



December 2, 1993

1999 JAN - 6 AM 10:22

Mr. David Edquist  
Gibbs, Roper, Loots & Williams, S.C.  
735 North Water Street  
Milwaukee, WI 53202

Re: Perkins Avenue Site  
1005 Perkins Avenue, Waukesha, WI  
Versar Project Number 1871.003

Dear Mr. Edquist:

In agreement with our proposal and contract dated October 7, 1993, Versar, Inc. (Versar) hereby submits the following summary of the groundwater investigation results for the west lot of the subject facility. This letter contains a brief review of the investigation completed to date, conclusions that developed from the available data, and recommendations for potential additional actions.

This letter should be reviewed in conjunction with additional background information contained in the Phase I and Phase II reports submitted earlier by Versar.

#### Phase I Assessment

As part of the July 1992 Phase I Environmental Property Transfer Assessment, five underground storage tanks (USTs) were identified on the western portion of the subject property; one UST located inside the manufacturing building and four USTs clustered in the northern parking area. The USTs were no longer in service and were removed during the week of October 11, 1993. As you are aware, the required notification, observation and report submittal to the Wisconsin Department of Natural Resources (WDNR) has been completed. In addition to recommending removal of the USTs, the Phase I recommendations included an investigation adjacent to the USTs (prior to their removal) for the purpose of determining whether a release may have occurred. A Phase II investigation was authorized to implement that recommendation.

#### Phase II Investigation

A Phase II investigation was conducted in October 1992 in the vicinity of the USTs. Soil borings were advanced and soil samples were collected and analyzed in a laboratory for constituents related to the former tank contents. Boring logs are contained in Attachment A. Soil sampling analytical results are presented in Attachment B. The analytical results from the Phase II investigation indicated that soil within the USTs backfill contained petroleum constituents greater than the allowable 10 parts per million (ppm), as designated by the WDNR. Tank regulations established by the WDNR mandate that if the limit of 10 ppm is exceeded, a groundwater assessment must be conducted. Pursuant to the regulations, a groundwater assessment was authorized.

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Groundwater Assessment

Three shallow groundwater monitoring wells were installed in May 1993 as part of the groundwater assessment. Two wells were installed in the interpreted downgradient direction from the USTs, toward the unnamed creek to the east, and one well was installed upgradient, toward Perkins Avenue. Soil borings advanced for the purpose of constructing the wells indicate that a layer of silt and clay resides to a depth of 6 to 10 feet below grade. Boring and well logs are contained in Attachment C. Below the silt and clay is a permeable sand and gravel within which the monitoring wells are screened. The borings were terminated at approximately 16 feet below grade and the bottom elevation of the saturated sand and gravel was not identified. Groundwater elevations within the monitoring wells indicate a low-gradient flow toward the creek, however, due to the location of the wells the groundwater flow gradient along creek could not be accurately determined. As a result of the low-gradient and the variable ground covers on and adjacent to the subject property such as bituminous pavement, natural soils and buildings, the groundwater flow gradient along the stream may occasionally change during precipitation events and high stream flow conditions. In addition, the potential for gravel backfill associated with storm sewers in this vicinity may also cause localized variations in the groundwater flow patterns. The relation of the storm sewer elevations to the groundwater surface was not researched, however, for this assessment.

Groundwater samples were collected from each well and analyzed for the compounds listed within the WDNR regulations. The analytical results confirmed that the release from the USTs had not impacted groundwater, however, volatile organic compounds (VOCs) were detected in the two downgradient wells (MW-02 and MW-03). Laboratory analytical results are shown in Attachment D. The detected VOCs are commonly used as degreasing agents and some may represent degradation products of parent material. The VOCs detected are listed in Table 1 - Analytical Summary and are not believed to be related to the tank contents.

Since the detected VOCs are unrelated to former tank contents, their source remained unknown. In an effort to estimate the vertical and horizontal extent of VOC contamination and establish a potential source, an additional groundwater assessment was authorized. This portion of the investigation consisted of a hydropunch groundwater sampling technique at nine locations. Locations were selected up-, down-, and cross-gradient from the two monitoring wells where the VOCs were detected. In addition, samples were collected in the upper and lower aquifers to define the vertical extent of contamination. Each of the hydropunch borings were used to collect groundwater samples and were subsequently abandoned using bentonite grout. The boring logs are contained in Attachment E. The approximate locations of the borings are shown on Attachment F.

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Varying thicknesses of borrow fill was placed across the site. The fill consists of a conglomeration of earth materials which includes, but is not limited to: clay, silt, sand, gravel, spent casting sand, brick, wood, metal, and concrete.

The entire southeastern portion of Wisconsin is a glaciated with drift deposits overlying an erosional sedimentary bedrock surface. Unconsolidated natural deposits begin with a remnant of modern soil and end with erosional sands unconformably overlying bedrock. Unconsolidated natural deposits, under the site, are referred to the New Berlin Formation. This formation consist of glacial till, outwash, and lacustrine deposits.

The uppermost unit is a silty clay to clayey silt till with trace amounts of matrix bound sand and gravel. The till starts several feet below grade and extends to an average depth of 9 feet. Poorly sorted outwash sands and sandy gravels underlie the till. The sand deposit is saturated and contains trace amounts of fine grained material. The outwash base is located approximately 22 feet below surface grade. Lacustrine silts and clayey silts are located under the outwash. The deposit contains trace amounts of matrix bound sand and is reported to be quite uniform. The silt deposit grades into a fine sand at approximately 40 feet below surface grade. The fine sand deposit is poorly sorted and contains silt/clay and coarser fractions of sand. The sand is the erosional deposits which marks the transition between pre glacial and glacial events. The deposit ends approximately 45 feet below grade. Silurian aged dolomite bedrock underlies the erosional sand. The dolomite is reported to be fractured and contains groundwater. Older aged formations of sedimentary bedrock underlie the silurian dolomite for many hundreds of feet.

During the groundwater investigation that utilized the hydropunch technique, Versar personnel located on the subject property, a drawing that indicated the possible existance on a sixth underground storage tank. Upon review of the data Versar received during the Phase I Assessment from the Department of Labor and Human Relations (DILHR), and from the local Fire Marshall Office, the existance of only five tanks were known at the time of registration by VME personnel. As you are aware, the five known tanks have been removed without contamination of the groundwater and soil. The existance of the sixth tank was not known to VME since the tank was not registered when the other tanks were registered. Consistant with this understanding of the tank, when Versar reviewed field notes related to the Phase I Assessment, we confirmed that upon questioning, on-site personnel understood that the paint booth area, where the tank is apparantly located, drained to the sanitary sewer. Versar therefore concluded that, based on available data, only five USTs were located on the subject property. In addition, during the Phase I Assessment, the area where the tank is apparantly located was covered with stockpiled material, rendering access or visual observation impossible.

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During the removal of the five USTs, a sample of the contents of the sixth tank was collected by the tank removal contractor, to determine if the contamination in the groundwater had come from the tank. The laboratory analytical results of the tank sampling are included in Attachment G. The results indicate, when compared with the previously obtained groundwater sample laboratory analytical results, that the contents of the sixth tank have not been released to the groundwater and therefore the tank does not appear to be the source of the groundwater contamination.

Laboratory analytical results from the hydropunch groundwater samples, presented in Table 2 and Attachment H, confirm the previous analytical results from the monitoring wells and indicate the following:

**TABLE 1 - ANALYTICAL SUMMARY\***

COMPOUNDS	SAMPLE LOCATION				(PAL) PREVENTIVE ACTION LIMIT	(ES) ENFORCEMENT STANDARD
	MW-01	MW-02	MW-03	MW-03D**		
Volatile in Parts Per Billion (ppb)						
1,1-Dichloroethane	ND	30	11	11	85	850
1,1-Dichloroethene	ND	ND	ND	10	.024	7
cis-1,2-Dichloroethene	ND	ND	ND	8	10	100
Hexachlorobutadiene	ND	ND	ND	2	***	***
1,1,1-Trichloroethane	ND	330	42	49	40	200
Trichloroethene	ND	370	37	42	.18	5
trans-1,2-Dichloroethene	ND	ND	8.3	ND	20	100

MW = Monitoring Well

\*\*\* = Not Established

EB = Equipment Blank

\*\* = MW-03D is a duplicate sample of MW-03

ND = Not Detected

\* = Only Compounds detected are presented in Table.

PALs and ESs, are provided in the Leaking Underground Storage Tank (LUST) Analytical Guidance (PUBL-SW-138) by the Wisconsin Department of Natural Resources, dated June 1991. PALs and ESs are established by WAC NR 140.

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TABLE 2  
 HYDROPUNCH ANALYTICAL SUMMARY

		1,1-Dichloroethane	1,2-Dichloroethene	CIS-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Hexachlorobutadiene	1,1,1-Trichloroethane	Trichloroethene
Sample Location	Depth	Concentrations in parts per billion (ppb)						
HP-1	17	6.7	2.9	ND	ND	ND	8.2	6.3
HP-1	48	ND	ND	ND	ND	ND	ND	ND
HP-2	18	2.7	ND	ND	ND	ND	1.5	8.3
HP-2	42	ND	ND	ND	ND	ND	ND	ND
HP-7	14	2.3	ND	ND	ND	ND	1.2	7.8
HP-3	42	ND	ND	ND	ND	ND	ND	ND
HP-4	13	8.6	ND	2.9	ND	ND	ND	29
HP-4	44	ND	ND	ND	ND	ND	ND	ND
HP-5	13.5	ND	ND	ND	ND	ND	ND	ND
HP-5	43.6	ND	ND	ND	ND	ND	3.6	ND
HP-6	15.6	ND	ND	ND	ND	ND	ND	ND
HP-7	15.6	7.6	ND	5.5	ND	ND	19	16
HP-8	15.5	ND	ND	ND	ND	ND	ND	ND
HP-9	15.5	5.8	ND	ND	ND	ND	53	75
HP-9	34	4.4	ND	ND	ND	ND	ND	ND

ND = non detect

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1. The detected contaminants are generally confined to the upper sand aquifer. Only two compounds were found in the lower aquifer in locations HP-5 and HP-9 and the low concentration and the fact that the associated compounds were not identified suggests that their presence was a result of cross contamination from the upper aquifer or from sample handling techniques in the field or in the laboratory.
2. The highest concentrations of VOCs are located near the northern property line of the subject facility suggesting the groundwater flow direction in the immediate vicinity may be to the southeast. Refer to Attachments I, J, and K for isoconcentration contours of the primary compounds detected in the groundwater samples from both rounds of sampling events.
3. Chemicals detected further from the apparent source direction show a higher concentration of "daughter" chemicals of the potential source compounds suggesting a longer period in the environment. The release therefore appears not to be recent.
4. The sampling location closest to the stream has not been impacted indicating the potential for the reversed flow gradient as previously suspected.
5. The source of the contamination has not been confirmed, however, it could be concluded from the available data that the source could be off site, to the north of the facility. Contamination concentrations increase toward the northern property line and decrease toward the south, on to the subject property.
6. The horizontal extent of the investigation was not sufficient to determine the potential for receptors. In addition, vertical groundwater flow gradients are not known and the potential for hydraulic connection and discharge to the unnamed stream is not defined.
7. The analytical results of the sixth tank contents indicates that the tank has not released its contents to the groundwater and the source of the groundwater contamination is not this tank.

#### Recommendations

Similar to the recommendations contained in the Phase II report, since the source of the contamination is likely off-site and not clearly defined, and there is no record, evidence, or knowledge of a release or spill of the identified chemicals, notification requirements to the WDNR are subject to legal interpretation. In addition, since the property was acquired on February 12, 1993 by Dominick J. Giuffre and Frank P. Giuffre d/b/a D. F. Company, notification requirements may be the responsibility of the current owner.

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In addition, because the results of the groundwater could be interpreted to indicate an off-site source to the north of the subject property, the adjacent property owner could be contacted to determine if they currently use or have at some time in the past have used chemical associated with the VOCs detected in the groundwater.

Thank you for this opportunity to provide additional environmental services. Should you have any questions or concerns regarding this proposal, please contact Doug Dahlberg or me at (708)990-7555.

Very truly yours,



Michael B. Place, CPG  
Department Head,  
Geosciences

  
Douglas J. Dahlberg P.E.  
Project Manager

DJD/nd

cc: Jon Hill, VME

**ATTACHMENT A  
SOIL BORING LOGS**

- Solid Waste  
 Emergency Response  
 Wastewater  
 Superfund  
 Haz. Waste  
 Underground Tanks  
 Water Resources  
 Other

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Facility/Project Name <u>VME</u>				License/Permit/Monitoring Number			Boring Number <u>USB-1</u>									
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael Melton, Geologist</u> <u>Engineering Consulting, Drilling, Diller</u>				Date Drilling Started <u>08/24/98</u> M M D D Y Y	Date Drilling Completed <u>08/24/98</u> M M D D Y Y	Drilling Method <u>HSA</u>										
DNR Facility Well No.	Wellsite Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL		Borehole Diameter 2 inches										
Boring Location State Plane <u>375,808 N, 2,479,437 E S/C/N</u>				Local Grid Location (If applicable)												
NE 1/4 of NE 1/4 of Section <u>2, T 8 N, R 19 E</u>				Lat <u>0° 0' 0"</u>	Long <u>0° 0' 0"</u>	<input type="checkbox"/> N	<input type="checkbox"/> E									
				Feet <input type="checkbox"/> S	Feet <input type="checkbox"/> W											
County <u>Waukesha</u>				DNR County Code <u>68</u>	Civil Town/City or Village <u>Waukesha</u>											
Sample	Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit			USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties				RQD/Comments
ss-1		3/2	4	1	Asphalt cover fill material							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
			6	2	1-1.3' Very dark grayish brown clay, soft, some gravel (slag fragments)			c4			∅					
			5	3												
			3	4												
ss-2		1/2	4	1	4-5.2' yellowish brown (10YR 5/4) CC Silty Clay, mottled gray, 10% gravel, moist			cc			∅					
			4	5												
			8	6							∅					
			6	6												
			7													
ss-3		1/2	9	8	7-8' yellowish brown (10YR 5/4) SP Sand, fine to medium, subangular to subrounded 10-20% gravel, wet			sp			∅					
			11	9							∅					
			9	9												
			10													
ss-4		1/2	9	12	10-11.2' yellowish brown (10YR 5/4) SP Sand, fine to coarse, subrounded to subangular 20-30% gravel, wet			sp			∅					
			12	11												
			11	17							∅					
			12													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature <u>Michael Melton</u>	Firm <u>Versar Inc</u>
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This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Sample and Layer	Length At & Recovered (in)	Soil/Rock Description And Geologic Origin For Each Major Unit										USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties
		Blow Counts	Depth in Feet	1	2	3	4	5	6	7	8					
13	13	13-14.4	12	13	14	15	16	17	18	19	20	13	13	13	13	13
14	10	10-12.4	10	11	12	13	14	15	16	17	18	10	10	10	10	10
15	15	10-12.4	15	16	17	18	19	20	21	22	23	15	15	15	15	15
16	16	16-17.4	16	17	18	19	20	21	22	23	24	16	16	16	16	16
17	17	17-18.4	17	18	19	20	21	22	23	24	25	17	17	17	17	17
18	18	18-19.4	18	19	20	21	22	23	24	25	26	18	18	18	18	18
19	19	19-20.4	19	20	21	22	23	24	25	26	27	19	19	19	19	19
20	20	20-21.4	20	21	22	23	24	25	26	27	28	20	20	20	20	20
21	21	21-22.4	21	22	23	24	25	26	27	28	29	21	21	21	21	21
22	22	22-23.4	22	23	24	25	26	27	28	29	30	22	22	22	22	22
23	23	23-24.4	23	24	25	26	27	28	29	30	31	23	23	23	23	23
24	24	24-25.4	24	25	26	27	28	29	30	31	32	24	24	24	24	24
25	25	25-26.4	25	26	27	28	29	30	31	32	33	25	25	25	25	25
26	26	26-27.4	26	27	28	29	30	31	32	33	34	26	26	26	26	26
27	27	27-28.4	27	28	29	30	31	32	33	34	35	27	27	27	27	27
28	28	28-29.4	28	29	30	31	32	33	34	35	36	28	28	28	28	28
29	29	29-30.4	29	30	31	32	33	34	35	36	37	29	29	29	29	29
30	30	30-31.4	30	31	32	33	34	35	36	37	38	30	30	30	30	30
31	31	31-32.4	31	32	33	34	35	36	37	38	39	31	31	31	31	31
32	32	32-33.4	32	33	34	35	36	37	38	39	40	32	32	32	32	32
33	33	33-34.4	33	34	35	36	37	38	39	40	41	33	33	33	33	33
34	34	34-35.4	34	35	36	37	38	39	40	41	42	34	34	34	34	34
35	35	35-36.4	35	36	37	38	39	40	41	42	43	35	35	35	35	35
36	36	36-37.4	36	37	38	39	40	41	42	43	44	36	36	36	36	36
37	37	37-38.4	37	38	39	40	41	42	43	44	45	37	37	37	37	37
38	38	38-39.4	38	39	40	41	42	43	44	45	46	38	38	38	38	38
39	39	39-40.4	39	40	41	42	43	44	45	46	47	39	39	39	39	39
40	40	40-41.4	40	41	42	43	44	45	46	47	48	40	40	40	40	40
41	41	41-42.4	41	42	43	44	45	46	47	48	49	41	41	41	41	41
42	42	42-43.4	42	43	44	45	46	47	48	49	50	42	42	42	42	42
43	43	43-44.4	43	44	45	46	47	48	49	50	51	43	43	43	43	43
44	44	44-45.4	44	45	46	47	48	49	50	51	52	44	44	44	44	44
45	45	45-46.4	45	46	47	48	49	50	51	52	53	45	45	45	45	45
46	46	46-47.4	46	47	48	49	50	51	52	53	54	46	46	46	46	46
47	47	47-48.4	47	48	49	50	51	52	53	54	55	47	47	47	47	47
48	48	48-49.4	48	49	50	51	52	53	54	55	56	48	48	48	48	48
49	49	49-50.4	49	50	51	52	53	54	55	56	57	49	49	49	49	49
50	50	50-51.4	50	51	52	53	54	55	56	57	58	50	50	50	50	50
51	51	51-52.4	51	52	53	54	55	56	57	58	59	51	51	51	51	51
52	52	52-53.4	52	53	54	55	56	57	58	59	60	52	52	52	52	52
53	53	53-54.4	53	54	55	56	57	58	59	60	61	53	53	53	53	53
54	54	54-55.4	54	55	56	57	58	59	60	61	62	54	54	54	54	54
55	55	55-56.4	55	56	57	58	59	60	61	62	63	55	55	55	55	55
56	56	56-57.4	56	57	58	59	60	61	62	63	64	56	56	56	56	56
57	57	57-58.4	57	58	59	60	61	62	63	64	65	57	57	57	57	57
58	58	58-59.4	58	59	60	61	62	63	64	65	66	58	58	58	58	58
59	59	59-60.4	59	60	61	62	63	64	65	66	67	59	59	59	59	59
60	60	60-61.4	60	61	62	63	64	65	66	67	68	60	60	60	60	60
61	61	61-62.4	61	62	63	64	65	66	67	68	69	61	61	61	61	61
62	62	62-63.4	62	63	64	65	66	67	68	69	70	62	62	62	62	62
63	63	63-64.4	63	64	65	66	67	68	69	70	71	63	63	63	63	63
64	64	64-65.4	64	65	66	67	68	69	70	71	72	64	64	64	64	64
65	65	65-66.4	65	66	67	68	69	70	71	72	73	65	65	65	65	65
66	66	66-67.4	66	67	68	69	70	71	72	73	74	66	66	66	66	66
67	67	67-68.4	67	68	69	70	71	72	73	74	75	67	67	67	67	67
68	68	68-69.4	68	69	70	71	72	73	74	75	76	68	68	68	68	68
69	69	69-70.4	69	70	71	72	73	74	75	76	77	69	69	69	69	69
70	70	70-71.4	70	71	72	73	74	75	76	77	78	70	70	70	70	70
71	71	71-72.4	71	72	73	74	75	76	77	78	79	71	71	71	71	71
72	72	72-73.4	72	73	74	75	76	77	78	79	80	72	72	72	72	72
73	73	73-74.4	73	74	75	76	77	78	79	80	81	73	73	73	73	73
74	74	74-75.4	74	75	76	77	78	79	80	81	82	74	74	74	74	74
75	75	75-76.4	75	76	77	78	79	80	81	82	83	75	75	75	75	75
76	76	76-77.4	76	77	78	79	80	81	82	83	84	76	76	76	76	76
77	77	77-78.4	77	78	79	80	81	82	83	84	85	77	77	77	77	77
78	78	78-79.4	78	79	80	81	82	83	84	85	86	78	78	78	78	78
79	79	79-80.4	79	80	81	82	83	84	85	86	87	79	79	79	79	79
80	80	80-81.4	80	81	82	83	84	85	86	87	88	80	80	80	80	80
81	81	81-82.4	81	82	83	84	85	86	87	88	89	81	81	81	81	81
82	82	82-83.4	82	83	84	85	86	87	88	89	90	82	82	82	82	82
83	83	83-84.4	83	84	85	86	87	88	89	90	91	83	83	83	83	83
84	84	84-85.4	84	85	86	87	88	89	90	91	92	84	84	84	84	84
85	85	85-86.4	85	86	87	88	89	90	91	92	93	85	85	85	85	85
86	86	86-87.4	86	87	88	89	90	91	92	93	94	86	86	86	86	86
87	87	87-88.4	87	88	89	90	91	92	93	94	95	87	87	87	87	87
88	88	88-89.4	88	89	90	91	92	93	94	95	96	88	88	88	88	88
89	89	89-90.4	89	90	91	92	93	94	95	96	97	89	89	89	89	89
90	90	90-91.4	90	91	92	93	94	95	96	97	98	90	90	90	90	90
91	91	91-92.4	91	92	93	94	95	96	97	98	99	91	91	91	91	91
92	92	92-93.4	92	93	94	95	96	97	98	99	100	92	92	92	92	92
93	93	93-94.4	93	94	95	96	97	98	99	100	101	93	93	93	93	93
94	94	94-95.4	94	95	96	97	98	99	100	101	102	94	94	94	94	94
95	95	95-96.4	95	96	9											

