



TECUMSEH PRODUCTS COMPANY

ENGINE AND TRANSMISSION GROUP
NEW HOLSTEIN OPERATIONS

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February 28, 2000

Thomas A. Wentland, P.E.
Wisconsin Department of Environmental Resources
4041 N. Richards Street
Milwaukee, WI 53212

Re: Sheboygan River and Harbor Site
Project #: 176.29.005 #2

Dear Mr. Wentland:

This letter serves as the second addendum to the Work Plan for Sediment, Soil, Ground-Water Sampling and External Source Assessment (ESA) at the Sheboygan River and Harbor Site (BBL, March 1999). As such, this letter presents a summary of additional soil and sediment sampling and analysis activities proposed by Tecumseh Products Company (Tecumseh) to provide additional information needed for the comprehensive ESA at the Tecumseh Sheboygan Falls facility.

In conjunction with the 1999 ESA efforts, data collection activities for these additional efforts are designed to achieve the following:

- ✓ select locations at the Tecumseh facility;
- ✓ Further define the nature and extent of polychlorinated biphenyls (PCBs) in the soil and sediment at Assist in evaluating whether any interim activities, remedial actions, or both may be necessary at the Tecumseh facility;
- ✓ Further define remediation boundaries; and
- ✓ Assist with development and evaluation of potential remedial alternatives in conjunction with the Feasibility Study (FS) Report for the Sheboygan River and Harbor Site (BBL, April 1998).

This Work Plan addendum (Addendum 2) has been prepared consistent with the intent of Wisconsin Administrative Code (Chapters NR-700 to 726) and the requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Following a review of the data obtained from previous ESA investigation efforts, four areas have been identified which require additional investigation to adequately identify the nature and extent of PCBs. These locations include:

- ✓ Select areas of the Tecumseh facility backyard (south of the facility);
- ✓ Near-shore sediment adjacent to the north bank of the Tecumseh facility;
- ✓ Sediment Area 1; and
- ✓ Off-site locations (city of Sheboygan Falls property).

The assessment activities include test pits and additional soil borings and hand probes. Samples collected during these activities, as well as some archived samples from the ESA sampling event, will be submitted for analytical laboratory testing for PCBs.

The supporting plans for this effort include the *Final Work Plan/QAPP* dated July 1990 (BBL, July 1990), the Health and Safety Plan (HASP) and addenda prepared by BBL in February and May 1999, the *Work Plan for Sediment, Soil, Ground-Water Sampling and External Source Assessment at the Sheboygan River and Harbor Site* dated March 1999 (BBL, March 1999) and the subsequent June 1999 Addendum to the Work Plan, and a BBL April 1999 memorandum for River Bank Sampling (BBL, April 1999). The supporting procedures for conducting this investigation are provided in the *Final Work Plan/QAPP* (BBL, July, 1990) including modifications and new procedures. Analytical procedures, which will be followed for the samples collected, are presented in the QAPP (BBL, July, 1990) and updates to the QAPP. Health and safety procedures, which will be followed by the field sampling personnel during the execution of work, are provided in the HASP (BBL, 1999) and updates to the HASP.

Probes, Borings, and Test Pits

A series of surface and subsurface soil samples will be collected in the vicinity of prior on-site ESA sampling locations HP-2, HP-11, and COMP-18 to determine the extent of PCBs in these three locations. One soil boring will be completed adjacent to HP-11 and sampled at 2-foot intervals to a depth of 6 feet below ground surface (bgs). The three resulting samples (i.e., 0- to 2-, 2- to 4-, and 4- to 6-foot sample intervals) will be analyzed for PCBs. A total of 11 hand-augered probes will be advanced to a depth of 2 feet bgs in the vicinity of HP-2, HP-11, and COMP-18. One soil sample will be collected from each 6-inch interval (a total of 44 samples) for PCB analysis. As such, three hand probes will be advanced in the vicinity of HP-2 (12 samples), four hand probes will be advanced in a grid-like pattern around HP-11 (16 samples), and four hand probes will be advanced to the northwest of COMP-18 (16 samples). The locations of the proposed soil boring and hand probes are shown on Figure 1.

