action. Since drinking water for the town of Westline is obtained from (See Attached Sheet)

17. Document Analysis a. Descriptors

Record of Decision
Westline Site, PA
Second Remedial Action
Contaminated Media: gw
Key Contaminants: benzene

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report) None	21. No. of Pages 28
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(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77) (Formerly NTIS-35) Department of Commerce

EPA/ROD/R03-88/043
tline Site, PA
ɔnd Remedial Action

16. ABSTRACT (continued)

small streams upgradient of the site and all contaminants except benzene are below Federal MCLs, EPA has determined that no significant risk to public health and the environment exists. Ground water will be monitored to ensure effectiveness of natural attenuation, and institutional controls will be implemented to prevent construction of new drinking water wells in the contaminated area. There are no capital costs associated with the remedy, and O&M costs for monitoring were not specified.

RECORD OF DECISION
REMEDIAL ALTERNATIVE SELECTION

Site: Westline Site, McKean County, Pennsylvania

Statement of Basis and Purpose:

The purpose of this decision document is to describe the selected remedial action for ground water at the Westline Site and the technical evaluation to support this decision. This Record of Decision (ROD) fulfills the statutory requirements from §113 (k)(2)(B)(v) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 and is consistent with the National Contingency Plan (NCP) 40 CFR Part 300.

Documents Reviewed:

The following documents are the key supporting information in the Administrative Record which describe the environmental concerns at the Westline Site:

- Ground water Verification Study, Westline Site, Westline, Pennsylvania, December 1987, prepared by EBASCO Services Incorporated.

- Remedial Investigation Report, Volumes I and II, Westline Site McKean County, Pennsylvania, April 1986, prepared by NUS Corporation.

- Feasibility Study Report, Westline Site, Westline, Pennsylvania, May 1986, prepared by NUS Corporation.

- Remedial Action Master Plan, Westline Site, McKean County, Pennsylvania, October 1983, prepared by NUS Corporation.

- Federal On-Scene Coordinator's Report, Emergency Response/ Immediate Removal Action, Westline, Pennsylvania, prepared by Mike Zickler, On-Scene Coordinator.

The Agency has presented these documents to the public for at least thirty (30) days and has placed newspaper advertisements describing the remedial action selected in this decision. The Agency has also discussed these reports with the Pennsylvania Department of Environmental Resources (DER) and both agencies agree on the alternative selected.

I have been briefed by my staff on the contents of these documents, the public comments and DER's letter of concurrence and they form the principal basis for my decision.

Description of Selected Remedy

1. This Record of Decision (ROD) addresses only the ground water at the Westline Site. A previous ROD was signed on July 3, 1986 by the Agency for remediation of the waste tar which will be excavated and incinerated offsite.

2. The selected remedy for ground water is a NO-ACTION ALTERNATIVE WITH CONTINUED MONITORING. This means there is no specific treatment process necessary to remediate the ground water aquifer at the Westline Site.

3. EPA and DER will continue to monitor surface areas to be sure no continued sources of contamination are released.

4. EPA and DER will continue to monitor ground water contaminants on a yearly basis for the next five years to confirm the natural attenuation of contaminant levels and to assure there are no threats to public health. After this period, EPA and DER will reassess the frequency of monitoring.

5. DER, in cooperation with Lafayette Township and the community of Westline, will prevent any new drinking water wells in the contaminated water bearing zones for the duration of the natural remediation.

Declarations

The selected remedy is protective of human health and the environment and attains Federal and State requirements that are applicable or relevant and appropriate. I have determined that the "no action" alternative combined with continued monitoring of the onsite wells is an effective remedy for the ground water at the Westline Site. At this time the ground water does not pose a significant threat to public health since no residential wells are located in the contaminated zone and the residents in the town of Westline obtain drinking water from the surface streams in the mountains surrounding the town. In addition, the remedy will reduce the toxicity because the natural rate of ground water flow should completely flush the aquifer in approximately ten (10) years.

Since some hazardous substances remain onsite a review will be conducted within five years after this decision to ensure that the remedy continues to provide adequate protection of human health and the environment.

I have also determined that the action being taken is appropriate when balanced against the availability of Trust Fund monies for use at other sites. The "no action" alternative in conjunction with ground water monitoring will adequately protect public health, welfare and the environment.

6-29-88
Date

James M. Seif
Regional Administrator
Region III

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Summary of Remedial Alternative Selection

Westline Site

Site Location and Description:

The Westline Site is located in the rural town of Westline, Lafayette Township, McKean County, Pennsylvania. As shown in Figure 1, the site is located in northwest Pennsylvania and is approximately 15 miles south-southwest of Bradford and 8 miles northeast of Kane, Pennsylvania.

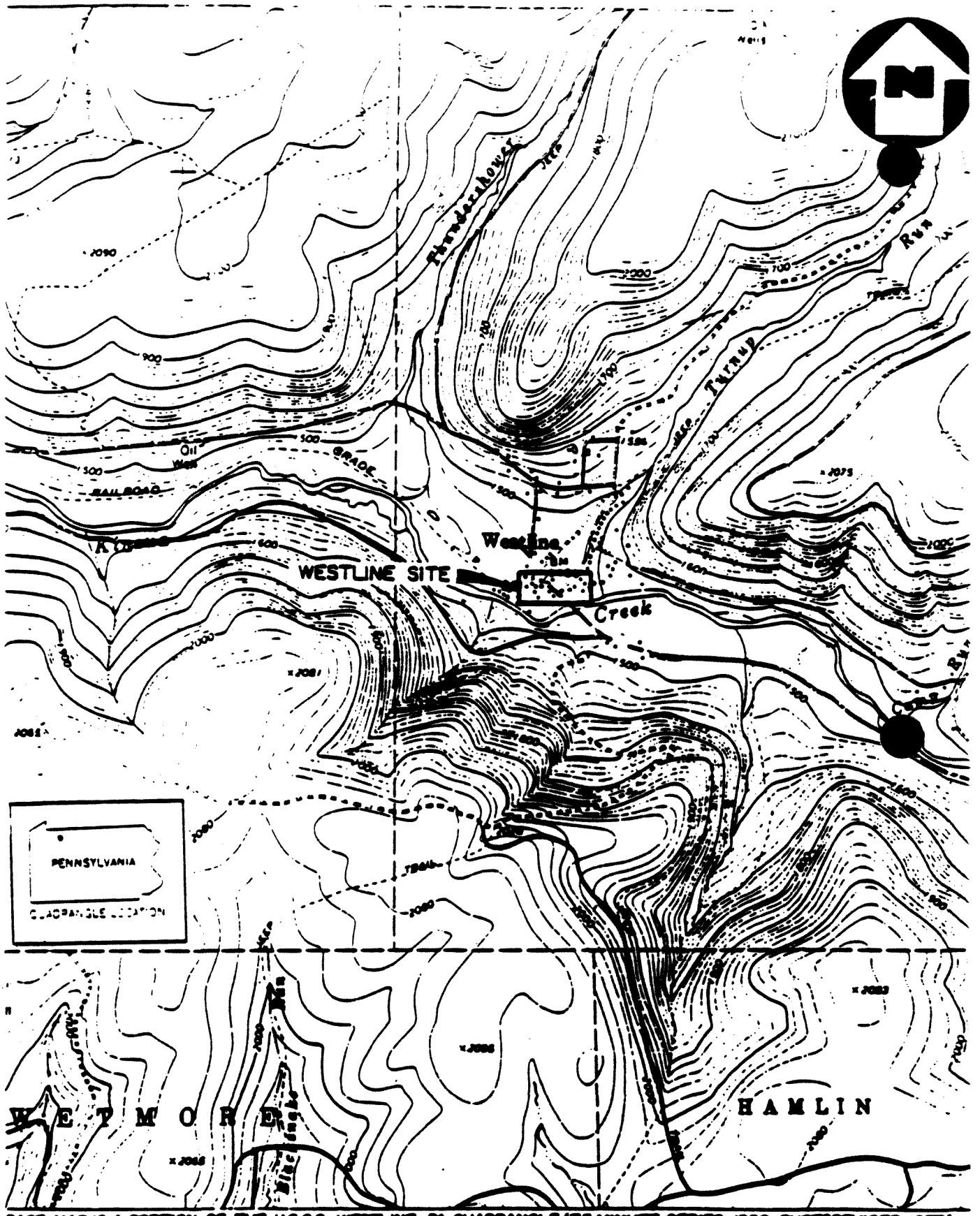
The town of Westline is situated along Kinzua Creek and is completely surrounded by the Allegheny National Forest. As shown in Figures 1 & 2, the site is bordered by Kinzua Creek to the south, Turnup Run to the east, and a wetland area to the west. For this Remedial Investigation/ Feasibility Study (RI/FS), the northern border of the site extends about 250 feet north of the former chemical plant foundation. The site area encompasses approximately 40 acres. A portion of the site along Kinzua Creek is flooded during wet seasons.