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Facility/Project Name <b>VME</b>				License/Permit/Monitoring Number			Boring Number <b>VS B-2</b>						
Boring Drilled By (Firm name and name of crew chief) <b>Versar Inc / Michael McLean, Geologist</b> <b>Wing Engineering / Mark King, Driller</b>				Date Drilling Started <b>08/24/93</b> M M D D Y Y		Date Drilling Completed <b>08/24/93</b> M M D D Y Y		Drilling Method <b>HSA</b>					
DNK Facility Well No.		WNR Unique Well No.	Common Well Name	Final Static Water Level Feet MSL		Surface Elevation Feet MSL		Borehole Diameter inches					
Boring Location State Plane		<b>375,808 N. 2,479,437 E S/C/N</b>		Lat <b>0° 0' 0"</b>	Long <b>0° 0' 0" E/W</b>	Local Grid Location (If applicable)							
NE 1/4 of NE 1/4 of Section		2	T 6 N, R 19E	Foot	Foot	<input type="checkbox"/> N	<input type="checkbox"/> E						
County		DNR County Code		Civil Town/City/ or Village		<input type="checkbox"/> S	<input type="checkbox"/> W						
		<b>Waukesha</b>		<b>6-8</b>		<b>Waukesha</b>							
Sample				Soil/Rock Description And Geologic Origin For Each Major Unit					Soil Properties				
Number and Type	Length Att. Recovered (ft)	Blow Counts	Depth in Feet	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
SS-1	1.4 1/2	2 2	1	0-0.5 Cement .5 fill material & wood	CL		φ						
			2	1-1.4 Very dark grayish (10YR 3 1/2) Silty clay, organic matter, moist									
			4										
			3										
			4										
SS-2	1.5 2	9 11	5	4-4.5 as above, black (10 YR) cinders, limestone fragments	CL		φ						
			10	4.5-5.5 light yellowish brown, SC (10YR 6 1/2) fine clayey sand,									
			17	5-10% gravel									
			6										
			7										
SS-3	1/2	4 8	8	7-8 brownish yellow (10YR 6 1/4) Sand, fine to medium, moderately sorted, 5% gravel, moist	SP		φ						
		9											
		8	9										
			10										
SS-4	1.1 2	3 9	11	10-11.1 yellowish brown (10YR 5 1/3) Sand, fine to coarse, very poorly sorted, subrounded to subangular	SC		φ						
		10											
		11	12	20-30% gravel, wet									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

**Signature**

Michael McElroy

**Firm**

Versar Inc

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.



Facility/Project Name	VME	License/Permit/Monitoring Number	Boring Number
Boring Drilled By (Firm name and name of crew chief)	Versar Inc / Michael McHan, Geologist Wong Engineering / Don Kling, Driller	Date Drilling Started M M D D Y Y	Date Drilling Completed M M D D Y Y

DNR Facility Well No.	WR Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter inches
-----------------------	--------------------	------------------	--------------------------------------	-------------------------------	-----------------------------

Boring Location State Plane	375,808 N, 2,479,437 E SIC/N	Lat <u>0</u> ° <u>0</u> '	Local Grid Location (If applicable)
NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E	EW	Long <u>0</u> ° <u>0</u> '	□ N <u>  </u> □ S <u>  </u> Feet □ W

County	Waukesha	DNR County Code <u>6-8</u>	Civil Town/City or Village Waukesha
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Sample Number and Type	Length Alt. & Recovered (ft)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties					P 200	RQD/Comments
								PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index		
			1	Asphalt cover				Ø						
SS-1	1.5 1/2	7 4	1	1-1.7 black silty clay (10YR 7/4) (gravel fill), slightly moist, slight sand	CL			Ø						
			2	1.7 to 2.5 brown (10YR 5/3) silt/clay				Ø						
			6					Ø						
			3											
			4											
SS-2	1.2 2	9 17	5	4-4.2 Black (10YR) silty clay, gravel fragments, moist	CL			Ø						
			20					Ø						
			16	6										
			7											
SS-3	1 2	3 7	8	7-7.5 light yellowish brown (10YR 5/4) 10 sand, fine to coarse, moderately sorted, trace gravel, moist	CL			Ø						
			8	trace gravel, moist				Ø						
			6	9 7.5-8 yellowish brown (10YR 5/6)										
			10											
SS-4	1/2	3 6	11	10-11 as above, grading downward to pale brown (10YR 6/3), wet	SW			Ø						
			10					Ø						
			14	12										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael McHan Firm Versar Inc

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Facility/Project Name <u>VME</u>		License/Permit/Monitoring Number		Boring Number <u>USB-4 (R)</u>
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael Mellen, Geologist</u> <u>Urbang Engineering / Drilling, Driller</u>		Date Drilling Started <u>08/24/93</u> M M D D Y Y	Date Drilling Completed <u>08/24/93</u> M M D D Y Y	Drilling Method <u>HSA</u>
Owner/Operator Name <u>ONE PECIFIC WELDING</u>	WRI Drilled Well No. <u>WR</u>	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL
Boring Location State Plane <u>375,808</u> N. <u>2,479,437</u> E S/C/N		Lat <u>0 0'</u>	Local Grid Location (If applicable) □ N      □ E Feet      Feet	
NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E		Long <u>0 0'</u>	□ S      □ W	Feet      Feet
County <u>Waukesha</u>		DNR County Code <u>6-8</u>	Civil Town/City/Village <u>Waukesha</u>	

Sample Number and Type	Length Alt. & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties					P 200	RQD/ Comments
								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index			
			1	Asphalt Cover										
1SS	6.6	7	1-1.6 brown (10YR 4/3) silty clay, Trace gravel, slightly moist,	CL				10						
	1	3	2											
		3												
		5	3											
		7	4											
SS-2	1.3	21	5	4-5.3 light yellowish brown (10YR 6/4) Silty sand, fine, trace gravel, moderately well sorted, slightly moist	CL			φ						
	2	11	6											
		12												
		13	6											
		7												
SS-3	.9	10	8	7-7.9 light yellowish brown (10YR 6/4) sand, fine to medium, moderately well sorted, laminations, wet	SE			φ						
	2	8	9											
		7												
		8	10											
SS-4	1	6	11	10-11 yellowish brown (10YR 5/6) Sand, fine to med, well sorted, grades down to brown (10YR 5/3) wet	SP			φ						
	2	5												
		6												
		8	12											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael Mellen

Firm

Versar Inc

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Facility/Project Name <u>VME</u>		License/Permit/Monitoring Number _____		Boring Number <u>VS B-5</u>
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHerr, Geologist</u> <u>Waukesha Engineering / Dorking, Driller</u>		Date Drilling Started <u>08/24/98</u> M M DD YY	Date Drilling Completed <u>08/24/98</u> M M DD YY	Drilling Method <u>HSA</u>
DNR Facility/Well No. <u>W1</u>	Unique Well No. <u>W1</u>	Common Well Name _____	Final Static Water Level Feet MSL _____	Surface Elevation Feet MSL _____
Boring Location State Plane <u>375,808 N, 2,479,437</u> E S/C/N		Lat <u>0° 0' 0"</u>	Local Grid Location (If applicable) □ N _____	
County <u>NE 1/4 of NE 1/4 of Section 2, T 6 N, R 19 E</u>		Long <u>0° 0' 0"</u>	□ S _____	
		DNR County Code <u>6-8</u>	Civil Town/City or Village <u>Waukesha</u>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties					
								PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
			1										
1SS	1.8 2	6 5	2	1-1.4 Dark brown (10YR 3/3) sand and gravel, very poorly sorted, wet	SC			Ø					
			3	1.4-1.8 Black (10YR) sand, fine, very well sorted wet	SP			Ø					
			4										
SS-2	1.3 2	2 1	5	4-5.3 black organic clay, moist	OL			Ø					
			2										
			2										
			7										
SS-3	1.7 2	1 4	8	7-7.5 as above 7.5-8.7 gray (10YR 6/1) silty clay, grading down to clayey silt,	OL			Ø					
			5	6 9 moist	CL			Ø					
			10										
SS-4	1.3 2	12 16	11	10-10.2 as above, wet 10.2-11.3 gravel, 20% sand,	OL GW			Ø Ø					
			16	fine to coarse, subrounded to subangular, very poorly sorted, wet									
			20	12									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael McHerr

Firm

Versar Inc

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Facility/Project Name <u>VME</u>		License/Permit/Monitoring Number		Boring Number <u>US B-C</u>											
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHorn, Geologist</u> <u>Engineering Consulting, Driller</u>		Date Drilling Started <u>08/27/93</u> M M D D Y Y	Date Drilling Completed <u>08/27/93</u> M M D D Y Y	Drilling Method <u>HSA</u>											
Drill Facility Well No.	WRE Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL											
Boring Location State Plane <u>375,808</u> N. <u>2,479,437</u> E S/C/N		Lat <u>0° 0' 0"</u>	Local Grid Location (If applicable)												
County <u>Waukesha</u>		Long <u>0° 0' 0"</u>	<input type="checkbox"/> N Feet	<input type="checkbox"/> E Feet											
		DNR County Code <u>6-8</u>	Civil Town/City or Village <u>Waukesha</u>												
Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	Soil Properties					P 200	RQD/Comments
				PID/FID	Compressive Strength				Moisture Content	Liquid Limit	Plasticity Index				
SS-1	1	8	1	1-1.5 black (10YR) silty clay, slightly moist,		CC			φ						
	1/2	6	2	1.5-2 Dark grayish brown (10YR 4/6)											
	5			Silty clay, slightly moist											
	7	3	4												
SS-2	1.5	16	4	4-5.5 yellowish brown (10YR 5/6)		ML			φ						
	2	12	5	Fine sandy silt, mottled gray,											
	12			Trace surrounded to subangular											
	10	6	6	gravel, slightly moist											
			7												
SS-3	1.3	10	7	7-8.3 CS above, grading down		ML			φ						
	2	12	8	to yellowish brown (10YR 5/6)											
	10			Sand, fair to medium, 18%		SC			φ						
	10	9	9	gravel, surrounded to subangular											
			10	wet											
SS-4	1/2	7	10	10-11 Pale brown (10YR 6/3) sand, SC					φ						
	11	11	11	moderately well sorted, fine to											
	10			medium, some coarse sand,											
	11	12	12	Trace gravel, wet.											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Michael McHorn Firm Versar Inc

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Facility/Project Name <u>VME</u>				License/Permit/Monitoring Number		Boring Number <u>USB-7</u>											
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael Melton, Geologist</u> <u>Abing Engineering / Drilling, Driller</u>				Date Drilling Started <u>08/27/93</u> M M D D Y Y	Date Drilling Completed <u>08/27/93</u> M M D D Y Y	Drilling Method <u>HSA</u>											
DNR Facility Well No. <u>WIC Unique Well No.</u>	Common Well Name		Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 2 inches												
Boring Location State Plane <u>375,808</u> N. <u>2,479,437</u> E S/C/N				Lat <u>0° 0' 0"</u>	Local Grid Location (If applicable)												
NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E/W				Long <u>0° 0' 0"</u>	<input type="checkbox"/> N Feet	<input type="checkbox"/> E Feet											
County <u>Waukesha</u>				DNR County Code <u>6-8</u>	Civil Town/City/ or Village <u>Waukesha</u>												
Sample	Number and Type	Length Att. & Recovered (ft)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/Comments	
SS-1	1	22		1	Asphalt Cover												
	1/2	32		2	1-1.5 gravel fill		GW				∅						
		11		3	1.5-2 block (coydr) clay, organic, CL												
		5		4	Slightly moist												
SS-2	1.3	21		5	4-5.3 yellowish brown (coydr) ML						∅						
	2	10		6	Lime sandy, slightly rounded												
		15		7	gravel, slightly moist						∅						
SS-3	1.3	8		8	7-8.3 Yellowish brown (coydr) SW		SW				∅						
	2	7		9	Sand, fine to med. imm., traces silt												
		8		10	rounded gravel, moderately well sorted, wet												
SS-4	1.3	5		11	10-10.5 yellowish brown (coydr) SW		SW				∅						
	1/2	5		12	Silty sand, wet												
		7		13	10.5-11.5 yellowish brown (coydr) SW		SW				∅						
		10			Sand, fine to coarse, trace gravel, wet												
I hereby certify that the information on this form is true and correct to the best of my knowledge.																	
Signature <u>Michael Melton</u>				Firm <u>Versar Inc</u>													
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Sample and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	Soil Properties				RQD/ Comments
					U S C S	Graphic Log	Well Diagram	PID/FID	
5-5	3	14	13						
	2	14	14	13-13.3 grayish brown (10YR 5/2) sand and gravel, very poorly sorted, angular to subrounded, wet	GW		Ø		
	25								
	13	15							
			16						
5-6	3	40	16						
	1/2	22	17	16-16.3 as above	GW		Ø		
	15								
	15	18							
			19						
5-7	2	24	19	19-19.5 as above (10YR 5/2)	GW		Ø		
	1/2	12	20	19.5-21 grayish brown sand fine to coarse, 20% gravel, angular to subrounded, wet	SW		Ø		
	14								
	22	21							
			22						

- Solid Waste  Haz. Waste  
 Emergency Response  Underground Tanks  
 Wastewater  Water Resources  
 Superfund  Other

Page 1 of 1

Facility/Project Name <u>VME</u>				License/Permit/Monitoring Number			Boring Number <u>USB-8</u>									
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHorn, Geologist</u> <u>Urban Engineering / Drilling, Driller</u>				Date Drilling Started <u>08/27/98</u> M M DD YY	Date Drilling Completed <u>08/27/98</u> M M DD YY	Drilling Method <u>HSA</u>										
DNR Engineer Well No.	W. Techniques Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 7 inches											
Boring Location State Plane <u>375,808 N. 2,479,437 E S/C/N</u> NE 1/4 of NE 1/4 of Section <u>2 T 6 N. R 19E</u>				Local Grid Location (If applicable) Lat <u>0° 0' 0"</u> N <input type="checkbox"/> Long <u>0° 0' 0"</u> E <input type="checkbox"/> Feet <input type="checkbox"/> S <input type="checkbox"/> Feet <input type="checkbox"/> W												
County <u>Waukesha</u>				DNR County Code <u>6-8</u>	Civil Town/City or Village <u>Waukesha</u>											
Sample		Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit			USCS	Graphic Log	Well Diagram	Soil Properties					P 200	RQD/Comments
Number and Type	Length Att. & Recovered (ft)			PID/FID	Compressive Strength	Moisture Content				Liquid Limit	Plasticity Index					
SS-1	1.5 1/2	8 12	1	1-1.2 very pale brown (coy 2 8/3) clayey 6C Gravel fill						.5						
			2	1.2-2 black (coy 12) clayey sandy												
			3	2-3 gravel fill												
			4													
SS-2	1.3 1/2	11 4	5	4-4.6 as above 4.6-5.2 brownish yellow (coy 2 6/8) CL			6C			20*						
			7	5 fine sandy clay grad, dominantly SC												
			9	6 lo clayey sand												
			7													
SS-3	1.3 1/2	7 9	8	7-8.3 brownish yellow (coy 2 6/8) silty fine sand, trace gravel, wet			SM			10*						
			7													
			16	16-9												
			10													
			11													
			12	*Moisture may have affected PSD Readings not reliable												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael McHorn

Firm

Versar Inc

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Facility/Project Name <u>VME</u>				License/Permit/Monitoring Number		Boring Number <u>USB-9</u>								
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHerr, Geologist</u> <u>Wabug Engineering / Drilling, Driller</u>				Date Drilling Started <u>08/12/7193</u> M M DD YY	Date Drilling Completed <u>08/12/2193</u> M M DD YY	Drilling Method <u>HSA</u>								
DNR Facility Well No.	WIC Well Unique Well No.	Common Well Name		Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 7 inches								
Boring Location State Plane <u>375,808</u> N, <u>2,479,437</u> E SICN				Lat <u>0° 0' 0"</u>	Long <u>0° 0' 0"</u>	Local Grid Location (If applicable)								
NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E				Foot	Foot	<input type="checkbox"/> N	<input type="checkbox"/> E							
County <u>Waukesha</u>				DNR County Code <u>6-8</u>	Civil Town/City/ or Village <u>Waukesha</u>									
Sample				Soil Properties										
Number and Type	Length Alt. & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PTD/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
SS-1	1/2	10	1	1-1.5 Gravel all	cm			1						
	2	6	2	1.5-1.7 black (coyR) clay	CH			1						
	5			1.7-2 Olive gray (5Y 4/2) clay										
	4	3	3	Sand										
			4											
SS-2	1/2	2	4	4-5 Olive gray (5Y 4/2) clay, some clt	cl			φ						
		4	5	Rust color staining	cl									
	6	6												
			7											
SS-3	1/2	5	4	7-8.2 Olive gray (5Y 4/2) fine	cc			φ						
		4	8	Sandy clay, some silt, moist	cc									
	6													
	12	9		8.2-8.5 sand and gravel, moist	gw			φ						
			10											
SS-4	1/2	2	10	10-12 as above, wet	gw			φ						
		10	11											
	16													
	20	12												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael McHerr

Firm

Versar Inc

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Facility/Project Name <u>VME</u>				License/Permit/Monitoring Number _____			Boring Number <u>USB-10</u>						
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McLean, Geologist</u> <u>Long Engineering / Drilling, Driller</u>				Date Drilling Started <u>08/27/98</u> M M D D Y Y	Date Drilling Completed <u>08/27/98</u> M M D D Y Y	Drilling Method <u>HSA</u>							
DNR Facility Well No.	WIC Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL			Borehole Diameter 2 inches						
Boring Location State Plane <u>375,808 N. 2,479,437 E S/C/N</u>				Local Grid Location (If applicable) Lat <u>0° 0'</u> N <u>0° 0'</u> E Long <u>0° 0'</u> S <u>0° 0'</u> W									
County <u>Waukesha</u>				DNR County Code <u>68</u>	Civil Town/City or Village <u>Waukesha</u>								
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit					Soil Properties				
				U S C S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/Comments
SS-1	1.5	87	1	1-2.5 brownish yellow (COYR 6/6) SW				Ø					
	16	16	2	sand, fine to medium, trace gravel, moderately well sorted, dry									
	16	17	3										
			4										
SS-2	69	21	4	4-4.2 brownish yellow (COYR 6/6) SM				d					
	2	2	5	silty sand, fine to medium, dry									
	2	2	6										
			7										
SS-3	1.5	26	7	7-7.6 as above	SM			Ø					
	2	6	8	7.6-8.3 black (COYR) fine sandy clay, dry	CC				2.0				
	9	9							2.0				
	12	9	10	8.3-8.5 yellowish brown (COYR 5/4) fine sandy clay, dry									
SS-4	2	20	10	10-12 light yellowish brown	SM			Ø					
	1/2	25	11	(COYR 6/4) silty fine sand, granitic									
	32	32		downward to clayey fine sand,									
	19	12		trace gravel, moist									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Michael McLean Firm Versar Inc

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.