In addition, several soil samples from the city of Sheboygan property contained PCB levels above detection limits (i.e., HP-3, HP-12, HP-13, HP-14). In order to define the extent of PCBs at these locations, a total of seven hand probes will be advanced at the locations shown on Figure 2. For the area adjacent to HP-3, four hand probes will be advanced in a grid pattern extending out approximately 5 feet around HP-3. For the area adjacent to HP-12, HP-13, and HP-14, two hand probes will be advanced in a northerly direction and one hand probe in a southerly direction along the centerline of the ditch an approximate distance of 15 feet from the previous sample locations.

Each hand probe will be advanced to a depth of 2 feet bgs with samples obtained from each 6-inch interval (a total of 28 samples) and analyzed for PCBs.

Two test pits will be excavated upgradient of sediment Area 1 to investigate possible source areas. [Note that the USEPA previously requested that test pit work that may require the removal of abandoned drainline material not be performed without approval. Therefore this work will not be performed until the Record of Decision is signed or USEPA approval is granted.] Each test pit will be approximately 2 to 3 feet wide and 10 to 15 feet long. The test pits will be excavated to a depth of at least 2 feet below the invert of the drainline to a maximum of 4 feet bgs. The existing 7 cubic yards containers currently stored on-site will be used to contain any excavated material which can not be placed back into the excavation. If necessary, excavations will be backfilled with clean soil. Up to ten soil samples may be collected and analyzed for PCBs. The approximate test pit area is shown on Figure 1.

Survey

Sample and test pit locations will be marked and surveyed.

Analytical

Representative samples from each of the activities described above will be submitted to the analytical laboratory for PCB analysis. A total of approximately 82 samples may be collected for analysis.

In addition, PCB analysis will be performed on several samples collected during the prior ESA sampling event. These samples currently are archived and held in frozen storage at the Tecumseh facility or the analytical laboratory. The samples include analysis of 15 individual soil samples originally collected and composited from three locations (COMP-8, COMP-14, and COMP-18) and 6 samples obtained from four near-shore sediment sample locations (ASD-6, ASD-8, ASD-9, and ASD-10). As appropriate, the archived samples will be shipped to the laboratory (as necessary), analyzed, and evaluated in conjunction with the prior ESA data. As such, up to approximately 103 samples may be analyzed for PCBs (i.e., 82 new samples plus 21 archived samples).

Technical Memorandum Addendum

Upon completion of the above-noted activities, a Technical Memorandum Addendum will be prepared to document the results. The Technical Memorandum Addendum will be prepared in general conformance with the USEPA guidance document, *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (October 1988) and in accordance with the Wisconsin Administrative Code NR716 entitled *Site Investigations*.

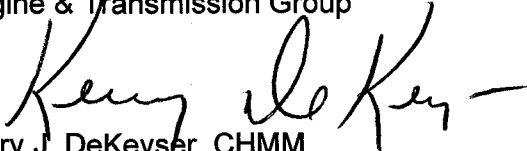
The appropriate soil boring documentation forms as specified in the Wisconsin Administrative Code NR716 will be completed and submitted to the WDNR including:

- ✓ Form 4400-122 - Soil Boring Log Information; and
- ✓ Form 3300-5B - Well/Drillhole/Borehole Abandonment.

The analyses of archived samples currently is underway. Based on the results of these analyses, a determination will be made regarding the scheduling of additional work. Should you have any questions or comments, please contact me at (920) 898-2306.

Sincerely,

TECUMSEH PRODUCTS COMPANY
Engine & Transmission Group



Kerry J. DeKeyser, CHMM
Manager, Environmental Affairs \ Product Emissions

cc: Daryl P. McDonald, Esq., Tecumseh Products Company
John N. Hanson, Esq./Steve Jawetz, Esq., Beveridge & Diamond, P.C.
Mark Thimke, Esq., Foley & Lardner
Dawn S. Foster, P.E., Blasland, Bouck & Lee, Inc.
Jennifer Baker, Decision Quest - Environmental Issues Management, Inc.
Thomas R. Short, Jr., USEPA Region V
Linda Talbot, Wisconsin Department of Natural Resources
Edward Lynch, Wisconsin Department of Natural Resources
Steve Galerneau, Wisconsin Department of Natural Resources
Chip Krohn, Wisconsin Department of Natural Resources
Scott Anderson, P.E., B&V Waste Science and Technology Corp.
Henry Nehls-Lowe, Wisconsin Department of Health and Social Services