Located at the center of the site, adjacent to the main intersection in town, is the Westline Inn. The Westline Inn is a popular landmark that provides overnight accommodations, a restaurant, and a bar.

Several tar-like deposits from the wood chemical processing operations remain onsite. The largest deposit was once located next to the Westline Inn. However, this deposit was excavated in September of 1983 by an Emergency Response Removal Action implemented by the United States Environmental Protection Agency (EPA), Region III, in Philadelphia. Another tar deposit still exists behind Westline's church. This deposit is approximately 6 inches deep and 1,500 square feet in total area. A fence has been erected around it to avoid surface soil disturbance and direct contact. Several small tar deposits are located in the southcentral and southwest areas of the site. These deposits are scattered and are generally found in the low-lying portions of the ground. Smaller tar seepages can be seen with dredged material along portions of the unnamed tributary. A backhoe is periodically used by the township to dredge portions of the unnamed tributary to permit flow into Kinzua Creek. A portion of the site along Kinzua Creek is flooded during wet seasons.

Site Historyy:

In the late 1890's, Ralph Day and his son Edmund purchased thousands of acres of land extending east of Thundershower Run to the small town of Guffy. Timber rights were obtained and a chemical plant was constructed in the town of Westline. The plant, known as the Day Chemical Company, began operating in 1901. The plant converted lumber into charcoal, methanol, and acetic acid. The basic process consisted of heating the lumber in the absence of oxygen to a very high temperature, driving off the chemicals and turning the remaining wood into charcoal. The chemicals were treated to produce methanoll and acetic acid. The charcoal was then sold to iron producers. The methanol and acetic acid were also sold.



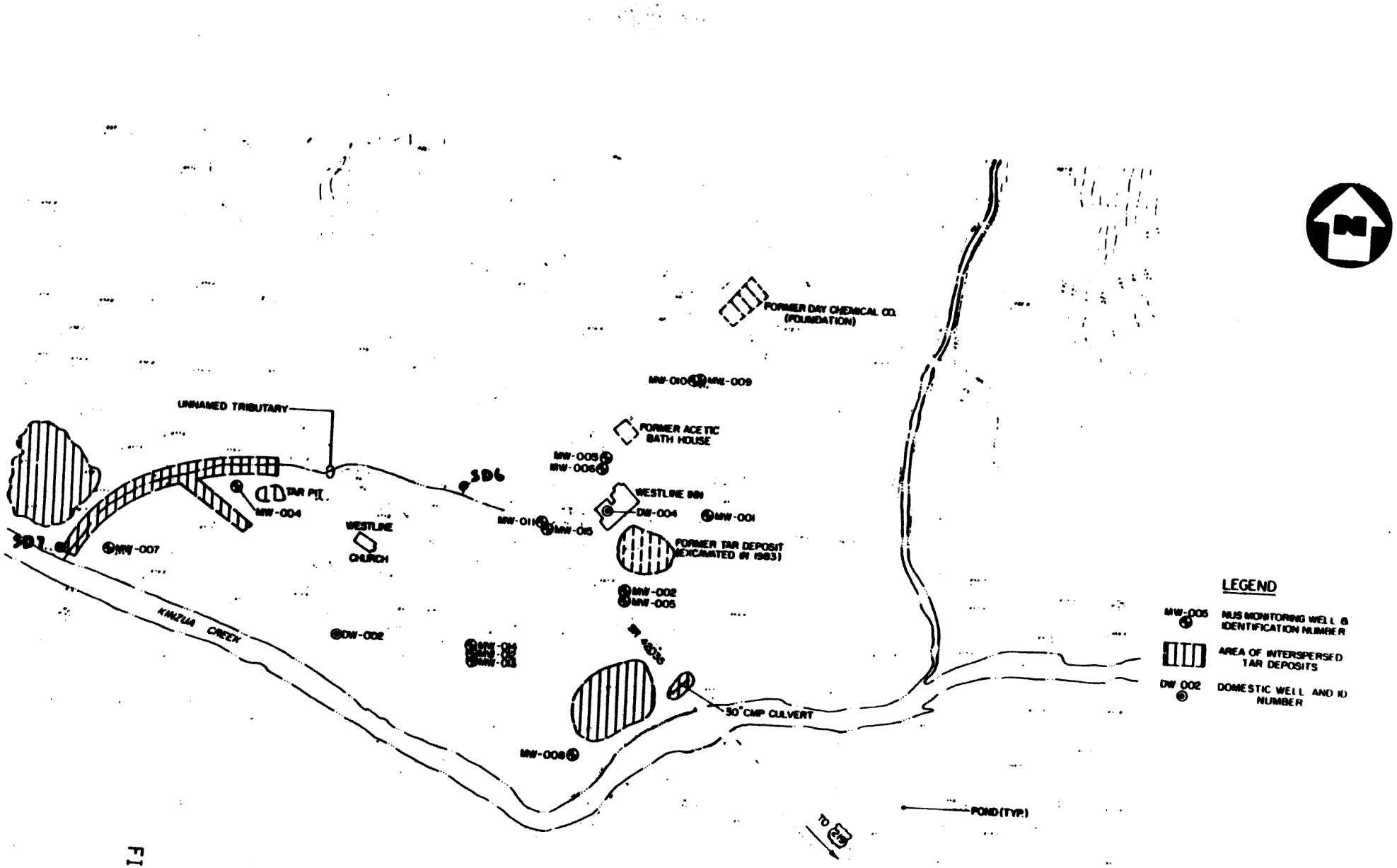
BASE MAP IS A PORTION OF THE U.S.G.S. WESTLINE, PA QUADRANGLE (7.5 MINUTE SERIES, 1966, PHOTOREVISED 1973). CONTOUR INTERVAL 20'.

LOCATION MAP
WESTLINE SITE, WESTLINE, PA

SCALE: 1" = 2000'

NUS CORPORATION
A Halliburton Company

FIGURE 1


FORMER DAY CHEMICAL CO. (FOUNDATION)
MW-010
MW-009
UNNAMED TRIBUTARY
FORMER ACETIC BATH HOUSE
MW-008
MW-006
SD6
TAR PIT
MW-004
WESTLINE INN
DW-004
MW-001
WESTLINE CHURCH
MW-011
MW-015
FORMER TAR DEPOSIT (EXCAVATED IN 1983)
SD7
MW-007
MW-002
MW-005
KIWAUA CREEK
DW-002
MW-014
MW-013
MW-003
30" CMP CULVERT
MW-008
POND (TYP.)
TO
LEGEND
MW-005 NUS MONITORING WELL & IDENTIFICATION NUMBER
AREA OF INTERSPERSED TAR DEPOSITS
DW 002 DOMESTIC WELL AND ID NUMBER

FIGUR

The Day Chemical Company was closed in 1930. The plant was sold to David Hancock of Olean, New York, and the name of the plant was changed to the Union Charcoal Company. By 1940, the plant deteriorated and was ready to shut down when an explosion occurred in another separating unit. With the insurance settlement from the explosion damage, the plant was rebuilt and provided chemicals to industries during the early part of World War II. However, because of high taxes, the company was dissolved and the plant was sold to David and Robert Hancock and their wives who named the plant the Westline Chemical Company and operations continued for six more years. In the summer of 1952, the plant was closed due to equipment deterioration and a decline in profits.