Facility/Project Name <u>VME</u>		License/Permit/Monitoring Number		Boring Number <u>USB-11</u>
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHerr, Geologist</u> <u>Wong Engineering / Drilling, Driller</u>		Date Drilling Started <u>08/27/98</u> M M D D Y Y	Date Drilling Completed <u>08/27/98</u> M M D D Y Y	Drilling Method <u>HSA</u>
DNR Facility Well No.	WIC Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL
Boring Location State Plane <u>375,808</u> N. <u>2,479,437</u> E S/C/N		Lat <u>0° 0'</u>	Local Grid Location (If applicable) □ N Feet <input type="checkbox"/> S <u>0</u> Feet <input type="checkbox"/> W	Long <u>0° 0'</u>
County <u>Waukesha</u>		DNR County Code <u>6-8</u>	Civil Town/City/ or Village <u>Waukesha</u>	

Sample Number and Type	Length Alt. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	Soil Properties					
								PTD/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
			1										
			2										
			3										
			4										
SS-1	.5 2	50/5	4-4.5 Very pale brown (10YR 7/4) 5 Silty sand, trace gravel, dry		SM			Ø					
			6										
			7										
SS-2	2 2		7-7.5 as above 8 7.5-8.5 Black (10YR) silt, dry 8.5-9 Dark yellowish brown (10YR 9 4/4) grading down to very pale brown (10YR 2/8) silty clay, some fine sand, 10 dry		SM ML			1.25 2.75					
			11										
			12										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm

Versar Inc

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Blow Counts										Soil/Rock Description And Geologic Origin For Each Major Unit	Depth in Feet	
U S C S												
Graphic Log												
Well Diagram												
PID/FID												
Compressive Strength										Soil Properties		
Moisture Content												
Liquid Limit												
Plasticity Index												
P 200												
RQD/Comments												



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

JERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04005 VSB-1/SOIL/PROJECT: VME  
DATE COLLECTED 07/24/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.

\* = ELEVATED DETECTION LIMIT DUE TO SAMPLE QUANTITY. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

AIHA ACCREDITED

APPROVAL m.fw



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E02366 VSB-2/SOIL/PROJECT: VME  
DATE COLLECTED 07/24/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

APPROVAL M.PV.



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
DAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E02367 VSB-3/SOIL/PROJECT: VME  
DATE COLLECTED 07/24/92 DATE RECEIVED 07/27/92  
RESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL  
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AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.  
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AIHA ACCREDITED

APPROVAL M.T.V.



07/30/92

LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E02368 VSB-4/SOIL/PROJECT: VME  
DATE COLLECTED 07/24/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	55	PPM	07/28/92	IN-HOUSE METHOD BASED ON SIMILARITIES TO A MINERAL SPIRIT STANDARD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.  
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APPROVAL M.Tv.



ENVIRONMENTAL  
LABORATORIES INC.

07/30/92

LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E02369 VSB-5/SOIL/PROJECT: VME  
DATE COLLECTED 07/24/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

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AIHA ACCREDITED

APPROVAL *m.m.*



ENVIRONMENTAL  
LABORATORIES INC.

07/30/92

LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04006 VSB-6/SOIL/PROJECT: VME  
DATE COLLECTED 07/27/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

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APPROVAL m.T.W.



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04007 VS8-7/SOIL/PROJECT: VME  
DATE COLLECTED 07/27/92 DATE RECEIVED 07/27/92  
RESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL  
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AIHA ACCREDITED

APPROVAL m.jw



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04008 VSB-8/SOIL/PROJECT: VME  
DATE COLLECTED 07/27/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

APPROVAL m.j.r.



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04009 VSB-9/SOIL/PROJECT: VME  
DATE COLLECTED 07/27/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

TEST NAME	RESULT	UNITS	ANALYZED	METHOD	LIMIT
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

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AIHA ACCREDITED

APPROVAL M.T.R.



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04010 VSB-10/SOIL/PROJECT: VME  
DATE COLLECTED 07/27/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT; SOIL SAMPLES WILL BE DISPOSED OF 6 WEEKS AFTER RECEIPT; WASTE SAMPLES (NON-WATER, NON-SOIL) WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE, N/D = NOT DETECTED.

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AIHA ACCREDITED

APPROVAL M.J.W.



07/30/92

## LABORATORY REPORT

PAGE 1

E102 8475972 W31

VERSAR, INC. - MIDWEST REGIONAL OFFICE  
1520 KENSINGTON ROAD SUITE 115  
OAK BROOK , IL 60521  
ATTN: M.PLACE/J.SMITH

CHAIN OF CUSTODY

SAMPLE 92209-E04011 VSB-11/SOIL/PROJECT: VME  
DATE COLLECTED 07/27/92 DATE RECEIVED 07/27/92  
PRESERVED: YES TEMPERATURE: ON ICE  
CONT. INTEGRITY: MEETS STANDARD SAMPLE INTEG: MEETS STANDARD

<u>TEST NAME</u>	<u>RESULT</u>	<u>UNITS</u>	<u>ANALYZED</u>	<u>METHOD</u>	<u>LIMIT</u>
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM	07/28/92	IN-HOUSE METHOD	

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AIHA ACCREDITED

APPROVAL

*mjh*

E102

PROJECT NO.	PROJECT NAME VME (PROJECT MANAGER: MIKE PLACE)	PARAMETERS						INDUSTRIAL HYGIENE SAMPLE Y N
		SAMPLERS: (Signature) Ann R. Smith Bagher	(Printed) JANICE R. SMITH BAGHER	NO. OF CONTAINERS TPH - NO PRES.	1	2	3	
FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION			REMARKS
VSB-1/SS-3	7/24/92		X	VSB-1	1 X	E0400\$		SOIL
VSB-2/SS-3	7/24/92		X	VSB-2	1 X	E02366		
VSB-3/SS-5	7/24/92		X	VSB-3	1 X	E02367		
VSB-4/SS-1	7/24/92		X	VSB-4	1 X	E02368		
VSB-5/SS-3	7/24/92		X	VSB-5	1 X	E02369		
VSB-6/SS-4	7/27/92		X	VSB-6	1 X	E04006		
VSB-7/SS-3	7/27/92		X	VSB-7	1 X	E04007		
VSB-8/SS-3	7/27/92		X	VSB-8	1 X	E04008		
VSB-9/SS-3	7/27/92		X	VSB-9	1 X	E04009		
VSB-10/SS-3	7/27/92		X	VSB-10	1 X	E04010		
VSB-11/SS-2	7/27/92		X	VSB-11	1 X	E04011		
Relinquished by: (Signature)  (Printed)		Date / Time 8:30 PM	Received by: (Signature)  (Printed)		Relinquished by: (Signature)  (Printed)		Date / Time 7/27/92 8:33	Received by: (Signature)  (Printed)
JANICE R. SMITH BAGHER			Stacy Mattila		Stacy Mattila			
Relinquished by: (Signature)  (Printed)		Date / Time	Received for Laboratory by: (Signature)  (Printed)		Date / Time	Remarks		
						IMMEDIATELY PLACED ON ICE IN COOLER AFTER SAMPLE COLLECTED.		

## CHAIN OF CUSTODY RECORD

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

**ATTACHMENT C**  
**WELL AND BORING LOGS**

Page 1 of 1

Facility/Project Name <b>Akerman / VME</b>		License/Permit/Monitoring Number		Boring Number <b>SBMW-01</b>
Boring Drilled By (Firm name and name of crew chief) <b>Versar Inc.: Alan Esko (Geologist)</b>		Date Drilling Started <b>05/11/1993</b>	Date Drilling Completed <b>05/11/1993</b>	Drilling Method <b>4 1/4 HSA</b>
DNR Facility Well No.	WI Unique Well No.	Common Well Name <b>WMW-01</b>	Final Static Water Level <b>839.37 Feet MSL</b>	Surface Elevation <b>847.86 Feet MSL</b>
Boring Location State Plane <b>374,347.06 N, 2,479,440.96 E S/C/N</b>		Lat <b>0° 0' 0"</b>	Borehole Diameter <b>8.25 inches</b>	
County <b>NE 1/4 of NE 1/4 of Section 2, T 6 N, R 19 E</b>		Long <b>0° 0' 0"</b>	Local Grid Location (If applicable) □ N Feet □ S <b>6.8</b> Feet □ W	
Civil Town/City or Village <b>Waukesha</b>		DNR County Code <b>6.8</b>		

Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties				RQD/Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	
SS	2'	3/3/3/3/3/3	17"	Ac Pavement ~4" Gravel Fill ~8"	CL			8ppm	.5-	1.0			
SS	2'	3/2/3/2	2	Silty Clay (CL), black/grey, tc sand, organics, med. stiff, moist	SC			2	.5-	1.5			
SS	15"	3/2/3/2	4	Sandy Clay, brown, soft-md. stiff, moist-wet	CH			3	.25				
S	14"	1/2/3/2	6	Grades to tc sand, brown/grey mottled, wet, H. Plastic, soft	SC			.6					
S	18"	2/2/4/4	8	Clayey Sand, brown, tc gravel, loose	SW			3					
S	9"	4/4/4/4	10	Grades to Sand, fn-cs, little gravel, brown, saturated, loose	SP			5					
S	19"	8/3/4/6	12	Grades to fn-med., some gravel, med. dense	Filter Pack			2					
S	12"	1/5/6/6	14	Grades to sand with gravel, brown,	SW								
			16	End of Boring @ 16'	GW								
			18										

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature

*Alan J. Esko*

Firm

*Versar Inc.*

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

Facility/Project Name <i>Akerman / VME</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <i>W/W-01</i>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or St. Plane 374,347.06 ft. N 2,479,440.96 ft. E.	Wis. Unique Well Number DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source NE 1/4 of NE 1/4 of Sec. 2, T. 6 N, R. 19 E. 174 ft.	Date Well Installed 05/11/1993 mm dd yy
Distance Well Is From Waste/Source Boundary	Location of Well Relative to Waste/Source u <input checked="" type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <i>Dan Kling</i> <i>Wang Engineering</i>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No		

A. Protective pipe, top elevation - 847.92 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation - 847.65 ft. MSL	2. Protective cover pipe: a. Inside diameter: 8.0 in. b. Length: _____ ft. c. Material: Steel <input type="checkbox"/> 04 Other <input checked="" type="checkbox"/> 
C. Land surface elevation - 847.86 ft. MSL	d. Additional protection? If yes, describe: <i>Flush Mount Cast</i>
D. Surface seal, bottom - ft. MSL or - 1.0 ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> 
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input checked="" type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input checked="" type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> 
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> 	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/> 
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack materials: Manufacturer, product name and mesh size a. <i>Industrial Sand, Canada 10-20</i>  b. Volume added 3 ft <sup>3</sup>
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/> 
17. Source of water (attach analysis):	10. Screen material: <i>PVC</i> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> 

E. Bentonite seal, top - ft. MSL or - 1.0 ft.	b. <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32
F. Fine sand, top - ft. MSL or <i>N/A</i> ft.	c. _____ Other <input type="checkbox"/> 
G. Filter pack, top - ft. MSL or - 3.0 ft.	7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>
H. Screen joint, top - ft. MSL or - 4.5 ft.	8. Filter pack materials: Manufacturer, product name and mesh size a. <i>Industrial Sand, Canada 10-20</i>  b. Volume added 3 ft <sup>3</sup>
I. Well bottom - ft. MSL or - 14.5 ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/> 
J. Filter pack, bottom - ft. MSL or - 16.0 ft.	10. Screen material: <i>PVC</i> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> 
K. Borehole, bottom - ft. MSL or - ft.	b. Manufacturer <i>Northern Ill. Pump</i> c. Slot size: d. Slotted length: 0.010 in. 16.0 ft.
L. Borehole, diameter - 8.25 in.	11. Backfill material (below filter pack): None <input type="checkbox"/> 14 Other <input checked="" type="checkbox"/> 
M. O.D. well casing - 2.25 in.	
N. I.D. well casing - 2.00 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Alan L. Ehs* Firm *Versar, Inc.*

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Facility/Project Name <i>Akerman JVME</i>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input checked="" type="checkbox"/> W.	Well Name <i>WMW-02</i>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or St. Plane 374,692.94 ft. N, 479,520.2 ft. E.	Wis. Unique Well Number DNR Well Number <i>05111193</i>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source <i>NE 1/4 of NE 1/4 of Sec. 2 T. 6 N. R. 19 E. W.</i>	Date Well Installed <i>05/11/93</i>
Distance Well Is From Waste/Source Boundary <i>100</i> ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input checked="" type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <i>Dan King</i> <i>Wang Engineering</i>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No		
A. Protective pipe, top elevation <i>846.48</i> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B. Well casing, top elevation <i>846.11</i> ft. MSL	2. Protective cover pipe: a. Inside diameter: <i>8.0 in.</i> b. Length: <i>----- ft.</i> c. Material: <i>Flush Mount Cast</i> d. Additional protection? If yes, describe: <i>Bentonite</i>	
C. Land surface elevation <i>846.46</i> ft. MSL	3. Surface seal: <i>Concrete</i> Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> <i>-----</i>	
D. Surface seal, bottom ft. MSL or <i>1.0</i> ft.	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/> <i>Concrete</i>	
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input checked="" type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08	
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>	
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>	
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size a. <i>Industrial Sand, Canada, 10-20</i> <input type="checkbox"/> b. Volume added <i>3</i> ft <sup>3</sup>	
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>	
Describe _____		
17. Source of water (attach analysis):	10. Screen material: <i>PVC</i> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>	
E. Bentonite seal, top ft. MSL or <i>1.0</i> ft.	b. Manufacturer <i>No. Illinois Pump</i> c. Slot size: <i>0.010 in.</i> d. Slotted length: <i>10.0 ft.</i>	
F. Fine sand, top ft. MSL or <i>N/A</i> ft.		
G. Filter pack, top ft. MSL or <i>2.3</i> ft.		
H. Screen joint, top ft. MSL or <i>4.5</i> ft.		
I. Well bottom ft. MSL or <i>14.5</i> ft.		
J. Filter pack, bottom ft. MSL or <i>16.0</i> ft.		
K. Borehole, bottom ft. MSL or <i>-----</i> ft.		
L. Borehole, diameter <i>8.25</i> in.		
M. O.D. well casing <i>2.25</i> in.		
N. I.D. well casing <i>2.00</i> in.		
11. Backfill material (below filter pack): <i>Native</i>		

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature \_\_\_\_\_ Firm \_\_\_\_\_

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Route to: Solid Waste  Haz. Waste  Wastewater   
 Env. Response & Repair  Underground Tanks  Other

Facility/Project Name <u>Akerman VME</u>	County Name <u>Waukesha</u>	Well Name <u>WMW-02</u>	
Facility License, Permit or Monitoring Number _____	County Code <u>68</u>	Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 41	a. <u>7.4</u> ft.	<u>7.4</u> ft.
surged with bailer and pumped	<input type="checkbox"/> 61	b. <u>05113193</u>	<u>05113193</u>
surged with block and bailed	<input type="checkbox"/> 42	m m d d y y	m m d d y y
surged with block and pumped	<input checked="" type="checkbox"/> 62	c. <u>16:45</u> <input type="checkbox"/> a.m.	<u>17:20</u> <input type="checkbox"/> p.m.
surged with block, bailed and pumped	<input type="checkbox"/> 70	d. <u>1.0</u> inches	<u>0.0</u> inches
compressed air	<input type="checkbox"/> 20	e. Water clarity	Clear <input type="checkbox"/> 10
bailed only	<input type="checkbox"/> 10	Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25
pumped only	<input type="checkbox"/> 51	(Describe) <u>dark brown</u>	(Describe) <u>Slightly Turbid</u>
pumped slowly	<input checked="" type="checkbox"/> 50	_____	_____
Other _____	<input type="checkbox"/> 	_____	_____
3. Time spent developing well	<u>35</u> min.	_____	_____
4. Depth of well (from top of well casing)	<u>14.5</u> ft.	_____	_____
5. Inside diameter of well	<u>2.00</u> in.	_____	_____
6. Volume of water in filter pack and well casing	<u>1.1</u> gal.	_____	_____
7. Volume of water removed from well	<u>8.0</u> gal.	_____	_____
8. Volume of water added (if any)	<u>0.0</u> gal.	_____	_____
9. Source of water added _____		_____	_____
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Fill in if drilling fluids were used and well is at solid waste facility:	
11. Depth to Water (from top of well casing)		14. Total suspended solids	<u>_____ mg/l</u> <u>_____ mg/l</u>
Date		15. COD	<u>_____ mg/l</u> <u>_____ mg/l</u>
Time			

16. Additional comments on development:

Moderate to Good Recharge

Well developed by: Person's Name and Firm

Name: Alan EskoFirm: Versar, Inc

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:     Print Initials: AGEFirm: Versar, Inc

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Facility/Project Name <b>Akerman VME</b>		License/Permit/Monitoring Number		Boring Number <b>SBMW-03</b>
Boring Drilled By (Firm name and name of crew chief) <b>Alan Eskon Versar, Inc.</b>		Date Drilling Started <b>05/11/93</b> M M D D Y Y	Date Drilling Completed <b>05/11/93</b> M M D D Y Y	Drilling Method <b>4 1/4 HSA</b>
DNR Facility Well No. WI Unique Well No. <b>WMW-03</b>		Final Static Water Level <b>839.02</b> Feet MSL	Surface Elevation <b>844.67</b> Feet MSL	Borehole Diameter <b>8.25</b> inches
Boring Location State Plane <b>375,019.22</b> N, <b>2,479,429.38</b> E SCN NE 1/4 of <b>NE</b> 1/4 of Section <b>2</b> , T <b>6</b> N, R <b>19</b> E		Local Grid Location (If applicable) Lat <b>0° 0' 0"</b> Long <b>0° 0' 0"</b> □ N      □ E Feet      □ S      Feet □ W		
County <b>Waukesha</b>		DNR County Code <b>6-8</b>	Civil Town/City or Village <b>Waukesha</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PIT/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 SS	2'	6 1/8	2	PC Pavement ~6" Crushed Ls Gravel Fill ~6"		SM			28						
2 SS	17"	1/7	2	Clayey Sand, grades to Silty Sand, grey, tc gravel, moist, med. dense											
3 SS	2'	9 1/4	4	No Recovery											
4 SS	9"	1/2	6	Grades to Organic Clay, Black-grey mottled, organics, soft, moist		Olt			3	.25					
5 SS	18"	3/4	8	Silty Clay, grey, vry. stiff, moist		CL				2.5					
	16"	1/4													
	18"	4 1/8	10	Grayell Sand, grey, saturated, med. dense, (fn-cs)		SW									
6 SS	18"	6 1/0	12	SAA											
7 SS	18"	1/17	14	grades to dense											
	18"	9 1/17	16	EOB @ 16' bgs.											