**Table 1
Probes, Borings, and Test Pits
Tecumseh Products Company Facility**

Shallow Hand-Augered Probes

Location	Location ID	Number of Probes	Number of Samples
On-site			
Along southeast side of Tecumseh building	HP-2	3	4 per probe; each at 6" interval
Along the levee which traverses east to west and then north along the River	HP-11	4	4 per probe; each at 6" interval
Along southwest corner of Tecumseh building	Comp-18	4	4 per probe; each at 6" interval
Off-site			
Along southeast side of Tecumseh building	HP-3	4	4 per probe; each at 6" interval
Storm Water Ditch along Cleveland Street	HP-12 to HP-14	3	4 per probe; each at 6" interval

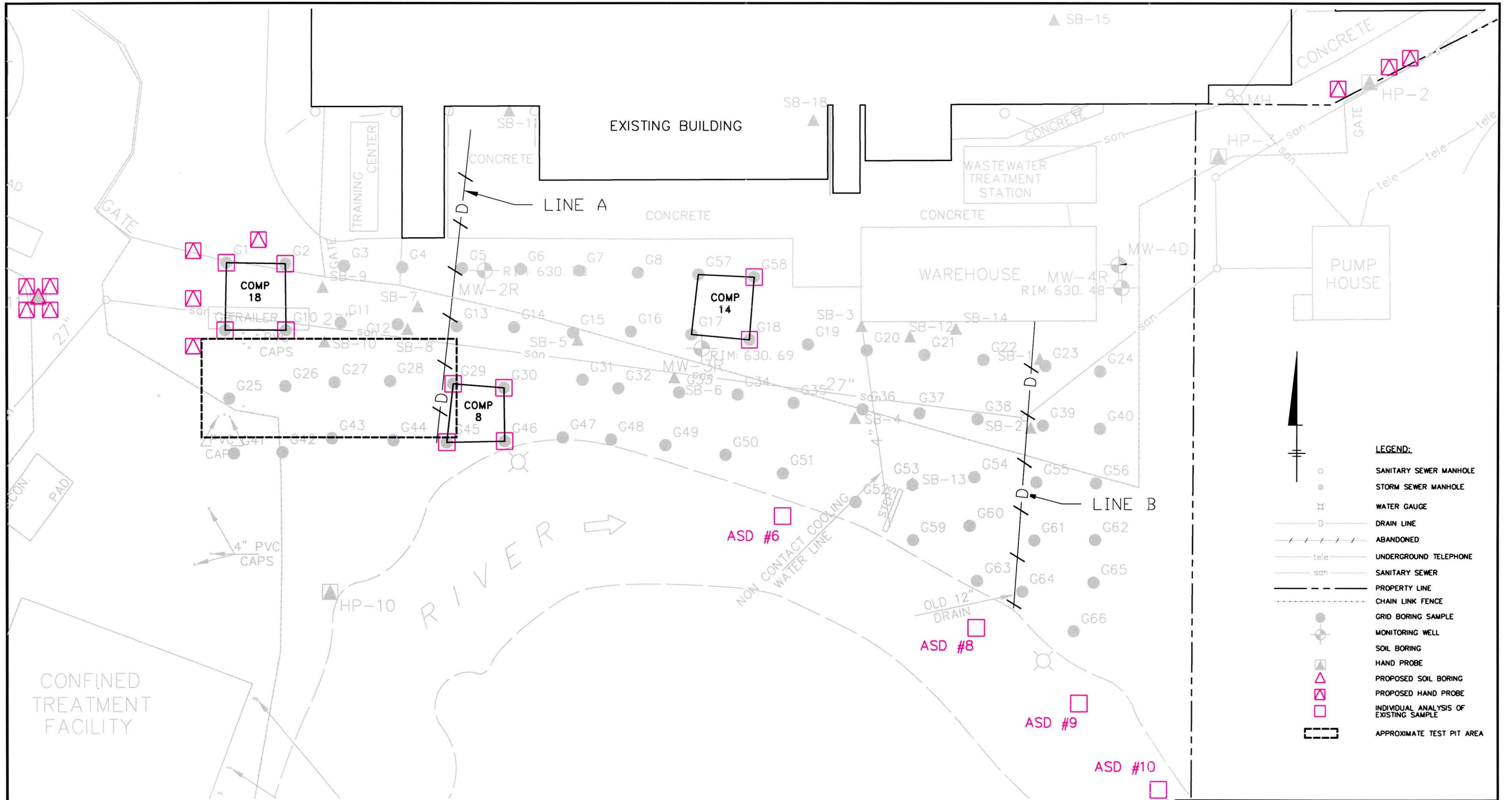
Soil Borings

Location	Location ID	Number of Borings	Anticipated Depth of Completion	Number of Samples
Along the levee which traverses east to west and then north along the River	HP-11	1	6 feet	3 (0-2, 2-4, 4-6 ft interval)

Test Pits

Location	Number of Test Pits	Anticipated Dimensions	Number of Samples
Along southwest corner of Tecumseh building; north of Area 1	2	2 to 3 feet by 10 to 15 feet (max. depth = 4 feet bgs)	Up to 10* between both test pits

