METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 Work Order #...: EHLE11AA Matrix.....: WATER
MB Lot-Sample #: A1H070000-548

Prep Date.....: 08/06/01
Analysis Date..: 08/06/01 Prep Batch #...: 1219548
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 Work Order #...: EHLE11AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 Work Order #...: EHNK81AA Matrix.....: WATER
MB Lot-Sample #: A1H080000-494

Prep Date.....: 08/07/01
Analysis Date..: 08/07/01 Prep Batch #...: 1220494
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	102	(76 - 110)
4-Bromofluorobenzene	83	(74 - 116)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 Work Order #...: EHNK81AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 Work Order #...: EHLE11AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A1H070000-548 EHLE11AD-LCSD
Prep Date.....: 08/06/01 Analysis Date..: 08/06/01
Prep Batch #...: 1219548
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**97**	**(63 - 130)**			**SW846 8260B**
	95	**(63 - 130)**	**2.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**106**	**(75 - 122)**			**SW846 8260B**
	110	**(75 - 122)**	**3.9**	**(0-20)**	**SW846 8260B**
Benzene	**97**	**(80 - 116)**			**SW846 8260B**
	102	**(80 - 116)**	**4.8**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(74 - 119)**			**SW846 8260B**
	96	**(74 - 119)**	**5.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	103	**(76 - 117)**	**7.5**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
	94	(61 - 128)
Toluene-d8	93	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	5	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 Work Order #...: EHKTE1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A1H070000-377 EHKTE1AD-LCSD
Prep Date.....: 08/07/01 Analysis Date..: 08/07/01
Prep Batch #...: 1219377
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**95**	**(63 - 130)**			**SW846 8260B**
	103	**(63 - 130)**	**8.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**96**	**(75 - 122)**			**SW846 8260B**
	107	**(75 - 122)**	**11**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(80 - 116)**			**SW846 8260B**
	103	**(80 - 116)**	**8.2**	**(0-20)**	**SW846 8260B**
Toluene	**89**	**(74 - 119)**			**SW846 8260B**
	98	**(74 - 119)**	**9.6**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**94**	**(76 - 117)**			**SW846 8260B**
	104	**(76 - 117)**	**10**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
	98	(61 - 128)
Toluene-d8	94	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 **Work Order #...:** EHNK81AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A1H080000-494 EHNK81AD-LCSD
Prep Date.....: 08/07/01 **Analysis Date..:** 08/07/01
Prep Batch #...: 1220494
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**91**	**(63 - 130)**			**SW846 8260B**
	87	**(63 - 130)**	**4.7**	**(0-20)**	**SW846 8260B**
Trichloroethene	**102**	**(75 - 122)**			**SW846 8260B**
	102	**(75 - 122)**	**0.22**	**(0-20)**	**SW846 8260B**
Benzene	**99**	**(80 - 116)**			**SW846 8260B**
	99	**(80 - 116)**	**0.42**	**(0-20)**	**SW846 8260B**
Toluene	**94**	**(74 - 119)**			**SW846 8260B**
	97	**(74 - 119)**	**3.3**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**			**SW846 8260B**
	103	**(76 - 117)**	**3.6**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	109	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
	97	(61 - 128)
Toluene-d8	94	(76 - 110)
	108	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)
	104	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 **Work Order #...:** EHAGR1AW-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H010261-001 EHAGR1AX-MSD
Date Sampled...: 07/31/01 13:15 **Date Received..:** 08/01/01
Prep Date.....: 08/06/01 **Analysis Date..:** 08/06/01
Prep Batch #...: 1219548
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	103	**(62 - 130)**	**2.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**105**	**(62 - 130)**			**SW846 8260B**
	108	**(62 - 130)**	**2.4**	**(0-20)**	**SW846 8260B**
Benzene	**102**	**(78 - 118)**			**SW846 8260B**
	103	**(78 - 118)**	**0.95**	**(0-20)**	**SW846 8260B**
Toluene	**96**	**(70 - 119)**			**SW846 8260B**
	96	**(70 - 119)**	**0.90**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**101**	**(76 - 117)**			**SW846 8260B**
	100	**(76 - 117)**	**1.3**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(73 - 122)
	106	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
	97	(61 - 128)
Toluene-d8	94	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	90	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 **Work Order #...:** EG9251AC-MS **Matrix.....:** WG
MS Lot-Sample #: A1H010211-013 EG9251AD-MSD
Date Sampled...: 07/31/01 11:35 **Date Received..:** 08/01/01
Prep Date.....: 08/07/01 **Analysis Date..:** 08/07/01
Prep Batch #...: 1219377
Dilution Factor: 18.18

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**102**	**(62 - 130)**			**SW846 8260B**
	104	**(62 - 130)**	**2.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	83	**(62 - 130)**	**6.4**	**(0-20)**	**SW846 8260B**
Benzene	**103**	**(78 - 118)**			**SW846 8260B**
	97	**(78 - 118)**	**6.4**	**(0-20)**	**SW846 8260B**
Toluene	**97**	**(70 - 119)**			**SW846 8260B**
	92	**(70 - 119)**	**5.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**			**SW846 8260B**
	96	**(76 - 117)**	**4.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(73 - 122)
	104	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
	95	(61 - 128)
Toluene-d8	98	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)
	93	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H010211 **Work Order #...:** EHALQ1AG-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H010286-002 EHALQ1AH-MSD
Date Sampled...: 07/30/01 18:30 **Date Received..:** 08/01/01
Prep Date.....: 08/07/01 **Analysis Date..:** 08/07/01
Prep Batch #...: 1220494
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**96**	**(62 - 130)**			**SW846 8260B**
	97	**(62 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**99**	**(62 - 130)**			**SW846 8260B**
	101	**(62 - 130)**	**2.2**	**(0-20)**	**SW846 8260B**
Benzene	**97**	**(78 - 118)**			**SW846 8260B**
	100	**(78 - 118)**	**2.9**	**(0-20)**	**SW846 8260B**
Toluene	**92**	**(70 - 119)**			**SW846 8260B**
	95	**(70 - 119)**	**3.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**1.4**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	104	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
	99	(61 - 128)
Toluene-d8	94	(76 - 110)
	95	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	95	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

DAIMLERCHRYSLER — Chain-of-Custody

№ 02899

54

CompuChem / STL-Ohio 501 Madison Avenue Cary, NC 27513 / ~~Chicago~~ Phone Number: (919) 379-4100 Fax Number: (919) 379-4040	Project Name: 3rd Qtr Gw Sampling Site Location: Dayton Thermal Products Site Code: SC001 RFA Number: YGQS200231 SDG 231.4 DaimlerChrysler PM: Gary Stanczak	Consultant: LBG Address: 1210 West County Road E St. Paul, MN 55112 Consultant PM: Ken Vogel Phone: 651 490 1405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs.
18 calendar hrs
7 calendar days
(14 calendar days)

Data Package Deliverables: (circle)
(DaimlerChrysler Level 1)
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	226 VOCs								Remarks
MW 38 S	7/31	0805	G	GW	2	X								
PZ - 38 D		0820				X								
PZ - 35 I		0848				X								
MW - 36 S		0900				X								
PZ - 36 I		0925				X								
PZ - 36 D		0935				X								
MW - 34 S		1005				X								
PZ - 34 D		1010				X								
PZ - 34 I		1025				X								

Sampler(s) Test America/Dayton OH Brian Allen / Rick Stanley	Cooler ID # A			Samples Relinquished under Airbill No. 8274 9134 8725			Temperature (corrected) ___ C
	Relinquished by: [signature]	Date: 7/31/01	Time: 1615	Received by: [signature]	Date: 7/31/01	Time: 1615	Custody Seal Intact? Yes (No)
Is RFA sampling complete? Yes (No)	Relinquished by: [signature]	Date: 7/31/01	Time: 1845	Received for Laboratory by: [signature]	Date: 8-1-01	Time: 0945	Custody Seal Intact? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231.4

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created July 9, 1999

DAIMLERCHRYSLER

Chain-of-Custody

№ 02900 55

CompuChem/STL-Ohio 501 Madison Avenue Cary, NC 27513/Chicago Phone Number: (919) 379-4100 Fax Number: (919) 379-4040	Project Name: 3rd Qtr GW Sampling Site Location: Dayton Thermal Products Site Code: SC001 RFA Number: YGQP2001231 SDG 231A DaimlerChrysler PM: Gary Stanczuk	Consultant: CBG Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490 1405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs.
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs									Remarks
PZ-33 I	7/31	10 50	G	GW	2	x									
PZ-33 D		10 55				x									
MW-33 S		11 05				x									
PZ-32 D		11 30				x									
PZ 32 I		11 35				x									
MW 32 S		12 00				x									
PZ 35 D		12 55				x									
MW 35 S		13 00				x									
PZ-35 I		13 10				x									

Sampler(s) BRIAN ALLEN/ Ed Stanczuk
Test America/Dayton OH

Is RFA sampling complete? Yes No

Cooler ID # A

Samples Relinquished under Airbill No. 827491344825

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Brian Allen	7/31/01	1615	[signature]	7/31/01	1615	Yes No
[signature]	7/31/01	1845	Received for Laboratory by: [signature]	8-1-01	0945	Yes No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231A

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created July 9, 1999

DAIMLERCHRYSLER — Chain-of-Custody

№ 02901

56

CompuChem / STL-Ohio 501 Madison Avenue Cary, NC 27513 / Chicago Phone Number: (919) 379-4100 Fax Number: (919) 379-4040	Project Name: 3rd Qtr GW Sampling Site Location: Dayton Thermal Products Site Code: SC001 RFA Number: YGQP200231 SDG231.4 DaimlerChrysler PM: Gary Stanczik	Consultant: LBG Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490 1405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs.
18 calendar hrs.
7 calendar days
~~14 calendar days~~

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs								Remarks
P2-37 D	7/31	1335	G	GW	2	x								
P2-37 I		1350				x								
MW-37 S		1405				x								
P2-30 I		1430				x								
P2-30 D		1430				x								
MW-30 S		1445				x								
P2-29 I		1505				x								
P2-29 D		1510				x								
MW-29 S		1525				x								

Sampler(s) BRIAN ALLEN / Rick Stanczik Test America / Dayton OH	Cooler ID # A			Samples Relinquished under Airbill No. 8274913448225		Temperature (corrected) ___ C
	Relinquished by: Brian Allen	Date: 7/31/01	Time: 1615	Received by: [illegible]	Date: 7/31/01	Time: 1615	Custody Seal Intact? Yes (No)
Is RFA sampling complete? Yes (No)	Relinquished by: [illegible]	Date: 7/31/01	Time: 1845	Received for Laboratory by: [illegible]	Date: 8-1-01	Time: 0945	Custody Seal Intact? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231.4

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created July 9, 1999

DAIMLERCHRYSLER — Chain-of-Custody

0090 57 3

~~Lancaster Laboratories~~ Conestoga/STL North Canton OHIO ~~2425 New Holland Pike~~ Cary NC / ~~Lancaster~~ ~~Lancaster PA 17601~~ Phone Number: ~~(717) 656-2300~~ Fax Number: ~~(717) 656-2681~~	Project Name: 3rd Qtr GW Sampling Site Location: Dayton Thermal Products Site Code: SC001 RFA Number: YGQFL001231 SDG231A DaimlerChrysler PM: Gary Stanczak	Consultant: LBG Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490 1405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Matrix Codes
S - Soil; SW - Surface Water; GW - Groundwater; A - Air; Sed. - Sediment; O - Other (specify) Lab Supplied DI H_2O

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	8260 VOCs								Remarks
PZ-39 I	7/31/01	1545	G	GW	2	x								
PZ-39 D	7/31/01	1550	G	GW	2	x								
MW-39 S	7/31/01	1610	G	GW	4	x								Duplicate
T073101 ~~Trip Blank Day 1~~	7/31/01		G	O	2	x								Trip Blank

Sampler(s) Brian Allen / Eric Stencel
Test America / Dayton OH

Cooler ID # A

Samples Relinquished under Airbill No. P2749,374825

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Brian Allen	7/31/01	1615	[illegible]	7/31/01	1615	Yes (No)
[illegible]	7/31/01	1845	[illegible]	8-1-01	0945	(Yes) No

Is RFA sampling complete? Yes (No)

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

STX 231A

Revision No. 3
Created July 9, 1999

LEVEL III REVIEW - PROJECT MANAGEMENT CHECKLIST

Rev 05
06 09 00

8/15

Client Name CompuChem

Invoice with Report ☐ Invoice Separate ☐ Hold Invoice ☐

Site Name [illegible]

Project Number

Client Code 389976

Diskette Needed Yes ☒ No ☒ CD ROM ☐

Lot # A1H010211

EDD Instructions [illegible]

PM Debbie Budd

Other

Report Due Date 8/15/01

Original C-O-C with Report Yes ☐ No ☒

Paginate ☒ # of Copies 1

Unbound ☐ Spiral ☐ Stapled ☐

Additional Reports to: [illegible]

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☐ Sample IDs on cover

☐ TIC pages included

☐ Results need dry weight basis

☐ Executive Summary

☐ Checklists from each group

☐ Field Report

☐ ~~NCM's~~ included

☐ ~~Wet~~ chemistry parameter relationships

☐ All QC included

☐ Scanned for invalid data lines, odd flags, etc.

☐ Number of waters

☐ Number of soils

☐ Number of wastes

☐ Number of trip blanks

Out of lab data included Yes ☐ No ☐

EDD 8/15 @Dover

Comments:

Central Reporting Review by: KD 3-14-01 Date Narrative Review By: [illegible] Date 8/15

PM has reviewed this report for the above criteria [illegible] 8/15/01

****

KRI INFORMATION

1. Was report mailed on time? YES or NO
   If no, why?

2. Was fax required? YES or NO Was it faxed on time? YES or NO
   If no, why?

3. Was report re-issued? YES
   Why? Cmpd chang per clt

Amount Invoiced Account Manager % Account Manager 58

EPA Region 5 Records Ctr.
349860

AUG 27 2001

ENTERED IN DATABASE
SYMBOL DVS 8/31/01
CHECKED BY DGC
DATE 9/5/01

SEVERN TRENT SERVICES

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720-6961

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Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

REVISED

PROJECT NO. SC001

DAYTON THERMAL PRODUCTS

Lot #: A1H030174

Cathy Dover

CompuChem Environmental
a Division of Liberty Analytic
501 Madison Ave
Cary, NC 27513

SEVERN TRENT LABORATORIES, INC.