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Signature \_\_\_\_\_ Firm \_\_\_\_\_

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Facility/Project Name <b>Akerman / VME</b>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>WMW-03</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or St. Plane <b>375,019.22 ft. N 2,479,429.38 ft. E.</b>	Wis. Unique Well Number DNR Well Number <b>0511193</b>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location of Waste/Source <b>NE 1/4 of NE 1/4 of Sec. 2, T. 6 N. R. 19 E.</b>	Date Well Installed <b>mm dd yy</b>
Distance Well Is From Waste/Source Boundary <b>150 ft.</b>	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input checked="" type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <b>Don Kling Wang Engineering</b>
<p>A. Protective pipe, top elevation <b>-844.71 ft. MSL</b></p> <p>B. Well casing, top elevation <b>-844.37 ft. MSL</b></p> <p>C. Land surface elevation <b>-844.67 ft. MSL</b></p> <p>D. Surface seal, bottom <b>ft. MSL or -1.0 ft.</b></p> <p>12. USCS classification of soil near screen:            GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>            SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/>            Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used:            Rotary <input type="checkbox"/> 50            Hollow Stem Auger <input checked="" type="checkbox"/> 41            Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01            Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No            Describe _____</p> <p>17. Source of water (attach analysis): _____</p>		
E. Bentonite seal, top <b>ft. MSL or -1.0 ft.</b>	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
F. Fine sand, top <b>ft. MSL or <i>N/A</i> ft.</b>	2. Protective cover pipe: a. Inside diameter: <b>-8.0 in.</b> b. Length: _____ ft. c. Material: <b>Flush Mount Cast</b> d. Additional protection? If yes, describe: _____	
G. Filter pack, top <b>ft. MSL or -3.0 ft.</b>	3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>	
H. Screen joint, top <b>ft. MSL or -4.5 ft.</b>	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3.0 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>	
I. Well bottom <b>ft. MSL or -14.5 ft.</b>	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 3.3 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 c. _____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 3.1 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 5.0 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input type="checkbox"/> 0.8	
J. Filter pack, bottom <b>ft. MSL or -16.0 ft.</b>	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3.3 b. <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 3.2 c. _____ Other <input type="checkbox"/>	
K. Borehole, bottom <b>ft. MSL or _____ ft.</b>	7. Fine sand material: Manufacturer, product name & mesh size a. _____ b. Volume added _____ ft <sup>3</sup>	
L. Borehole, diameter <b>.925 in.</b>	8. Filter pack material: Manufacturer, product name and mesh size a. <b>Industrial Sand: Canada 10-20</b> b. Volume added <b>.3 ft<sup>3</sup></b>	
M. O.D. well casing <b>.225 in.</b>	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4 Other <input type="checkbox"/>	
N. I.D. well casing <b>.200 in.</b>	10. Screen material: <b>PVC</b> a. Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>	
11. Backfill material (below filter pack): <b>Native</b> None <input type="checkbox"/> 1.4 Other <input checked="" type="checkbox"/>		

The diagram illustrates a vertical monitoring well borehole. At the top is a protective pipe section labeled '1. Cap and lock?'. Below it is a 'Protective cover pipe' section with an 'Inside diameter' of 8.0 inches. The next layer is a 'Surface seal' consisting of Bentonite and Concrete. The main well casing is labeled 'Annular space seal' and 'Concrete'. The 'Bentonite seal' is shown at the very bottom. The borehole is filled with 'Filter pack' material. A 'Screen joint' is located just below the filter pack. The 'Well bottom' is at the very bottom of the borehole. The entire well is surrounded by 'Bentonite seal' material.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature \_\_\_\_\_ Firm \_\_\_\_\_

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Route to: Solid Waste  Haz. Waste  Wastewater   
 Env. Response & Repair  Underground Tanks  Other

Facility/Project Name <i>Akerman / VME</i>	County Name <i>Waukesha</i>	Well Name <i>WMW-03</i>
Facility License, Permit or Monitoring Number _____	County Code <i>68</i>	Wis. Unique Well Number _____
DNR Well Number _____		

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Before Development	After Development
2. Well development method surged with bailer and bailed <input type="checkbox"/> 41 surged with bailer and pumped <input type="checkbox"/> 61 surged with block and bailed <input type="checkbox"/> 42 surged with block and pumped <input checked="" type="checkbox"/> 62 surged with block, bailed and pumped <input type="checkbox"/> 70 compressed air <input type="checkbox"/> 20 bailed only <input type="checkbox"/> 10 pumped only <input type="checkbox"/> 51 pumped slowly <input checked="" type="checkbox"/> 50 Other _____	11. Depth to Water (from top of well casing) a. <u>5.95</u> ft.	<u>5.95</u> ft.
	Date b. <u>05/13/93</u> m m d d y y	<u>05/13/93</u> m m d d y y
	Time c. <u>13:41</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>14:40</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
3. Time spent developing well _____ <u>60</u> min.	12. Sediment in well bottom <u>1.0</u> inches	<u>0.</u> inches
4. Depth of well (from top of well casing) <u>14.5</u> ft.	13. Water clarity Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <i>Highly Turbid dark brown</i>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <i>Slightly Turbid</i>
5. Inside diameter of well <u>2.00</u> in.		
6. Volume of water in filter pack and well casing <u>1.4</u> gal.		
7. Volume of water removed from well <u>15.0</u> gal.		
8. Volume of water added (if any) <u>0.0</u> gal.		
9. Source of water added _____		
10. Analysis performed on water added? (If yes, attach results) <input type="checkbox"/> Yes <input type="checkbox"/> No	Fill in if drilling fluids were used and well is at solid waste facility:	
	14. Total suspended solids _____ mg/l	<u>_____</u> mg/l
	15. COD _____ mg/l	<u>_____</u> mg/l

16. Additional comments on development:

*Good to Excellent Recharge*

Well developed by: Person's Name and Firm

Name: Alan Esko  
 Firm: Versar, Inc.

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: \_\_\_\_\_

Print Initials: \_\_\_\_\_

Firm: \_\_\_\_\_

Route to: Solid Waste  Haz. Waste  Wastewater   
 Env. Response & Repair  Underground Tanks  Other

Facility/Project Name <u>Akerman / VME</u>	County Name <u>Waukesha</u>	Well Name <u>WMW-01</u>	
Facility License, Permit or Monitoring Number -----	County Code <u>68</u>	Wis. Unique Well Number -----	DNR Well Number -----

1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
2. Well development method	<input type="checkbox"/> 41 <input type="checkbox"/> 61 <input type="checkbox"/> 42 <input checked="" type="checkbox"/> 62 <input type="checkbox"/> 70 <input type="checkbox"/> 20 <input type="checkbox"/> 10 <input type="checkbox"/> 51 <input checked="" type="checkbox"/> 50 <input type="checkbox"/> Other _____	11. Depth to Water (from top of well casing)	Before Development a. <u>8.7</u> ft.	After Development <u>8.7</u> ft.
3. Time spent developing well	_____ 70 min.	Date	b. <u>05/13/93</u> m m d d y y	<u>05/13/93</u> m m d d y y
4. Depth of well (from top of well casisng)	<u>14.3</u> ft.	Time	c. <u>12:45</u> <input type="checkbox"/> a.m. <u>12:45</u> <input checked="" type="checkbox"/> p.m.	<u>13:15</u> <input type="checkbox"/> a.m. <u>13:15</u> <input type="checkbox"/> p.m.
5. Inside diameter of well	<u>2.00</u> in.	12. Sediment in well bottom	<u>.2</u> inches	<u>.0</u> inches
6. Volume of water in filter pack and well casing	<u>.9</u> gal.	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Dark brown</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>Slightly Turbid</u>
7. Volume of water removed from well	<u>9.0</u> gal.	Fill in if drilling fluids were used and well is at solid waste facility:		
8. Volume of water added (if any)	<u>0.0</u> gal.	14. Total suspended solids	<u>-----</u> mg/l	<u>-----</u> mg/l
9. Source of water added	_____	15. COD	<u>-----</u> mg/l	<u>-----</u> mg/l
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input type="checkbox"/> No			

16. Additional comments on development:

Moderate to Good Recharge

Well developed by: Person's Name and Firm

Name: Alan G. Esko  
 Firm: Versar, Inc.

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Alan G. Esko  
 Print Initials: AGE  
 Firm: Versar, Inc.

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

- Solid Waste     Haz. Waste  
 Emergency Response     Underground Tanks  
 Wastewater     Water Resources  
 Superfund     Other

Page 1 of 1

Facility/Project Name <b>Akerman VME</b>			License/Permit/Monitoring Number		Boring Number <b>SBMW-02</b>								
Boring Drilled By (Firm name and name of crew chief) <b>Alan Esko ~ Versar, Inc</b>			Date Drilling Started <b>05/11/93</b>	Date Drilling Completed <b>05/11/93</b>	Drilling Method <b>4 1/4 HSA</b>								
DNR Facility Well No. <b>W1</b> Unique Well No.		Common Well Name <b>WMW-02</b>	Final Static Water Level <b>839.55</b> Feet MSL	Surface Elevation <b>846.46</b> Feet MSL	Borehole Diameter <b>8.25</b> inches								
Boring Location Date Plane <b>374,692.94</b> N. <b>2479,520.20</b> E SCN   Lat <b>0° 0' 0"</b>			Local Grid Location (If applicable) NE 1/4 of NE 1/4 of Section <b>2</b> , T <b>6</b> N, R <b>19</b> EW   Long <b>0° 0' 0"</b>										
County <b>Waukesha</b>			DNR County Code <b>6-8</b>	Civil Town/City or Village <b>Waukesha</b>									
Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		PID/FID	Soil Properties				RQD/Comments		
S	18 <sup>"</sup>	6/6/6	2	Ac Pavement ~3" Sand + Gravel Fill ~8"		USCS	Graphic Log	Well Diagram	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
S	9		4	Silty Clay, black/grey, vry. Stiff, moist		CL			2.0				
S	18 <sup>"</sup>	3/4/2	6	Clayey Silt, brown, little gravel, Sand, moist grades to		ML							
S	12 <sup>"</sup>		8	Sandy Silt, brown, to gravel, med. dense		SM							
S	12 <sup>"</sup>		10	grades to - - - - -									
S	12 <sup>"</sup>		12	Silty Sand, fn grained, brown, saturated, loose		GW							
			14	Gravely Zone w/ drilling									
			16	Gravel, well graded, some sand (fn-cs), med. dense, saturated									
				<b>EOB@16'</b>									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

*Alan J. Esko*

Firm

*Versar, Inc.*

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

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### Location Coordinates Are:

**Remarks:**

PSS Use:

Local Grid System  
(preferred)

State Plane Coordinates  
 Northern  
 Central

Digitized by srujanika@gmail.com

File Maint Completed: \_\_\_\_\_

Oct 18



Facility/Project Name <u>VME</u>		License/Permit/Monitoring Number		Boring Number <u>HFB-2</u>
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McLean, Geologist</u> <u>Long Engineering / Drilling, Driller</u>		Date Drilling Started <u>10/13/93</u> M M D D Y Y	Date Drilling Completed <u>10/13/93</u> M M D D Y Y	Drilling Method <u>HSA</u>
DNR Facility Well No.	WB#	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL
Boring Location State Plane <u>375,808</u> N, <u>2,479,437</u> E S/C/N		Lat <u>0° 0' 0"</u>	Borehole Diameter <u>7</u> inches	
County <u>Waukesha</u>		DNR County Code <u>618</u>	Local Grid Location (If applicable) □ N      □ E Feet      Feet      □ S      □ W	
State Plane NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E/W Long <u>0° 0' 0"</u>				

Sample Number and Type	Length Alt. & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U.S.C.S	Graphic Log	Well Diagram	Soil Properties					P 200	RQD/Comments
								PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index		
			1	Asphalt pavements & gravel base										
			2											
			3											
SS-1	1.7	5												
	1.5	7	4	Cill, Brown Lire to coarse grained sand, gravel, w/ clay, mott										
			5											
			6											
			7											
			8		SP									
SS-2	1.5	4		Sand (SP) brown, well sorted,										
	1.5	6	9	Trace clay, wet										
			10											
			11											
			12											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Michael McLean Firm Versar Inc

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.





**ATTACHMENT D  
GROUNDWATER SAMPLE  
LABORATORY ANALYTICAL RESULTS  
AND CHAIN OF CUSTODY**

## CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME					NO. OF CONTAINERS	PARAMETERS					INDUSTRIAL HYGIENE SAMPLE			
1871.001	VME Americas, Inc.						VOC's	DRO	TRPH	PNA	SVOC's	PCB's	Pest	PNA (Specific)	Y N
SAMPLERS: (Signature)	(Printed)				REMARKS										
FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION										
WMW-01	5/13/93	1310		X	Upgradient - UST		5	X	X	X	X			VOC's (8021)	
WMW-02		1720			Down gradient - UST		5							DRO (8015) WDNR Modifies	
WMW-02D		1440					5							TRPH (8073) "	
WMW-03D		↓					5	↓	↓	↓	↓			PNA's (8310)	
EMW-01		1600			DISREGARD WELLS EMW-01, 02, 02D, AND 03. UNRELATED TO GROUNDWATER CONTAMINATION INVESTIGATION.		7		X	X	X	X		VOC's (8021)	
EMW-02		1800					7								SVOC's (8270)
EMW-02D		↓					7								PCB's (8080)
EMW-03		1900					7			↓	↓	↓	↓	↓	
Trip Blank					Lab Prepared - w/ cooler		1	X							
Equip. Blank	✓	1520	✓				Field Prepared	5	X	X	X	X			
Relinquished by: (Signature) <i>Alan G. Esho</i> (Printed)		Date / Time 5/13/93 24:00	Received by: (Signature)  (Printed)		Relinquished by: (Signature)  (Printed)		Date / Time	Received by: (Signature)  (Printed)							
Relinquished by: (Signature) <i>J. Kapustic</i> (Printed)		Date / Time 5/14/93 10:00	Received for Laboratory by: <i>Deane Wilkins</i> (Printed)		Date / Time 5/14/93 1023		Remarks See Attached List for Specific Compounds; Please run pH + Conductivity on one sample from every well.								



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850 W. Bartlett Rd.  
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Fax: (708) 289-5445

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

NET Job Number: 93.03857

Enclosed is the Quality Control Data and Analytical Results for the following samples submitted to NET, Inc. Bartlett Division for analysis:

Project Description: VME Americas, Inc.

Sample Number	Sample Description	Date Taken	Date Received
210863	WMW-01; Upgradient-UST; Grab	05/13/1993	05/14/1993
210864	WMW-02; Downgradient-UST; Grab	05/13/1993	05/14/1993
210865	WMW-03; Downgradient-UST; Grab	05/13/1993	05/14/1993
210866	WMW-03D; Downgradient-UST; Grab	05/13/1993	05/14/1993
210871	Equipment Blank	05/13/1993	05/14/1993
210872	Trip Blank	05/13/1993	05/14/1993

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please do not hesitate to call.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

*Ray Kalicki*  
Ray Kalicki  
QA Coordinator





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Bartlett Division  
050 W. Bartlett Rd.  
Bartlett, IL 60103  
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Fax: (708) 209-5445

## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210863

NET Job No.: 93.03057

Sample Description: WMW-01; Upgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 13:10  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Prep/Run	Date of Analysis	Reporting Limit	Analyst	Analytical Method
Conductivity	26,900.	micro/cm	/137	05/19/1993	1.	mac	25108(4)	120.1(3)
pH	7.11	units	/522	05/13/1993	0.10	ljd	150.1(3)	9040(1)
TRPH	<1.0	mg/L	/3	05/20/1993	10.	mje	9073	(1)
DRO-Diesel Range Organics Prep, 8310 PMAK AQUEOUS	<0.1	mg/L	/6	05/20/1993		mjs		
	extracted		83 /	05/18/1993		low	8310	(1)
PMA COMPO - 8310 AQUEOUS		/						
Acenaphthene	<0.018	mg/L	83 /178	05/21/1993	0.018	prp	8310	(1)
Acenaphthylene	<0.010	mg/L	83 /178	05/21/1993	0.010	prp	8310	(1)
Anthracene	<0.0066	mg/L	83 /178	05/21/1993	0.0066	prp	8310	(1)
Benz(a)anthracene	<0.00013	mg/L	83 /178	05/21/1993	0.00013	prp	8310	(1)
Benz(b)fluoranthene	<0.00018	mg/L	83 /178	05/21/1993	0.00018	prp	8310	(1)
Benz(k)fluoranthene	<0.00017	mg/L	83 /178	05/21/1993	0.00017	prp	8310	(1)
Benzo(a)pyrene	<0.00023	mg/L	83 /178	05/21/1993	0.00023	prp	8310	(1)
Benzo(ghi)perylene	<0.00076	mg/L	03 /170	05/21/1993	0.00076	prp	8310	(1)
Chrysene	<0.00015	mg/L	83 /178	05/21/1993	0.00015	prp	8310	(1)
Dibenz(a,h)anthracene	<0.00030	mg/L	03 /170	05/21/1993	0.00030	prp	8310	(1)
Fluoranthene	<0.0021	mg/L	83 /178	05/21/1993	0.0021	prp	8310	(1)
Fluorene	<0.0021	mg/L	83 /178	05/21/1993	0.0021	prp	8310	(1)
Indeno(1,2,3-cd)pyrene	<0.00043	mg/L	83 /178	05/21/1993	0.00043	prp	8310	(1)
Naphthalene	<0.010	mg/L	83 /170	05/21/1993	0.010	prp	8310	(1)
Phenanthrene	<0.0064	mg/L	83 /178	05/21/1993	0.0064	prp	8310	(1)
Pyrene	<0.0027	mg/L	83 /178	05/21/1993	0.0027	prp	8310	(1)
Surr: 2-Fluorobiphenyl	53	%	83 /178	05/21/1993	1-118	prp	8310	(1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 2108G3

NET Job No.: 93.03857

Sample Description: WMW-01; Upgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 13:10  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No. Prep/Run	Date of Analysis	Reporting Limit	Analyte	Analytical Method
<b>VOLATILES - 8021 AQUEOUS</b>							
Benzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Bromochloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromodichloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromoform	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromomethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
n-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
sec-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
tert-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Carbon tetrachloride	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorodibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
4-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromo-3-chloropropane	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromoethane (EDB)	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Dibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
1,2-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
1,3-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
1,4-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Dichlorodifluoromethane	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210863

NET Job No.: 93.03857

Sample Description: WMW-01; Upgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 13:10  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Analysis	Reporting Limit	Analyst	Analytical Method
			Prep/Run				
1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Ethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Hexachlorobutadiene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Isopropylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
p-Isopropyltoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Methylene Chloride	<10.	ug/L	/8	05/20/1993	10.	mjc	8021 (1)
Methyl-t-butyl ether (MTBE)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Naphthalene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
n-Propylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Styrene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
1,1,1,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,2,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
Tetrachloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Toluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,4-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,1 Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,2-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Trichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Trichlorofluoromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,4-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3,5-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Vinyl Chloride	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Xylenes, total	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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850 W. Bartlett Rd.  
Bartlett, IL 60103  
Tel: (708) 209-3100  
Fax: (708) 209-5445

## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993  
Sample No. : 210864  
NET Job No.: 93.03857

Sample Description: WMW-02; Downgradient-UST; Grab  
VME Americag, Inc.