Today, all that is left of the chemical plant is the foundation. The plant site, located behind the Westline Inn, is presently covered with demolition debris and is overgrown. Most of the thousands of acres bought by Ralph and Edmund Day in the late 1890's are now part of the Allegheny National Forest.

Summary of the First Record of Decision (July 3, 1986)

The remaining waste tars at the Westline Site are the most important environmental and public health concern. The tar contains high levels of phenolic compounds and polynuclear aromatic hydrocarbons (PAHs). There is a possibility for direct contact and possible ingestion as well as a possibility for leaching into the ground water table over long periods of time. Therefore, the Agency decided to excavate the waste tars and contaminated soils and backfill the excavated areas with clean fill. The excavated materials will be incinerated at an offsite facility which is in compliance with the Resource Conservation and Recovery Act (RCRA).

The ROD also called for an additional ground water investigation to determine if the contamination at monitoring well MW-6 is present downgradient or in higher concentrations in the uppermost zone of groundwater. The Ground Water Verification Study conducted in December 1987 completed this additional work.

Basis for the Ground Water Verification Study

The results from the Remedial Investigation completed in April 1986 revealed that two of the monitoring wells exhibited a much higher level of contaminants which was not characteristic of the wood tar at the site. Specifically, in 1985 benzene was found at 84 ug/l in MW-006. This concentration level exceeds the Maximum Concentration Levels (MCL) of 5 ug/l set by EPA as well as Pennsylvania ARARs (Applicable, Relevant, and Appropriate Requirements). EPA must consider ARARs in determining a remedial action for a site in accordance with section 121(b) of CERCLA, as amended 42 U.S.C. §9621(b). In addition, the data from the Remedial Investigation did not fully delineate the spread of the contaminants upgradient, downgradient of at the connection of the ground waters and the surface waters of Kinzua Creek.

The community obtains its potable water from an upgradient spring and there is no present risk associated with ground water consumption. However, future use of the ground water could present a low risk based on the level of benzene detected at well location MW-006.

Scope of Work

The scope of work for the Westline Ground Water Verification Study included drilling and installation of seven monitoring wells in the water bearing zones at the site. All of the monitoring wells were sampled and analyzed. Slug testing was performed on the new monitoring wells to calculate hydraulic conductivities for the water bearing zones. Short-term pumping tests were also run. Water levels were also obtained from the monitoring wells.

Geology

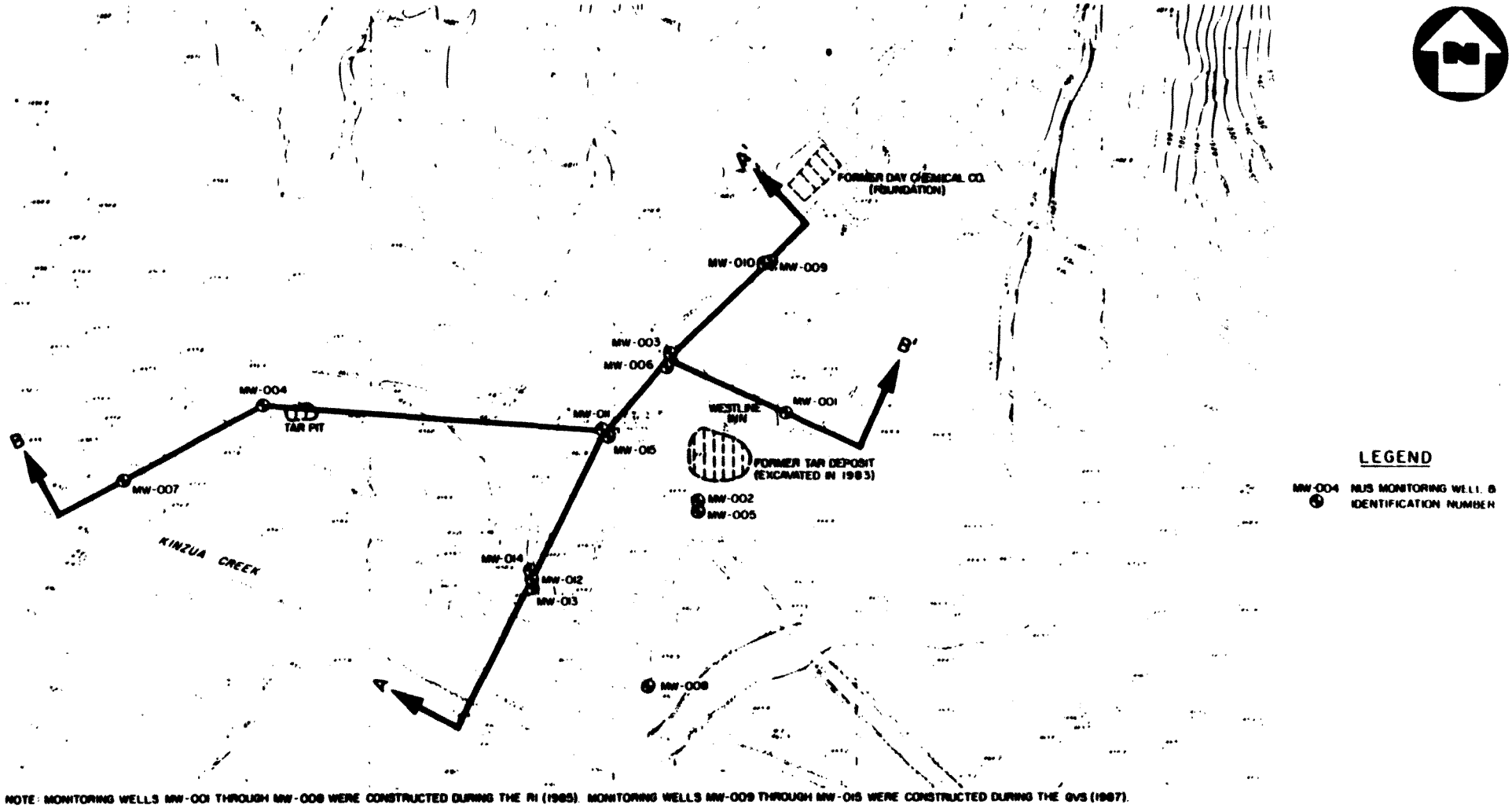
The Westline site is underlain by unconsolidated alluvial sediments consisting primarily of sand, silt and gravel with minor amounts of rock fragments and clay found sporadically within the various deposits. Several layers of fine grained silt and sand deposits with the coarse deposits and act as leaky confining units at the site. The alluvium in the site vicinity ranges in thickness from 52 feet at MW-010 to 99 feet at MW-001. The bedrock surface slopes across the site towards Kinzua Creek.

Hydrogeology

There are three water transmitting zones within the alluvial aquifer, and monitoring wells were installed in each of the zones. Figures 3, 4 and 5 show monitoring well locations and cross sections which illustrate the screened depths and the three water transmitting zones (sands).