Deborah Budd
Project Manager

August 23, 2001

CASE NARRATIVE

A1H030174

The following report contains the analytical results for thirty-eight water samples submitted to STL North Canton by CompuChem Environmental from the Dayton Thermal Products Site, project number SC001. The samples were received August 3, 2001, according to documented sample acceptance procedures and were analyzed in accordance with Ohio Voluntary Action Program protocols (Lab Certification CL0024).

STL North Canton utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter listed on the Analytical Methods Summary page in accordance with the method indicated. A summary of QC data for these analyses is included at the rear of the report.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan. All data have been found to be compliant with laboratory protocol.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The samples were received at the laboratory at a temperature of 1.9° C.

Sample Trip Blank was received at the laboratory with bubble greater than 6mm in diameter.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS
(Continued)

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, PAH, and Herbicide methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

ANALYTICAL METHODS SUMMARY

A1H030174

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A1H030174

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EHFWH	001	MW-A6	08/02/01	07:45
EHFXA	002	MW-A6 DUPLICATE	08/02/01	07:45
EHFXE	003	PZ-12I	08/02/01	07:50
EHFXK	004	PZ-12D	08/02/01	08:10
EHFXM	005	PZ-8D	08/02/01	08:50
EHFXN	006	MW-7S	08/02/01	09:20
EHFXP	007	MW-B5	08/02/01	09:25
EHFXR	008	PZ-7I	08/02/01	09:30
EHFXV	009	MW-15S	08/02/01	10:05
EHFX1	010	PZ-15I	08/02/01	10:05
EHFX2	011	MW-A3	08/02/01	10:40
EHFX5	012	PZ-14I	08/02/01	10:40
EHFX7	013	PZ-16D	08/02/01	11:05
EHFX9	014	PZ-17I	08/02/01	11:25
EHF0C	015	PZ-17D	08/02/01	11:30
EHF0E	016	MW-B2	08/02/01	11:55
EHF0G	017	MW-C2	08/02/01	12:00
EHF0H	018	MW-18S	08/02/01	12:15
EHF0K	019	MW-A5	08/02/01	12:35
EHF0N	020	PZ-13I	08/02/01	12:35
EHF0P	021	MW-B6	08/02/01	13:00
EHF0R	022	MW-A2	08/02/01	13:00
EHF0V	023	MW-8S	08/02/01	13:30
EHF0W	024	MW-8S DUPLICATE	08/02/01	13:30
EHF00	025	PZ-8I	08/02/01	13:35
EHF01	026	MW-A4	08/02/01	14:00
EHF02	027	PZ-9D	08/02/01	14:05
EHF04	028	PZ-10I	08/02/01	14:20
EHF05	029	MW-10S	08/02/01	14:25
EHF07	030	T080201	08/02/01	
EHF08	031	AS	08/02/01	15:20
EHF1A	032	MW-B3	08/02/01	17:30
EHF1C	033	MW-C3	08/02/01	17:05
EHF1D	034	MW-11S	08/02/01	14:50
EHF1E	035	POLY TANK	08/02/01	15:45
EHF1F	036	MW-21S	08/02/01	16:20

(Continued on next page)

SAMPLE SUMMARY

A1H030174

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EHF1G	037	MW-23S	08/02/01	16:25
EHF1J	038	DRUM#1	08/02/01	18:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-A6

GC/MS Volatiles

Lot-Sample #...: A1H030174-001 Work Order #...: EHFWH1AA Matrix.....: WG
Date Sampled...: 08/02/01 07:45 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1224124
Dilution Factor: 100 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	100	ug/L
Bromomethane	ND	100	ug/L
Vinyl chloride	ND	100	ug/L
Chloroethane	ND	100	ug/L
Methylene chloride	ND	100	ug/L
Acetone	ND	1000	ug/L
Carbon disulfide	ND	100	ug/L
1,1-Dichloroethene	**110**	**100**	**ug/L**
1,1-Dichloroethane	ND	100	ug/L
Chloroform	ND	100	ug/L
1,2-Dichloroethane	ND	100	ug/L
2-Butanone	ND	1000	ug/L
1,1,1-Trichloroethane	**540**	**100**	**ug/L**
Carbon tetrachloride	ND	100	ug/L
Bromodichloromethane	ND	100	ug/L
1,2-Dichloropropane	ND	100	ug/L
cis-1,3-Dichloropropene	ND	100	ug/L
Trichloroethene	**3000**	**100**	**ug/L**
Dibromochloromethane	ND	100	ug/L
1,1,2-Trichloroethane	ND	100	ug/L
Benzene	ND	100	ug/L
trans-1,3-Dichloropropene	ND	100	ug/L
Bromoform	ND	100	ug/L
4-Methyl-2-pentanone	ND	1000	ug/L
2-Hexanone	ND	1000	ug/L
Tetrachloroethene	ND	100	ug/L
1,1,2,2-Tetrachloroethane	ND	100	ug/L
Toluene	ND	100	ug/L
Chlorobenzene	ND	100	ug/L
Ethylbenzene	ND	100	ug/L
Styrene	ND	100	ug/L
Xylenes (total)	ND	100	ug/L
cis-1,2-Dichloroethene	**700**	**50**	**ug/L**
trans-1,2-Dichloroethene	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-A6 DUPLICATE

GC/MS Volatiles

Lot-Sample #...:	A1H030174-002	**Work Order #...:**	EHFXA1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 07:45	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224124				
Dilution Factor:	100	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	100	ug/L
Bromomethane	ND	100	ug/L
Vinyl chloride	ND	100	ug/L
Chloroethane	ND	100	ug/L
Methylene chloride	ND	100	ug/L
Acetone	ND	1000	ug/L
Carbon disulfide	ND	100	ug/L
1,1-Dichloroethene	**120**	**100**	**ug/L**
1,1-Dichloroethane	ND	100	ug/L
Chloroform	ND	100	ug/L
1,2-Dichloroethane	ND	100	ug/L
2-Butanone	ND	1000	ug/L
1,1,1-Trichloroethane	**560**	**100**	**ug/L**
Carbon tetrachloride	ND	100	ug/L
Bromodichloromethane	ND	100	ug/L
1,2-Dichloropropane	ND	100	ug/L
cis-1,3-Dichloropropene	ND	100	ug/L
Trichloroethene	**3100**	**100**	**ug/L**
Dibromochloromethane	ND	100	ug/L
1,1,2-Trichloroethane	ND	100	ug/L
Benzene	ND	100	ug/L
trans-1,3-Dichloropropene	ND	100	ug/L
Bromoform	ND	100	ug/L
4-Methyl-2-pentanone	ND	1000	ug/L
2-Hexanone	ND	1000	ug/L
Tetrachloroethene	ND	100	ug/L
1,1,2,2-Tetrachloroethane	ND	100	ug/L
Toluene	ND	100	ug/L
Chlorobenzene	ND	100	ug/L
Ethylbenzene	ND	100	ug/L
Styrene	ND	100	ug/L
Xylenes (total)	ND	100	ug/L
cis-1,2-Dichloroethene	**710**	**50**	**ug/L**
trans-1,2-Dichloroethene	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-12I

GC/MS Volatiles

Lot-Sample #...:	A1H030174-003	**Work Order #...:**	EHFXE1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 07:50	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	18.18	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	18	ug/L
Bromomethane	ND	18	ug/L
Vinyl chloride	ND	18	ug/L
Chloroethane	ND	18	ug/L
Methylene chloride	ND	18	ug/L
Acetone	ND	180	ug/L
Carbon disulfide	ND	18	ug/L
1,1-Dichloroethene	ND	18	ug/L
1,1-Dichloroethane	ND	18	ug/L
Chloroform	ND	18	ug/L
1,2-Dichloroethane	ND	18	ug/L
2-Butanone	ND	180	ug/L
1,1,1-Trichloroethane	ND	18	ug/L
Carbon tetrachloride	ND	18	ug/L
Bromodichloromethane	ND	18	ug/L
1,2-Dichloropropane	ND	18	ug/L
cis-1,3-Dichloropropene	ND	18	ug/L
Trichloroethene	**61**	**18**	**ug/L**
Dibromochloromethane	ND	18	ug/L
1,1,2-Trichloroethane	ND	18	ug/L
Benzene	ND	18	ug/L
trans-1,3-Dichloropropene	ND	18	ug/L
Bromoform	ND	18	ug/L
4-Methyl-2-pentanone	ND	180	ug/L
2-Hexanone	ND	180	ug/L
Tetrachloroethene	ND	18	ug/L
1,1,2,2-Tetrachloroethane	ND	18	ug/L
Toluene	ND	18	ug/L
Chlorobenzene	ND	18	ug/L
Ethylbenzene	ND	18	ug/L
Styrene	ND	18	ug/L
Xylenes (total)	ND	18	ug/L
cis-1,2-Dichloroethene	**370**	**9.1**	**ug/L**
trans-1,2-Dichloroethene	**17**	**9.1**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-12D

GC/MS Volatiles

Lot-Sample #...: A1H030174-004 Work Order #...: EHFXK1AA Matrix.....: WG
Date Sampled...: 08/02/01 08:10 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1222276
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	**4.1**	**1.0**	**ug/L**
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**39**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**5.8**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-8D

GC/MS Volatiles

Lot-Sample #...:	A1H030174-005	**Work Order #...:**	EHFXM1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 08:50	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	1	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	**1.6**	**1.0**	**ug/L**
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**17**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**4.6**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	90	(76 - 110)
4-Bromofluorobenzene	84	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-7S

GC/MS Volatiles

Lot-Sample #...: A1H030174-006 Work Order #...: EHFXN1AA Matrix.....: WG
Date Sampled...: 08/02/01 09:20 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1222276
Dilution Factor: 2.22 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	2.2	ug/L
Bromomethane	ND	2.2	ug/L
Vinyl chloride	ND	2.2	ug/L
Chloroethane	ND	2.2	ug/L
Methylene chloride	ND	2.2	ug/L
Acetone	ND	22	ug/L
Carbon disulfide	ND	2.2	ug/L
1,1-Dichloroethene	ND	2.2	ug/L
1,1-Dichloroethane	ND	2.2	ug/L
Chloroform	ND	2.2	ug/L
1,2-Dichloroethane	ND	2.2	ug/L
2-Butanone	ND	22	ug/L
1,1,1-Trichloroethane	ND	2.2	ug/L
Carbon tetrachloride	ND	2.2	ug/L
Bromodichloromethane	ND	2.2	ug/L
1,2-Dichloropropane	ND	2.2	ug/L
cis-1,3-Dichloropropene	ND	2.2	ug/L
Trichloroethene	**66**	**2.2**	**ug/L**
Dibromochloromethane	ND	2.2	ug/L
1,1,2-Trichloroethane	ND	2.2	ug/L
Benzene	ND	2.2	ug/L
trans-1,3-Dichloropropene	ND	2.2	ug/L
Bromoform	ND	2.2	ug/L
4-Methyl-2-pentanone	ND	22	ug/L
2-Hexanone	ND	22	ug/L
Tetrachloroethene	ND	2.2	ug/L
1,1,2,2-Tetrachloroethane	ND	2.2	ug/L
Toluene	**3.1**	**2.2**	**ug/L**
Chlorobenzene	ND	2.2	ug/L
Ethylbenzene	ND	2.2	ug/L
Styrene	ND	2.2	ug/L
Xylenes (total)	ND	2.2	ug/L
cis-1,2-Dichloroethene	**8.8**	**1.1**	**ug/L**
trans-1,2-Dichloroethene	ND	1.1	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	95	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-B5

GC/MS Volatiles

Lot-Sample #...: A1H030174-007 Work Order #...: EHFXP1AA Matrix.....: WG
Date Sampled...: 08/02/01 09:25 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1222276
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**5.6**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**0.73**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	94	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-7I

GC/MS Volatiles

Lot-Sample #...: A1H030174-008 Work Order #...: EHFXR1AA Matrix.....: WG
Date Sampled...: 08/02/01 09:30 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1222276
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**1.6**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**6.3**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	90	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-15S

GC/MS Volatiles

Lot-Sample #...:	A1H030174-009	**Work Order #...:**	EHFXV1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 10:05	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	3.33	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	3.3	ug/L
Bromomethane	ND	3.3	ug/L
Vinyl chloride	ND	3.3	ug/L
Chloroethane	ND	3.3	ug/L
Methylene chloride	ND	3.3	ug/L
Acetone	ND	33	ug/L
Carbon disulfide	ND	3.3	ug/L
1,1-Dichloroethene	ND	3.3	ug/L
1,1-Dichloroethane	ND	3.3	ug/L
Chloroform	ND	3.3	ug/L
1,2-Dichloroethane	ND	3.3	ug/L
2-Butanone	ND	33	ug/L
1,1,1-Trichloroethane	ND	3.3	ug/L
Carbon tetrachloride	ND	3.3	ug/L
Bromodichloromethane	ND	3.3	ug/L
1,2-Dichloropropane	ND	3.3	ug/L
cis-1,3-Dichloropropene	ND	3.3	ug/L
Trichloroethene	ND	3.3	ug/L
Dibromochloromethane	ND	3.3	ug/L
1,1,2-Trichloroethane	ND	3.3	ug/L
Benzene	ND	3.3	ug/L
trans-1,3-Dichloropropene	ND	3.3	ug/L
Bromoform	ND	3.3	ug/L
4-Methyl-2-pentanone	ND	33	ug/L
2-Hexanone	ND	33	ug/L
Tetrachloroethene	**70**	**3.3**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	3.3	ug/L
Toluene	ND	3.3	ug/L
Chlorobenzene	ND	3.3	ug/L
Ethylbenzene	ND	3.3	ug/L
Styrene	ND	3.3	ug/L
Xylenes (total)	ND	3.3	ug/L
cis-1,2-Dichloroethene	ND	1.7	ug/L
trans-1,2-Dichloroethene	ND	1.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-15I