Date Taken: 05/13/1993  
Time Taken: 17:20  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Analysis	Reporting Limit		
		Prep/Run					
TRPH	<1.0	mg/L	/3	05/20/1993	10.		
ODO-Diesel Range Organics	<0.1	mg/L	/6	05/20/1993			
Prep, 8310 PNA's AQUEOUS	extracted		83 /	05/18/1993			
PNA CMPOS - 8310 AQUEOUS		/					
Aceanaphthene	<0.018	mg/L	83 /178	05/21/1993	0.018		
Aceanaphthylene	<0.010	mg/L	83 /178	05/21/1993	0.010		
Anthracene	<0.0066	mg/L	83 /178	05/21/1993	0.0066		
Benzo(a)anthracene	<0.00013	mg/L	83 /178	05/21/1993	0.00013		
Benzo(b)fluoranthene	<0.00018	mg/L	83 /178	05/21/1993	0.00018		
Benzo(k)fluoranthene	<0.00017	mg/L	83 /178	05/21/1993	0.00017	ppb	8310 (1)
Benzo(a)pyrene	<0.00023	mg/L	83 /178	05/21/1993	0.00023	ppb	8310 (1)
Benzo(ghi)perylene	<0.00076	mg/L	83 /178	05/21/1993	0.00076	ppb	8310 (1)
Chrysene	<0.00015	mg/L	83 /178	05/21/1993	0.00015	ppb	8310 (1)
Dibenz(a,h)anthracene	<0.00030	mg/L	83 /178	05/21/1993	0.00030	ppb	8310 (1)
Fluoranthene	<0.0021	mg/L	83 /178	05/21/1993	0.0021	ppb	8310 (1)
Fluorene	<0.0021	mg/L	83 /178	05/21/1993	0.0021	ppb	8310 (1)
Indeno(1,2,3-cd)pyrene	<0.00043	mg/L	83 /178	05/21/1993	0.00043	ppb	8310 (1)
Naphthalene	<0.010	mg/L	83 /178	05/21/1993	0.010	ppb	8310 (1)
Phenanthrene	<0.0064	mg/L	83 /178	05/21/1993	0.0064	ppb	8310 (1)
Pyrene	<0.0027	mg/L	83 /178	05/21/1993	0.0027	ppb	8310 (1)
Surr: 2-Fluorobiphenyl	38	%	83 /178	05/21/1993	1.118	ppb	8310 (1)
VOLATILES - 8021 AQUEOUS		/					
Benzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
Bromobenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
Bromoform	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
Bromochloromethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
Bromodichloromethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
Bromoform	<2.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
Bromomethane	<4.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)
n-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210864

NET Job No.: 93.03857

Sample Description: WMW-02; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 17:20  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 99944713U

Parameter	Results	Units	Batch No.	Date of Prep/Run	Date of Analysis	Reporting Limit	Analyst	Analytical Method
sec-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
tert-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Carbon tetrachloride	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Chloroacetic acid	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Chlorodibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Chloroform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Chloromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
2-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
4-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2-Dibromo-3-chloropropane	<2.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)	
1,2-Dibromoethane (EDB)	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Dibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,3-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,4-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Dichlorodifluoromethane	<3.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1-Dichloroethane	30.	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjo	8021 (1)	
1,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
2,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njo	8021 (1)	
cis-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
trans-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Ethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Isopropylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)	
							njs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993  
Sample No. : 210864  
NET Job No.: 93.03857

Sample Description: WMW-02; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 17:20  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:33  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No. Prep/run	Date of Analysis	Reporting Limit	Analyst	Analytical Method
p-Isopropyltoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Methylene chloride	<10.	ug/L	/8	05/20/1993	10.	mjs	8021 (1)
Methyl-t-butyl ether (MTBE)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Naphthalene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
n-Propylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Styrene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,1,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,2,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Tetrachloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Toluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,4-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,1-Trichloroethane	330.	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,2-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Trichloroethene	370.	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Trichlorofluoromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,6-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3,5-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Vinyl Chloride	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Xylenes, total	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993  
Sample No. : 210865  
NET Job No.: 93.03857

Sample Description: WMW-03; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 14:40  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Analysis	Reporting Limit	Analyst	Analytical Method
TRPH	<1.0	mg/L	/3	05/20/1993	10.	mjs	9073 (1)
DRO-Diesel Range Organics Prep. 8310 PHAs AQUEOUS	<0.1 extracted	mg/L	/6 83 /	05/20/1993 05/18/1993		mjs low	8310 (1)
PNA CMPOS - 8310 AQUEOUS		/					
Acenaphthene	<0.018	ng/L	83 /178	05/21/1993	0.018	ppp	8310 (1)
Acenaphthylene	<0.010	ng/L	83 /170	05/21/1993	0.010	ppp	8310 (1)
Anthracene	<0.0066	ng/L	83 /178	05/21/1993	0.0066	ppp	8310 (1)
Benzo(a)anthracene	<0.00013	ng/L	83 /170	05/21/1993	0.00013	ppp	8310 (1)
Benzo(b)fluoranthene	<0.00018	ng/L	83 /178	05/21/1993	0.00018	ppp	8310 (1)
Benzo(k)fluoranthene	<0.00017	ng/L	83 /178	05/21/1993	0.00017	ppp	8310 (1)
Benzo(a)pyrene	<0.00023	ng/L	83 /178	05/21/1993	0.00023	ppp	8310 (1)
Benzo(ghi)perylene	<0.00076	ng/L	83 /178	05/21/1993	0.00076	ppp	8310 (1)
Chrysene	<0.00015	ng/L	83 /178	05/21/1993	0.00015	ppp	8310 (1)
Dibenz(a,h)anthracene	<0.00030	ng/L	83 /178	05/21/1993	0.00030	ppp	8310 (1)
Fluoranthene	<0.0021	ng/L	83 /178	05/21/1993	0.0021	ppp	8310 (1)
Fluorene	<0.0021	ng/L	83 /178	05/21/1993	0.0021	ppp	8310 (1)
Indeno(1,2,3-cd)pyrene	<0.00043	ng/L	83 /178	05/21/1993	0.00043	ppp	8310 (1)
Naphthalene	<0.010	ng/L	83 /178	05/21/1993	0.010	ppp	8310 (1)
Phenanthrene	<0.0066	ng/L	83 /178	05/21/1993	0.0064	ppp	8310 (1)
Pyrene	<0.0027	ng/L	83 /178	05/21/1993	0.0027	ppp	8310 (1)
Surr: 2-Fluorobiphenyl	50	x	83 /178	05/21/1993	1-118	ppp	8310 (1)
VOLATILES - 8021 AQUEOUS		/					
Benzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromo-chloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromo-dichloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromoform	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromomethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
n-Dutylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210865

NET Job No.: 93.03857

Sample Description: WMW-03; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 14:40  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Result	Unit	Batch No.	Date of Prep/Run	Reporting Analysis	Analyst	Analytical Method
sec-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
tert-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Carbon tetrachloride	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorodibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
4-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromo-3-chloropropane	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromoethane (EDB)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,4-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dichlorodifluoromethane	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethane	11.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis 1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,2-Dichloroethene	8.30	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Ethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Hexachlorobutadiene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Isopropylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
						mjs	8021 (1)





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## ANALYTICAL REPORT

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1520 Kensington Road  
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05/27/1993  
Sample No. : 210865  
NET Job No.: 93.03857

Sample Description: WMW-03; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
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Date Received: 05/14/1993  
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Parameter	Result	Units	Batch No.	Date of Prep/Kun	Date of Analysis	Reporting Limit	Analyst	Analytical Method
p-Isopropyltoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Methylene Chloride	<10.	ug/L	/8	05/20/1993	10.	mjc	8021 (1)	
Methyl-t-butyl ether (MTBE)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Kaphthalene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
n-Propylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Styrene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)	
1,1,1,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)	
Tetrachloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Toluene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)	
1,2,3-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,2,4-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)	
1,1,1-Trichloroethane	42.	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,1,2-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Trichloroethene	37.	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Trichlorofluoromethane	<6.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,2,3-Trichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,2,4-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
1,3,5-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)	
Vinyl Chloride	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	
Xylenes, total	<30.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210866

NET Job No.: 93.03857

Sample Description: WMMW-03D; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 14:40  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 99944/130

Parameter	Result	Units	Batch No.	Date of Analysis	Reporting Limit	Analyst	Analytical Method
			Prep/Run				
TRPH	<1.0	mg/L	/3	05/20/1993	10.	mjs	9073 (1)
DRO Diesel Range Organics	<0.1	mg/L	/6	05/20/1993		mjs	8310 (1)
Prep. 8310 PMA's AQUEOUS	extracted		83 /	05/18/1993		low	8310 (1)
PMA CHPPDS - 8310 AQUEOUS		/					
Acenaphthene	<0.018	mg/L	83 /178	05/21/1993	0.018	prp	8310 (1)
Acenaphthylene	<0.010	mg/L	83 /178	05/21/1993	0.010	prp	8310 (1)
Anthracene	<0.0066	mg/L	83 /178	05/21/1993	0.0066	prp	8310 (1)
Benzo(a)anthracene	<0.00013	mg/L	83 /178	05/21/1993	0.00013	prp	8310 (1)
Benzo(b)fluoranthene	<0.00018	mg/L	83 /178	05/21/1993	0.00018	prp	8310 (1)
Benzo(k)fluoranthene	<0.00017	mg/L	83 /178	05/21/1993	0.00017	prp	8310 (1)
Benzo(a)pyrene	<0.00023	mg/L	83 /178	05/21/1993	0.00023	prp	8310 (1)
Benzo(ghi)perylene	<0.00076	mg/L	83 /178	05/21/1993	0.00076	prp	8310 (1)
Chrysene	<0.00015	mg/L	83 /178	05/21/1993	0.00015	prp	8310 (1)
Dibenzo(a,h)anthraene	<0.00030	mg/L	83 /178	05/21/1993	0.00030	prp	8310 (1)
Fluoranthene	<0.0021	mg/L	83 /178	05/21/1993	0.0021	prp	8310 (1)
Fluorene	<0.0021	mg/L	83 /178	05/21/1993	0.0021	prp	8310 (1)
Indeno(1,2,3-cd)pyrene	<0.00043	mg/L	83 /178	05/21/1993	0.00043	prp	8310 (1)
Naphthalene	<0.010	mg/L	83 /178	05/21/1993	0.010	prp	8310 (1)
Phenanthrene	<0.0064	mg/L	83 /178	05/21/1993	0.0064	prp	8310 (1)
Pyrene	<0.0027	mg/L	83 /178	05/21/1993	0.0027	prp	8310 (1)
Surr: 2-Fluorobiphenyl	28	%	83 /178	05/21/1993	1-118	prp	8310 (1)
VOLATILES - 8021 AQUEOUS		/					
Benzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromoform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromochloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromodichloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromomethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
n-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





NATIONAL  
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TESTING, INC.

Bartlett Division  
850 W. Bartlett Rd.  
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Tel: (708) 289-3100  
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ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210866

NET Job No.: 93.03857

Sample Description: WMW-03D; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 14:40  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No. Prep/Run	Date of Analysis	Reporting Limit	Analyst	Analytical Method
sec-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
tert-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Carbon tetrachloride	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorodibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
4-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromo-3-chloropropane	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromoethane (EDB)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,4-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dichlorodifluoromethane	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethane	11.	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloroethano	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethene	10.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,2-Dichloroethene	8.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Ethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Hexachlorobutadiene	2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Isopropylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210866

NET Job No.: 93.03857

Sample Description: WMW-03D; Downgradient-UST; Grab  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 14:40  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Analysis	Reporting Limit	Analyst	Analytical Method
			Prep/Run				
p-isopropyltoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Methylene Chloride	<10.	ug/L	/8	05/20/1993	10.	mje	8021 (1)
Methyl-t-butyl ether (MTBE)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Naphthalene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
n-Propylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Styrene	<1.0	ug/L	/8	05/20/1993	1.0	mja	8021 (1)
1,1,1,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,2,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mja	8021 (1)
Tetrachloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Toluene	<1.0	ug/L	/8	05/20/1993	1.0	mja	8021 (1)
1,2,3-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,4-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,1-Trichloroethane	49.	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,2-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
Trichloroethene	62.0	ug/L	/8	05/20/1993	1.0	mja	8021 (1)
Trichlorofluoromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
1,2,4-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3,5-Triethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
Vinyl Chloride	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Xylenes, total	<3.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe MacCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210871

NET Job No.: 93.03857

Sample Description: Equipment Blank  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 15:20  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Analysis	Reporting Limit	Analyst	Analytical Method
TRPH	<1.0	mg/L	/3	05/20/1993	10.	mjc	9073 (1)
DRO-Diesel Range Organics Prep, 8310 PNAE AQUEOUS	<0.1 extracted	mg/L	/6 83 /	05/20/1993 05/18/1993		mjc law	8310 (1)
PNA CMPOS - 8310 AQUEOUS		/					
Acenaphthene	<0.018	mg/L	83 /178	05/21/1993	0.018	prp	8310 (1)
Acenaphthylene	<0.010	mg/L	83 /178	05/21/1993	0.010	prp	8310 (1)
Anthracene	<0.0066	mg/L	83 /178	05/21/1993	0.0066	prp	8310 (1)
Benzo(a)anthracene	<0.00013	ng/L	83 /178	05/21/1993	0.00013	prp	8310 (1)
Benzo(b)fluoranthene	<0.00018	ng/L	83 /178	05/21/1993	0.00018	prp	8310 (1)
Benzo(k)fluoranthene	<0.00017	ng/L	83 /178	05/21/1993	0.00017	prp	8310 (1)
Benzo(a)pyrene	<0.00023	ng/L	83 /178	05/21/1993	0.00023	prp	8310 (1)
Benzo(ghi)perylene	<0.00076	ng/L	83 /178	05/21/1993	0.00076	prp	8310 (1)
Chrysene	<0.00015	ng/L	83 /178	05/21/1993	0.00015	prp	8310 (1)
Dibenzo(a,h)anthracene	<0.00030	ng/L	83 /178	05/21/1993	0.00030	prp	8310 (1)
Fluoranthene	<0.0021	ng/L	83 /178	05/21/1993	0.0021	prp	8310 (1)
Fluorene	<0.0021	ng/L	83 /178	05/21/1993	0.0021	prp	8310 (1)
Indeno(1,2,3-cd)pyrene	<0.00043	ng/L	83 /178	05/21/1993	0.00043	prp	8310 (1)
Naphthalene	<0.010	ng/L	83 /178	05/21/1993	0.010	prp	8310 (1)
Phenanthrene	<0.0064	ng/L	83 /178	05/21/1993	0.0064	prp	8310 (1)
Pyrene	<0.0027	ng/L	83 /178	05/21/1993	0.0027	prp	8310 (1)
Surr: 2-Fluorobiphenyl	48	z	83 /178	05/21/1993	1-118	prp	8310 (1)
VOLATILES - 8021 AQUEOUS		/					
Benzene	<1.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)
Bromobenzene	<1.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)
Bromo(chloromethane	<1.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)
Bromodichloromethane	<1.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)
Bromoform	<2.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)
Bromomethane	<4.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)
n-Butylbenzene	<1.0	ug/l	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210871

NET Job No.: 93.03857

Sample Description: Equipment Blank  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 15:20  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Result	Units	Batch No.	Date of Prep/Rin	Reporting Analytic	Analyser	Analytical Method
sec-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
tert-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Carbon tetrachloride	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorodibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethylene	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
4-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromo-3-chloropropane	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromoethane (EDB)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,4-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dichlorodifluoromethane	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2,2-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Ethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Hexachlorobutadiene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Isopropylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210871

NET Job No.: 93.03057

Sample Description: Equipment Blank  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken: 15:20  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Result	Units	Batch No. Prep/Rin	Date of Analysis	Reporting Limit	Analyzer	Analytical Method
p-Isopropyltoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Methylene Chloride	<10.	ug/L	/8	05/20/1993	10.	mjs	8021 (1)
Methyl-t-butyl ether (MTBE)	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Naphthalene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
n-Propylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Styrene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,1,2-Tetrachloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
1,1,2,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mje	8021 (1)
Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Toluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mja	8021 (1)
1,2,4-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1,1-Trichloroethane	2.7	ug/L	/8	05/20/1993	1.0	mja	8021 (1)
1,1,2-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Trichloroethene	2.7	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Trichlorofluoromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,3-Trichloropropane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2,4-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
1,3,5-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Vinyl Chloride	<3.0	ug/L	/8	05/20/1993	1.0	mjc	8021 (1)
Xylenes, total	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210872

NET Job No.: 93.03857

Sample Description: Trip Blank  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken:  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Prop/Run	Reporting Analysis	Analyst	Analytical Method
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VOLATILES - 8021 AQUEOUS

Benzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromo-chloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromo-dichloromethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Bromoform	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
n-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
sec-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
tert-Butylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Carbon tetrachloride	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chlorodibromomethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloroform	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Chloromethane	<4.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
2-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
4-Chlorotoluene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromo-3-chloropropene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dibromoethane (EDB)	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dibromoethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,3-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,4-Dichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
Dichlorodifluoromethane	<3.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
cis-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)
1,2-Dichloropropane	<1.0	ug/L	/8	05/20/1993	1.0	mjs	8021 (1)





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ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

05/27/1993

Sample No. : 210872

NET Job No.: 93.03857

Sample Description: Trip Blank  
VME Americas, Inc.

