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ERR/ERP
KENOSHA CO.

TE TRIAD
ENGINEERING
INCORPORATED

January 25, 1994

Mr. Ron Dilahunt
Wisconsin Department of Natural Resources
Southeast District Office
2300 North Dr. Martin Luther King, Jr. Drive
P.O. Box 12436
Milwaukee, WI 53212

**RE: Analytical Results for Groundwater
at Sump 6 Air Diffuser
Triad Engineering Project No. W943046**

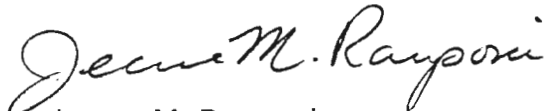
Dear Mr. Dilahunt,

Please find enclosed, the analytical results for groundwater samples collected at the Sump 6 Air Diffuser. The enclosed table summarizes the analytical results for the two latest sampling rounds, and includes mass loading calculations of constituents into the air.

I trust this information meets your needs. If you have any questions or comments, please do not hesitate to call me at (414) 291-8840.

Sincerely,

TRIAD ENGINEERING INC.



Jeanne M. Ramponi
Project Hydrogeologist

Enclosure

JMR/klb

W943046\943046-AC

cc/enc: Mr. Jack Bugno/Chrysler-Kenosha Main Plant
Mr. Greg Rose/Chrysler-Environmental and Energy Affairs
Pam Mylotta/WDNR
File
cc: Rick Binder/Triad

325 east chicago street
milwaukee, wisconsin 53202
414/291-8840
fax: 414/291-8841

**ESTIMATED AIR EMISSIONS FROM SUMP 6
AIR DIFFUSER
(FLOW RATE 4 GPM)**

	Influent (mg/l)	Effluent (mg/l)	Mass Loading of Constituents Into the Air (lbs/yr)
11-30-93			
Benzene	< 0.5	< 0.5	--
Total VOCs	3.4	.38	53
12-14-93			
Benzene	1.3	< 0.5	22.8
Total VOCs	2.9	.77	37.4

Sample Equation:

$$3.4 \text{ mg/L} \times 3.785 \text{ L/gal} \times \text{lb}/453,515 \text{ mg} \times 4.0 \text{ gal/min} \times 525,600 \text{ min/yr}$$

$$= 59.7 \text{ lb/yr (Influent)}$$

$$\text{Influent} - \text{Effluent} = \text{Air Emissions}$$



ANALYTICAL REPORT REPORT NUMBER: A2484

Triad Engineering, Incorporated
 325 East Chicago Street
 Milwaukee, WI 53202

Attn: Mr. Richard J. Binder
 Project #W943046

DATE: December 28, 1993
 PURCHASE ORDER:
 SEI NO: WL8487
 DATE COLLECTED: 11/30/93
 DATE RECEIVED: 12/01/93

Matrix: Groundwater

Units: ug/L (ppb)

<u>Analyte</u>	<u>SEI ID</u> <u>Sample ID</u>	<u>8487-1</u> <u>Influent</u>	<u>8487-2</u> <u>Effluent</u>
EPA Method 8021			
Benzene		<0.5	<0.5
Bromobenzene		<0.5	<0.5
Bromochloromethane		<0.5	<0.5
Bromodichloromethane		<0.5	<0.5
Bromoform		<0.5	<0.5
Bromomethane		<0.5	<0.5
n-Butylbenzene		<0.5	<0.5
sec-Butylbenzene		<0.8	<0.8
tert-Butylbenzene		<0.5	<0.5
Carbon tetrachloride		<0.5	<0.5
Chlorobenzene		<0.5	<0.5
Chlorodibromomethane		<0.5	<0.5
Chloroethane		<0.5	<0.5
Chloroform		<0.5	<0.5
Chloromethane		<0.5	<0.5
2-Chlorotoluene		<0.5	<0.5
4-Chlorotoluene		<0.5	<0.5
1,2-Dibromo-3-chloropropane		<0.5	<0.5
1,2-Dibromoethane		<0.5	<0.5
Dibromoethane		<0.5	<0.5