GC/MS Volatiles

Lot-Sample #...:	A1H030174-010	Work Order #...:	EHFX11AA	Matrix.....:	WG
Date Sampled...:	08/02/01 10:05	Date Received..:	08/03/01		
Prep Date.....:	08/09/01	Analysis Date..:	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	2	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
Vinyl chloride	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
Methylene chloride	ND	2.0	ug/L
Acetone	ND	20	ug/L
Carbon disulfide	ND	2.0	ug/L
1,1-Dichloroethene	**2.5**	**2.0**	**ug/L**
1,1-Dichloroethane	**10**	**2.0**	**ug/L**
Chloroform	ND	2.0	ug/L
1,2-Dichloroethane	**5.1**	**2.0**	**ug/L**
2-Butanone	ND	20	ug/L
1,1,1-Trichloroethane	**11**	**2.0**	**ug/L**
Carbon tetrachloride	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
Trichloroethene	**5.8**	**2.0**	**ug/L**
Dibromochloromethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Benzene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
4-Methyl-2-pentanone	ND	20	ug/L
2-Hexanone	ND	20	ug/L
Tetrachloroethene	**52**	**2.0**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
Xylenes (total)	ND	2.0	ug/L
cis-1,2-Dichloroethene	**3.2**	**1.0**	**ug/L**
trans-1,2-Dichloroethene	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-A3

GC/MS Volatiles

Lot-Sample #...:	A1H030174-011	**Work Order #...:**	EHFX21AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 10:40	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	14.29	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	14	ug/L
Bromomethane	ND	14	ug/L
Vinyl chloride	**14**	**14**	**ug/L**
Chloroethane	ND	14	ug/L
Methylene chloride	ND	14	ug/L
Acetone	ND	140	ug/L
Carbon disulfide	ND	14	ug/L
1,1-Dichloroethene	**43**	**14**	**ug/L**
1,1-Dichloroethane	**77**	**14**	**ug/L**
Chloroform	ND	14	ug/L
1,2-Dichloroethane	ND	14	ug/L
2-Butanone	ND	140	ug/L
1,1,1-Trichloroethane	**330**	**14**	**ug/L**
Carbon tetrachloride	ND	14	ug/L
Bromodichloromethane	ND	14	ug/L
1,2-Dichloropropane	ND	14	ug/L
cis-1,3-Dichloropropene	ND	14	ug/L
Trichloroethene	**96**	**14**	**ug/L**
Dibromochloromethane	ND	14	ug/L
1,1,2-Trichloroethane	ND	14	ug/L
Benzene	ND	14	ug/L
trans-1,3-Dichloropropene	ND	14	ug/L
Bromoform	ND	14	ug/L
4-Methyl-2-pentanone	ND	140	ug/L
2-Hexanone	ND	140	ug/L
Tetrachloroethene	**160**	**14**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	14	ug/L
Toluene	ND	14	ug/L
Chlorobenzene	ND	14	ug/L
Ethylbenzene	ND	14	ug/L
Styrene	ND	14	ug/L
Xylenes (total)	ND	14	ug/L
cis-1,2-Dichloroethene	**200**	**7.1**	**ug/L**
trans-1,2-Dichloroethene	ND	7.1	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-14I

GC/MS Volatiles

Lot-Sample #...:	A1H030174-012	Work Order #...:	EHFX51AA	Matrix.....:	WG
Date Sampled...:	08/02/01 10:40	Date Received..:	08/03/01		
Prep Date.....:	08/09/01	Analysis Date..:	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	10	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	10	ug/L
Bromomethane	ND	10	ug/L
Vinyl chloride	ND	10	ug/L
Chloroethane	ND	10	ug/L
Methylene chloride	ND	10	ug/L
Acetone	ND	100	ug/L
Carbon disulfide	ND	10	ug/L
1,1-Dichloroethene	ND	10	ug/L
1,1-Dichloroethane	**15**	**10**	**ug/L**
Chloroform	ND	10	ug/L
1,2-Dichloroethane	ND	10	ug/L
2-Butanone	ND	100	ug/L
1,1,1-Trichloroethane	ND	10	ug/L
Carbon tetrachloride	ND	10	ug/L
Bromodichloromethane	ND	10	ug/L
1,2-Dichloropropane	ND	10	ug/L
cis-1,3-Dichloropropene	ND	10	ug/L
Trichloroethene	**260**	**10**	**ug/L**
Dibromochloromethane	ND	10	ug/L
1,1,2-Trichloroethane	ND	10	ug/L
Benzene	ND	10	ug/L
trans-1,3-Dichloropropene	ND	10	ug/L
Bromoform	ND	10	ug/L
4-Methyl-2-pentanone	ND	100	ug/L
2-Hexanone	ND	100	ug/L
Tetrachloroethene	**10**	**10**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	10	ug/L
Toluene	ND	10	ug/L
Chlorobenzene	ND	10	ug/L
Ethylbenzene	ND	10	ug/L
Styrene	ND	10	ug/L
Xylenes (total)	ND	10	ug/L
cis-1,2-Dichloroethene	**67**	**5.0**	**ug/L**
trans-1,2-Dichloroethene	**7.1**	**5.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	94	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	92	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-16D

GC/MS Volatiles

Lot-Sample #...:	A1H030174-013	Work Order #...:	EHFX71AA	Matrix.....:	WG
Date Sampled...:	08/02/01 11:05	Date Received..:	08/03/01		
Prep Date.....:	08/09/01	Analysis Date..:	08/09/01		
Prep Batch #...:	1222276				
Dilution Factor:	5	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Vinyl chloride	**14**	**5.0**	**ug/L**
Chloroethane	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Acetone	ND	50	ug/L
Carbon disulfide	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
Chloroform	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
2-Butanone	ND	50	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Trichloroethene	**14**	**5.0**	**ug/L**
Dibromochloromethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
2-Hexanone	ND	50	ug/L
Tetrachloroethene	**170**	**5.0**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
cis-1,2-Dichloroethene	ND	2.5	ug/L
trans-1,2-Dichloroethene	ND	2.5	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-17I

GC/MS Volatiles

Lot-Sample #...:	A1H030174-014	**Work Order #...:**	EHFX91AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 11:25	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224124				
Dilution Factor:	41.67	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	42	ug/L
Bromomethane	ND	42	ug/L
Vinyl chloride	ND	42	ug/L
Chloroethane	ND	42	ug/L
Methylene chloride	ND	42	ug/L
Acetone	ND	420	ug/L
Carbon disulfide	ND	42	ug/L
1,1-Dichloroethene	ND	42	ug/L
1,1-Dichloroethane	ND	42	ug/L
Chloroform	ND	42	ug/L
1,2-Dichloroethane	ND	42	ug/L
2-Butanone	ND	420	ug/L
1,1,1-Trichloroethane	ND	42	ug/L
Carbon tetrachloride	ND	42	ug/L
Bromodichloromethane	ND	42	ug/L
1,2-Dichloropropane	ND	42	ug/L
cis-1,3-Dichloropropene	ND	42	ug/L
Trichloroethene	**94**	**42**	**ug/L**
Dibromochloromethane	ND	42	ug/L
1,1,2-Trichloroethane	ND	42	ug/L
Benzene	ND	42	ug/L
trans-1,3-Dichloropropene	ND	42	ug/L
Bromoform	ND	42	ug/L
4-Methyl-2-pentanone	ND	420	ug/L
2-Hexanone	ND	420	ug/L
Tetrachloroethene	**1700**	**42**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	42	ug/L
Toluene	ND	42	ug/L
Chlorobenzene	ND	42	ug/L
Ethylbenzene	ND	42	ug/L
Styrene	ND	42	ug/L
Xylenes (total)	ND	42	ug/L
cis-1,2-Dichloroethene	**47**	**21**	**ug/L**
trans-1,2-Dichloroethene	ND	21	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-17D

GC/MS Volatiles

Lot-Sample #...:	A1H030174-015	**Work Order #...:**	EHF0C1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 11:30	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1223097				
Dilution Factor:	1	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	**9.6**	**1.0**	**ug/L**
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**5.3**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-B2

GC/MS Volatiles

Lot-Sample #...:	A1H030174-016	**Work Order #...:**	EHF0E1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 11:55	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224124				
Dilution Factor:	1	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	**2.0**	**1.0**	**ug/L**
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**1.2**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	92	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
Toluene-d8	91	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-C2

GC/MS Volatiles

Lot-Sample #...:	A1H030174-017	Work Order #...:	EHF0G1AA	Matrix.....:	WG
Date Sampled...:	08/02/01 12:00	Date Received..:	08/03/01		
Prep Date.....:	08/09/01	Analysis Date..:	08/09/01		
Prep Batch #...:	1224124				
Dilution Factor:	1	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**3.1**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	**3.2**	**1.0**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	89	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-18S

GC/MS Volatiles

Lot-Sample #...:	A1H030174-018	**Work Order #...:**	EHF0H1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 12:15	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224124				
Dilution Factor:	16.67	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	17	ug/L
Bromomethane	ND	17	ug/L
Vinyl chloride	ND	17	ug/L
Chloroethane	ND	17	ug/L
Methylene chloride	ND	17	ug/L
Acetone	ND	170	ug/L
Carbon disulfide	ND	17	ug/L
1,1-Dichloroethene	ND	17	ug/L
1,1-Dichloroethane	**36**	**17**	**ug/L**
Chloroform	ND	17	ug/L
1,2-Dichloroethane	ND	17	ug/L
2-Butanone	ND	170	ug/L
1,1,1-Trichloroethane	**81**	**17**	**ug/L**
Carbon tetrachloride	ND	17	ug/L
Bromodichloromethane	ND	17	ug/L
1,2-Dichloropropane	ND	17	ug/L
cis-1,3-Dichloropropene	ND	17	ug/L
Trichloroethene	**46**	**17**	**ug/L**
Dibromochloromethane	ND	17	ug/L
1,1,2-Trichloroethane	ND	17	ug/L
Benzene	ND	17	ug/L
trans-1,3-Dichloropropene	ND	17	ug/L
Bromoform	ND	17	ug/L
4-Methyl-2-pentanone	ND	170	ug/L
2-Hexanone	ND	170	ug/L
Tetrachloroethene	**440**	**17**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	17	ug/L
Toluene	ND	17	ug/L
Chlorobenzene	ND	17	ug/L
Ethylbenzene	ND	17	ug/L
Styrene	ND	17	ug/L
Xylenes (total)	ND	17	ug/L
cis-1,2-Dichloroethene	**180**	**8.3**	**ug/L**
trans-1,2-Dichloroethene	ND	8.3	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-A5

GC/MS Volatiles

Lot-Sample #...:	A1H030174-019	**Work Order #...:**	EHF0K1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 12:35	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1223097				
Dilution Factor:	100	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	100	ug/L
Bromomethane	ND	100	ug/L
Vinyl chloride	ND	100	ug/L
Chloroethane	ND	100	ug/L
Methylene chloride	ND	100	ug/L
Acetone	ND	1000	ug/L
Carbon disulfide	ND	100	ug/L
1,1-Dichloroethene	**340**	**100**	**ug/L**
1,1-Dichloroethane	**110**	**100**	**ug/L**
Chloroform	ND	100	ug/L
1,2-Dichloroethane	ND	100	ug/L
2-Butanone	ND	1000	ug/L
1,1,1-Trichloroethane	**2600**	**100**	**ug/L**
Carbon tetrachloride	ND	100	ug/L
Bromodichloromethane	ND	100	ug/L
1,2-Dichloropropane	ND	100	ug/L
cis-1,3-Dichloropropene	ND	100	ug/L
Trichloroethene	**1700**	**100**	**ug/L**
Dibromochloromethane	ND	100	ug/L
1,1,2-Trichloroethane	ND	100	ug/L
Benzene	ND	100	ug/L
trans-1,3-Dichloropropene	ND	100	ug/L
Bromoform	ND	100	ug/L
4-Methyl-2-pentanone	ND	1000	ug/L
2-Hexanone	ND	1000	ug/L
Tetrachloroethene	ND	100	ug/L
1,1,2,2-Tetrachloroethane	ND	100	ug/L
Toluene	ND	100	ug/L
Chlorobenzene	ND	100	ug/L
Ethylbenzene	ND	100	ug/L
Styrene	ND	100	ug/L
Xylenes (total)	ND	100	ug/L
cis-1,2-Dichloroethene	**150**	**50**	**ug/L**
trans-1,2-Dichloroethene	ND	50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-13I

GC/MS Volatiles

Lot-Sample #...:	A1H030174-020	**Work Order #...:**	EHF0N1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 12:35	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224124				
Dilution Factor:	31.25	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	31	ug/L
Bromomethane	ND	31	ug/L
Vinyl chloride	ND	31	ug/L
Chloroethane	ND	31	ug/L
Methylene chloride	ND	31	ug/L
Acetone	ND	310	ug/L
Carbon disulfide	ND	31	ug/L
1,1-Dichloroethene	**88**	**31**	**ug/L**
1,1-Dichloroethane	**54**	**31**	**ug/L**
Chloroform	ND	31	ug/L
1,2-Dichloroethane	ND	31	ug/L
2-Butanone	ND	310	ug/L
1,1,1-Trichloroethane	**740**	**31**	**ug/L**
Carbon tetrachloride	ND	31	ug/L
Bromodichloromethane	ND	31	ug/L
1,2-Dichloropropane	ND	31	ug/L
cis-1,3-Dichloropropene	ND	31	ug/L
Trichloroethene	**1100**	**31**	**ug/L**
Dibromochloromethane	ND	31	ug/L
1,1,2-Trichloroethane	ND	31	ug/L
Benzene	ND	31	ug/L
trans-1,3-Dichloropropene	ND	31	ug/L
Bromoform	ND	31	ug/L
4-Methyl-2-pentanone	ND	310	ug/L
2-Hexanone	ND	310	ug/L
Tetrachloroethene	**560**	**31**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	31	ug/L
Toluene	ND	31	ug/L
Chlorobenzene	ND	31	ug/L
Ethylbenzene	ND	31	ug/L
Styrene	ND	31	ug/L
Xylenes (total)	ND	31	ug/L
cis-1,2-Dichloroethene	**93**	**16**	**ug/L**
trans-1,2-Dichloroethene	ND	16	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-B6