Date Taken: 05/13/1993  
Time Taken:  
IEPA Cert. No. 100221

Date Received: 05/14/1993  
Time Received: 10:23  
WDNR Cert. No. 999447130

Parameter	Results	Units	Batch No.	Date of Prop/Run	Date of Analysis	Reporting Limit	Analyst	Analytical Method
1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
2,2-Dichloropropane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1-Dichloropropane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
cis-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
trans-1,3-Dichloropropene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Ethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Methylchlorobutadiene	<2.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Isopropylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
p-Isopropyltoluene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Methylene Chloride	<10.	ug/L	/8	05/20/1993	10.	njs	8021 (1)	
Methyl-t-butyl ether (MTBE)	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Kaphthalene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
n-Propylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Styrene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1,1,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1,2,2-Tetrachloroethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Tetrachloroethene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Toluene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2,3-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2,4-Trichlorobenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,1,2-Trichloroethane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Trichloroethene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Trichlorofluoromethane	<4.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2,3-Trifluoropropane	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,2,4-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
1,3,5-Trimethylbenzene	<1.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Vinyl Chloride	<3.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	
Xylenes, total	<3.0	ug/L	/8	05/20/1993	1.0	njs	8021 (1)	





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**QUALITY CONTROL REPORT**  
**CONTINUING CALIBRATION VERIFICATION**

VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521  
Mr. Joe McCue

05/27/1993

NET Job Number: 93.03857

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Units	Percent Recovery
Conductivity	137	1413.	1484	umhos/cm	105.0
ACID CMPOS - 8270 AQUEOUS 2,4-Dichlorophenol	177	50.	51.21	ug/L	102.4

BASE/NEUTRALS - 8270 AQUEOUS

PNA CMPOS - 8310 AQUEOUS					
Aceanaphthalene	178	1000.	941.80	mg/Kg	94.2
Aceanaphthylene	178	1000.	1052.0	mg/Kg	105.2
Anthracene	178	1000.	997.59	mg/Kg	99.8
Benzo(a)anthracene	178	1000.	970.01	mg/Kg	97.0
Benzo(b)fluoranthene	178	1000.	972.31	mg/Kg	97.2
Benzo(k)fluoranthene	178	1000.	983.14	mg/Kg	98.3
Benzo(a)pyrene	178	1000.	1061.3	mg/Kg	106.1
Benzo(ghi)perylene	178	1000.	983.53	mg/Kg	98.4
Chrycene	178	1000.	993.10	mg/Kg	99.3
Dibenzo(a,h)anthracene	178	1000.	971.08	mg/Kg	97.1
Fluoranthene	178	1000.	970.48	mg/Kg	97.0
Fluorene	178	1000.	939.47	mg/Kg	93.9
Indeno(1,2,3-cd)pyrene	178	1000.	923.60	mg/Kg	92.4
Naphthalene	170	1000.	938.97	mg/Kg	93.9
Phenanthrene	178	1000.	973.67	mg/Kg	97.4
Pyrene	178	1000.	974.20	mg/Kg	97.4
Sum: 2-Fluorobiphenyl	178	1000.	940.56	X	94.1

CCV - Continuing Calibration Verification





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## QUALITY CONTROL REPORT

### BLANK ANALYSIS

VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521  
Mr. Joe McCue

05/27/1993

NET Job Number: 93.03857

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Reporting Units	Reporting Limit	Analytical Method
Conductivity		157	<1.0	umhos	1.	25108(4) 120.1(3)
PESTICIDES/PCB - 8080 AQUEOUS						8080 (1)
4,4'-DDD	107	133	<0.1	ug/L	0.1	8080 (1)
Dieldrin	107	133	<0.1	ug/L	0.1	8080 (1)
Endosulfan I	107	133	<0.05	ug/L	0.05	8080 (1)
Endosulfan sulfate	107	133	<0.1	ug/L	0.1	8080 (1)
Endrin aldehyde	107	133	<0.1	ug/L	0.1	8080 (1)
Heptachlor epoxide	107	133	<0.05	ug/L	0.05	8080 (1)
PCB-1248	107		<1.0	ug/L	1.0	8080 (1)
Surr: Dibutylchlorobenzene	107		NA	%	20-150	8080 (1)
Surr: Tetrachloroxylene (TCX)	107		29	%		8080 (1)
Surr: Decachlorobiphenyl (DCB)	107		26	%		8080 (1)
PWA CHPOS - 8310 AQUEOUS						8310 (1)
Acenaphthene	83	178	<0.018	mg/L	0.018	8310 (1)
Acenaphthylene	83	178	<0.010	mg/L	0.010	8310 (1)
Anthracene	83	178	<0.0066	mg/L	0.0066	8310 (1)
Benz(a)anthracene	83	178	<0.00013	mg/L	0.00013	8310 (1)
Benz(b)fluoranthene	83	178	<0.00018	mg/L	0.00018	8310 (1)
Benz(k)fluoranthene	83	178	<0.00017	mg/L	0.00017	8310 (1)
Benz(a)pyrene	83	178	<0.00023	mg/L	0.00023	8310 (1)
Benz(ghi)perylene	83	178	<0.00076	mg/L	0.00076	8310 (1)
Chrysene	83	178	<0.00015	mg/L	0.00015	8310 (1)
Dibenzo(a,h)anthracene	83	178	<0.00030	mg/L	0.00030	8310 (1)
Fluoranthene	83	178	<0.0021	mg/L	0.0021	8310 (1)
Fluorene	83	178	<0.0021	mg/L	0.0021	8310 (1)
Indeno(1,2,3-cd)pyrene	83	178	<0.00043	mg/L	0.00043	8310 (1)
Mophthalene	83	178	<0.010	mg/L	0.010	8310 (1)
Phenanthrene	83	178	<0.0064	mg/L	0.0064	8310 (1)

#### Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.





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## QUALITY CONTROL REPORT

### BLANK ANALYSIS

VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521  
Mr. Joe McCue

05/27/1993

NET Job Number: 93.03857

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Reporting Units	Reporting Limit	Analytical Method
Pyrene	83	178	<0.0027	mg/L	0.0027	8310 (1)
Surf: 2-Fluorobiphenyl	83	178	56	X	1-118	8310 (1)

#### Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.





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**QUALITY CONTROL REPORT**  
**MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521  
Mr. Joe McCue

05/27/1993

NET Job Number: 93.03857

Analyte	Prep	Run	Matrix										
	Batch	Batch	Spike	Sample	Spike	Percent	MSD	Spike	Percent	MS/KSD			
	Number	Number	Result	Result	Amount	Units	Recovery	Result	Amount	Units	Recovery		RPO
<b>TNA CMPOS - 8310 AQUEOUS</b>													
Acenaphthene	83	178	0.58001	<0.018	1.0	mg/L	58.0	0.4933	1.0	mg/L	49.3	16.2	
Benzo(b)fluoranthene	83	178	0.90012	<0.0001	1.0	mg/L	90.0	0.9213	1.0	mg/L	92.1	2.3	
Fluorene	83	178	0.47817	<0.0021	1.0	mg/L	47.8	0.4234	1.0	mg/L	42.3	12.2	
Naphthalene	83	178	0.43599	<0.010	1.0	mg/L	43.6	0.5383	1.0	mg/L	53.9	21.1	
Phenanthrene	83	178	0.70063	<0.0064	1.0	mg/L	70.9	0.7609	1.0	mg/L	76.1	7.1	
<b>PNA CMPOS - 8310 AQUEOUS</b>													
Acenaphthene	83	63	0.008	<1.200	0.033	mg/Kg	24.20	0.010	0.033	mg/Kg	30.30	22.40	
Acenaphthylene	83	63	0.008	<0.660	0.033	mg/Kg	24.20	0.008	0.033	mg/Kg	24.20	0.00	
Anthracene	83	63	0.016	<0.660	0.033	mg/Kg	48.50	0.017	0.033	mg/Kg	51.50	6.00	
Benzo(a)anthracene	83	63	0.019	<0.0087	0.033	mg/Kg	57.60	0.020	0.033	mg/Kg	60.60	5.10	
Benzo(b)fluoranthene	83	63	0.017	<0.011	0.033	mg/Kg	51.50	0.017	0.033	mg/Kg	51.50	0.00	
Benzo(k)fluoranthene	83	63	0.018	<0.011	0.033	mg/Kg	54.50	0.018	0.033	mg/Kg	54.50	0.00	
Benzo(a)pyrene	83	63	0.021	<0.015	0.033	mg/Kg	63.60	0.022	0.033	mg/Kg	66.70	4.80	
Benzo(g,h)perylene	83	63	0.017	<0.051	0.033	mg/Kg	51.50	0.017	0.033	mg/Kg	51.50	0.00	
Chrysene	83	63	0.019	<0.100	0.033	mg/Kg	57.60	0.019	0.033	mg/Kg	57.60	0.00	
Dibenz(a,h)anthracene	83	63	0.015	<0.020	0.033	mg/Kg	43.50	0.017	0.033	mg/Kg	51.50	12.40	
Fluoranthene	83	63	0.018	<0.660	0.033	mg/Kg	54.50	0.015	0.033	mg/Kg	43.50	18.00	
Fluorene	83	63	0.009	<0.140	0.033	mg/Kg	27.30	0.010	0.033	mg/Kg	30.30	10.40	
Indeno(1,2,3-cd)pyrene	83	63	0.016	<0.029	0.033	mg/Kg	48.50	0.016	0.033	mg/Kg	48.50	0.00	
Naphthalene	83	63	0.001	<0.660	0.033	mg/Kg	3.00	0.005	0.033	mg/Kg	15.20	134.00	
Phenanthrene	83	63	0.017	<0.660	0.033	mg/Kg	51.50	0.016	0.033	mg/Kg	48.50	6.00	
Pyrene	83	63	0.019	<0.180	0.033	mg/Kg	57.60	0.016	0.033	mg/Kg	48.50	17.20	

NOTE: Matrix Spike Samples may not be samples from this job.

Advisory Control Limits for MS/MSD or

For Inorganic Parameters and CC Volatiles, the spike recovery should be 75 - 125% if the spike added value was greater than or equal to one fourth of the sample result value. If not, the control limits are not established. The RPD for the MS/MSD pair should be less than 20.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference





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## QUALITY CONTROL REPORT

### DUPPLICATES

VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL, 60521  
Mr. Joe McCue

05/27/1993

NET Job Number: 93.03857

Analyte	Prep	Run	Original Analyte	Duplicate Analyte	Units	RPO
	Batch	Batch				
Conductivity		137	24,900.	25,400.	umhos/	2.0
pH		522	7.61	7.63	units	0.50
pH		522	8.22	8.24	units	0.20
pH		522	7.51	7.50	units	0.10

NOTE: Spikes and Duplicates may not be samples from this job.

RPO - Relative Percent Difference

Advisory Control Limits for Duplicates - RPO should be less than 20.





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## QUALITY CONTROL REPORT

### LABORATORY CONTROL STANDARD

VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521  
Mr. Joe MacCue

05/27/1993

NET Job Number: 93.03857

Analyte	Prep Batch Number	RUN Batch Number	LCS True Concentration	LCS % Recovery
PESTICIDES/PCB - 8080 AQUEOUS				
4,4'-DDD	107	133	50.0	86.0
ofieldrin	107	133	50.0	84.0
Endosulfan I	107	133	25.0	68.0
Endosulfan sulfate	107	133	50.	66.0
Surr: Dibutylchloroendate	107	133	50	100.0
PESTICIDES/PCB - 8080 AQUEOUS				
4,4'-DDD	107	133	50.0	102.0
ofieldrin	107	133	50.0	84.0
Endosulfan I	107	133	25.0	80.0
Endosulfan sulfate	107	133	50.	74.0
Surr: Dibutylchloroendate	107	133	50	100.0
DIA CMPODS - 8310 AQUEOUS				
Acenaphthene	83	178	1.0	80.7
Acenaphthylene	83	178	1.0	91.6
Anthracene	83	178	1.0	77.3
Benzo(a)anthracene	83	178	1.0	94.5
Benzo(b)fluoranthene	83	178	1.0	98.0
Benzo(k)fluoranthene	83	178	1.0	96.1
Benzo(a)pyrene	83	178	1.0	110.6
Benzo(ghi)perylene	83	178	1.000	81.6
Chrysene	83	178	1.0	98.3
Dibenz(a,h)anthracene	83	178	1.0	70.4
Fluoranthene	83	178	1.0	83.2
Fluorene	83	178	1.00	60.7
Indeno(1,2,3-cd)pyrene	83	178	1.0	93.4
napthalene	83	178	1.0	53.1
Phenanthrene	83	178	1.00	67.4
Pyrene	83	178	1.0	90.3
Surr: 2-Fluorobiphenyl	83	178	100	35.0

LCS - Laboratory Control Standard

Advisory Control Limits - Inorganics LCS recovery should be 80 - 120%.



**ATTACHMENT E**  
**HYDROPUNCH INVESTIGATION LOGS**

Facility/Project Name <u>VME</u>				License/Permit/Monitoring Number			Boring Number <u>HFB-1</u>							
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McLean, Geologist</u> <u>Using Engineering / Drilling, Driller</u>				Date Drilling Started <u>10/11/13/93</u> M M D D Y Y		Date Drilling Completed <u>10/11/13/93</u> M M D D Y Y		Drilling Method <u>HSA</u>						
DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL		Borehole Diameter 7 inches								
Boring Location State Plane <u>375,808</u> N, <u>2,479,437</u> E S/C/N NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E/W				Lat <u>0° 0'</u> Long <u>0° 0'</u>		Local Grid Location (If applicable) □ N      □ E Feet      Feet      □ S      □ W								
County <u>Waukesha</u>				DNR County Code <u>6-8</u>	Civil Town/City/ or Village <u>Waukesha</u>									
Sample Number and Type	Length Alt. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit		USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties				RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
				<u>8" Concrete w/ sand &amp; gravel base</u>										
				<u>1</u>										
				<u>2</u>										
				<u>3</u>										
SS-1	<u>.8</u>	<u>2</u>	<u>1.5</u>	<u>4</u> <u>Fill dark brown sand, trace silt, clay and clay</u>										
				<u>5</u> <u>possible buried black clayey topsoil</u>										
				<u>6</u>										
				<u>7</u>										
				<u>8</u>										
SS-2	<u>3</u>	<u>4</u>	<u>9</u>	<u>9</u> <u>Silt (ml) Gray, loose, trace sand, wet</u>										
				<u>10</u>										
				<u>11</u>										
				<u>12</u>										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Michael McLeanFirm Versar Inc

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.





Page 1 of 3

Facility/Project Name <b>VME</b>				License/Permit/Monitoring Number			Boring Number <b>HP B-2</b>					
Boring Drilled By (Firm name and name of crew chief) <b>Versar Inc / Michael McLean, Geologist Loring Engineering / Drilling, Driller</b>				Date Drilling Started <b>10/13/93</b> M M D D Y Y		Date Drilling Completed <b>10/13/93</b> M M D D Y Y		Drilling Method <b>HSA</b>				
DNR Facility Well No.	WRI Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL			Borehole Diameter 2 inches					
Boring Location State Plane <b>375,808 N, 2,479,437 E</b> S/C/N				Lat <b>0° 0' 0"</b>	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W							
Boring Location NE 1/4 of NE 1/4 of Section <b>2 T 6 N, R 19E</b> EW				Long <b>0° 0' 0"</b>								
County <b>Waukesha</b>				DNR County Code <b>68</b>	Civil Town/City or Village <b>Waukesha</b>							
Soil/Rock Description And Geologic Origin For Each Major Unit				USCS	Graphic Log	Well Diagram	Soil Properties			RQD/ Comments		
Number and Type	Length Att. Recovered (ft)	Blow Counts	Depth in Feet				PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200
SS-1	.7	5	1	Asphalt pavement & gravel base								
	1.5	7	2									
		4	3									
		7	5									
			6									
			7									
			8				SP					
SS-2	1.5	4	9	Sand (SP) brown, well sorted, Trace clay, wet								
	1.5	6	10									
			11									
			12									

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael Weston

**Firm**

Versar Inc

This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.





- Solid Waste  Haz Waste  
 Emergency Response  Underground Tanks  
 Wastewater  Water Resources  
 Superfund  Other

Page 1 of 1

Facility/Project Name <u>VME</u>	License/Permit/Monitoring Number		Boring Number <u>HP B-3</u>	
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHorn, Geologist</u> <u>Geog Engineering / Parkling, Diller</u>	Date Drilling Started <u>10/14/93</u> M M D D Y Y	Date Drilling Completed <u>10/14/93</u> M M D D Y Y	Drilling Method <u>HSA</u>	
DNR Facility Well No. [Redacted]	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	
State Plane <u>375,808</u> N. <u>2,479,437</u>	E S/C/N	Lat <u>0° 0' 0"</u>	Borehole Diameter <u>7</u> inches	
NE 1/4 of NE 1/4 of Section <u>2</u> , T <u>6</u> N, R <u>19</u> E	EW	Long <u>0° 0' 0"</u>	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
County <u>Waukesha</u>	DNR County Code <u>68</u>	Civil Town/City or Village <u>Waukesha</u>		

Sample Number and Type	Length Alt. & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	P/D/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			5											
			10											
			15	<i>Collected Hydrovane Sample</i>										
			20											
			25											
			30											
			35											
			40	<i>Collected Hydrovane Sample</i>										
			45	<i>End of Boring @ 42'</i>										
			50	<i>Granted time for space as cores were pulled</i>										
			55											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael McHorn

Firm

Versar Inc

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State of Wisconsin  
Department of Natural Resources

Route To:

- |                                             |                                                |
|---------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Solid Waste        | <input checked="" type="checkbox"/> Haz. Waste |
| <input type="checkbox"/> Emergency Response | <input type="checkbox"/> Underground Tanks     |
| <input type="checkbox"/> Wastewater         | <input type="checkbox"/> Water Resources       |
| <input type="checkbox"/> Superfund          | <input type="checkbox"/> Other                 |

SOIL BORING LOG INFORMATION  
Form 4400-122 Rev. 5-92

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
VME		HPB-4

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Versar Inc / Michael Melton, Geologist Gruber Engineering / Drilling, Driller	6/01/93	6/01/93	HSA

DNR Facility Well No.	WRI Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter inches

Boring Location State Plane	Local Grid Location (If applicable)
375,808 N, 2,479,437 E S/C/N NE 1/4 of NE 1/4 of Section 2, T 6 N, R 19 E	□ N      □ E Lat 0'      Long 0' Feet      Feet      □ S      □ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number and Type	Length Att. & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			5											
			10											
			15	Hydropunch Sample Collected										
			20											
			25											
			30											
			35											
			40	Collected Hydropunch sample										
			45	End of Boring @ 44'										
			50											
			55	Ground became loose as augers were pulled										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

*Michael Melton* Firm Versar Inc

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Page 1 of 1

Facility/Project Name <b>VME</b>			License/Permit/Monitoring Number			Boring Number <b>HFB-5</b>							
Boring Drilled By (Firm name and name of crew chief) <b>Versar Inc / Michael Melton, Geologist Waukesha Engineering / Drilling, Driller</b>			Date Drilling Started <b>10/14/93</b> M M D D Y Y		Date Drilling Completed <b>10/14/93</b> M M D D Y Y		Drilling Method <b>HSA</b>						
DNR Facility Well No. <b>WR</b> Unique Well No.		Common Well Name		Final Static Water Level Feet MSL		Surface Elevation Feet MSL		Borehole Diameter <b>7</b> inches					
Boring Location State Plane <b>375,808 N, 2,479,437 E S/C/N</b>			Lat <b>0° 0' 0"</b>			Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E <input checked="" type="checkbox"/> NE 1/4 of NE 1/4 of Section <b>2 T 6 N, R 19 E/W</b> Long <b>0° 0' 0"</b> <input type="checkbox"/> S <input type="checkbox"/> W							
County <b>Waukesha</b>			DNR County Code <b>6-8</b>		Civil Town/City/ or Village <b>Waukesha</b>								
Soil/Rock Description And Geologic Origin For Each Major Unit									Soil Properties				
Number and Type	Length Att. Recovered (ft)	Blow Counts	Depth in Feet	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			5										
			10										
			15										
			20										
			25										
			30										
			35										
			40										
			45										
			50										
			55										
<p style="text-align: center;">Collected Hydrograph Sample</p> <p style="text-align: center;">End of Boring @ 43.6'</p> <p style="text-align: center;">Ground Annular Space as Augers were removed</p>													
<p>I hereby certify that the information on this form is true and correct to the best of my knowledge.</p>													
Signature <b>Michael Melton</b>				Firm <b>Versar Inc</b>									
This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than \$10 nor more than \$5,000 for each violation. Fined not less than \$100 or more than \$100 or imprisoned not less than 70 days or													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

**Signature**

Michael Walton

Final

Versar Inc

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Page \_\_\_\_\_ of \_\_\_\_\_

I hereby certify that the information on this form is true and correct to the best of my knowledge.