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Matrix: Groundwater

Units: ug/L (ppb)

<u>Analyte</u>	SEI ID 8487-1	8487-2
	<u>Sample ID</u> <u>Influent</u>	<u>Effluent</u>
EPA Method 8021		
1,2-Dichlorobenzene	<0.5	<0.5
1,3-Dichlorobenzene	<0.5	<0.5
1,4-Dichlorobenzene	<0.6	<0.6
Dichlorodifluoromethane	<0.5	<0.5
1,1-Dichloroethane	11	1.7
1,2-Dichloroethane	<0.5	<0.5
1,1-Dichloroethene	4.2	<0.5
cis-1,2-Dichloroethene	1,100	160
trans-1,2-Dichloroethene	140	12
1,2-Dichloropropane	<0.5	<0.5
1,3-Dichloropropane	<0.5	<0.5
2,2-Dichloropropane	<0.7	<0.7
1,1-Dichloropropene	<0.5	<0.5
Ethylbenzene	<0.5	<0.5
Hexachlorobutadiene	<0.7	<0.7
Isopropylbenzene	<0.5	<0.5
p-Isopropyltoluene	<0.5	<0.5
Methylene chloride	4.5	<2.0
Naphthalene	<0.7	<0.7

3150 North Brookfield Road
 Brookfield, Wisconsin 53045
 telephone (414) 783-6111
 FAX (414) 783-5752



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Units: ug/L (ppb)

<u>Analyte</u>	<u>SEI ID</u> <u>Sample ID</u>	<u>8487-1</u> <u>Influent</u>	<u>8487-2</u> <u>Effluent</u>
EPA Method 8021			
n-Propylbenzene		<0.6	<0.6
Styrene		<0.6	<0.6
1,1,1,2-Tetrachloroethane		<0.5	<0.5
1,1,2,2-Tetrachloroethane		<0.5	<0.5
Tetrachloroethene		<0.5	<0.5
Toluene		<0.5	<0.5
1,2,3-Trichlorobenzene		<0.5	<0.5
1,2,4-Trichlorobenzene		<0.5	<0.5
1,1,1-Trichloroethane		2.3	<0.5
1,1,2-Trichloroethane		<0.5	<0.5
Trichloroethene		2,000	200
Trichlorofluoromethane		<0.5	<0.5
1,2,3-Trichloropropane		<0.5	<0.5
1,2,4-Trimethylbenzene		<0.9	<0.9
1,3,5-Trimethylbenzene		<0.5	<0.5
Vinyl Chloride		130	3.5
o-Xylenes		<0.5	<0.5
m & p Xylenes		<0.5	<0.5

Clark J. Crosby
 Laboratory Manager

CHAIN OF CUSTODY RECORD

PROJ. NO. W943046		PROJECT NAME TRAD FULFILLING					NO. OF CONTAINERS	TEST PARAMETERS										SAMPLE TYPE (Specify groundwater, soil, wastewater, sludge, etc.)			
SAMPLERS: R. BINDER								VOC (7021)													
SEI #	STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION															
		11/30/04	1415		/	sample Influent	2	X													groundwater
		11/30/04	1320		/	sample Effluent	2	X													groundwater

SAMPLE CONDITION: *Amber*

SAMPLE LOCATION:

RELINQUISHED BY: <i>[Signature]</i>	DATE / TIME 11/30/04	RELINQUISHED BY: <i>Kurt M. Spitzer</i>	DATE / TIME 11/30/04
RECEIVED BY: <i>Kurt M. Spitzer</i>	DATE / TIME 11/30/04	RECEIVED BY: <i>[Signature]</i>	DATE / TIME 11/30/04

SPECIAL REQUESTS:

REPORT TO:

NAME: *[Signature]*

ADDRESS: *[Address]*

PHONE: *[Phone Number]*



LABORATORY
 3150 North Brookfield Rd.
 Brookfield, WI 53045
 (414) 783-6111
 Fax (414) 783-5752

SWANSON ENVIRONMENTAL INC.