The ground water flow in the uppermost zone is generally southwest towards Kinzua Creek. In the intermediate zone the ground water flow is west and more parallel to the creek. The lower zone is expected to be similar to the flow in the intermediate zone. Results from aquifer pumping tests indicate that there is some vertical flow downward in the northeastern corner of the study area which gradually lessens to the southwest. A slight upward vertical gradient is found indicating the area is near a ground water discharge point (Kinzua Creek). The observed pattern is consistent with the expected flow pattern in this type of hydrogeologic setting. The conceptual interpretation of flow conditions is shown in Figure 6. Based on information from the slug tests performed on the newly installed monitoring wells, the average linear flow velocities were calculated. In the uppermost zone the average flow was 73 feet/year. In the intermediate zone flow velocities ranged from 201 feet/year to 912 feet/year.

In summary, ground water flows primarily in three subhorizontal units. The three flow zones are separated by low permeability layers which restrict but do not prevent ground water migration between the zones.



NOTE: MONITORING WELLS MW-001 THROUGH MW-008 WERE CONSTRUCTED DURING THE RI (1985). MONITORING WELLS MW-009 THROUGH MW-015 WERE CONSTRUCTED DURING THE GVS (1987).

FIGURE 3

MONITORING WELL AND CROSS SECTION LOCATIONS
WESTLINE SITE, WESTLINE, PA

0 200 400
SCALE IN FEET

NUS CORPORATION

-11-

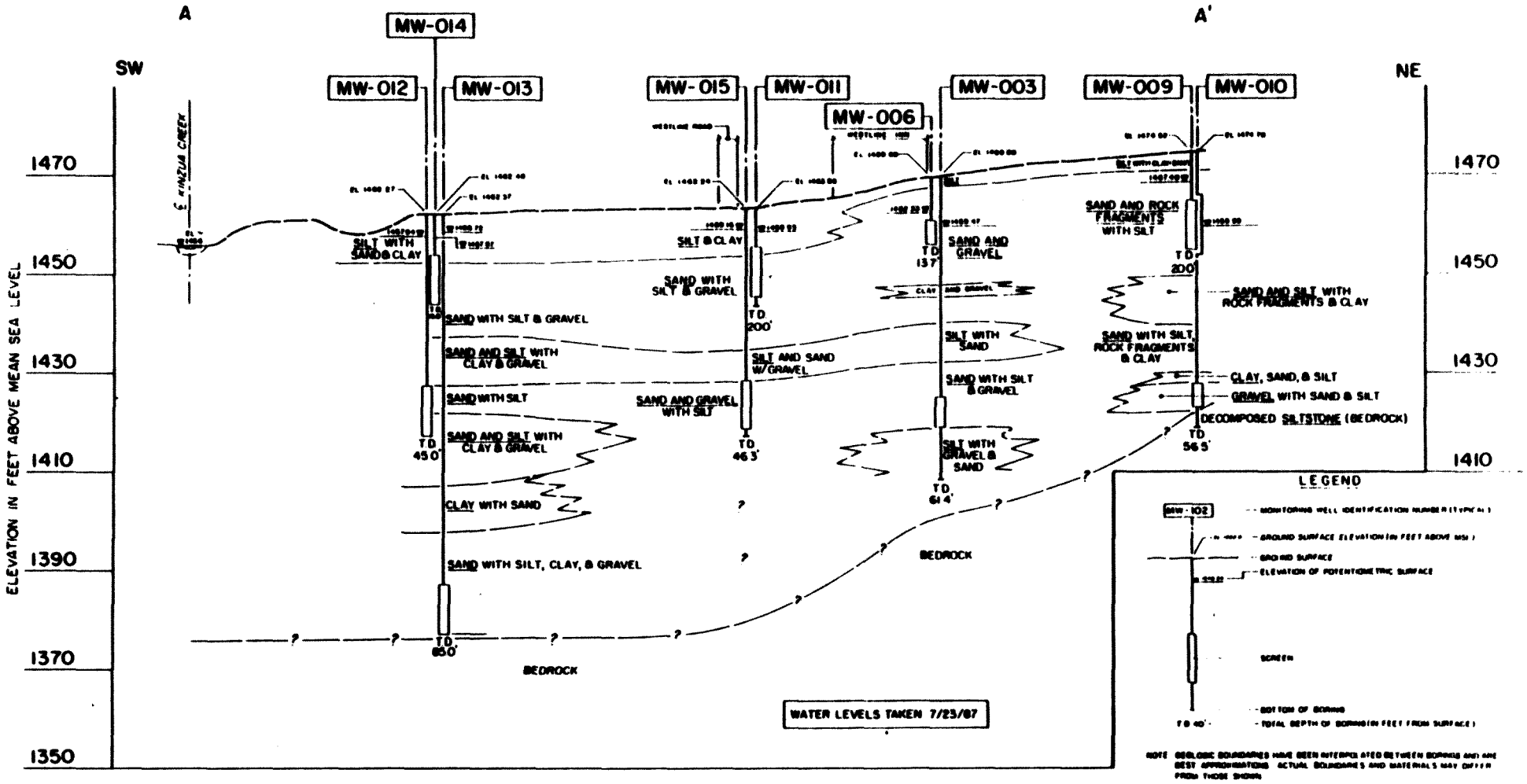


FIGURE 4

GEOLOGIC CROSS SECTION A-A'
WESTLINE SITE, WESTLINE, PA

0 100 200
HORIZONTAL SCALE IN FEET
0 20 40
VERTICAL SCALE IN FEET

NUS CORPORATION

-14-

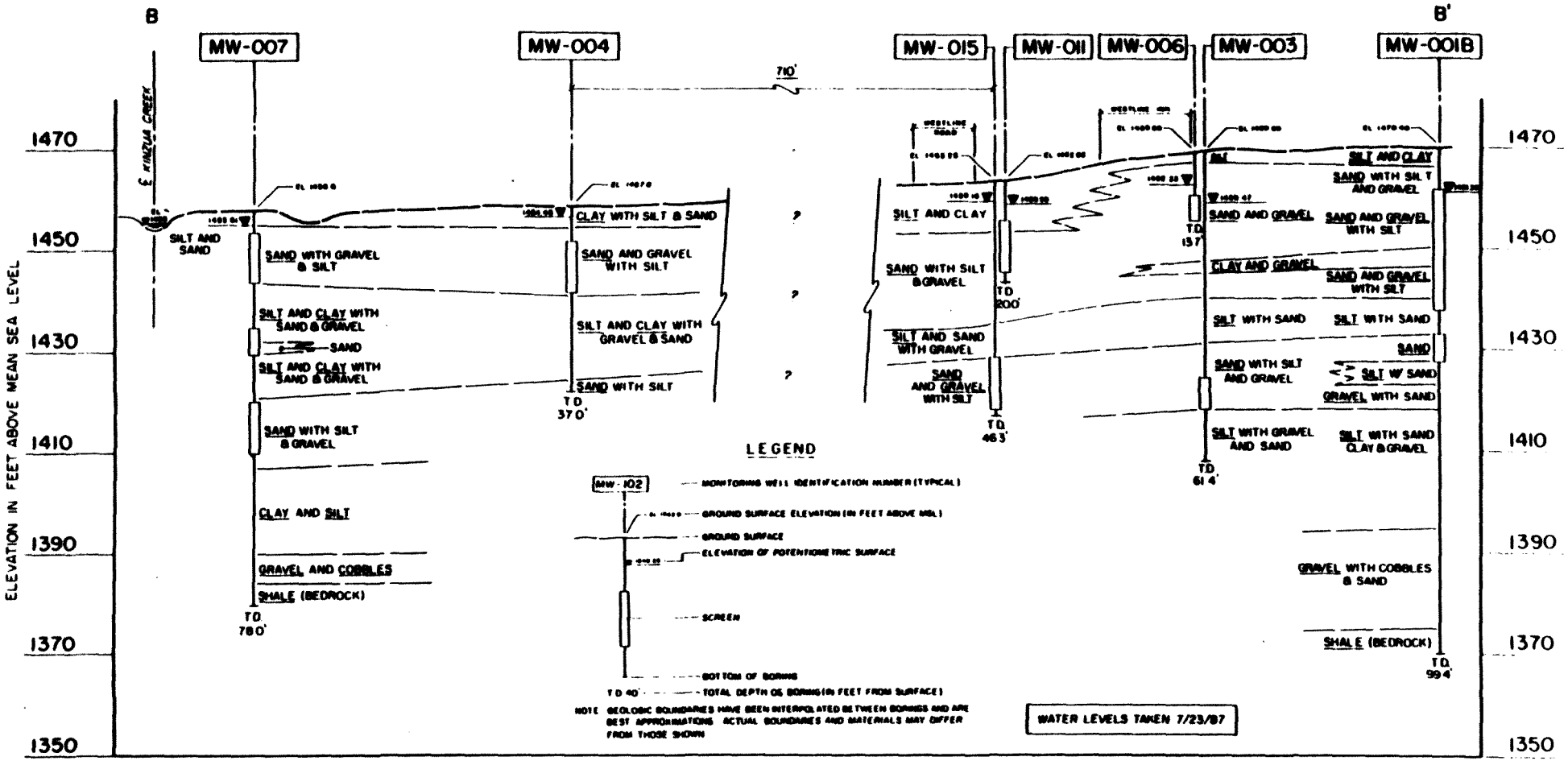


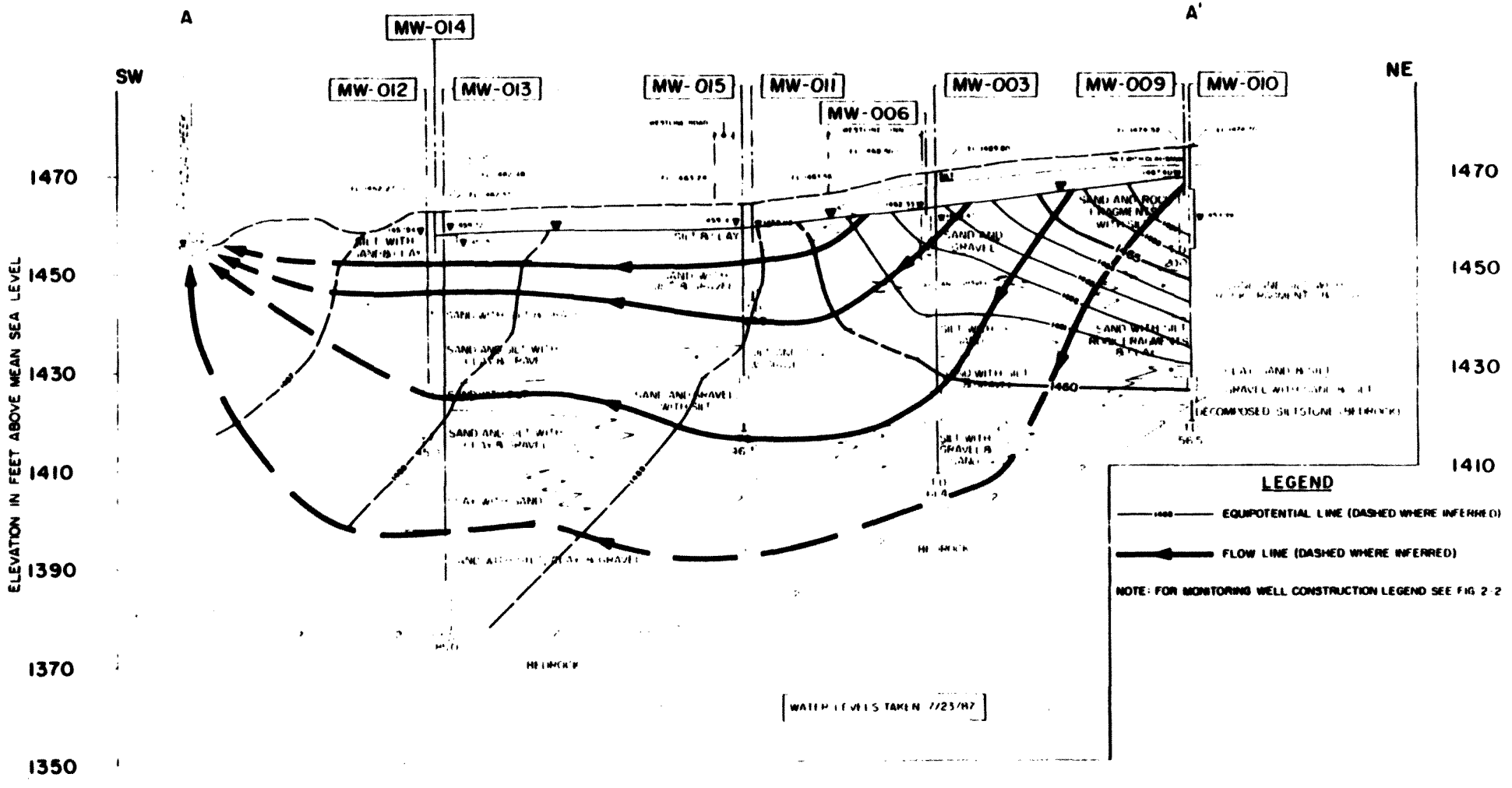
FIGURE 5

GEOLOGIC CROSS SECTION B-B'
WESTLINE SITE, WESTLINE, PA

0 100 200
HORIZONTAL SCALE IN FEET
0 20 40
VERTICAL SCALE IN FEET

NUS CORPORATION

-15-



CONCEPTUAL FLOW NET
GEOLOGIC CROSS SECTION A-A'
WESTLINE SITE, WESTLINE, PA

0 100 200
HORIZONTAL SCALE IN FEET
0 20 40
VERTICAL SCALE IN FEET

NUS CORPORATION

FIGURE 6

Extent of Ground Water Contamination

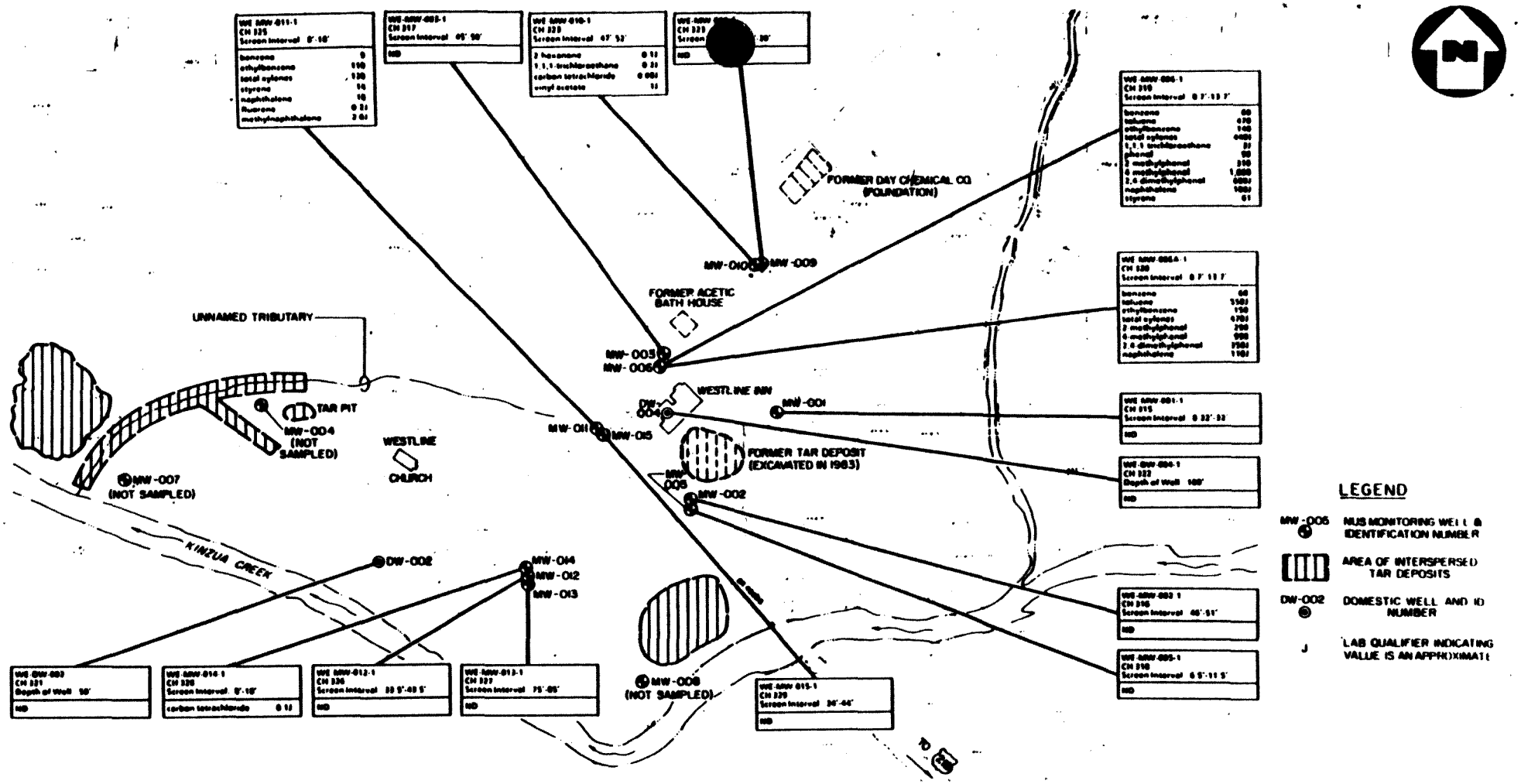
Ground water contaminants detected at the Westline site include a variety of organic compounds (toluene, trichloroethane, benzene, ethlybenzene, xylene, and phenol). Appendix D of the Ground Water Verification Study (GVS) provides a complete listing of ground water analytical results with both laboratory and Quality Assurance/Quality Control (QA/QC) validation qualifiers included. Only data passing EPA QA/QC validation requirements were used to describe the extent of contamination and to assess health risks. These contaminants are shown on Figure 7. Appendix E of the GVS provides the monitoring well sample log sheets.