**Signature**

Michael Melton

**Firm**

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- Solid Waste  Haz. Waste  
 Emergency Response  Underground Tanks  
 Wastewater  Water Resources  
 Superfund  Other

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
VME		HFB-7

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Versar Inc / Michael McLean, Geologist Loring Engineering / Drilling, Driller	10/15/93 M M D D Y Y	10/15/93 M M D D Y Y	HSA

DNR Facility Well No. / Unique Well No.	Common Well Name	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter inches

Boring Location State Plane	Local Grid Location (If applicable)
NE 1/4 of NE 1/4 of Section 2, T 6 N, R 19 E	Lat 0° 0' N Long 0° 0' E Feet □ N □ S Feet □ E □ W

County	DNR County Code	Civil Town/City/ or Village
Waukesha	68	Waukesha

Sample Number and Type	Length Alt. & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					P 200	RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index			
			1												
			5												
			10												
			15	Collected Hydrometer sample @ 15.6'											
			20	End of Boring @ 15.6'											
			25	Grossed samples as angles were removed											
			30												
			35												
			40												
			45												
			50												
			55												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm

Versar Inc

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Facility/Project Name <u>VME</u>	License/Permit/Monitoring Number		Boring Number <u>HP B-8</u>
Boring Drilled By (Firm name and name of crew chief) <u>Versar Inc / Michael McHorn, Geologist</u> <u>Waukesha Engineering / Don Klings, Driller</u>		Date Drilling Started <u>10/15/93</u> M M D D Y Y	Date Drilling Completed <u>10/15/93</u> M M D D Y Y
DNR Facility Well No. <u>W1</u>	WRI Unique Well No. <u>W1</u>	Common Well Name	Final Static Water Level Feet MSL
			Surface Elevation Feet MSL
Boring Location State Plane <u>375,808</u> N. <u>2,479,437</u> E S/C/N <u>NE 1/4 of NE 1/4 of Section 2, T 6 N, R 19E</u>		Lat <u>0° 0'</u>	Drilling Method HSA
		Long <u>0° 0'</u>	Local Grid Location (If applicable) <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W
County <u>Waukesha</u>	DNR County Code <u>6-8</u>		Civil Town/City/ or Village <u>Waukesha</u>

Sample Number and Type	Length Alt & Recovered (m)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			5											
			10											
			15	collected hydrostatic sample @ 15.5'										
			20	End of Boring @ 15.5'										
			25	Grouted stumpspace as caissons were pulled										
			30											
			35											
			40											
			45											
			50											
			55											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Michael McHorn

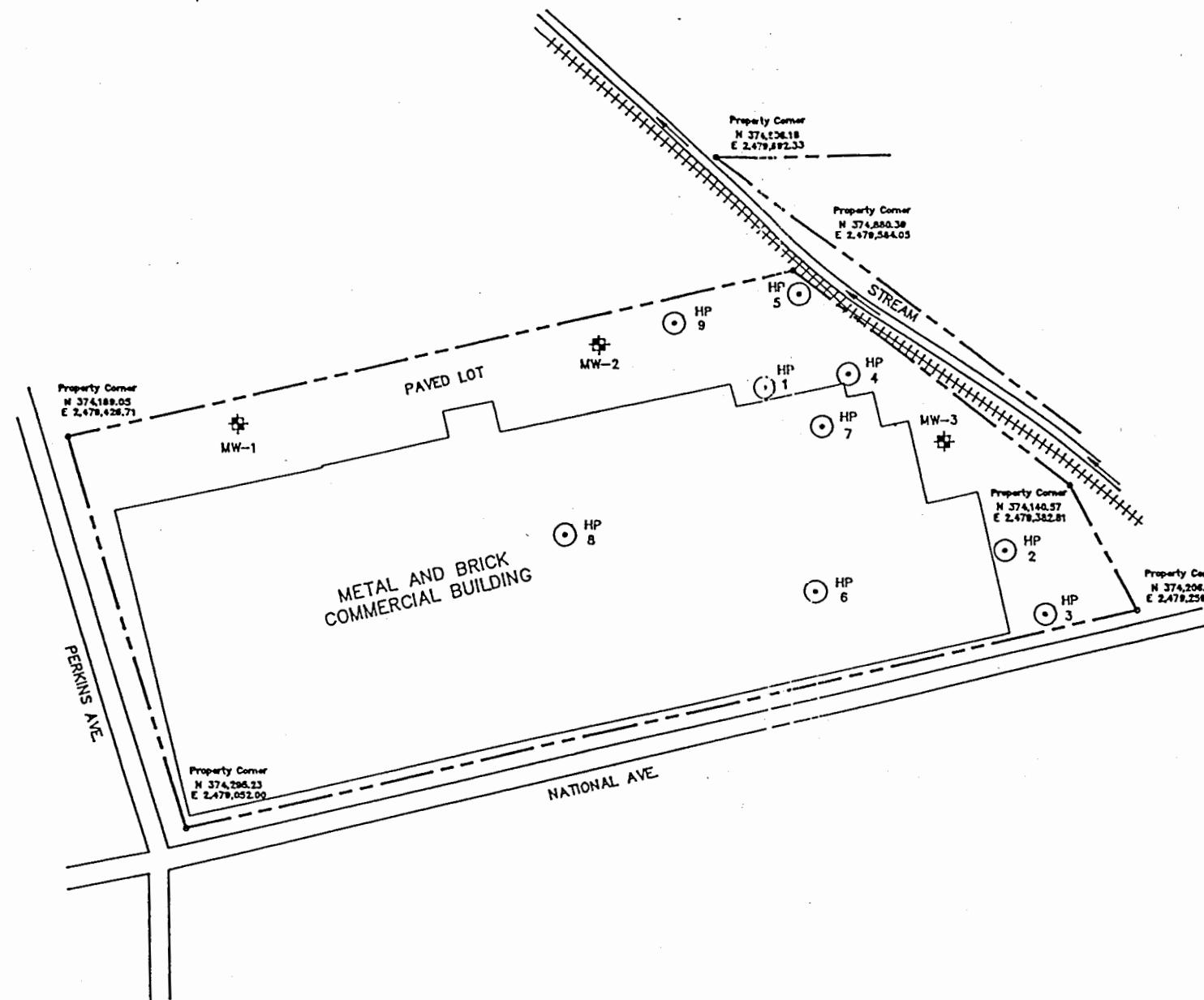
Firm

Versar Inc

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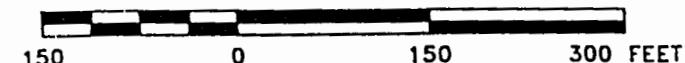
**ATTACHMENT F**  
**WELL AND HYDROPUNCH**  
**LOCATION MAP**



LEGEND

- HP ○ SAMPLE LOCATION
- MW-3 ✕ MONITOR WELL LOCATION
- ||||| RAILROAD TRACKS
- - - PROPERTY BOUNDARY

APPROXIMATE SCALE



TITLE:

FIGURE 1  
PERKINS SITE - SITE LAYOUT

DRAWN: JDJ

APPROVED: DJD

DATE: 12-3-93

SCALE: AS NOTED

FOR:

VME AMERICAS, INC.  
WAUKESHA, WI.

**versar inc.**  
1520 KENSINGTON ROAD  
OAK BROOK, IL 60521

PROJECT NO. 1871.002  
DRAWING NO. 18712-B5

**ATTACHMENT G**  
**LABORATORY ANALYTICAL RESULTS**  
**OF THE SIXTH TANK CONTENTS**

## PRECISION ANALYTICAL LABORATORY

205 WEST GALENA  
MILWAUKEE, WI 53212  
(414) 272-5222

11/29/93  
10:18 RE

## Analytical Report

Attn: Janice Van Haveren  
Client: Superior Environmental  
P.O. Box 1249  
Sheboygan, WI 53082-1249

WORK ID: VME 20257

Date Received: 11/10/93  
Date Reported: 11/22/93

PAL ORDER #: 9311190

SAMPLE DESCRIPTION	LAB ID	DATE COLLECTED
12068 UST LIQUID	01A	10/22/93
12069 UST SLUDGE	02A	10/22/93

Laboratory ID Number (Wisconsin DNR): 241369260

*Jeff Bushner, P.A. D.N.P.*  
Certified By  
Jeff Bushner

**PRECISION ANALYTICAL LABORATORY**  
Report Comments

11/29/93

CLIENT: Superior Environmental

PAL Order #: 9311190

All analysis as per approved method found in one or more of  
the following:

Standard Methods for Evaluation of Water and Wastewater,  
17th Edition

Methods for Chemical Analysis for Water and Wastes, Revised  
March 1983, EPA 600/4-79-020

Test Methods for Evaluating Solid Waste, Physical/Chemical  
Methods, 3rd Edition 1986 EPA SW846

---

Analysis performed or certified by Precision Analytical Laboratory

Per client request, samples 9311190-01 and -02 were analyzed past  
hold-time from containers with head space for volatile analysis.

OC Elevated detection limit due to sample concentration.

## PRECISION ANALYTICAL LABORATORY

Page 1  
11/29/93

CLIENT: Superior Environmental

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
Sample ID: 12068 UST LIQUID				Lab ID: 9311190-01A		Collected: 10/22/93	
8021 - Water						8021	
Benzene	BQL	2000	OC ug/l	11/18/93		JAH	
Bromobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
Bronochloromethane	BQL	2000	OC ug/l	11/18/93		JAH	
Bromodichloromethane	BQL	2000	OC ug/l	11/18/93		JAH	
Bromoform	BQL	2000	OC ug/l	11/18/93		JAH	
Bromomethane	BQL	2000	OC ug/l	11/18/93		JAH	
n-Butylbenzene	12000	2000	OC ug/l	11/18/93		JAH	
sec-Butylbenzene	22000	2000	OC ug/l	11/18/93		JAH	
tert-Butylbenzene	BQL	2000	OC ug/l	11/18/93		JAH	
Carbon tetrachloride	BQL	2000	OC ug/l	11/18/93		JAH	
Chlorobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
Chloroethane	BQL	2000	OC ug/l	11/18/93		JAH	
Chloroform	BQL	2000	OC ug/l	11/18/93		JAH	
Chloromethane	BQL	2000	OC ug/l	11/18/93		JAH	
2-Chlorotoluene	BQL	2000	OC ug/l	11/18/93		JAH	
4-Chlorotoluene	BQL	2000	OC ug/l	11/18/93		JAH	
1,2-Dibromo-3-chloropropane	BQL	10000	OC ug/l	11/18/93		JAH	
Dibromochloromethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,2-Dibromoethane	BQL	2000	OC ug/l	11/18/93		JAH	
Dibromomethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,2-Dichlorobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
1,3-Dichlorobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
1,4-Dichlorobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
Dichlorodifluoromethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,1-Dichloroethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,2-Dichloroethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,1-Dichloroethene	BQL	2000	OC ug/l	11/18/93		JAH	
cis-1,2-Dichloroethene	BQL	2000	OC ug/l	11/18/93		JAH	
trans-1,2-Dichloroethene	BQL	2000	OC ug/l	11/18/93		JAH	
1,2-Dichloropropane	BQL	2000	OC ug/l	11/18/93		JAH	
1,3-Dichloropropane	BQL	2000	OC ug/l	11/18/93		JAH	
2,2-Dichloropropane	BQL	2000	OC ug/l	11/18/93		JAH	
1,1-Dichloropropene	BQL	2000	OC ug/l	11/18/93		JAH	
cis-1,3-Dichloropropene	BQL	2000	OC ug/l	11/18/93		JAH	
trans-1,3-Dichloropropene	BQL	2000	OC ug/l	11/18/93		JAH	
Ethylbenzene	14000	2000	OC ug/l	11/18/93		JAH	
Hexachlorobutadiene	BQL	2000	OC ug/l	11/18/93		JAH	
Isopropylbenzene	3800	2000	OC ug/l	11/18/93		JAH	
p-Isopropyltoluene	16000	2000	OC ug/l	11/18/93		JAH	
Methylene Chloride	BQL	2000	OC ug/l	11/18/93		JAH	
M-t-butyl-ether	BQL	2000	OC ug/l	11/18/93		JAH	
Naphthalene	BQL	2000	OC ug/l	11/18/93		JAH	
n-Propylbenzene	8500	2000	OC ug/l	11/18/93		JAH	
Styrene	BQL	2000	OC ug/l	11/18/93		JAH	
1,1,1,2-Tetrachloroethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,1,2,2-Tetrachloroethane	BQL	2000	OC ug/l	11/18/93		JAH	

BQL - Below Quantification Limit

NP - Not Present

## PRECISION ANALYTICAL LABORATORY

Page 2  
11/29/93

CLIENT: Superior Environmental

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
8021 - Water							8021
Tetrachloroethene	BQL	2400	OC ug/l	11/18/93		JAH	
Toluene	20000	2000	OC ug/l	11/18/93		JAH	
1,2,3-Trichlorobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
1,2,4-Trichlorobenzene	BQL	2000	OC ug/l	11/18/93		JAH	
1,1,1-Trichloroethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,1,2-Trichloroethane	BQL	2000	OC ug/l	11/18/93		JAH	
Trichloroethene	BQL	2000	OC ug/l	11/18/93		JAH	
Trichlorofluoromethane	BQL	2000	OC ug/l	11/18/93		JAH	
1,2,3-Trichloropropane	BQL	2000	OC ug/l	11/18/93		JAH	
1,2,4-Trimethylbenzene	45000	2000	OC ug/l	11/18/93		JAH	
1,3,5-Trimethylbenzene	20000	2000	OC ug/l	11/18/93		JAH	
Vinyl Chloride	BQL	2000	OC ug/l	11/18/93		JAH	
o-Xylene	17000	2000	OC ug/l	11/18/93		JAH	
m/p-Xylene	100000	4000	OC ug/l	11/18/93		JAH	

Sample ID: 12069 UST SLUDGE

Lab ID: 9311190-02A

Collected: 10/22/93

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
8021 - Water							8021
Benzene	BQL	120	OC mg/kg	11/19/93		JAH	
Bromobenzene	BQL	120	OC mg/kg	11/19/93		JAH	
Bromochloromethane	BQL	120	OC mg/kg	11/19/93		JAH	
Bromodichloromethane	BQL	120	OC mg/kg	11/19/93		JAH	
Bromoform	BQL	120	OC mg/kg	11/19/93		JAH	
Bromomethane	BQL	120	OC mg/kg	11/19/93		JAH	
n-Butylbenzene	330	120	OC mg/kg	11/19/93		JAH	
sec-Butylbenzene	220	120	OC mg/kg	11/19/93		JAH	
tert-Butylbenzene	240	120	OC mg/kg	11/19/93		JAH	
Carbon tetrachloride	BQL	120	OC mg/kg	11/19/93		JAH	
Chlorobenzene	BQL	120	OC mg/kg	11/19/93		JAH	
Chloroethane	BQL	120	OC mg/kg	11/19/93		JAH	
Chloroform	BQL	120	OC mg/kg	11/19/93		JAH	
Chloromethane	BQL	120	OC mg/kg	11/19/93		JAH	
2-Chlorotoluene	BQL	120	OC mg/kg	11/19/93		JAH	
4-Chlorotoluene	BQL	120	OC mg/kg	11/19/93		JAH	
1,2-Dibromo-3-chloropropene	BQL	620	OC mg/kg	11/19/93		JAH	
Dibromochloromethane	BQL	120	OC mg/kg	11/19/93		JAH	
1,2-Dibromoethane	BQL	120	OC mg/kg	11/19/93		JAH	
Dibromomethane	BQL	120	OC mg/kg	11/19/93		JAH	
1,2-Dichlorobenzene	BQL	120	OC mg/kg	11/19/93		JAH	
1,3-Dichlorobenzene	BQL	120	OC mg/kg	11/19/93		JAH	
1,4-Dichlorobenzene	BQL	120	OC mg/kg	11/19/93		JAH	
Dichlorodifluoromethane	BQL	120	OC mg/kg	11/19/93		JAH	
1,1-Dichloroethane	BQL	120	OC mg/kg	11/19/93		JAH	
1,2-Dichloroethane	BQL	120	OC mg/kg	11/19/93		JAH	
1,1-Dichloroethene	BQL	120	OC mg/kg	11/19/93		JAH	
cis-1,2-Dichloroethene	BQL	120	OC mg/kg	11/19/93		JAH	
trans-1,2-Dichloroethene	BQL	120	OC mg/kg	11/19/93		JAH	
1,2-Dichloropropane	BQL	120	OC mg/kg	11/19/93		JAH	

BQL - Below Quantification Limit

NP - Not Present

## PRECISION ANALYTICAL LABORATORY

Page 3  
11/29/93

CLIENT: Superior Environmental

Test	Result	Limit	Units	Analyzed	Extracted	BY	Method
8021 - Water						8021	
1,3-Dichloropropane	BQL	120 OC	mg/kg	11/19/93		JAH	
2,2-Dichloropropane	BQL	120 OC	mg/kg	11/19/93		JAH	
1,1-Dichloropropene	BQL	120 OC	mg/kg	11/19/93		JAH	
cis-1,3-Dichloropropene	BQL	120 OC	mg/kg	11/19/93		JAH	
trans-1,3-Dichloropropene	BQL	120 OC	mg/kg	11/19/93		JAH	
Ethylbenzene	2600	120 OC	mg/kg	11/19/93		JAH	
Hexachlorobutadiene	BQL	120 OC	mg/kg	11/19/93		JAH	
Isopropylbenzene	220	120 OC	mg/kg	11/19/93		JAH	
p-Isopropyltoluene	BQL	120 OC	mg/kg	11/19/93		JAH	
Methylene Chloride	BQL	120 OC	mg/kg	11/19/93		JAH	
M-t-butyl-ether	BQL	120 OC	mg/kg	11/19/93		JAH	
Naphthalene	BQL	120 OC	mg/kg	11/19/93		JAH	
n-Propylbenzene	290	120 OC	mg/kg	11/19/93		JAH	
Styrene	BQL	120 OC	mg/kg	11/19/93		JAH	
1,1,1,2-Tetrachloroethane	BQL	120 OC	mg/kg	11/19/93		JAH	
1,1,2,2-Tetrachloroethane	BQL	120 OC	mg/kg	11/19/93		JAH	
Tetrachloroethene	BQL	150 OC	mg/kg	11/19/93		JAH	
Toluene	1700	120 OC	mg/kg	11/19/93		JAH	
1,2,3-Trichlorobenzene	BQL	120 OC	mg/kg	11/19/93		JAH	
1,2,4-Trichlorobenzene	BQL	120 OC	mg/kg	11/19/93		JAH	
1,1,1-Trichloroethane	BQL	120 OC	mg/kg	11/19/93		JAH	
1,1,2-Trichloroethane	BQL	120 OC	mg/kg	11/19/93		JAH	
Trichloroethene	BQL	120 OC	mg/kg	11/19/93		JAH	
Trichlorofluoromethane	BQL	120 OC	mg/kg	11/19/93		JAH	
1,2,3-Trichloropropane	BQL	120 OC	mg/kg	11/19/93		JAH	
1,2,4-Trimethylbenzene	470	120 OC	mg/kg	11/19/93		JAH	
1,3,5-Trimethylbenzene	BQL	120 OC	mg/kg	11/19/93		JAH	
Vinyl Chloride	BQL	120 OC	mg/kg	11/19/93		JAH	
o-Xylene	1100	120 OC	mg/kg	11/19/93		JAH	
m/p-Xylene	7800	250 OC	mg/kg	11/19/93		JAH	

BQL - Below Quantification Limit

NP - Not Present

**ATTACHMENT H  
HYDROPUCH GROUNDWATER  
SAMPLE ANALYTICAL RESULTS  
AND CHAIN OF CUSTODY**



NATIONAL  
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Bartlett Division  
850 W. Bartlett Rd.  
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Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993

NET Job Number: 93.09367

Enclosed is the Quality Control Data and Analytical Results for the following samples submitted to NET, Inc. Bartlett Division for analysis:

Project Description: Akerman Site; Waukesha WI

Sample Number	Sample Description	Date Taken	Date Received
235062	Trip Blank		10/20/1993
235063	HP1-17'; Grab	10/13/1993	10/20/1993
235064	HP1-48'; Grab	10/13/1993	10/20/1993
235065	HP2-18'; Grab	10/13/1993	10/20/1993
235066	HP2-42'; Grab	10/13/1993	10/20/1993
235067	HP3-14'; Grab	10/14/1993	10/20/1993
235068	HP3-42'; Grab	10/14/1993	10/20/1993
235069	HP4-13'; Grab	10/14/1993	10/20/1993
235070	HP4-44'; Grab	10/14/1993	10/20/1993
235071	HP5-13.5'; Grab	10/14/1993	10/20/1993
235072	HP5-43.6'; Grab	10/14/1993	10/20/1993
235073	HP6-15.6'; Grab	10/15/1993	10/20/1993
235074	HP7-15.6'; Grab	10/15/1993	10/20/1993
235075	HP8-15.5'; Grab	10/15/1993	10/20/1993
235076	HP9-15.5'; Grab	10/15/1993	10/20/1993
235077	HP9-34'; Grab	10/15/1993	10/20/1993

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please do not hesitate to call.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Neal E. Cleghorn  
Operations Manager





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993

Sample No. : 235062

NET Job No.: 93.09367

Sample Description: Trip Blank  
Akerman Site; Waukesha WI

Date Taken:  
Time Taken:  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
VOLATILES - 8021 AQUEOUS								
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235063  
NET Job No.: 93.09367

Sample Description: HP1-17'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/13/1993  
Time Taken: 10:40  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Result	Unit	Date of Analysis	Method PQL	Analyt	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	6.7	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	2.9	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	82	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethylene	63	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	

VOCs run past holding time.