GC/MS Volatiles

Lot-Sample #...: A1H030174-021 Work Order #...: EHF0P1AA Matrix.....: WG
Date Sampled...: 08/02/01 13:00 Date Received..: 08/03/01
Prep Date.....: 08/10/01 Analysis Date..: 08/10/01
Prep Batch #...: 1224124
Dilution Factor: 25 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	25	ug/L
Bromomethane	ND	25	ug/L
Vinyl chloride	ND	25	ug/L
Chloroethane	ND	25	ug/L
Methylene chloride	ND	25	ug/L
Acetone	ND	250	ug/L
Carbon disulfide	ND	25	ug/L
1,1-Dichloroethene	**88**	**25**	**ug/L**
1,1-Dichloroethane	**220**	**25**	**ug/L**
Chloroform	ND	25	ug/L
1,2-Dichloroethane	ND	25	ug/L
2-Butanone	ND	250	ug/L
1,1,1-Trichloroethane	**670**	**25**	**ug/L**
Carbon tetrachloride	ND	25	ug/L
Bromodichloromethane	ND	25	ug/L
1,2-Dichloropropane	ND	25	ug/L
cis-1,3-Dichloropropene	ND	25	ug/L
Trichloroethene	**870**	**25**	**ug/L**
Dibromochloromethane	ND	25	ug/L
1,1,2-Trichloroethane	ND	25	ug/L
Benzene	ND	25	ug/L
trans-1,3-Dichloropropene	ND	25	ug/L
Bromoform	ND	25	ug/L
4-Methyl-2-pentanone	ND	250	ug/L
2-Hexanone	ND	250	ug/L
Tetrachloroethene	ND	25	ug/L
1,1,2,2-Tetrachloroethane	ND	25	ug/L
Toluene	ND	25	ug/L
Chlorobenzene	ND	25	ug/L
Ethylbenzene	ND	25	ug/L
Styrene	ND	25	ug/L
Xylenes (total)	ND	25	ug/L
cis-1,2-Dichloroethene	**73**	**12**	**ug/L**
trans-1,2-Dichloroethene	ND	12	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	86	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-A2

GC/MS Volatiles

Lot-Sample #...:	A1H030174-022	**Work Order #...:**	EHF0R1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 13:00	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224124				
Dilution Factor:	41.67	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	42	ug/L
Bromomethane	ND	42	ug/L
Vinyl chloride	ND	42	ug/L
Chloroethane	ND	42	ug/L
Methylene chloride	ND	42	ug/L
Acetone	ND	420	ug/L
Carbon disulfide	ND	42	ug/L
1,1-Dichloroethene	ND	42	ug/L
1,1-Dichloroethane	ND	42	ug/L
Chloroform	ND	42	ug/L
1,2-Dichloroethane	ND	42	ug/L
2-Butanone	ND	420	ug/L
1,1,1-Trichloroethane	**340**	**42**	**ug/L**
Carbon tetrachloride	ND	42	ug/L
Bromodichloromethane	ND	42	ug/L
1,2-Dichloropropane	ND	42	ug/L
cis-1,3-Dichloropropene	ND	42	ug/L
Trichloroethene	**120**	**42**	**ug/L**
Dibromochloromethane	ND	42	ug/L
1,1,2-Trichloroethane	ND	42	ug/L
Benzene	ND	42	ug/L
trans-1,3-Dichloropropene	ND	42	ug/L
Bromoform	ND	42	ug/L
4-Methyl-2-pentanone	ND	420	ug/L
2-Hexanone	ND	420	ug/L
Tetrachloroethene	**1500**	**42**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	42	ug/L
Toluene	ND	42	ug/L
Chlorobenzene	ND	42	ug/L
Ethylbenzene	ND	42	ug/L
Styrene	ND	42	ug/L
Xylenes (total)	ND	42	ug/L
cis-1,2-Dichloroethene	**340**	**21**	**ug/L**
trans-1,2-Dichloroethene	ND	21	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	91	(73 - 122)
1,2-Dichloroethane-d4	78	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	93	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-8S

GC/MS Volatiles

Lot-Sample #...:	A1H030174-023	**Work Order #...:**	EHF0V1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 13:30	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224124				
Dilution Factor:	31.25	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	31	ug/L
Bromomethane	ND	31	ug/L
Vinyl chloride	ND	31	ug/L
Chloroethane	ND	31	ug/L
Methylene chloride	ND	31	ug/L
Acetone	ND	310	ug/L
Carbon disulfide	ND	31	ug/L
1,1-Dichloroethene	ND	31	ug/L
1,1-Dichloroethane	ND	31	ug/L
Chloroform	ND	31	ug/L
1,2-Dichloroethane	ND	31	ug/L
2-Butanone	ND	310	ug/L
1,1,1-Trichloroethane	ND	31	ug/L
Carbon tetrachloride	ND	31	ug/L
Bromodichloromethane	ND	31	ug/L
1,2-Dichloropropane	ND	31	ug/L
cis-1,3-Dichloropropene	ND	31	ug/L
Trichloroethene	**440**	**31**	**ug/L**
Dibromochloromethane	ND	31	ug/L
1,1,2-Trichloroethane	ND	31	ug/L
Benzene	ND	31	ug/L
trans-1,3-Dichloropropene	ND	31	ug/L
Bromoform	ND	31	ug/L
4-Methyl-2-pentanone	ND	310	ug/L
2-Hexanone	ND	310	ug/L
Tetrachloroethene	**1100**	**31**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	31	ug/L
Toluene	ND	31	ug/L
Chlorobenzene	ND	31	ug/L
Ethylbenzene	ND	31	ug/L
Styrene	ND	31	ug/L
Xylenes (total)	ND	31	ug/L
cis-1,2-Dichloroethene	**22**	**16**	**ug/L**
trans-1,2-Dichloroethene	ND	16	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	84	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-8S DUPLICATE

GC/MS Volatiles

Lot-Sample #...:	A1H030174-024	**Work Order #...:**	EHF0W1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 13:30	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224124				
Dilution Factor:	31.25	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	31	ug/L
Bromomethane	ND	31	ug/L
Vinyl chloride	ND	31	ug/L
Chloroethane	ND	31	ug/L
Methylene chloride	ND	31	ug/L
Acetone	ND	310	ug/L
Carbon disulfide	ND	31	ug/L
1,1-Dichloroethene	ND	31	ug/L
1,1-Dichloroethane	ND	31	ug/L
Chloroform	ND	31	ug/L
1,2-Dichloroethane	ND	31	ug/L
2-Butanone	ND	310	ug/L
1,1,1-Trichloroethane	ND	31	ug/L
Carbon tetrachloride	ND	31	ug/L
Bromodichloromethane	ND	31	ug/L
1,2-Dichloropropane	ND	31	ug/L
cis-1,3-Dichloropropene	ND	31	ug/L
Trichloroethene	**450**	**31**	**ug/L**
Dibromochloromethane	ND	31	ug/L
1,1,2-Trichloroethane	ND	31	ug/L
Benzene	ND	31	ug/L
trans-1,3-Dichloropropene	ND	31	ug/L
Bromoform	ND	31	ug/L
4-Methyl-2-pentanone	ND	310	ug/L
2-Hexanone	ND	310	ug/L
Tetrachloroethene	**1100**	**31**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	31	ug/L
Toluene	ND	31	ug/L
Chlorobenzene	ND	31	ug/L
Ethylbenzene	ND	31	ug/L
Styrene	ND	31	ug/L
Xylenes (total)	ND	31	ug/L
cis-1,2-Dichloroethene	**20**	**16**	**ug/L**
trans-1,2-Dichloroethene	ND	16	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-8I

GC/MS Volatiles

Lot-Sample #...:	A1H030174-025	Work Order #...:	EHF001AA	Matrix.....:	WG
Date Sampled...:	08/02/01 13:35	Date Received..:	08/03/01		
Prep Date.....:	08/10/01	Analysis Date..:	08/10/01		
Prep Batch #...:	1223097				
Dilution Factor:	333.33	Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	330	ug/L
Bromomethane	ND	330	ug/L
Vinyl chloride	ND	330	ug/L
Chloroethane	ND	330	ug/L
Methylene chloride	ND	330	ug/L
Acetone	ND	3300	ug/L
Carbon disulfide	ND	330	ug/L
1,1-Dichloroethene	ND	330	ug/L
1,1-Dichloroethane	ND	330	ug/L
Chloroform	ND	330	ug/L
1,2-Dichloroethane	ND	330	ug/L
2-Butanone	ND	3300	ug/L
1,1,1-Trichloroethane	ND	330	ug/L
Carbon tetrachloride	ND	330	ug/L
Bromodichloromethane	ND	330	ug/L
1,2-Dichloropropane	ND	330	ug/L
cis-1,3-Dichloropropene	ND	330	ug/L
Trichloroethene	**1900**	**330**	**ug/L**
Dibromochloromethane	ND	330	ug/L
1,1,2-Trichloroethane	ND	330	ug/L
Benzene	ND	330	ug/L
trans-1,3-Dichloropropene	ND	330	ug/L
Bromoform	ND	330	ug/L
4-Methyl-2-pentanone	ND	3300	ug/L
2-Hexanone	ND	3300	ug/L
Tetrachloroethene	**10000**	**330**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	330	ug/L
Toluene	ND	330	ug/L
Chlorobenzene	ND	330	ug/L
Ethylbenzene	ND	330	ug/L
Styrene	ND	330	ug/L
Xylenes (total)	ND	330	ug/L
cis-1,2-Dichloroethene	ND	170	ug/L
trans-1,2-Dichloroethene	ND	170	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-A4

GC/MS Volatiles

Lot-Sample #...:	A1H030174-026	**Work Order #...:**	EHF011AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 14:00	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1223097				
Dilution Factor:	1000	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1000	ug/L
Bromomethane	ND	1000	ug/L
Vinyl chloride	ND	1000	ug/L
Chloroethane	ND	1000	ug/L
Methylene chloride	ND	1000	ug/L
Acetone	ND	10000	ug/L
Carbon disulfide	ND	1000	ug/L
1,1-Dichloroethene	ND	1000	ug/L
1,1-Dichloroethane	ND	1000	ug/L
Chloroform	ND	1000	ug/L
1,2-Dichloroethane	ND	1000	ug/L
2-Butanone	ND	10000	ug/L
1,1,1-Trichloroethane	ND	1000	ug/L
Carbon tetrachloride	ND	1000	ug/L
Bromodichloromethane	ND	1000	ug/L
1,2-Dichloropropane	ND	1000	ug/L
cis-1,3-Dichloropropene	ND	1000	ug/L
Trichloroethene	**25000**	**1000**	**ug/L**
Dibromochloromethane	ND	1000	ug/L
1,1,2-Trichloroethane	ND	1000	ug/L
Benzene	ND	1000	ug/L
trans-1,3-Dichloropropene	ND	1000	ug/L
Bromoform	ND	1000	ug/L
4-Methyl-2-pentanone	ND	10000	ug/L
2-Hexanone	ND	10000	ug/L
Tetrachloroethene	ND	1000	ug/L
1,1,2,2-Tetrachloroethane	ND	1000	ug/L
Toluene	ND	1000	ug/L
Chlorobenzene	ND	1000	ug/L
Ethylbenzene	ND	1000	ug/L
Styrene	ND	1000	ug/L
Xylenes (total)	ND	1000	ug/L
cis-1,2-Dichloroethene	**5400**	**500**	**ug/L**
trans-1,2-Dichloroethene	ND	500	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	97	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-9D

GC/MS Volatiles

Lot-Sample #...:	A1H030174-027	**Work Order #...:**	EHF021AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 14:05	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1223097				
Dilution Factor:	83.33	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	83	ug/L
Bromomethane	ND	83	ug/L
Vinyl chloride	ND	83	ug/L
Chloroethane	ND	83	ug/L
Methylene chloride	ND	83	ug/L
Acetone	ND	830	ug/L
Carbon disulfide	ND	83	ug/L
1,1-Dichloroethene	ND	83	ug/L
1,1-Dichloroethane	ND	83	ug/L
Chloroform	ND	83	ug/L
1,2-Dichloroethane	ND	83	ug/L
2-Butanone	ND	830	ug/L
1,1,1-Trichloroethane	ND	83	ug/L
Carbon tetrachloride	ND	83	ug/L
Bromodichloromethane	ND	83	ug/L
1,2-Dichloropropane	ND	83	ug/L
cis-1,3-Dichloropropene	ND	83	ug/L
Trichloroethene	**2000**	**83**	**ug/L**
Dibromochloromethane	ND	83	ug/L
1,1,2-Trichloroethane	ND	83	ug/L
Benzene	ND	83	ug/L
trans-1,3-Dichloropropene	ND	83	ug/L
Bromoform	ND	83	ug/L
4-Methyl-2-pentanone	ND	830	ug/L
2-Hexanone	ND	830	ug/L
Tetrachloroethene	ND	83	ug/L
1,1,2,2-Tetrachloroethane	ND	83	ug/L
Toluene	ND	83	ug/L
Chlorobenzene	ND	83	ug/L
Ethylbenzene	ND	83	ug/L
Styrene	ND	83	ug/L
Xylenes (total)	ND	83	ug/L
cis-1,2-Dichloroethene	**150**	**42**	**ug/L**
trans-1,2-Dichloroethene	ND	42	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	90	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: PZ-10I