Most of the contamination at the site was found in samples from monitoring wells MW-006 and MW-011, which are shallow zone monitoring wells installed adjacent to and immediately downgradient of the Westline Inn. These wells had both the highest diversity of contaminants detected and the greatest concentrations found. However, in the 1987 GVS only benzene (60 ug/l) exceeded the MCL of 5.0 ug/l. The contaminants detected in MW 006 and MW-011 are similar in nature, indicating that the contaminants were from the same source area. The well cluster upgradient from the Westline Inn, MW-009/MW-010, had only trace levels of contaminants in one well (MW-010), had only trace levels of contaminants in one well (MW-010), indicating that the main source of the observed contamination is in the vicinity of the Westline Inn.

Monitoring Well MW-014, a shallow well downgradient of MW-006 and MW-011, contained trace levels of carbon tetrachloride (<1 ug/l). As a result, this well location may define the approximate downgradient extent of the contaminant plume found in the shallow water bearing zone in the vicinity of the Westline Inn. No contaminants were detected in deeper wells MW-012/MW-013 installed adjacent to MW-014.

Vertically, most of the contamination detected is confined to the uppermost water bearing zone beneath the site. No contaminants were detected in the intermediate well MW-003 installed adjacent to shallow well MW-006, the most contaminated well. However, low levels of toluene, ethylbenzene, xylenes, and naphthalene were detected in MW-003 during the 1985 RI. Table 1 provides a comparison of 1985 (RI) and 1987 (GVS) sampling results.

Other than MW-010, which had only trace levels of organics, no intermediate or deep well exhibited contamination. Based on the vertical and distribution data provided by monitoring well water levels and the lithology of the alluvium, the shallow contamination present in the vicinity of the Westline Inn is expected to remain confined to the shallow flow system.



NOTE: ALL ANALYSES ARE REPORTED IN ug/l ALL SAMPLES COLLECTED ON JULY 30 AND JULY 31, 1987

FIGURE 7

GROUNDWATER VERIFICATION STUDY
GROUNDWATER ANALYSES (ORGANICS)
WESTLINE SITE, WESTLINE, PA

TABLE 1

COMPARISON OF 1985 (RI) AND 1987 (GVS) GROUNDWATER ANALYSES
WESTLINE SITE, WESTLINE, PENNSYLVANIA

Contaminant	MW-001		MW-002		MW-003		MW-005		MW-006		DW-002		DW-004	
	RI	GVS	RI	GVS	RI	GVS	RI	GVS	RI	GVS	RI	GVS	RI	GVS
Benzene	-	-	-	-	-	-	-	-	80J	60	-	-	-	-