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**ANALYTICAL REPORT**

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235064  
NET Job No.: 93.09367

Sample Description: HP1-48'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/13/1993  
Time Taken: 12:55  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst mjs	Batch No. 10	Analytical Prep/Run Method
<b>VOLATILES - 8021 AQUEOUS</b>							
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)
cis 1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)

VOCs run past holding time.





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## ANALYTICAL REPORT

Mr. Joe McCue  
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11/02/1993  
Sample No. : 235065  
NET Job No.: 93.09367

Sample Description: HP2-18'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/13/1993	Date Received: 10/20/1993
Time Taken: 15:30	Time Received: 17:45
IEPA Cert. No. 100221	WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method POI	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	2.7	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/l	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/l	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	1.5	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	8.3	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	

VOCs run past holding time.





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## ANALYTICAL REPORT

Mr. Joe McCue  
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11/02/1993  
Sample No. : 235066  
NET Job No.: 93.09367

Sample Description: HP2-42'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/13/1993  
Time Taken: 16:45  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run Method
<b>VOLATILES - 8021 AQUEOUS</b>							
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)
1,1,1-Trichloroethane	<1.0	ug/l	10/29/1993	1.0	mjs	10	8021 (1)
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)

VOCs run past holding time.





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## ANALYTICAL REPORT

Mr. Joe McCue  
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11/02/1993  
Sample No. : 235067  
NET Job No.: 93.09367

Sample Description: HP3-14'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/14/1993  
Time Taken: 09:25  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Result	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	2.3	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	1.2	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	7.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
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Suite 115  
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11/02/1993  
Sample No. : 235068  
NET Job No.: 93.09367

Sample Description: HP3-42'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/14/1993  
Time Taken: 10:35  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
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11/02/1993

Sample No. : 235069

NET Job No.: 93.09367

Sample Description: HP4-13'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/14/1993  
Time Taken: 12:15  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run Method
<b>VOLATILES - 8021 AQUEOUS</b>							
1,1 dichloroethane	0.6	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)
cis 1,2 Dichloroethene	2.9	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mje	10	8021 (1)
Trichloroethene	29	ug/L	10/29/1993	1.0	mjs	10	8021 (1)





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235070  
NET Job No.: 93.09367

Sample Description: HP4-44'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/14/1993  
Time Taken: 13:45  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/RUN	Method
<b>VULATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethylene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235071  
NET Job No.: 93.09367

Sample Description: HP5-13.5'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/14/1993  
Time Taken: 16:05  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mja	10	8021 (1)	
alpha-1,2-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mja	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235072  
NET Job No.: 93.09367

Sample Description: HP5-43.6'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/14/1993  
Time Taken: 16:45  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	3.6	ug/L	10/29/1993	1.0	mjc	10	8021 (1)	
Trichloroethylene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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Bartell Division  
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Bartlett, IL 60103  
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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235073  
NET Job No.: 93.09367

Sample Description: HP6-15.6'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/15/1993  
Time Taken: 09:30  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method POL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mje	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mje	10	8021 (1)	
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235074  
NET Job No.: 93.09367

Sample Description: HP7-15.6'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/15/1993  
Time Taken: 11:15  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method POI	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	7.6	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjc	10	8021 (1)	
cis-1,2-Dichloroethene	5.5	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	10	ug/L	10/29/1993	1.0	mjc	10	8021 (1)	
Tetrahydroethylene	16	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993

Sample No. : 235075

NET Job No.: 93.09367

Sample Description: HP8-15.5'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/15/1993  
Time Taken: 14:00  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993  
Sample No. : 235076  
NET Job No.: 93.09367

Sample Description: HP9-15.5'; Crab  
Akerman Site; Waukesha WI

Date Taken: 10/15/1993  
Time Taken: 15:00  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Received: 17:45  
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method DQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	5.8	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mje	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mje	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	53	ug/L	10/29/1993	1.0	mje	10	8021 (1)	
Trichloroethene	73	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	





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## ANALYTICAL REPORT

Mr. Joe McCue  
VERSAR CORP.  
1520 Kensington Road  
Suite 115  
Oakbrook, IL 60521

11/02/1993

Sample No. : 235077

NET Job No.: 93.09367

Sample Description: HP9-34'; Grab  
Akerman Site; Waukesha WI

Date Taken: 10/15/1993  
Time Taken: 15:40  
IEPA Cert. No. 100221

Date Received: 10/20/1993  
Time Recd: 17:45  
WDNR Cert. No. 999447130

Parameter	Result	Units	Date of Analysis	Method PQL	Analyst	Batch No.	Analytical Prep/Run	Method
<b>VOLATILES - 8021 AQUEOUS</b>								
1,1-Dichloroethane	4.4	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
1,1-Dichloroethene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
cis-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
trans-1,2-Dichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Hexachlorobutadiene	<2.0	ug/L	10/29/1993	2.0	mjs	10	8021 (1)	
1,1,1-Trichloroethane	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	
Trichloroethene	<1.0	ug/L	10/29/1993	1.0	mjs	10	8021 (1)	



## NET Midwest, Bartlett Division

## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
- mg/L : Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
- ug/g : Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
- ug/L : Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
- ug/Kg : Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
- B : Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
- E : Sample result flag indicating that the reported concentration exceeds the linear range of the instrument for that specific analysis and should be considered estimated.
- TCLP : These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
- % : Percent: To convert ppm to %, divide the result by 10,000.  
To convert % to ppm, multiply the result by 10,000.
- Dry Weight : When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
- ICP : Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
- AA : Indicates analysis was performed using Atomic Absorption Spectroscopy.
- GFAA : Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
- PQL : Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

## Method References

- (1) Methods 1000 through 9999; see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986
- (2) ASTM "American Society for Testing Materials"
- (3) Methods 100 through 499; see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/6-79-020, Rev. 1983.
- (4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.
- (5) Methods 600 through 625; see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.
- (6) Methods 500 through 599; see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-85/US9, Rev. 1988.

NET MIDWEST :11-2-93 : 7:07PM : 708 990 7585:#21/21

**Versar** Inc.

## CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME Aermotor Site, Waukesha, WI					PARAMETERS						INDUSTRIAL HYGIENE SAMPLE		
SAMPLERS: (Signature) <i>Dawn S. Petersen</i>					(Printed) Dawn S. Petersen	NO. OF CONTAINERS 40CS (80) 20X						Y		
FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB	STATION LOCATION								REMARKS	
					TB		1 X							
10-13-93 1040	1040	1040	05P	X	HPI - 17'		2 X							
" 1055	1055			X	HPI - 48'		2 X							
1530				X	HP2 - 18'		2 X							
↓ 1645				X	HP2 - 42'		2 X							
10-14-93 0925				X	HP3 - 14'		2 X							
1035				X	HP3 - 42'		2 X							
1245				X	HPS <sup>DSP</sup> HP4 - 13		2 X							
1345				X	HP4 - 44'		1 X							
1605				X	HPS - 13.5'		2 X							
↓ 1645				X	HPS - 43.6'		2 X							
Relinquished by: (Signature) <i>Dawn S. Petersen</i>			Date / Time 10-13-93 1645		Received by: (Signature) <i>Don Kline</i>			Relinquished by: (Signature) <i>Don Kline</i>			Date / Time 10-13-93 1320		Received by: (Signature) <i>Dawn S. Petersen</i>	
(Printed) Dawn S. Petersen					(Printed) Don Kline			(Printed) Don Kline					(Printed) Dawn S. Petersen	
Relinquished by: (Signature) <i>Dawn S. Petersen</i>			Date / Time 10-13-93 1520		Received for Laboratory by: (Signature) Jack Auer			Date / Time 10-19-93 1520		Remarks He only analyze for compounds shown on attached table.				
(Printed) Dawn S. Petersen					(Printed) Jack Auer									

Distribution: Digital (plus One Accompany Shipment (white and yellow); Copy to Coordinator Field Files (pink).  
Dawn S. Petersen 10/19/93 1745

## CHAIN OF CUSTODY RECORD

PROJECT NO.	PROJECT NAME					PARAMETERS										INDUSTRIAL HYGIENE SAMPLE
	Akerman Site, Waukesha, WI															<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
SAMPLERS: (Signature)	(Printed)				NO. OF CONTAINERS 10/15/802	REMARKS										
FIELD SAMPLE NUMBER	DATE	TIME	COMP.	GRAB		STATION LOCATION										
	10-15-93	0930	X			HP6 - 13 <sup>050</sup> ft 15.6'					2 X					
	1115		X			HP2 - 15.6'					2 X					
	1400		X			HP8 - 15.5'					2 X					
	1500		X			HP9 - 15.5'					2 X					
	1540		X			HP9 - 34'					2 X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
<i>Dawn Petersen</i>	10-15-93 1645	<i>Don Blay</i>	<i>Don Blay</i>	19 Oct 93 1327	<i>Dawn Petersen</i>
(Printed)		(Printed)	(Printed)		(Printed)
Dawn Petersen		Don Blay	Don Blay		Dawn Petersen

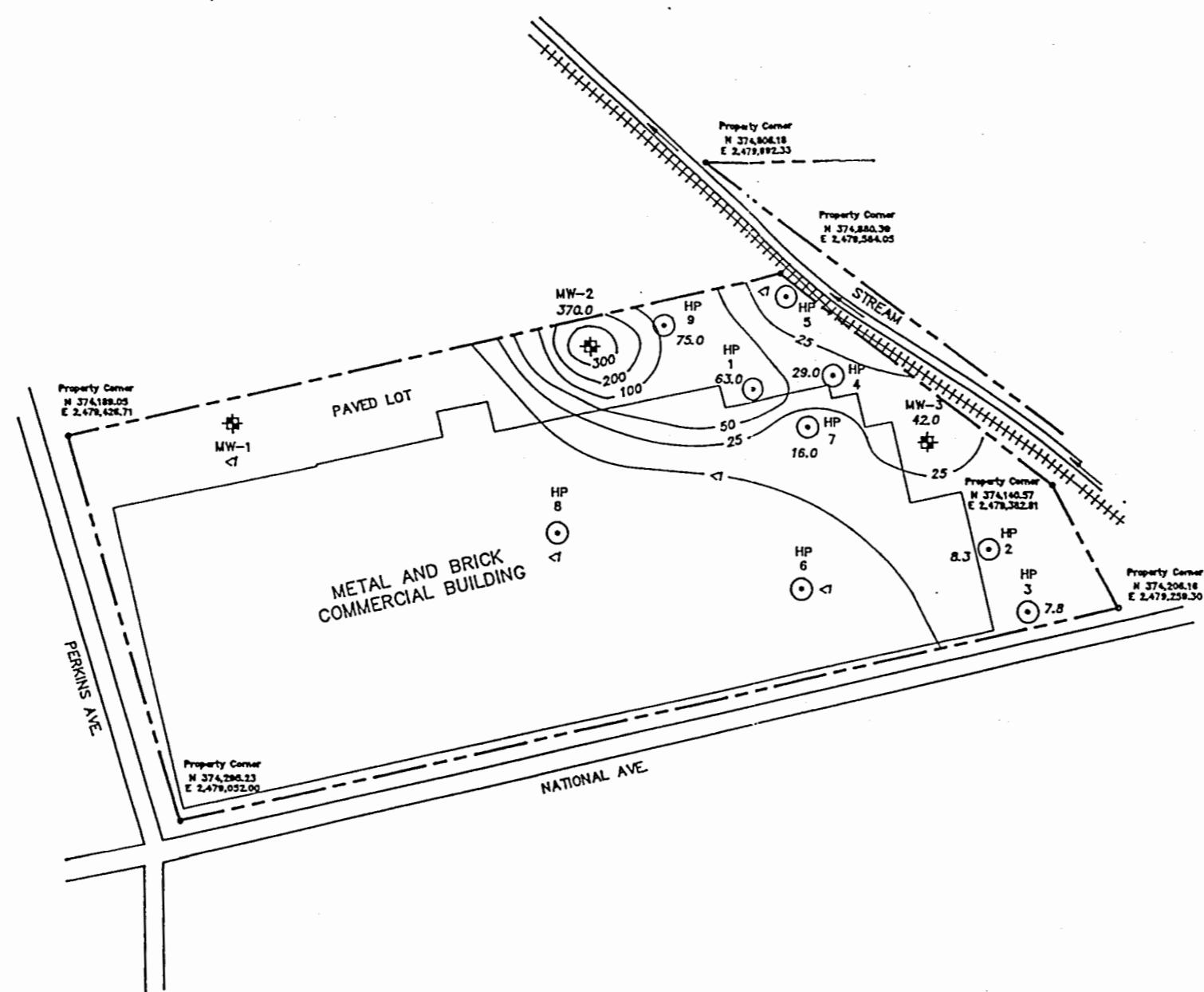
  

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
<i>Dawn Petersen</i>	10-19-93 1520	<i>Judie</i>	10-19-1620	Only analyze for compounds shown on attached table.
(Printed)		(Printed)		
Dawn Petersen		Judie		

Distribution: Original Plus One Accompanies Shipment (white and yellow); Copy to Coordinator Field Files (pink).

Dawn Petersen 10-19-93 1745

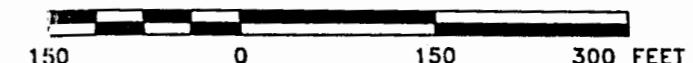
ATTACHMENT I  
ISOCONCENTRATION CONTOUR  
DRAWING OF 1,1,1-TCA



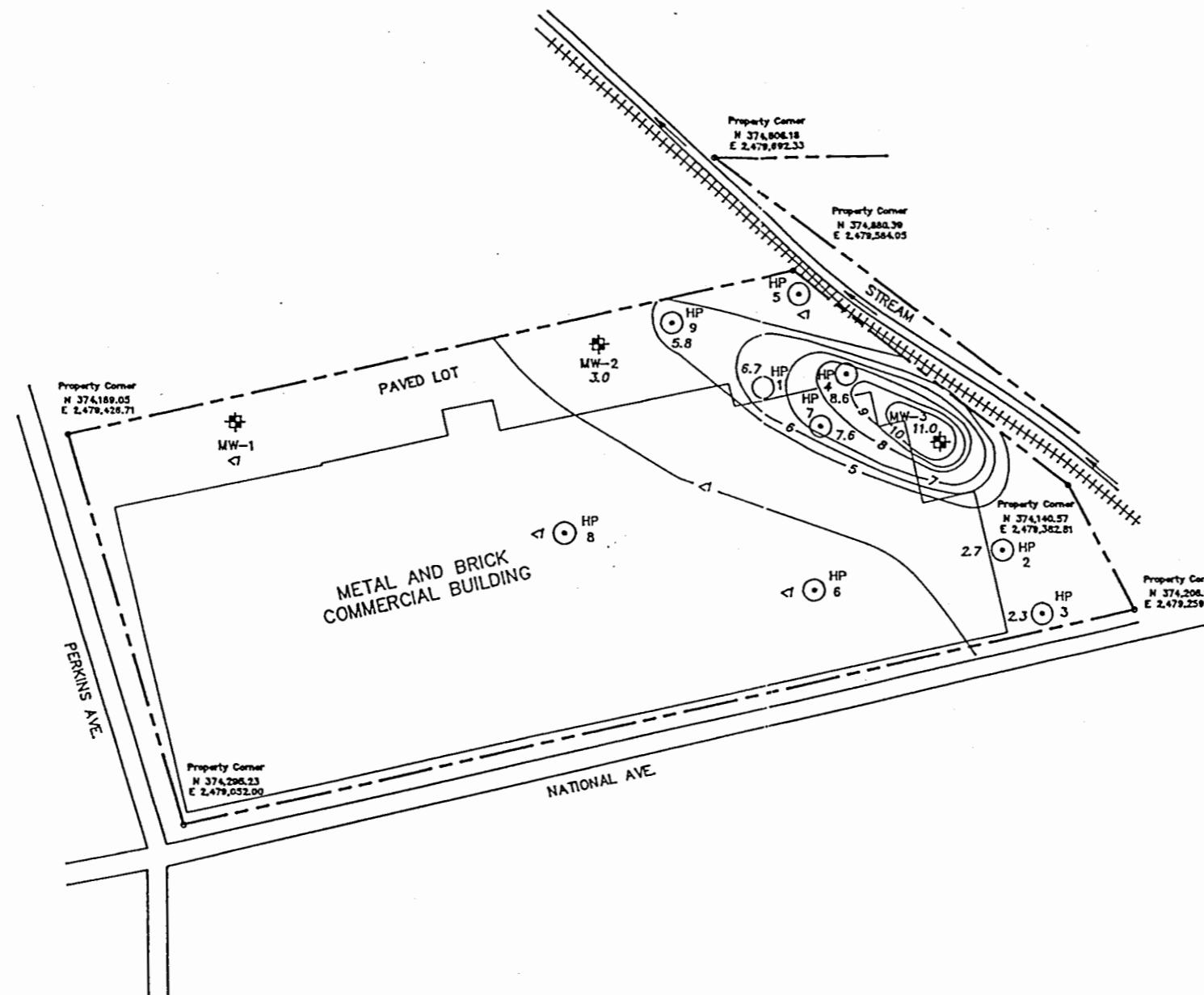
#### LEGEND

- HP      SAMPLE LOCATION
- MW-3    MONITOR WELL LOCATION
- ||||||| RAILROAD TRACKS
- - - - - PROPERTY BOUNDARY

APPROXIMATE SCALE



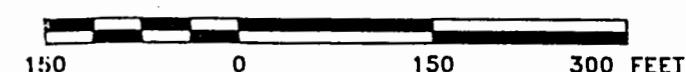
TITLE:		FIGURE 3		FOR:
DRAWN:	JDJ	DATE:	12-3-93	
APPROVED:	DJ	SCALE:	AS NOTED	VME AMERICAS, INC. WAUKESHA, WI.
<b>versar inc.</b> 1520 KENSINGTON ROAD OAK BROOK, IL 60521				PROJECT NO. 1871.002
				DRAWING NO. 18712-B2



LEGEND

- HP (circle) SAMPLE LOCATION
- MW-3 (cross) MONITOR WELL LOCATION
- ||||| RAILROAD TRACKS
- - - PROPERTY BOUNDARY

APPROXIMATE SCALE



TITLE:

FIGURE 4  
1,1 - DCA ISO-CONCENTRATION CONTOURS

DRAWN:

JDJ

DATE:

12-3-93

APPROVED:

DJD

SCALE:

AS NOTED

FOR:

VME AMERICAS, INC.  
WAUKESHA, WI.

**versar inc.**  
1520 KENSINGTON ROAD  
OAK BROOK, IL 60521

PROJECT NO. 1871.002  
DRAWING NO. 18712-B4