GC/MS Volatiles

Lot-Sample #...: A1H030174-028 **Work Order #...:** EHF041AA **Matrix.....:** WG
Date Sampled...: 08/02/01 14:20 **Date Received..:** 08/03/01
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1223097
Dilution Factor: 833.33 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	830	ug/L
Bromomethane	ND	830	ug/L
Vinyl chloride	ND	830	ug/L
Chloroethane	ND	830	ug/L
Methylene chloride	ND	830	ug/L
Acetone	ND	8300	ug/L
Carbon disulfide	ND	830	ug/L
1,1-Dichloroethene	ND	830	ug/L
1,1-Dichloroethane	ND	830	ug/L
Chloroform	ND	830	ug/L
1,2-Dichloroethane	ND	830	ug/L
2-Butanone	ND	8300	ug/L
1,1,1-Trichloroethane	ND	830	ug/L
Carbon tetrachloride	ND	830	ug/L
Bromodichloromethane	ND	830	ug/L
1,2-Dichloropropane	ND	830	ug/L
cis-1,3-Dichloropropene	ND	830	ug/L
Trichloroethene	**20000**	**830**	**ug/L**
Dibromochloromethane	ND	830	ug/L
1,1,2-Trichloroethane	ND	830	ug/L
Benzene	ND	830	ug/L
trans-1,3-Dichloropropene	ND	830	ug/L
Bromoform	ND	830	ug/L
4-Methyl-2-pentanone	ND	8300	ug/L
2-Hexanone	ND	8300	ug/L
Tetrachloroethene	ND	830	ug/L
1,1,2,2-Tetrachloroethane	ND	830	ug/L
Toluene	ND	830	ug/L
Chlorobenzene	ND	830	ug/L
Ethylbenzene	ND	830	ug/L
Styrene	ND	830	ug/L
Xylenes (total)	ND	830	ug/L
cis-1,2-Dichloroethene	**2600**	**420**	**ug/L**
trans-1,2-Dichloroethene	ND	420	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	91	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-10S

GC/MS Volatiles

Lot-Sample #...:	A1H030174-029	**Work Order #...:**	EHF051AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 14:25	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224118				
Dilution Factor:	200	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	200	ug/L
Bromomethane	ND	200	ug/L
Vinyl chloride	ND	200	ug/L
Chloroethane	ND	200	ug/L
Methylene chloride	ND	200	ug/L
Acetone	ND	2000	ug/L
Carbon disulfide	ND	200	ug/L
1,1-Dichloroethene	ND	200	ug/L
1,1-Dichloroethane	ND	200	ug/L
Chloroform	ND	200	ug/L
1,2-Dichloroethane	ND	200	ug/L
2-Butanone	ND	2000	ug/L
1,1,1-Trichloroethane	ND	200	ug/L
Carbon tetrachloride	ND	200	ug/L
Bromodichloromethane	ND	200	ug/L
1,2-Dichloropropane	ND	200	ug/L
cis-1,3-Dichloropropene	ND	200	ug/L
Trichloroethene	**7200**	**200**	**ug/L**
Dibromochloromethane	ND	200	ug/L
1,1,2-Trichloroethane	ND	200	ug/L
Benzene	ND	200	ug/L
trans-1,3-Dichloropropene	ND	200	ug/L
Bromoform	ND	200	ug/L
4-Methyl-2-pentanone	ND	2000	ug/L
2-Hexanone	ND	2000	ug/L
Tetrachloroethene	ND	200	ug/L
1,1,2,2-Tetrachloroethane	ND	200	ug/L
Toluene	ND	200	ug/L
Chlorobenzene	ND	200	ug/L
Ethylbenzene	ND	200	ug/L
Styrene	ND	200	ug/L
Xylenes (total)	ND	200	ug/L
cis-1,2-Dichloroethene	**1000**	**100**	**ug/L**
trans-1,2-Dichloroethene	ND	100	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: T080201

GC/MS Volatiles

Lot-Sample #...: A1H030174-030 Work Order #...: EHF071AA Matrix.....: WQ
Date Sampled...: 08/02/01 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1224118
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	0.50	ug/L
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	101	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: AS

GC/MS Volatiles

Lot-Sample #...:	A1H030174-031	**Work Order #...:**	EHF081AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 15:20	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224118				
Dilution Factor:	4	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	4.0	ug/L
Bromomethane	ND	4.0	ug/L
Vinyl chloride	**4.8**	**4.0**	**ug/L**
Chloroethane	ND	4.0	ug/L
Methylene chloride	ND	4.0	ug/L
Acetone	ND	40	ug/L
Carbon disulfide	ND	4.0	ug/L
1,1-Dichloroethene	ND	4.0	ug/L
1,1-Dichloroethane	**4.5**	**4.0**	**ug/L**
Chloroform	ND	4.0	ug/L
1,2-Dichloroethane	ND	4.0	ug/L
2-Butanone	ND	40	ug/L
1,1,1-Trichloroethane	ND	4.0	ug/L
Carbon tetrachloride	ND	4.0	ug/L
Bromodichloromethane	ND	4.0	ug/L
1,2-Dichloropropane	ND	4.0	ug/L
cis-1,3-Dichloropropene	ND	4.0	ug/L
Trichloroethene	**110**	**4.0**	**ug/L**
Dibromochloromethane	ND	4.0	ug/L
1,1,2-Trichloroethane	ND	4.0	ug/L
Benzene	ND	4.0	ug/L
trans-1,3-Dichloropropene	ND	4.0	ug/L
Bromoform	ND	4.0	ug/L
4-Methyl-2-pentanone	ND	40	ug/L
2-Hexanone	ND	40	ug/L
Tetrachloroethene	**6.4**	**4.0**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	4.0	ug/L
Toluene	ND	4.0	ug/L
Chlorobenzene	ND	4.0	ug/L
Ethylbenzene	ND	4.0	ug/L
Styrene	ND	4.0	ug/L
Xylenes (total)	ND	4.0	ug/L
cis-1,2-Dichloroethene	**37**	**2.0**	**ug/L**
trans-1,2-Dichloroethene	**2.3**	**2.0**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	101	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-B3

GC/MS Volatiles

Lot-Sample #...: A1H030174-032 Work Order #...: EHF1A1AA Matrix.....: WG
Date Sampled...: 08/02/01 17:30 Date Received..: 08/03/01
Prep Date.....: 08/09/01 Analysis Date..: 08/09/01
Prep Batch #...: 1224118
Dilution Factor: 200 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	200	ug/L
Bromomethane	ND	200	ug/L
Vinyl chloride	ND	200	ug/L
Chloroethane	ND	200	ug/L
Methylene chloride	ND	200	ug/L
Acetone	ND	2000	ug/L
Carbon disulfide	ND	200	ug/L
1,1-Dichloroethene	ND	200	ug/L
1,1-Dichloroethane	ND	200	ug/L
Chloroform	ND	200	ug/L
1,2-Dichloroethane	ND	200	ug/L
2-Butanone	ND	2000	ug/L
1,1,1-Trichloroethane	**290**	**200**	**ug/L**
Carbon tetrachloride	ND	200	ug/L
Bromodichloromethane	ND	200	ug/L
1,2-Dichloropropane	ND	200	ug/L
cis-1,3-Dichloropropene	ND	200	ug/L
Trichloroethene	**7200**	**200**	**ug/L**
Dibromochloromethane	ND	200	ug/L
1,1,2-Trichloroethane	ND	200	ug/L
Benzene	ND	200	ug/L
trans-1,3-Dichloropropene	ND	200	ug/L
Bromoform	ND	200	ug/L
4-Methyl-2-pentanone	ND	2000	ug/L
2-Hexanone	ND	2000	ug/L
Tetrachloroethene	ND	200	ug/L
1,1,2,2-Tetrachloroethane	ND	200	ug/L
Toluene	ND	200	ug/L
Chlorobenzene	ND	200	ug/L
Ethylbenzene	ND	200	ug/L
Styrene	ND	200	ug/L
Xylenes (total)	ND	200	ug/L
cis-1,2-Dichloroethene	**2100**	**100**	**ug/L**
trans-1,2-Dichloroethene	ND	100	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-C3

GC/MS Volatiles

Lot-Sample #...:	A1H030174-033	**Work Order #...:**	EHF1C1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 17:05	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224118				
Dilution Factor:	1	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Acetone	ND	10	ug/L
Carbon disulfide	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
Chloroform	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
2-Butanone	ND	10	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Trichloroethene	**25**	**1.0**	**ug/L**
Dibromochloromethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Tetrachloroethene	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
Xylenes (total)	ND	1.0	ug/L
cis-1,2-Dichloroethene	**2.6**	**0.50**	**ug/L**
trans-1,2-Dichloroethene	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
1,2-Dichloroethane-d4	97	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-11S

GC/MS Volatiles

Lot-Sample #...:	A1H030174-034	**Work Order #...:**	EHF1D1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 14:50	**Date Received..:**	08/03/01		
Prep Date.....:	08/09/01	**Analysis Date..:**	08/09/01		
Prep Batch #...:	1224118				
Dilution Factor:	66.67	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	67	ug/L
Bromomethane	ND	67	ug/L
Vinyl chloride	ND	67	ug/L
Chloroethane	ND	67	ug/L
Methylene chloride	ND	67	ug/L
Acetone	ND	670	ug/L
Carbon disulfide	ND	67	ug/L
1,1-Dichloroethene	ND	67	ug/L
1,1-Dichloroethane	ND	67	ug/L
Chloroform	ND	67	ug/L
1,2-Dichloroethane	ND	67	ug/L
2-Butanone	ND	670	ug/L
1,1,1-Trichloroethane	ND	67	ug/L
Carbon tetrachloride	ND	67	ug/L
Bromodichloromethane	ND	67	ug/L
1,2-Dichloropropane	ND	67	ug/L
cis-1,3-Dichloropropene	ND	67	ug/L
Trichloroethene	**2500**	**67**	**ug/L**
Dibromochloromethane	ND	67	ug/L
1,1,2-Trichloroethane	ND	67	ug/L
Benzene	ND	67	ug/L
trans-1,3-Dichloropropene	ND	67	ug/L
Bromoform	ND	67	ug/L
4-Methyl-2-pentanone	ND	670	ug/L
2-Hexanone	ND	670	ug/L
Tetrachloroethene	ND	67	ug/L
1,1,2,2-Tetrachloroethane	ND	67	ug/L
Toluene	ND	67	ug/L
Chlorobenzene	ND	67	ug/L
Ethylbenzene	ND	67	ug/L
Styrene	ND	67	ug/L
Xylenes (total)	ND	67	ug/L
cis-1,2-Dichloroethene	**270**	**33**	**ug/L**
trans-1,2-Dichloroethene	ND	33	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: POLY TANK

GC/MS Volatiles

Lot-Sample #...:	A1H030174-035	**Work Order #...:**	EHF1E1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 15:45	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224118				
Dilution Factor:	3.33	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	3.3	ug/L
Bromomethane	ND	3.3	ug/L
Vinyl chloride	ND	3.3	ug/L
Chloroethane	ND	3.3	ug/L
Methylene chloride	ND	3.3	ug/L
Acetone	ND	33	ug/L
Carbon disulfide	ND	3.3	ug/L
1,1-Dichloroethene	ND	3.3	ug/L
1,1-Dichloroethane	ND	3.3	ug/L
Chloroform	ND	3.3	ug/L
1,2-Dichloroethane	ND	3.3	ug/L
2-Butanone	ND	33	ug/L
1,1,1-Trichloroethane	**6.5**	**3.3**	**ug/L**
Carbon tetrachloride	ND	3.3	ug/L
Bromodichloromethane	ND	3.3	ug/L
1,2-Dichloropropane	ND	3.3	ug/L
cis-1,3-Dichloropropene	ND	3.3	ug/L
Trichloroethene	**77**	**3.3**	**ug/L**
Dibromochloromethane	ND	3.3	ug/L
1,1,2-Trichloroethane	ND	3.3	ug/L
Benzene	ND	3.3	ug/L
trans-1,3-Dichloropropene	ND	3.3	ug/L
Bromoform	ND	3.3	ug/L
4-Methyl-2-pentanone	ND	33	ug/L
2-Hexanone	ND	33	ug/L
Tetrachloroethene	**13**	**3.3**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	3.3	ug/L
Toluene	ND	3.3	ug/L
Chlorobenzene	ND	3.3	ug/L
Ethylbenzene	ND	3.3	ug/L
Styrene	ND	3.3	ug/L
Xylenes (total)	ND	3.3	ug/L
cis-1,2-Dichloroethene	**26**	**1.7**	**ug/L**
trans-1,2-Dichloroethene	ND	1.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(73 - 122)
1,2-Dichloroethane-d4	99	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-21S

GC/MS Volatiles

Lot-Sample #...: A1H030174-036 Work Order #...: EHF1F1AA Matrix.....: WG
Date Sampled...: 08/02/01 16:20 Date Received..: 08/03/01
Prep Date.....: 08/10/01 Analysis Date..: 08/10/01
Prep Batch #...: 1225225
Dilution Factor: 5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Vinyl chloride	**31**	**5.0**	**ug/L**
Chloroethane	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Acetone	ND	50	ug/L
Carbon disulfide	ND	5.0	ug/L
1,1-Dichloroethene	ND	5.0	ug/L
1,1-Dichloroethane	**39**	**5.0**	**ug/L**
Chloroform	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
2-Butanone	ND	50	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
1,2-Dichloropropane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
Trichloroethene	**10**	**5.0**	**ug/L**
Dibromochloromethane	ND	5.0	ug/L
1,1,2-Trichloroethane	ND	5.0	ug/L
Benzene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
2-Hexanone	ND	50	ug/L
Tetrachloroethene	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Toluene	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
Xylenes (total)	ND	5.0	ug/L
cis-1,2-Dichloroethene	**130**	**2.5**	**ug/L**
trans-1,2-Dichloroethene	**4.9**	**2.5**	**ug/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	93	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: MW-23S

GC/MS Volatiles

Lot-Sample #...:	A1H030174-037	**Work Order #...:**	EHF1G1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 16:25	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224118				
Dilution Factor:	200	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	200	ug/L
Bromomethane	ND	200	ug/L
Vinyl chloride	**760**	**200**	**ug/L**
Chloroethane	ND	200	ug/L
Methylene chloride	ND	200	ug/L
Acetone	ND	2000	ug/L
Carbon disulfide	ND	200	ug/L
1,1-Dichloroethene	ND	200	ug/L
1,1-Dichloroethane	ND	200	ug/L
Chloroform	ND	200	ug/L
1,2-Dichloroethane	ND	200	ug/L
2-Butanone	ND	2000	ug/L
1,1,1-Trichloroethane	ND	200	ug/L
Carbon tetrachloride	ND	200	ug/L
Bromodichloromethane	ND	200	ug/L
1,2-Dichloropropane	ND	200	ug/L
cis-1,3-Dichloropropene	ND	200	ug/L
Trichloroethene	ND	200	ug/L
Dibromochloromethane	ND	200	ug/L
1,1,2-Trichloroethane	ND	200	ug/L
Benzene	ND	200	ug/L
trans-1,3-Dichloropropene	ND	200	ug/L
Bromoform	ND	200	ug/L
4-Methyl-2-pentanone	ND	2000	ug/L
2-Hexanone	ND	2000	ug/L
Tetrachloroethene	ND	200	ug/L
1,1,2,2-Tetrachloroethane	ND	200	ug/L
Toluene	ND	200	ug/L
Chlorobenzene	ND	200	ug/L
Ethylbenzene	ND	200	ug/L
Styrene	ND	200	ug/L
Xylenes (total)	ND	200	ug/L
cis-1,2-Dichloroethene	**6700**	**100**	**ug/L**
trans-1,2-Dichloroethene	ND	100	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