Ethylbenzene	-	-	-	-	12	-	-	-	-	140	-	-	-	-
Total xylenes	-	-	-	-	43	-	-	-	2000J	440J	-	-	-	-
Toluene	-	-	-	-	9	-	-	-	450J	470	-	-	-	-
1,1,1-trichloroethane	-	-	-	-	-	-	-	-	-	3J	-	-	-	-
Chlorobenzene	-	-	-	-	-	-	-	-	480J	-	-	-	-	-
Phenol	8J	-	-	-	-	-	-	-	66J	90	-	-	-	-
2-methylphenol	11J	-	-	-	-	-	-	-	100J	310	-	-	-	-
4-methylphenol	21J	-	-	-	-	-	-	-	320J	1000	-	-	-	-
2,4-dimethylphenol	34J	-	-	-	-	-	-	-	160J	600J	-	-	-	-
naphthalene	-	-	-	-	-	-	-	-	77	100J	-	-	-	-
2-methylnaphthalene	-	-	-	-	-	-	-	-	43	-	-	-	-	-
TPH	-	NA	-	-	-	-	-	-	2	NA	-	NA	2	NA
Styrene	-	-	-	-	-	-	-	-	-	61	-	-	-	-

All results are reported in ug/l except Total Petroleum Hydrocarbons (mg/l)
NA: Denotes "not analyzed for"
- : Denotes "not detected"
J: Denotes an approximate value

A simple exercise using EPA's model for simulating ground water flow behavior was used to estimate the time it would take for the shallow aquifer contaminant levels to dissipate below MCLs once the source is removed. Several target compounds were modeled to estimate their concentrations (ug/l) over time (days). Table 2 provides estimates for concentrations at 10 meters from the source area which would be well cluster MW-003/MW-006. Table 3 provides estimates at 100 meters from the source which would be at Kinzua Creek.

At the ten meter location the level of benzene would be below the Maximum Contaminant Level (MCL) of 5 ug/l within 480 days. The model further indicates that complete flushing of the aquifer should occur in approximately ten years.

Public Health and Environmental Risk

The contamination of ground water at the Westline Site is limited to three monitoring wells. Both MW-006 and MW-011 show the presence of benzene (60 ug/l and 9 ug/l, respectively), ethylbenzene (150 ug/l and 110 ug/l, respectively) and several additional compounds associated with the waste tars. The benzene contaminant levels are in excess of the National Primary Drinking Water Regulation (NPDWR) Maximum Contaminant Level (MCL) of 5 ug/l and the Maximum Contaminant Level Goal (MCLG) of 0 ug/l.

Well MW-010 shows only trace levels below 1 ug/l for individual compounds) of contamination, which may be associated with laboratory contamination. No HSL organics were detected in any other monitoring well samples.

The risk associated with the ingestion of contaminated ground water from the Westline Site are given in Table 4 for each specific chemical identified. Only two constituents have Carcinogenicity Potency Factors and these clearly represent the greatest risk when ingested over a lifetime. The conservative estimate of an increase in cancer risk is 8.93×10^{-5}, or one in 10,000.

