

SC EPR
3
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VC Excerpts

SAMPLING TRIP REPORT
MONSANTO CORPORATION
INDIAN ORCHARD PLANT
SPRINGFIELD, MASSACHUSETTS

JULY 1988

H₂O only
(No soil samples)

NOTICE

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RSV0023002

16 pgs.

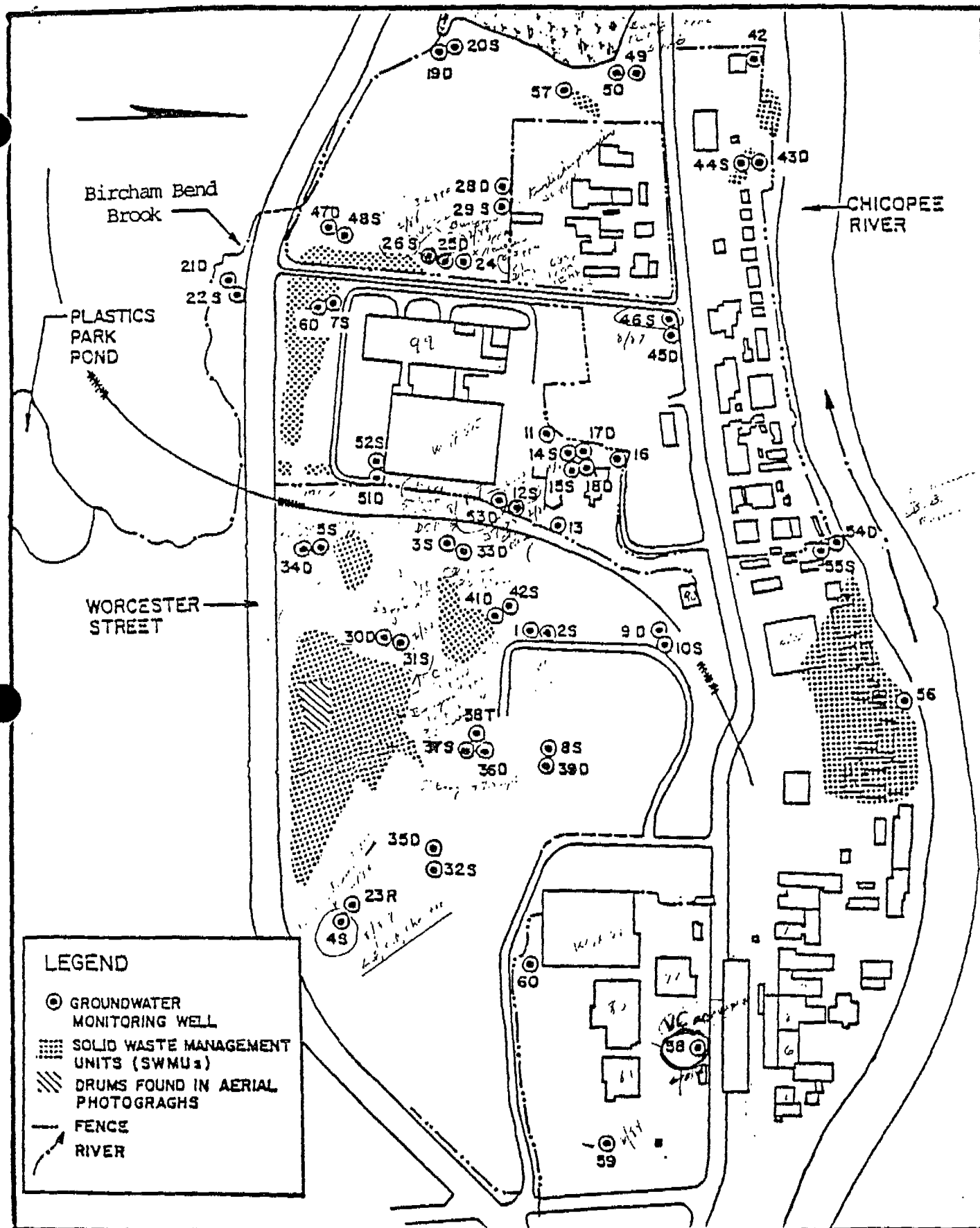
A complete list of the target compounds analyzed for is presented in Appendix A. The analytical results of all samples for contaminants above detection levels are presented in Table 1.

The results indicate the level of vinyl chloride (20 ug/l) in MW-58 exceed by 10 fold, the ambient water quality criteria for the protection of human health (2 ug/l). This is the only well in which this compound was detected. The presence of this contaminant in an area which does not contain known disposal areas indicates a possible source or the presence of contaminant. The concentration of benzene exceeded maximum contaminant level (5 ug/l) in eight wells while bis (2-ethyl hexyl) phthalate was exceeded in six wells. The results also indicate that chlorobenzene exceeded the recommended maximum contaminant level (60 ug/l) in seven wells. Additionally, low levels of total xylenes were detected in three downgradient wells.

A review of the results of samples taken in monitoring wells upstream of the SWMUs and those taken downstream of the SWMUs revealed some groundwater contamination relative to the parameters used for comparison. Chlorobenzene was detected during the August 1987 sampling trip at less than 0.1 mg/l in MW-53D but was detected during the February, 1988 trip at 3.7 mg/l. This concentration compares with concentrations in the region of 2.5 mg/l detected in this well during past sampling events performed by the facility's consultants.