COMPUCHEM ENVIRONMENTAL

Client Sample ID: DRUM#1

GC/MS Volatiles

Lot-Sample #...:	A1H030174-038	**Work Order #...:**	EHF1J1AA	**Matrix.....:**	WG
Date Sampled...:	08/02/01 18:00	**Date Received..:**	08/03/01		
Prep Date.....:	08/10/01	**Analysis Date..:**	08/10/01		
Prep Batch #...:	1224118				
Dilution Factor:	83.33	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloromethane	ND	83	ug/L
Bromomethane	ND	83	ug/L
Vinyl chloride	ND	83	ug/L
Chloroethane	ND	83	ug/L
Methylene chloride	ND	83	ug/L
Acetone	ND	830	ug/L
Carbon disulfide	ND	83	ug/L
1,1-Dichloroethene	ND	83	ug/L
1,1-Dichloroethane	ND	83	ug/L
Chloroform	ND	83	ug/L
1,2-Dichloroethane	ND	83	ug/L
2-Butanone	ND	830	ug/L
1,1,1-Trichloroethane	**160**	**83**	**ug/L**
Carbon tetrachloride	ND	83	ug/L
Bromodichloromethane	ND	83	ug/L
1,2-Dichloropropane	ND	83	ug/L
cis-1,3-Dichloropropene	ND	83	ug/L
Trichloroethene	**2700**	**83**	**ug/L**
Dibromochloromethane	ND	83	ug/L
1,1,2-Trichloroethane	ND	83	ug/L
Benzene	ND	83	ug/L
trans-1,3-Dichloropropene	ND	83	ug/L
Bromoform	ND	83	ug/L
4-Methyl-2-pentanone	ND	830	ug/L
2-Hexanone	ND	830	ug/L
Tetrachloroethene	**660**	**83**	**ug/L**
1,1,2,2-Tetrachloroethane	ND	83	ug/L
Toluene	ND	83	ug/L
Chlorobenzene	ND	83	ug/L
Ethylbenzene	ND	83	ug/L
Styrene	ND	83	ug/L
Xylenes (total)	ND	83	ug/L
cis-1,2-Dichloroethene	**840**	**42**	**ug/L**
trans-1,2-Dichloroethene	ND	42	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	101	(61 - 128)
Toluene-d8	100	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHR4D1AA Matrix.....: WATER
MB Lot-Sample #: A1H100000-276

Prep Date.....: 08/09/01
Analysis Date..: 08/09/01 Prep Batch #...: 1222276
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	96	(61 - 128)
Toluene-d8	94	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)

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GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHR4D1AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHT3D1AA Matrix.....: WATER
MB Lot-Sample #: A1H110000-097

Prep Date.....: 08/10/01
Analysis Date..: 08/10/01 Prep Batch #...: 1223097
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	85	(61 - 128)
Toluene-d8	96	(76 - 110)
4-Bromofluorobenzene	98	(74 - 116)

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GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHT3D1AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174
MB Lot-Sample #: A1H120000-118

Work Order #...: EHVVT1AA
Prep Date.....: 08/09/01
Prep Batch #...: 1224118

Matrix.....: WATER

Analysis Date..: 08/09/01
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
1,2-Dichloroethane-d4	100	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)

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GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHVVT1AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174
MB Lot-Sample #: A1H120000-124

Work Order #...: EHVV11AA
Prep Date.....: 08/09/01
Prep Batch #...: 1224124

Matrix.....: WATER

Analysis Date..: 08/09/01
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHVV11AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHV621AA Matrix.....: WATER
MB Lot-Sample #: A1H130000-225

Prep Date.....: 08/10/01
Analysis Date..: 08/10/01 Prep Batch #...: 1225225
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	10	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	10	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	0.50	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
1,2-Dichloroethane-d4	98	(61 - 128)
Toluene-d8	99	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 Work Order #...: EHV621AA Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHR4D1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A1H100000-276 EHR4D1AD-LCSD
Prep Date.....: 08/09/01 **Analysis Date..:** 08/09/01
Prep Batch #...: 1222276
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**94**	**(63 - 130)**			**SW846 8260B**
	89	**(63 - 130)**	**5.6**	**(0-20)**	**SW846 8260B**
Trichloroethene	**97**	**(75 - 122)**			**SW846 8260B**
	91	**(75 - 122)**	**6.5**	**(0-20)**	**SW846 8260B**
Benzene	**93**	**(80 - 116)**			**SW846 8260B**
	88	**(80 - 116)**	**5.8**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(74 - 119)**			**SW846 8260B**
	92	**(74 - 119)**	**6.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**			**SW846 8260B**
	93	**(76 - 117)**	**6.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	102	(73 - 122)
	95	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
	98	(61 - 128)
Toluene-d8	101	(76 - 110)
	93	(76 - 110)
4-Bromofluorobenzene	102	(74 - 116)
	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHVVT1AC **Matrix.....:** WATER
LCS Lot-Sample#: A1H120000-118
Prep Date.....: 08/09/01 **Analysis Date..:** 08/09/01
Prep Batch #...: 1224118
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**82**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**91**	**(75 - 122)**	**SW846 8260B**
Benzene	**87**	**(80 - 116)**	**SW846 8260B**
Toluene	**94**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHT3D1AC **Matrix.....:** WATER
LCS Lot-Sample#: A1H110000-097
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1223097
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**95**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**100**	**(75 - 122)**	**SW846 8260B**
Benzene	**99**	**(80 - 116)**	**SW846 8260B**
Toluene	**100**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**100**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
1,2-Dichloroethane-d4	88	(61 - 128)
Toluene-d8	98	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHVV11AC **Matrix.....:** WATER
LCS Lot-Sample#: A1H120000-124
Prep Date.....: 08/09/01 **Analysis Date..:** 08/09/01
Prep Batch #...: 1224124
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**86**	**(63 - 130)**	**SW846 8260B**
Trichloroethene	**98**	**(75 - 122)**	**SW846 8260B**
Benzene	**97**	**(80 - 116)**	**SW846 8260B**
Toluene	**97**	**(74 - 119)**	**SW846 8260B**
Chlorobenzene	**99**	**(76 - 117)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	97	(73 - 122)
1,2-Dichloroethane-d4	92	(61 - 128)
Toluene-d8	95	(76 - 110)
4-Bromofluorobenzene	96	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHV621AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A1H130000-225 EHV621AD-LCSD
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1225225
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**92**	**(63 - 130)**			**SW846 8260B**
	87	**(63 - 130)**	**5.5**	**(0-20)**	**SW846 8260B**
Trichloroethene	**97**	**(75 - 122)**			**SW846 8260B**
	95	**(75 - 122)**	**1.7**	**(0-20)**	**SW846 8260B**
Benzene	**95**	**(80 - 116)**			**SW846 8260B**
	91	**(80 - 116)**	**4.3**	**(0-20)**	**SW846 8260B**
Toluene	**100**	**(74 - 119)**			**SW846 8260B**
	96	**(74 - 119)**	**4.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**101**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**3.8**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(73 - 122)
	101	(73 - 122)
1,2-Dichloroethane-d4	112	(61 - 128)
	108	(61 - 128)
Toluene-d8	102	(76 - 110)
	98	(76 - 110)
4-Bromofluorobenzene	104	(74 - 116)
	101	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHFKG1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H030144-006 EHFKG1AE-MSD
Date Sampled...: 08/02/01 17:30 **Date Received..:** 08/03/01
Prep Date.....: 08/09/01 **Analysis Date..:** 08/09/01
Prep Batch #...: 1222276
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**84**	**(62 - 130)**			**SW846 8260B**
	85	**(62 - 130)**	**1.2**	**(0-20)**	**SW846 8260B**
Trichloroethene	**94**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**0.35**	**(0-20)**	**SW846 8260B**
Benzene	**91**	**(78 - 118)**			**SW846 8260B**
	95	**(78 - 118)**	**2.9**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(70 - 119)**			**SW846 8260B**
	97	**(70 - 119)**	**4.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**94**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**2.6**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	98	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
	103	(61 - 128)
Toluene-d8	96	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	99	(74 - 116)
	99	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHF6N1CC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H030197-006 EHF6N1CD-MSD
Date Sampled...: 08/02/01 12:30 **Date Received..:** 08/03/01
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1224118
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**78**	**(62 - 130)**			**SW846 8260B**
	80	**(62 - 130)**	**2.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(62 - 130)**			**SW846 8260B**
	96	**(62 - 130)**	**4.8**	**(0-20)**	**SW846 8260B**
Benzene	**88**	**(78 - 118)**			**SW846 8260B**
	92	**(78 - 118)**	**5.1**	**(0-20)**	**SW846 8260B**
Toluene	**91**	**(70 - 119)**			**SW846 8260B**
	98	**(70 - 119)**	**7.2**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**96**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**5.9**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(73 - 122)
	105	(73 - 122)
1,2-Dichloroethane-d4	105	(61 - 128)
	114	(61 - 128)
Toluene-d8	95	(76 - 110)
	103	(76 - 110)
4-Bromofluorobenzene	100	(74 - 116)
	110	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHF551CC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H030197-003 EHF551CD-MSD
Date Sampled...: 08/02/01 14:40 **Date Received..:** 08/03/01
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1224118
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**77**	**(62 - 130)**			**SW846 8260B**
	81	**(62 - 130)**	**4.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**88**	**(62 - 130)**			**SW846 8260B**
	95	**(62 - 130)**	**8.1**	**(0-20)**	**SW846 8260B**
Benzene	**85**	**(78 - 118)**			**SW846 8260B**
	94	**(78 - 118)**	**9.5**	**(0-20)**	**SW846 8260B**
Toluene	**90**	**(70 - 119)**			**SW846 8260B**
	96	**(70 - 119)**	**7.0**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	102	**(76 - 117)**	**8.7**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	107	(73 - 122)
1,2-Dichloroethane-d4	103	(61 - 128)
	110	(61 - 128)
Toluene-d8	96	(76 - 110)
	102	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)
	106	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHGAK1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H030220-003 EHGAK1AD-MSD
Date Sampled...: 08/02/01 14:00 **Date Received..:** 08/03/01
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1223097
Dilution Factor: 5

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**89**	**(62 - 130)**			**SW846 8260B**
	84	**(62 - 130)**	**5.9**	**(0-20)**	**SW846 8260B**
Trichloroethene	**98**	**(62 - 130)**			**SW846 8260B**
	98	**(62 - 130)**	**0.82**	**(0-20)**	**SW846 8260B**
Benzene	**99**	**(78 - 118)**			**SW846 8260B**
	99	**(78 - 118)**	**0.60**	**(0-20)**	**SW846 8260B**
Toluene	**95**	**(70 - 119)**			**SW846 8260B**
	97	**(70 - 119)**	**2.1**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**2.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	99	(73 - 122)
	97	(73 - 122)
1,2-Dichloroethane-d4	111	(61 - 128)
	105	(61 - 128)
Toluene-d8	96	(76 - 110)
	96	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	95	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHFWH1AC-MS **Matrix.....:** WG
MS Lot-Sample #: A1H030174-001 EHFWH1AD-MSD
Date Sampled...: 08/02/01 07:45 **Date Received..:** 08/03/01
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1224124
Dilution Factor: 100

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**83**	**(62 - 130)**			**SW846 8260B**
	85	**(62 - 130)**	**1.8**	**(0-20)**	**SW846 8260B**
Trichloroethene	**91**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**0.62**	**(0-20)**	**SW846 8260B**
Benzene	**96**	**(78 - 118)**			**SW846 8260B**
	96	**(78 - 118)**	**0.44**	**(0-20)**	**SW846 8260B**
Toluene	**98**	**(70 - 119)**			**SW846 8260B**
	100	**(70 - 119)**	**1.7**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**97**	**(76 - 117)**			**SW846 8260B**
	99	**(76 - 117)**	**2.1**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(73 - 122)
	94	(73 - 122)
1,2-Dichloroethane-d4	87	(61 - 128)
	85	(61 - 128)
Toluene-d8	100	(76 - 110)
	99	(76 - 110)
4-Bromofluorobenzene	97	(74 - 116)
	95	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1H030174 **Work Order #...:** EHG291AJ-MS **Matrix.....:** WATER
MS Lot-Sample #: A1H040103-005 EHG291AK-MSD
Date Sampled...: 08/02/01 17:05 **Date Received..:** 08/03/01
Prep Date.....: 08/10/01 **Analysis Date..:** 08/10/01
Prep Batch #...: 1225225
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**87**	**(62 - 130)**			**SW846 8260B**
	88	**(62 - 130)**	**1.3**	**(0-20)**	**SW846 8260B**
Trichloroethene	**92**	**(62 - 130)**			**SW846 8260B**
	94	**(62 - 130)**	**2.6**	**(0-20)**	**SW846 8260B**
Benzene	**91**	**(78 - 118)**			**SW846 8260B**
	93	**(78 - 118)**	**1.5**	**(0-20)**	**SW846 8260B**
Toluene	**93**	**(70 - 119)**			**SW846 8260B**
	96	**(70 - 119)**	**2.5**	**(0-20)**	**SW846 8260B**
Chlorobenzene	**93**	**(76 - 117)**			**SW846 8260B**
	97	**(76 - 117)**	**4.0**	**(0-20)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	98	(73 - 122)
	100	(73 - 122)
1,2-Dichloroethane-d4	104	(61 - 128)
	107	(61 - 128)
Toluene-d8	95	(76 - 110)
	97	(76 - 110)
4-Bromofluorobenzene	95	(74 - 116)
	97	(74 - 116)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