The environmental risks to be considered for this ROD are limited to the discharge of the ground water to the surface waters of Kinzua Creek. The previous investigation of surface waters indicated that none of the organic contaminants listed for the ground water samples were detected in the surface waters and the low levels estimated for eventual discharge to the stream are shown in the previous Table 3.

Sediments from the unnamed tributary did show some contaminants associated with the ground water contaminants. The unnamed tributary begins just a few feet downgradient from the contaminated wells (see Figure 2 for SD-6 and SD-7). These soils and sediments are also high in PAHs associated with the waste tars and will be excavated during the waste tar removal.

GROUNDWATER CONCENTRATIONS AS A FUNCTION OF TIME
DISTANCE FROM SOURCE: 10 METERS
WESTLINE SITE, WESTLINE, PENNSYLVANIA

Chemical	Concentration (µg/l) as a Function of Time										
	160 days	320 days	480 days	640 days	800 days	960 days	1120 days	1280 days	1440 days	1600 days	1760 days
Benzene	6.2×10^{1}	1.2×10^{1}	1.2×10^{0}	1.2×10^{-1}	1.1×10^{-2}	1.0×10^{-3}	1.0×10^{-4}	8.5×10^{-6}	7.9×10^{-7}	7.3×10^{-8}	6.8×10^{-9}
Toluene	4.6×10^{2}	1.9×10^{2}	3.3×10^{1}	4.9×10^{0}	7.0×10^{-1}	9.9×10^{-2}	1.4×10^{-2}	2.0×10^{-3}	3.0×10^{-4}	4.0×10^{-5}	5.7×10^{-6}
Ethylbenzene	1.3×10^{2}	2.9×10^{2}	1.5×10^{2}	5.5×10^{1}	1.8×10^{1}	5.5×10^{0}	1.7×10^{0}	5.0×10^{-1}	1.5×10^{-1}	4.5×10^{-2}	1.3×10^{-2}
Phenol	9.4×10^{1}	1.5×10^{1}	1.4×10^{0}	1.2×10^{-1}	9.5×10^{-3}	8.0×10^{-4}	1.0×10^{-4}	5.1×10^{-6}	4.2×10^{-7}	3.5×10^{-8}	2.9×10^{-9}
Naphthalene	9.6×10^{1}	1.6×10^{2}	6.9×10^{1}	2.2×10^{1}	6.4×10^{0}	1.8×10^{0}	4.9×10^{-1}	1.3×10^{-1}	3.6×10^{-2}	9.6×10^{-3}	2.6×10^{-3}

See Appendix F for assumptions, references, and calculations

TABLE 2

GROUNDWATER CONCENTRATIONS AS A FUNCTION OF TIME
DISTANCE FROM SOURCE: 100 METERS
WESTLINE SITE, WESTLINE, PENNSYLVANIA

Chemical	Concentration (μg/l) as a Function of Time										
	320 days	640 days	960 days	1280 days	1600 days	1920 days	2240 days	2560 days	2880 days	3200 days	1520 days
Benzene	4.0×10^{-4}	1.0×10^{-1}	4.2×10^{-1}	6.2×10^{-1}	6.2×10^{-1}	5.1×10^{-1}	3.8×10^{-1}	2.7×10^{-1}	1.8×10^{-1}	1.2×10^{-1}	7.8×10^{-2}
Toluene	2.0×10^{-4}	2.5×10^{-1}	1.8×10^{0}	3.7×10^{0}	4.6×10^{0}	4.6×10^{0}	4.0×10^{0}	3.2×10^{0}	2.5×10^{0}	1.9×10^{0}	1.3×10^{0}
Ethylbenzene	8.1×10^{-9}	2.1×10^{-3}	9.7×10^{-2}	5.4×10^{-1}	1.3×10^{0}	2.1×10^{0}	2.7×10^{0}	3.0×10^{0}	3.1×10^{0}	2.9×10^{0}	2.7×10^{0}
Phenol	1.0×10^{-3}	2.1×10^{-1}	7.3×10^{-1}	1.0×10^{0}	9.4×10^{-1}	7.4×10^{-1}	5.3×10^{-1}	3.6×10^{-1}	2.4×10^{-1}	1.5×10^{-1}	9.7×10^{-2}
Naphthalene	3.3×10^{-8}	3.0×10^{-3}	9.7×10^{-2}	4.5×10^{-1}	9.6×10^{-1}	1.4×10^{1}	1.7×10^{1}	1.8×10^{1}	1.7×10^{1}	1.6×10^{1}	1.4×10^{1}

See Appendix F for assumptions, references, and calculations

TABLE 3

WORST-CASE ESTIMATED HEALTH IMPACT FROM THE INGESTION OF GROUNDWATER
WESTLINE SITE, WESTLINE, PENNSYLVANIA

Chemical	Maximum Concentration ug/l	Adult Daily Dose mg/kg/day	Reference(1) Dose (RFD) mg/kg/day	Carcinogenicity(1) Potency Factor (CPF) kg-day/mg	Health Index	Estimated Lifetime Excess Cancer Risk
Benzene	60	1.71×10^{-3}	-	5.20×10^{-2}	-	8.89×10^{-5}
Carbon Tetrachloride	0.10J	2.85×10^{-6}	-	1.30×10^{-1}	-	3.71×10^{-7}
Toluene	550	1.57×10^{-2}	4.30×10^{-1}	-	3.65×10^{-2}	-
Ethylbenzene	150	4.29×10^{-3}	9.70×10^{-1}	-	4.42×10^{-3}	-
Total Xylenes	470J	1.34×10^{-2}	1.00×10^{-1}	-	1.34×10^{-1}	-
1,1,1-Trichloroethane	3J	8.57×10^{-5}	5.40×10^{-1}	-	4.63×10^{-5}	-
Phenol	90	2.57×10^{-3}	1.00×10^{-1}	-	2.57×10^{-4}	-
2-Methylphenol	310	8.86×10^{-3}	-	-	-	-
4-Methylphenol	1000	2.86×10^{-2}	-	-	-	-
2,4-Dimethylphenol	600J	1.71×10^{-2}	-	-	-	-
Vinyl acetate	1J	2.86×10^{-5}		-	-	-
Styrene	14	4.00×10^{-4}	2.00×10^{-1}	-	8.00×10^{-5}	-
Fluorene	0.2J	5.71×10^{-6}	-	-	-	-
Naphthalene	110J	3.14×10^{-3}	-	-	-	-
2-Methylnaphthalene	2.0J	5.71×10^{-5}	-	-	-	-
2-Hexanone	0.1J	2.86×10^{-6}	-	-	-	-
Total					1.75×10^{-1}	8.93×10^{-5}

TABLE 4

One other factor which must be mentioned here is that the community of Westline does not currently use the ground water for drinking purposes. The community has connected to a local system which uses surface waters from Thundershower Run. The location of their water storage box is up in the surrounding mountains and would not be affected by the localized contamination discussed in the GVS.

Community Relations

This discussion is limited to activities performed during the GVS. A summary of prior activities was presented in the March 1986 ROD. Since that time the Remedial Project Manager (RPM) for EPA has informed the local residents when any EPA activities were about to begin, specifically, when drilling and NUS field work were to be done. The RPM also met with residents during the field activities to answer their questions and address their concerns. The local press was also invited to the site during field activities.

After the sampling data was evaluated and the GVS report was finalized, EPA and DER met with one of the owners of the Westline Inn to discuss the findings and determine possible sources. We believe that contamination may have resulted from any one or more of a number of activities including minor past spillage of gasoline or other fuels; use of flammable liquids to ignite trash or wood burned in the area; activities related to the former acetic bath house at the wood chemical plan; and leakage or spillage of snowmobile fuel, among other potential contamination sources. Ways to prevent any additional ground water contamination were discussed and the owners have agreed to take precautions to eliminate further contamination.