3150 North Brookfield Road
 Brookfield, Wisconsin 53045
 telephone (414) 783-6111
 FAX (414) 783-5752



ANALYTICAL REPORT REPORT NUMBER: A2594

Triad Engineering, Incorporated
 325 East Chicago Street
 Milwaukee, WI 53202

Attn: Ms. Jeanne Ramponi
 Project #W943163.007

DATE: January 12, 1994
 PURCHASE ORDER:
 SEI NO: WL8748
 DATE COLLECTED: 12/14/93
 DATE RECEIVED: 12/15/93

Matrix: Groundwater

Units: ug/L (ppb)

<u>Analyte</u>	<u>SEI ID</u> <u>Sample ID</u>	8748-1	8748-2	8748-3
		<u>Sump 6</u> <u>Influent</u>	<u>Sump 6</u> <u>Effluent</u>	<u>MW27</u>
	<u>PQL</u>			
EPA Method 8021				
Benzene	0.5	1.3	<0.5	<0.5
Bromobenzene	0.5	<0.5	<0.5	<0.5
Bromochloromethane	0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5
Bromoform	0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5
n-Butylbenzene	0.5	<0.5	<0.5	<0.5
sec-Butylbenzene	0.8	<0.8	<0.8	<0.8
tert-Butylbenzene	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5
Chlorodibromomethane	0.5	<0.5	<0.5	<0.5
Chloroethane	0.5	<0.5	<0.5	1.9
Chloroform	0.5	<0.5	<0.5	<0.5
Chloromethane	0.5	<0.5	<0.5	<0.5
2-Chlorotoluene	0.5	<0.5	<0.5	<0.5
4-Chlorotoluene	0.5	<0.5	<0.5	<0.5
1,2-Dibromo-3-chloropropane	0.5	<0.5	<0.5	<0.5
1,2-Dibromomethane	0.5	<0.5	<0.5	<0.5
Dibromomethane	0.5	<0.5	<0.5	<0.5

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<u>Analyte</u>	<u>SEI ID</u> <u>Sample ID</u>	<u>PQL</u>	8748-1	8748-2	8748-3
			<u>Sump 6</u> <u>Influent</u>	<u>Sump 6</u> <u>Effluent</u>	<u>MW27</u>
EPA Method 8021					
1,2-Dichlorobenzene		0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene		0.6	<0.6	<0.6	<0.6
Dichlorodifluoromethane		0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane		0.6	9.4	3.1	4.2
1,2-Dichloroethane		0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene		0.5	4.5	2.3	<0.5
cis-1,2-Dichloroethene		0.6	1,400	400	47
trans-1,2-Dichloroethene		0.7	140	16	30
1,2-Dichloropropane		0.5	<0.5	<0.5	<0.5
1,3-Dichloropropane		0.5	<0.5	<0.5	<0.5
2,2-Dichloropropane		0.7	<0.7	<0.7	<0.7
1,1-Dichloropropene		0.5	4.3	2.9	<0.5
Ethylbenzene		0.5	<0.5	1.6	2.8
Hexachlorobutadiene		0.7	<0.7	<0.7	<0.7
Isopropylbenzene		0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene		0.5	<0.5	<0.5	<0.5
Methylene chloride		2.0	67*	12*	12*
Naphthalene		0.7	<0.7	<0.7	<0.7

* Methylene chloride is a commonly used solvent in the laboratory. This result may be biased high.

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 Project #W943163.007

DATE: January 12, 1994
 PURCHASE ORDER:
 SEI NO: WL8748
 DATE COLLECTED: 12/14/93
 DATE RECEIVED: 12/15/93

Matrix: Groundwater

Units: ug/L (ppb)