DAIMLERCHRYSLER — Chain-of-Custody

0385 67 3

3rd Quarter GW Sampling

~~Lancaster Laboratories~~ Compuchem/STL 2425 New Holland Pike North Canton, OH ~~Lancaster, PA 17601~~ Phone Number: ~~(717) 656-2300~~ Fax Number: (717) 656-2681	Project Name: Dayton Thermal Products Site Location: Dayton OH Site Code: SC001 RFA Number: YGQP2001231 SDG 231C DaimlerChrysler PM: Gary Stancevik	Consultant: CBG Address: 1210 West County Road E St. Paul MN 55112 Consultant PM: Ken Vogel Phone: 651 490 1405 Fax: 1006	

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs.
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative: 40 ml, glass, HCl; 8260 VOC

Matrix Codes
S - Soil; SW - Surface Water; GW - Groundwater; A - Air; Sed. - Sediment; O - Other (specify) _____

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	40 ml, glass, HCl 8260 VOC	Remarks
MW-A 6	8/2/01	0745	G	GW	2	X	
MW-A6 Duplicate		0745				X	Duplicate
PZ-12 I		0750				X	
PZ-12 D		0810				X	
PZ-8 D		0850				X	
MW-7 S		0920				X	
MW-B 5		0925				X	
PZ-7 I		0930				X	
MW-15 S		1005				X	
PZ-15 I		1005				X	

Sampler(s) Brian Allen / Rick Stercula
Test America

Cooler ID # Compuchem

Samples Relinquished under Airbill No. 8234452310 94

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Brian Allen	8/2/01	1535	[illegible]	8/2/01	1545	Yes (No)
[illegible]	8/2/01	Fed X	~~Received for Laboratory by:~~	8-3-01	0945	(Yes) No

Is RFA sampling complete? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231C

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

DAIMLERCHRYSLER — Chain-of-Custody

0386 68 B

3rd Qtr GW Sampling

~~Lancaster~~ Laboratories Comp Chem/STL
~~2425 New Holland Pike~~ North Canton, OH
~~Lancaster, PA 17601~~
Phone Number: ~~(717) 656-2300~~
Fax Number: ~~(717) 656-2681~~

Project Name: Dayton Thermal Products
Site Location: Dayton OH
Site Code: SC001
RFA Number: YGQPZ001231 SDG231C
DaimlerChrysler PM: Gary Stanczuk

Consultant: LBG
Address: 1210 West County Road E
St. Paul MN 55112
Consultant PM: Ken Vogel
Phone: 6514901405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs.
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	40 ml, glass, HCl 8260 VOC								Remarks
MW A 3	8/2/01	10 40	G	GW	2	x								
PZ - 14 I		10 40				x								
PZ - 16 D		11 05				x								
PZ - 17 I		11 25				x								
PZ - 17 D		11 30				x								
MW - B 2		11 55				x								
MW - C 2		12 00				x								
MW - 18 S		12 15				x								
MW - A 5		12 35				x								
PZ - 13 I		12 35				x								

Sampler(s): BRIAN ALLEN, RICK STERCULA, Test America

Cooler ID #: Comp. Chem

Samples Relinquished under Airbill No. 8284450340 54

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Brian Allen	8/2/01	1535	[signature]	8/2/01	1545	Yes (No)
[signature]	8/2/01	Fed X	[signature]	8-3-01	0945	(Yes) No

Is RFA sampling complete? (Yes) No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231C

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created: July 9, 1999

DAIMLERCHRYSLER

Chain-of-Custody

0387 69 B

3rd Qtr 2001 GW Sampling

~~Lancaster Laboratories~~ CompuChem/STL
~~2425 New Holland Pike~~ North Canton OH
~~Lancaster, PA 17601~~
Phone Number: ~~(717) 656-2300~~
Fax Number: ~~(717) 656-2681~~

Project Name: Dayton Thermal Products
Site Location: Dayton OH
Site Code: 30001
RFA Number: 4GQP2001231 SDG 231C
DaimlerChrysler PM: Gary Stanczuk

Consultant: LBG
Address: 1210 W. Cnty Rd E, Suite 700
St. Paul MN 55119
Consultant PM: Ken Vogel
Phone: 651-490-1405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs.
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify) Lab Supplied DI Water

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	VOC, 8260 40 ml glass, HCl								Remarks
MW-B6	8/2/01	1300	G	GW	2	X								
MW-A2		1300				X								
MW-8S		1330				X								
MW-8S Duplicate		1330				X								Duplicate
PZ ~~MW~~-8I		1335				X								
MW-A4		1400				X								
PZ-9D		1405				X								
PZ-10I		1420				X								
MW-10S		1425				X								
T080201 ~~TRIP BLANK DAY 3~~		—		O		X								Trip Blank

Sampler(s) Brian Allen
Rick Stercula
Test America

Cooler ID # Compuchem

Samples Relinquished under Airbill No. 828445034054

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Brian Allen	8/2/01	1535	[signature]	8/2/01	1545	Yes No
[signature]	8/2/01	Fed X	Received for Laboratory by: [signature]	8-3-01	0745	Yes No

Is RFA sampling complete? Yes No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231C

Distribution: White copy: Data package Yellow: Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created July 9, 1999

DAIMLERCHRYSLER

Chain-of-Custody

0388 70 B

3rd Qtr 2001 GW Sampling

~~Lancaster Laboratories~~ Compuchem/STL
~~2425 New Holland Pike~~ North Canton OH
~~Lancaster, PA 17601~~
Phone Number: ~~(717) 656-2300~~
Fax Number ~~(717) 656-2681~~

Project Name: Dayton Thermal Products
Site Location: Dayton OH
Site Code: SC001
RFA Number: YGQP2001231 SDG 231-C
DaimlerChrysler PM: Gary Stanczak

Consultant: LBG
Address: 1210 W Cnty Rd E. Suite 700
St. Paul, MN 55112
Consultant PM Ken Vogel
Phone: 651-490-1405 Fax: 1006

Turn-around Time Request: (circle)
24 calendar hrs
48 calendar hrs.
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	VOC, 8260 40 ml glass, HCl								Remarks
AS	8/2/01	1520	G	GW	2	X								
MW-B3	↓	1730	G	GW	2	X								
MW-C3	↓	1705	G	GW	2	X								
MW-11S	8/2/01	1450	G	GW	2	X								
Poly Tank	↓	1545	G	O	2	X								Non-Haz Purge Water
MW-21S	↓	1620	G	GW	2	X								
MW-23S	↓	1625	G	GW	2	X								
DRUM #1	↓	1800	G	O	2	X								Possibly Haz Waste Purge Water

Sampler(s) BRIAN ALLEN / RICK STERCULA Test America

Cooler ID # Compuchem

Samples Relinquished under Airbill No. 828445034054

Temperature (corrected) ___ C

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
Brian Allen	8/2/01	1535	[signature]	8/2/01	1545	Yes No
[signature]	8/2/01	Fed X	[signature]	8-3-01	0945	Yes No

Is RFA sampling complete? Yes No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

SDG 231C

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

Revision No 3
Created July 9, 1999

Lancaster Laboratories
Where quality is a science.
Electronic Data Deliverables

APR 20 2001

EPA Region 5 Records Ctr.
349861

10160 - DaimlerChrysler Corporation

SDG: DCH90 Dayton Thermal, Sewer Cleanout, Bldg 50

Sample Reference List for EDD File C3581189.TXT

Laboratory Sample No.	Laboratory Group No.	Sample Description		Collected
3581189	**756805**	WL41131 Grab Water Sample	Site Code: SC001 RFA# YGQP2001212	03/30/01 09:50
3581190		Trip Blank Water Sample	Site Code: SC001 RFA# YGQP2001212	

UBG + ArcView database
ENTERED BY/DATE EDD 4/18/01
CHECKED BY mcl 4/18/01
DATE

Analysis Report

Lancaster Laboratories
Where quality is a science.

APR 20 2001

ANALYTICAL RESULTS

Prepared for:

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

LBG + ArcView Database
EDD 4/18/01
MCP 4/18/01

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 756805. Samples arrived at the laboratory on Saturday, March 31, 2001. The PO# for this group is N99C403749-B and the release number is YGQP2001212.

Client Description	Lancaster Labs Number
WL41131 Grab Water Sample	3581189
Trip Blank Water Sample	3581190

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Leggette, Brashears & Graham Attn: Mr. Ken Vogel

Questions? Contact your Client Services Representative
Gwen A. Birchall at (717) 656-2300.

Respectfully Submitted,

Robert E. Mellinger
Sr. Chemist/Coordinator

Lancaster Laboratories
Where quality is a science.

APR 20 2001

Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00259	Mercury	7439-97-6	0.000034J	0.000026	mg/l	1
01045	Arsenic (furnace method)	7440-38-2	0.0073	0.0014	mg/l	1
01049	Cadmium (furnace method)	7440-43-9	0.0024	0.00015	mg/l	1
01064	Selenium (furnace method)	7782-49-2	0.0033 J	0.0012	mg/l	1
01751	Chromium	7440-47-3	0.0449	0.0017	mg/l	1
07046	Barium TR	7440-39-3	1.72	0.00042	mg/l	1
07053	Copper TR	7440-50-8	0.449	0.0024	mg/l	1
07055	Lead TR	7439-92-1	13.5	0.0088	mg/l	1
07066	Silver TR	7440-22-4	0.0231	0.0013	mg/l	1
07072	Zinc TR	7440-66-6	4.25	0.0032	mg/l	1
00200	pH	n.a.	7.74	0.010		1
00430	Flash Point for Liquids	n.a.	No Flash Observed	50.	Degrees F	1
	No flash observed below 172F.					
	Test flame extinguished at 152F.					
	Flash point was determined using Pensky Martens closed cup apparatus.					
00496	Corrosivity	n.a.	See Below		See Below	1
	Corrosivity:					
	The pH of a sample was 7.74 indicating that the sample is not corrosive.					
	A waste is corrosive if it exhibits a pH equal to or less than 2					
	or equal to or greater than 12.5.					
01121	Reactivity	n.a.	See Below		See Below	1
	Reactivity:					
	The sample was extracted by the interim method described in SW 846,					
	Chapter 7.3. This solution was analyzed for cyanide and sulfide.					
	This waste is not considered reactive and hazardous because it does					
	not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or					
	hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were					
	established by the Solid Waste Branch of EPA, July, 1992. These results					
	do not reflect total cyanide or total sulfide.					
01122	Sulfide (Reactivity)	n.a.	N.D.	33.	mg/kg	1
01123	Cyanide (Reactivity)	n.a.	N.D.	100.	mg/kg	1

00937 TCL Pesticides in Waters

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00938	Endrin Ketone	53494-70-5	N.D.	0.0039	ug/l	1
01361	Alpha Chlordane	5103-71-9	0.0132	0.0020	ug/l	1
01362	Gamma Chlordane	5103-74-2	N.D.	0.0020	ug/l	1
01600	Alpha BHC	319-84-6	N.D.	0.0020	ug/l	1
01601	Beta BHC	319-85-7	N.D.	0.0020	ug/l	1
01602	Gamma BHC - Lindane	58-89-9	N.D.	0.0020	ug/l	1
01603	Delta BHC	319-86-8	N.D.	0.0057	ug/l	1
01604	Heptachlor	76-44-8	N.D.	0.0020	ug/l	1
01605	Aldrin	309-00-2	N.D.	0.0020	ug/l	1
01606	Heptachlor Epoxide	1024-57-3	N.D.	0.0020	ug/l	1
01607	DDE	72-55-9	N.D.	0.0039	ug/l	1
01608	DDD	72-54-8	N.D.	0.0039	ug/l	1
01609	DDT	50-29-3	0.0054 J	0.0039	ug/l	1
01610	Dieldrin	60-57-1	0.032	0.0039	ug/l	1
01611	Endrin	72-20-8	N.D.	0.0039	ug/l	1
01613	Toxaphene	8001-35-2	N.D.	0.30	ug/l	1
01615	Endosulfan II	33213-65-9	N.D.	0.0039	ug/l	1
01616	Endosulfan I	959-98-8	0.0970	0.0020	ug/l	1
01617	Endosulfan Sulfate	1031-07-8	0.0047 J	0.0039	ug/l	1
01618	Endrin Aldehyde	7421-93-4	N.D.	0.0039	ug/l	1
01619	PCB-1016	12674-11-2	N.D.	0.099	ug/l	1
01620	PCB-1221	11104-28-2	N.D.	0.099	ug/l	1
01621	PCB-1232	11141-16-5	N.D.	0.099	ug/l	1
01622	PCB-1242	53469-21-9	N.D.	0.099	ug/l	1
01623	PCB-1248	12672-29-6	N.D.	0.099	ug/l	1
01624	PCB-1254	11097-69-1	N.D.	0.099	ug/l	1
01626	PCB-1260	11096-82-5	N.D.	0.099	ug/l	1
01860	Methoxychlor	72-43-5	N.D.	0.020	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The gamma-chlordane recovery is outside the QC limits for the LCSD. Since the recovery is high and gamma-chlordane was not detected in the sample, the results are reported.

01316 AppendixIX Herbicides - Waters

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
00288	2,4-D	94-75-7	5.97		0.097	ug/l	1
00289	2,4,5-TP	93-72-1	N.D.		0.0097	ug/l	1
01314	Dinoseb	88-85-7	0.71		0.048	ug/l	1
01315	2,4,5-T	93-76-5	1.02		0.0097	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample extraction.