* At discretion of field supervisor.



LEGEND:

○	SANITARY SEWER MANHOLE
●	STORM SEWER MANHOLE
⊠	WATER GAUGE
D	DRAIN LINE
---	ABANDONED
tele	UNDERGROUND TELEPHONE
san	SANITARY SEWER
---	PROPERTY LINE
---	CHAIN LINK FENCE
●	GRID BORING SAMPLE
⊕	MONITORING WELL
⊙	SOIL BORING
▲	HAND PROBE
▲	PROPOSED SOIL BORING
⊠	PROPOSED HAND PROBE
□	INDIVIDUAL ANALYSIS OF EXISTING SAMPLE
---	APPROXIMATE TEST PIT AREA

- NOTES:**
1. THE BASE MAP WAS OBTAINED FROM A PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY" (SURVEY PLAN) PREPARED BY HINZE & ASSOCIATES, DATED 7/27/99.
 2. ALL EXTERIOR UNDERGROUND UTILITIES SHOWN ON THE SURVEY PLAN AND THIS MAP WERE OBTAINED FROM FIELD SURVEY AND FROM MAPS SUPPLIED BY THE CITY OF SHEBOYGAN FALLS ON OR BEFORE JUNE 15, 1999. THE LOCATIONS OF ALL UTILITIES ARE APPROXIMATE.

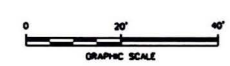
TECUMSEH PRODUCTS COMPANY
SHEBOYGAN FALLS, WISCONSIN
ADDENDUM 2 TO SEDIMENT, SOIL, GROUND-WATER
SAMPLING AND EXTERNAL SOURCE
ASSESSMENT WORK PLAN

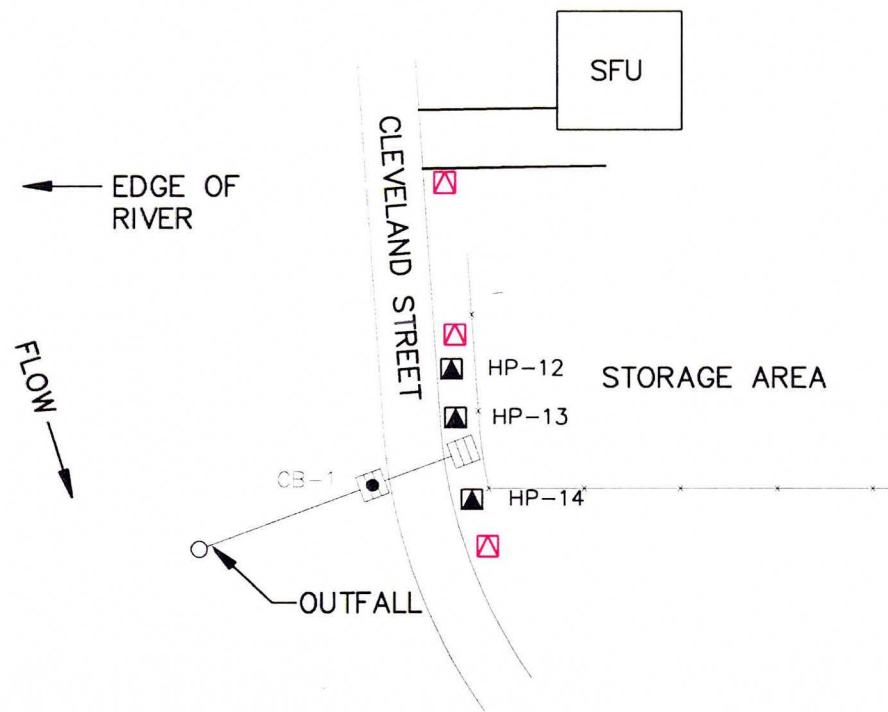
**PROPOSED ADDITIONAL
SAMPLING LOCATIONS**