<u>Analyte</u>	<u>SEI ID</u> <u>Sample ID</u>	<u>PQL</u>	8748-1	8748-2	8748-3
			<u>Sump 6</u> <u>Influent</u>	<u>Sump 6</u> <u>Effluent</u>	<u>MW27</u>
EPA Method 8021					
n-Propylbenzene		0.6	<0.6	<0.6	<0.6
Styrene		0.6	<0.6	<0.6	<0.6
1,1,1,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		0.5	<0.5	<0.5	<0.5
Tetrachloroethene		0.5	1.5	1.1	1.8
Toluene		0.5	2.4	1.7	1.9
1,2,3-Trichlorobenzene		0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene		0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		0.5	3.6	2.0	8.6
1,1,2-Trichloroethane		0.5	<0.5	<0.5	<0.5
Trichloroethene		0.5	1,300	330	3.2
Trichlorofluoromethane		0.5	2.3	2.2	2.2
1,2,3-Trichloropropane		0.5	<0.5	<0.5	<0.5
1,2,4-Trimethylbenzene		0.9	<0.9	<0.9	<0.9
1,3,5-Trimethylbenzene		0.5	<0.5	<0.5	<0.5
Vinyl Chloride		0.5	80	5.5	<0.5
o-Xylenes		0.5	<0.5	<0.5	<0.5
m & p Xylenes		0.5	<0.5	<0.5	<0.5

CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME <i>PROJECT NO. TRAD ENGINEERING INC 0017163.007</i>					NO. OF CONTAINERS	TEST PARAMETERS										SAMPLE TYPE (Specify groundwater, soil, wastewater, sludge, etc.)			
SAMPLERS: <i>TRAD. ENGINEERING INC. MILLER</i>								<i>VOCS (10/20/01)</i>													
SEI #	STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION															
		<i>12/14/01</i>	<i>0855</i>		<input checked="" type="checkbox"/>	<i>Sample INFLUENT</i>	<i>2</i>	<input checked="" type="checkbox"/>													<i>GROUNDWATER</i>
		<i>12/14/01</i>	<i>0855</i>		<input checked="" type="checkbox"/>	<i>Sample EFFLUENT</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27</i>	<i>12/14/01</i>	<i>0905</i>		<input checked="" type="checkbox"/>	<i>MW-27</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-28</i>	<i>12/14/01</i>	<i>0915</i>		<input checked="" type="checkbox"/>	<i>MW-28</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-26</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-26</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27A</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27A</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27B</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27B</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27C</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27C</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27D</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27D</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27E</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27E</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27F</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27F</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27G</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27G</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27H</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27H</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-27I</i>	<i>12/14/01</i>	<i>0940</i>		<input checked="" type="checkbox"/>	<i>MW-27I</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-28</i>	<i>12/14/01</i>	<i>1020</i>		<input checked="" type="checkbox"/>	<i>MW-28</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-11B</i>	<i>12/14/01</i>	<i>1025</i>		<input checked="" type="checkbox"/>	<i>MW-11B</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-28</i>	<i>12/14/01</i>	<i>1243</i>		<input checked="" type="checkbox"/>	<i>MW-28</i>	<i>2</i>	<input checked="" type="checkbox"/>													
	<i>MW-11A</i>	<i>12/14/01</i>	<i>1249</i>		<input checked="" type="checkbox"/>	<i>MW-11A</i>	<i>2</i>	<input checked="" type="checkbox"/>													

SAMPLE CONDITION: <i>WATER</i>	SAMPLE LOCATION:
-----------------------------------	------------------

RELINQUISHED BY: <i>[Signature]</i>	DATE / TIME <i>12/14/01</i>	RELINQUISHED BY: <i>[Signature]</i>	DATE / TIME <i>12/15/01</i>	SPECIAL REQUESTS:
RECEIVED BY: <i>[Signature]</i>	DATE / TIME <i>12/14/01</i>	RECEIVED BY: <i>[Signature]</i>	DATE / TIME <i>12/15/01</i>	REPORT TO: <i>Jeanne Rampone</i>

LABORATORY
3150 North Brookfield Rd.
Brookfield, WI 53045
(414) 783-6111
Fax (414) 783-5752

NAME: *TRAD ENGINEERING*
ADDRESS: *325 S Chicago*
PHONE: *MW 391 8840*



SWANSON ENVIRONMENTAL INC.