The Administrative Record was delivered to the Westline Inn and the other local repositories by the end of March 1988 and the advertisement outlining the findings and proposed plan appeared in three local papers (Bradford Era, Olean Times Herald and Kane Republic) on March 31 and April 1, 1988. The ad is included here as Figure 8. No formal requests were made for a public meeting but two letters were received. These activities have met the requirements for public participation required in Sections 113 (k)(2)(B)(i-v) and 117 of CERCLA as amended, 42 U.S.C. §§9613 (k)(2)(B)(i-v) and 9617.

U.S. ENVIRONMENTAL PROTECTION AGE CY SEEKS COMMENTS ON A GROUNDWATER VERIFICATION STUDY REPORT FOR THE WESTLINE SITE

The U.S. Environmental Protection Agency (EPA) has completed a Groundwater Verification Study Report for the Westline Site in Westline, McKean County, Pennsylvania. The report was prepared in accordance with the EPA's 1986 Record Of Decision (ROD) for the site.

The ROD required that comtaminated soils and wood tar deposits from a former production facility, once located in Westline, be excavated and transported to an offsite incinerator. This decision was based on a study which determined that groundwater was contaminated with low levels of volatile organics. To further define the extent of groundwater contamination, and to determine if further action was necessary, the ROD required a groundwater vertification study of the Westline Site.

The groundwater verification study was conducted between June and December 1987. It revealed the presence of significant contamination in only one monitoring well (MW-006). This information and the nature of the detected contaminants (benzene, ethylbenzene, xylenes, toluene and phenolic compounds) suggested that the contaminant source may be occasional gasoline spills in the area near the well. The study also noted that open burning was occurring in the vicinity of the contaminated monitoring well. Of the contaminants detected, benzene was the only substance that exceeded acceptable drinking water standards. Contaminant levels in groundwater discharging to Kinzua Creek have had no adverse impact on the creek.

Groundwater contamination at the Westline Site is very localized, according to the groundwater verification study, and contaminant levels will begin to drop significantly once the contaminant source is removed. Cleanup work, scheduled to begin this spring, should result in a clean aquifer within 10 years. Because the Westline community obtains drinking water from a spring far upgradient of the study area, the risks posed by contaminated groundwater at the Westline Site are believed to be minimal.

THE REMEDIAL ALTERNATIVE PREFERRED BY EPA AND PADER, BASED ON THE FINDINGS OF THE GROUNDWATER VERIFICATION STUDY, IS NO ACTION. THIS ALTERNATIVE SHOULD RESULT IN A SATISFACTORY CLEANUP WITHIN A REASONABLE TIME-FRAME WITHOUT ADDITIONAL CONSTRUCTION AT THE SITE. EPA IS ACCEPTING COMMENTS ON THE ALTERNATIVE FOR A PERIOD OF 30 DAYS. ALL COMMENTS MUST BE CONSIDERED AND ADDRESSED BEFORE A FINAL DECISION IS MADE.

Copies of the Groundwater Verification Study Report are available at the Westline Fire Station and the Westline Inn in Westline, the Bradford Public Library in Bradford, and the County Court House in Smethport. To comment on the report or to request additional information or a public meeting to discuss the study, contact:

Ray Germann
Office of Public Affairs
(215) 597-9871

or

Roy Schrock
Remedial Project Manager
(215) 597-0913

USEPA Region III
841 Chestnut Street
Philadelphia, PA 19107

FIGURE 8

Recommended Alternative

1. This Record of Decision only addresses the ground water at the Westline Site. A previous ROD was signed on July 3, 1986 by the Agency for remediation of the waste tar which will be excavated and incinerated offsite.

2. The selected remedy for ground water is a NO-ACTION ALTERNATIVE WITH CONTINUED MONITORING. This means there is no specific treatment process necessary to remediate the ground water at the Westline Site.

3. EPA and DER will continue to monitor surface areas to be sure no continued sources of contamination are released.

4. EPA and DER will continue to monitor ground water contamination on a yearly basis for the next five years to confirm the natural attenuation of contaminant levels and to assure there are no threats to public health. After this period, EPA and DER will reassess the frequency of the monitoring program.

5. DER, in cooperation with Lafayette Township and the community of Westline, will prevent any new drinking water wells in the contaminated water bearing zone for the duration of the natural remediation.

Alternatives considered included the no action alternative, no action with continued monitoring and an onsite treatment system, but no formal feasibility study was prepared considering the site circumstances and risks (40 CFR §300-68)(f). There would be general public rejection of any further remedial actions because of the costs involved, especially since no one is threatened by the limited ground water contamination, and the aquifer will clean itself in time. The Agency has chosen the option to continue monitoring because the rate of natural attenuation for the benzene concentrations should be verified. This will be done by the five-year review required in section 121(c) of CERCLA, 42 U.S.C. §9621(c).

There was one comment raised during the comment period which does not make a significant change to the remedy selected at this time, but it is worth discussion in this ROD. The comment concerned easements of the property where the water is stored and ownership of the water rights. The water supply used by the community of Westline is an unpermitted local system maintained by the residents of the community. The storage capacity is basically a dam and covered box containing surface water flow from Thundershower Run. The supply is maintained largely by gravity flow from the box far uphill from the study area. This water system has been in place many years and this supply will not be affected by our recommendations to allow the aquifer to flush out the contaminants over time. Therefore the recommended alternative does not affect or require changes to the water supply system. However, we do recommend that the Westline community should begin the process to obtain a permit.

Consistency with ARARs (Applicable, Relevant and Appropriate Requirements)

After reviewing the regulations, standards and criteria of various State and Federal requirements, this ROD will consider the National Primary Drinking Water Regulation Maximum Contaminant Level (MCL) and the MCL Goals as the most stringent criteria for clean up standards. This review will also discuss the Pennsylvania Water quality standards and the Ambient Water Quality Criteria.

The EPA policy for classification of aquifers can be applied to the water bearing zones at the Westline Site. It is determined that the aquifer is a Class 2B and will require remediation to make it a potential source of water if needed in the future. Therefore, this ROD will meet the MCL for benzene of 5 ug/l. The GVS has discussed the MCL values and it is estimated that this hydraulic setting can meet the MCL for benzene within a five to ten year period, if we can prevent any further releases to the ground surface. We also have the benefit of two years worth of sampling data which shows the predicted decrease in the contaminant concentrations.

The Water Quality Standards and Criteria are mentioned here because the water table aquifer discharges into the surface waters of Kinzua Creek. Fortunately, the 1985 RI data has shown that these standards have not been exceeded and do not require remediation.

Responsiveness Summary

The public comment period lasted for 30 days during the month of April and two letters were received. One letter is summarized on the previous page and the other letter concerned the relationship of the contaminants to natural gas or oil wells in the area. The letters are on file and can be reviewed by the public. No formal request for a public meeting was received.

DER's letter of concurrence for this Record of Decision is attached as part of this responsiveness summary.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Post Office Box 2063
Harrisburg, Pennsylvania 17120

Deputy Secretary for
Environmental Protection

Mr. Stephen R. Wassersug, Director
Hazardous Waste Management Branch (3HW00)
U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

Dear Mr. Wassersug:

The Groundwater Verification Study and draft Record of Decision for the groundwater operable unit at the Westline Superfund Site have been reviewed by DER staff members. The Department concurs with EPA's assessment of the selected remedy. No action is required to remediate contaminated groundwater at the site. Groundwater quality should be monitored on a yearly basis as part of the chosen remedial alternative. After a five-year period of groundwater monitoring, a determination will be made regarding the need for continued annual site groundwater monitoring.

I wish to thank you and your staff for your cooperation with the Department during work at the site. If you have any questions regarding this matter, please do not hesitate to contact Mr. Mark Gorman or myself.

Sincerely,

Mark M. McClellan