BBL BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
1

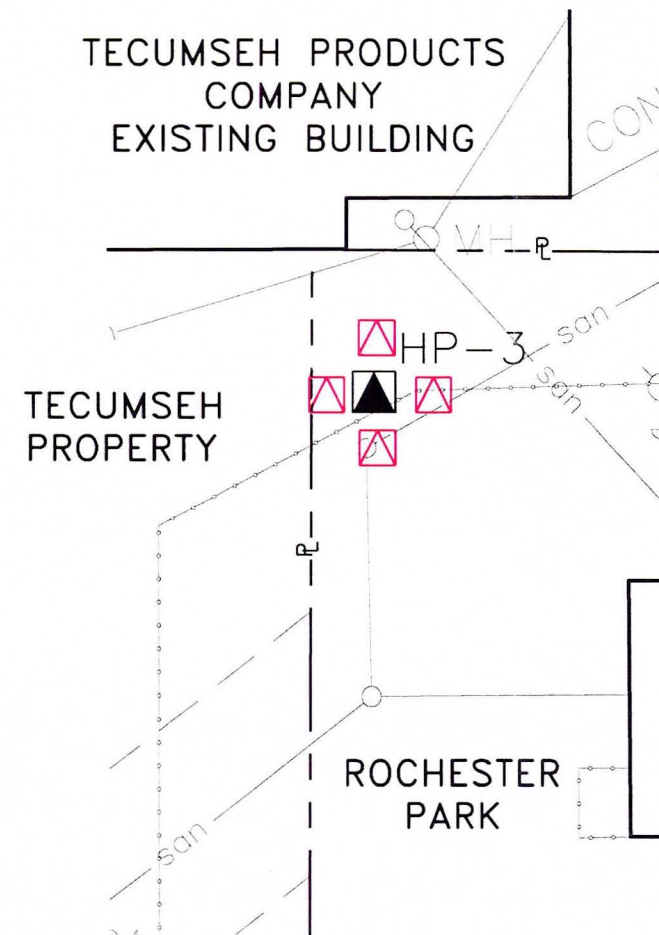
X: 17606X01
LMAN: SOL-2
P: STD-PCP/DL/BL
2/9/00 SYR-54-YCC KVD
17629005/17629801.DWG



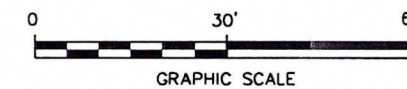


CLEVELAND STREET DRAINAGE DITCH

NOT TO SCALE



SHEBOYGAN FALLS PROPERTY



LEGEND

- ▲ PREVIOUS HAND PROBE SAMPLE LOCATION
- ◻ PROPOSED ADDITIONAL HAND PROBE SAMPLE LOCATION

— P — PROPERTY LINE

TECUMSEH PRODUCTS COMPANY
SHEBOYGAN FALLS, WISCONSIN
ADDENDUM 2 TO SEDIMENT, SOIL, GROUND-WATER
SAMPLING AND EXTERNAL SOURCE
ASSESSMENT WORK PLAN

**PROPOSED OFF-SITE ADDITIONAL
SAMPLING LOCATIONS**

BBL BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
2