4.0 SUMMARY

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Upon review of the compiled analytical data, some conclusions can be drawn concerning the horizontal extent of a potential contaminant plume at the facility. It has become apparant that downgradient monitoring wells 26S, 25D, 12S and 31S are contaminated with some volatile and extractable organics. (The organics of most concern are benzene, chlorobenzene, bis (2-ethyl hexyl) phthalate, bis (2-chloroethyl) ether and total xylenes.) It is also apparant that wells, 58 and 49 are contaminated to a much lesser degree than 26S, 25D, 12S and 31S. Well 4S does not show any contamination. These three observations seem to indicate a potential contaminant plume as being localized to the hydraulically downgradient edge of SWMUs in the southern portion of the facility. In reviewing the data, it is also apparant that both shallow and deep groundwater degradation may have occurred.



FIGURE

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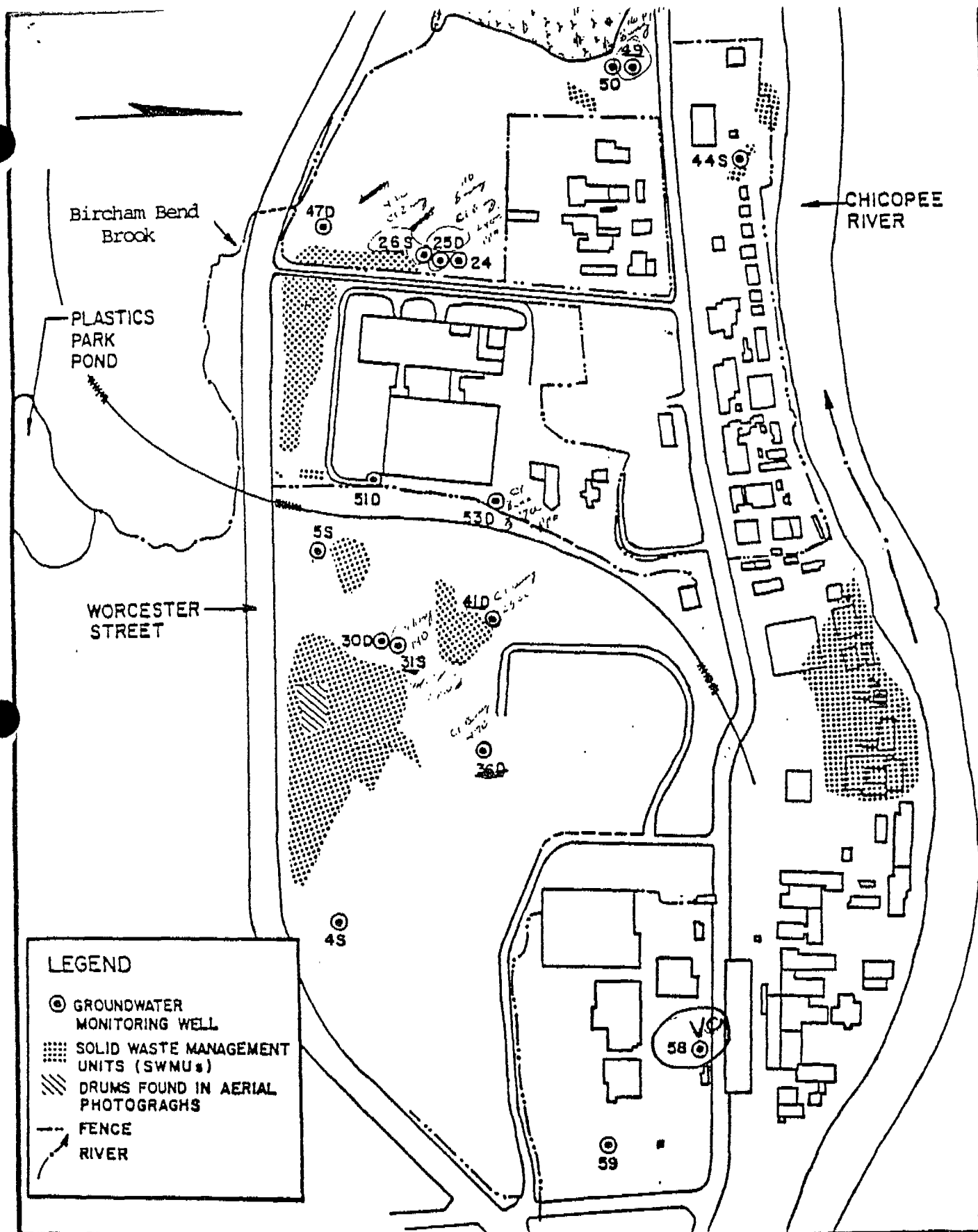


TABLE 1 (CONTINUED)
ORGANIC ANALYSES OF GROUNDWATER SAMPLES

(ALL UNITS IN UG/L)

ORGANIC TRAFFIC REPORT NO.	AK-114	AK-103	AK-102	AK-104	AK-108	AK-117	AK-118	AK-124
PARAMETERS	MW-53	MW-58	MW-59	FB-1	FB-2	TB-1	TB-2	TB-3
VINYL CHLORIDE		20						
ACETONE								
CARBON DISULFIDE								
2-BUTANONE								
BENZENE								
CHLOROBENZENE	3700							
TOLUENE								
TOTAL XYLENES								
BIS(2-CHLOROETHYL)ETHER	300							
BIS(2-ETHYLHEXYL)PHTHALATE	15							
N-NITROSODIPHENYLAMINE (1)								
2,4-DIMETHYLPHENOL 2,4 - A								
2-CHLOROPHENOL								

FB : Field Blank

TB : Trip blank

Blank space in table indicates that the compound was analyzed but not detected