04678 TCL SW846 Semivolatiles/Waters

03871	4-Chloroaniline	106-47-8	N.D.		1.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	N.D.		1.	ug/l	1
03907	2-Nitroaniline	88-74-4	N.D.		2.	ug/l	1
03922	2,4,5-Trichlorophenol	95-95-4	N.D.		2.	ug/l	1
03924	2-Chlorophenol	95-57-8	N.D.		1.	ug/l	1
03925	Phenol	108-95-2	18.		1.	ug/l	1
03926	2-Nitrophenol	88-75-5	N.D.		1.	ug/l	1
03927	2,4-Dimethylphenol	105-67-9	1.	J	1.	ug/l	1
03928	2,4-Dichlorophenol	120-83-2	N.D.		1.	ug/l	1
03929	4-Chloro-3-methylphenol	59-50-7	N.D.		1.	ug/l	1
03930	2,4,6-Trichlorophenol	88-06-2	N.D.		2.	ug/l	1
03936	bis(2-Chloroethyl)ether	111-44-4	N.D.		1.	ug/l	1
03937	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
03938	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
03939	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
03941	Hexachloroethane	67-72-1	N.D.		1.	ug/l	1
03942	N-Nitroso-di-n-propylamine	621-64-7	N.D.		1.	ug/l	1
03943	Nitrobenzene	98-95-3	N.D.		1.	ug/l	1
03944	Isophorone	78-59-1	N.D.		1.	ug/l	1
03945	bis(2-Chloroethoxy)methane	111-91-1	N.D.		1.	ug/l	1
03946	1,2,4-Trichlorobenzene	120-82-1	N.D.		1.	ug/l	1
03947	Naphthalene	91-20-3	N.D.		1.	ug/l	1
03948	Hexachlorobutadiene	87-68-3	N.D.		2.	ug/l	1

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
03949	Hexachlorocyclopentadiene	77-47-4	N.D.		5.	ug/l	1
03950	2-Chloronaphthalene	91-58-7	N.D.		1.	ug/l	1
03951	Acenaphthylene	208-96-8	N.D.		1.	ug/l	1
03952	Dimethylphthalate	131-11-3	N.D.		2.	ug/l	1
04680	2-Methylphenol	95-48-7	N.D.		1.	ug/l	1
04681	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.		1.	ug/l	1
04682	4-Methylphenol	106-44-5	86.		3.	ug/l	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04679	TCL SW846 Semivolatiles/Waters						
03879	Dibenzofuran	132-64-9	N.D.		1.	ug/l	1
03908	3-Nitroaniline	99-09-2	N.D.		2.	ug/l	1
03909	4-Nitroaniline	100-01-6	N.D.		2.	ug/l	1
03931	2,4-Dinitrophenol	51-28-5	N.D.		19.	ug/l	1
03932	4-Nitrophenol	100-02-7	N.D.		10.	ug/l	1
03933	4,6-Dinitro-2-methylphenol	534-52-1	N.D.		5.	ug/l	1
03934	Pentachlorophenol	87-86-5	N.D.		3.	ug/l	1
03953	2,6-Dinitrotoluene	606-20-2	2.	J	2.	ug/l	1
03954	Acenaphthene	83-32-9	N.D.		1.	ug/l	1
03955	2,4-Dinitrotoluene	121-14-2	N.D.		1.	ug/l	1
03956	Fluorene	86-73-7	N.D.		1.	ug/l	1
03957	4-Chlorophenyl-phenylether	7005-72-3	N.D.		1.	ug/l	1
03958	Diethylphthalate	84-66-2	N.D.		2.	ug/l	1
03960	N-Nitrosodiphenylamine	86-30-6	N.D.		1.	ug/l	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
03961	4-Bromophenyl-phenylether	101-55-3	N.D.		2.	ug/l	1
03962	Hexachlorobenzene	118-74-1	N.D.		2.	ug/l	1
03963	Phenanthrene	85-01-8	N.D.		1.	ug/l	1
03964	Anthracene	120-12-7	N.D.		1.	ug/l	1
03965	Di-n-butylphthalate	84-74-2	3.	J	2.	ug/l	1
03966	Fluoranthene	206-44-0	N.D.		1.	ug/l	1
03967	Pyrene	129-00-0	3.	J	1.	ug/l	1

Lancaster Laboratories
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Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
03969	Butylbenzylphthalate	85-68-7	220.		4.	ug/l	2
03970	Benzo(a)anthracene	56-55-3	N.D.		1.	ug/l	1
03971	Chrysene	218-01-9	N.D.		1.	ug/l	1
03972	3,3'-Dichlorobenzidine	91-94-1	N.D.		3.	ug/l	1
03973	bis(2-Ethylhexyl)phthalate	117-81-7	39.		2.	ug/l	1
03974	Di-n-octylphthalate	117-84-0	N.D.		2.	ug/l	1
03975	Benzo(b)fluoranthene	205-99-2	N.D.		1.	ug/l	1
03976	Benzo(k)fluoranthene	207-08-9	N.D.		1.	ug/l	1
03977	Benzo(a)pyrene	50-32-8	N.D.		1.	ug/l	1
03978	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		1.	ug/l	1
03979	Dibenz(a,h)anthracene	53-70-3	N.D.		1.	ug/l	1
03980	Benzo(g,h,i)perylene	191-24-2	N.D.		1.	ug/l	1
04684	Carbazole	86-74-8	N.D.		2.	ug/l	1

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

06291 TCL by 8260 (water)

05385	Chloromethane	74-87-3	N.D.		2.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.		1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.		2.	ug/l	1
05388	Chloroethane	75-00-3	N.D.		2.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.		1.	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.		2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.		1.	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.		1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.		1.	ug/l	1
05396	Chloroform	67-66-3	2.	J	1.	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.		1.	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.		1.	ug/l	1
05401	Benzene	71-43-2	N.D.		1.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.		1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.		1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.		1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.		1.	ug/l	1
05407	Toluene	108-88-3	1.	J	1.	ug/l	1

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
05408	1,1,2-Trichloroethane	79-00-5	N.D.		1.	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.		1.	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.		1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		1.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		1.	ug/l	1
05418	Styrene	100-42-5	2.	J	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.		1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1.	ug/l	1
06302	Acetone	67-64-1	54.		6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.		1.	ug/l	1
06305	2-Butanone	78-93-3	25.		3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.		1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.		1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.		3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.		3.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		1.	ug/l	1

Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The percent recovery for 1,1,1-trichloroethane in the LCS was 131%, which exceeds the QC window of 83 - 127%. This compound was within QC specifications for the MS and the LCSD. Also, 1,1,1-trichloroethane was not detected in this sample.

The percent recovery for carbon tetrachloride in the LCS was 137%, which exceeds the QC windows of 77-130%. This compound was within QC specifications for the MS and LCSD. Also, carbon tetrachloride was not detected in this sample.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
00259	Mercury	SW-846 7470A	1	04/03/2001 12:43	Rosalind D. Ernest	1

Lancaster Laboratories
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Lancaster Laboratories Sample No. WW 3581189

Collected:03/30/2001 09:50 by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

41131 SDG#: DCH90-01

01045	Arsenic (furnace method)	SW-846 7060A	2	04/04/2001 11:56	Jessica L. Boyd	1
01049	Cadmium (furnace method)	SW-846 7131A	1	04/05/2001 02:34	Jessica L. Boyd	1
01064	Selenium (furnace method)	SW-846 7740	2	04/04/2001 22:57	Jolene M. Schields	1
01751	Chromium	SW-846 6010B	1	04/02/2001 22:46	Jennifer Speck	1
07046	Barium TR	SW-846 6010B	1	04/02/2001 22:46	Jennifer Speck	1
07053	Copper TR	SW-846 6010B	1	04/02/2001 22:46	Jennifer Speck	1
07055	Lead TR	SW-846 6010B	1	04/03/2001 21:15	Jennifer Speck	1
07066	Silver TR	SW-846 6010B	1	04/02/2001 22:46	Jennifer Speck	1
07072	Zinc TR	SW-846 6010B	1	04/02/2001 22:46	Jennifer Speck	1
00200	pH	EPA 150.1	1	04/02/2001 20:00	Luz M. Groff	1
00430	Flash Point for Liquids	ASTM D 93-90	1	04/06/2001 08:50	Susan A. Engle	1
00496	Corrosivity	SW-846 Chapter 7	1	04/02/2001 20:00	Luz M. Groff	1
01121	Reactivity	SW-846 Chapter 7.3	1	04/04/2001 08:15	Susan E. Hibner	1
01122	Sulfide (Reactivity)	SW-846 9034	1	04/04/2001 08:15	Susan E. Hibner	1
01123	Cyanide (Reactivity)	SW-846 9012	1	04/05/2001 12:29	Matthew J. Mercer	1
00937	TCL Pesticides in Waters	SW-846 8081A/8082	1	04/05/2001 09:30	Anita M. Dale	1
01316	AppendixIX Herbicides - Waters	SW-846 8151A	1	04/05/2001 23:17	Michele D. Hamilton	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/05/2001 00:37	Jason C. Arnold	1
04679	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/05/2001 00:37	Jason C. Arnold	1
04679	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/05/2001 09:39	Jason C. Arnold	2
06291	TCL by 8260 (water)	SW-846 8260B/5030B	1	04/02/2001 11:49	Roy R. Mellott, Jr.	1
00813	BNA Water Extraction	SW-846 3510C	1	04/04/2001 08:00	John A. Myers	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	04/04/2001 02:45	Darin P. Wagner	1
00817	Water Sample Pest. Extraction	SW-846 3510C	1	04/03/2001 22:30	Felix C. Arroyo	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/02/2001 10:30	Denise K. Conners	1
05704	WW/TL SW 846 GFAA Digest tot	SW-846 3020A	1	04/02/2001 21:00	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	04/02/2001 20:54	Nelli S. Markaryan	1
06254	WW/TL As/Se-GFAA Digest	SW-846 7060A	1	04/03/2001 21:00	Annamaria Stipkovits	1

Lancaster Laboratories
Where quality is a science.

APR 20 2001

Lancaster Laboratories Sample No. WW 3581190

Collected: n.a. by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
Trip Blank Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

DYNTB SDG#: DCH90-02*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06291	TCL by 8260 (water)					
05385	Chloromethane	74-87-3	N.D.	2.	ug/l	1
05386	Vinyl Chloride	75-01-4	N.D.	1.	ug/l	1
05387	Bromomethane	74-83-9	N.D.	2.	ug/l	1
05388	Chloroethane	75-00-3	N.D.	2.	ug/l	1
05390	1,1-Dichloroethene	75-35-4	N.D.	1.	ug/l	1
05391	Methylene Chloride	75-09-2	N.D.	2.	ug/l	1
05392	trans-1,2-Dichloroethene	156-60-5	N.D.	1.	ug/l	1
05393	1,1-Dichloroethane	75-34-3	N.D.	1.	ug/l	1
05395	cis-1,2-Dichloroethene	156-59-2	N.D.	1.	ug/l	1
05396	Chloroform	67-66-3	N.D.	1.	ug/l	1
05398	1,1,1-Trichloroethane	71-55-6	N.D.	1.	ug/l	1
05399	Carbon Tetrachloride	56-23-5	N.D.	1.	ug/l	1
05401	Benzene	71-43-2	N.D.	1.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	1.	ug/l	1
05403	Trichloroethene	79-01-6	N.D.	1.	ug/l	1
05404	1,2-Dichloropropane	78-87-5	N.D.	1.	ug/l	1
05406	Bromodichloromethane	75-27-4	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	1.	ug/l	1
05408	1,1,2-Trichloroethane	79-00-5	N.D.	1.	ug/l	1
05409	Tetrachloroethene	127-18-4	N.D.	1.	ug/l	1
05411	Dibromochloromethane	124-48-1	N.D.	1.	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	1.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	1.	ug/l	1
05418	Styrene	100-42-5	N.D.	1.	ug/l	1
05419	Bromoform	75-25-2	N.D.	1.	ug/l	1
05421	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1.	ug/l	1
06302	Acetone	67-64-1	N.D.	6.	ug/l	1
06303	Carbon Disulfide	75-15-0	N.D.	1.	ug/l	1
06305	2-Butanone	78-93-3	N.D.	3.	ug/l	1
06306	trans-1,3-Dichloropropene	10061-02-6	N.D.	1.	ug/l	1
06307	cis-1,3-Dichloropropene	10061-01-5	N.D.	1.	ug/l	1
06308	4-Methyl-2-pentanone	108-10-1	N.D.	3.	ug/l	1
06309	2-Hexanone	591-78-6	N.D.	3.	ug/l	1

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. WW 3581190

Collected: n.a. by MP

Account Number: 10160

Submitted: 03/31/2001 10:15
Reported: 04/18/01 at 03:16 PM
Discard: 6/18/01
Trip Blank Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

DaimlerChrysler Corporation
PO Box 537933
Livonia MI 48153-7933

DYNTB SDG#: DCH90-02*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06310	Xylene (Total)	1330-20-7	N.D.	1.	ug/l	1

Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The percent recovery for 1,1,1-trichloroethane in the LCS was 131%, which exceeds the QC window of 83 - 127%. This compound was within QC specifications for the MS and the LCSD. Also, 1,1,1-trichloroethane was not detected in this sample.

The percent recovery for carbon tetrachloride in the LCS was 137%, which exceeds the QC windows of 77-130%. This compound was within QC specifications for the MS and LCSD. Also, carbon tetrachloride was not detected in this sample.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B/5030B	1	04/02/2001 10:50	Roy R. Mellott, Jr.	1

Lancaster Laboratories
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Quality Control Summary

Client Name: DaimlerChrysler Corporation Group Number: 756805
Reported: 04/16/01 at 01:30 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 01092020001A	Sample number(s): 3581189							
pH				99	99	98-102	0	1
Batch number: 010921848002	Sample number(s): 3581189							
Chromium	N.D.	.0017	mg/l	102		95-110		
Barium TR	N.D.	.00042	mg/l	98		95-110		
Copper TR	N.D.	.0024	mg/l	99		92-108		
Lead TR	N.D.	.0088	mg/l	101		94-110		
Silver TR	N.D.	.0013	mg/l	103		94-110		
Zinc TR	N.D.	.0032	mg/l	102		94-112		
Batch number: 010925704003	Sample number(s): 3581189							
Cadmium (furnace method)	N.D.	.00015	mg/l	96		82-117		
Batch number: 010925713001	Sample number(s): 3581189							
Mercury	N.D.	.000026	mg/l	107		84-124		
Batch number: 010930012A	Sample number(s): 3581189							
2,4-D	N.D.	.1	ug/l	97	100	36-168	3	30
2,4,5-TP	N.D.	.01	ug/l	96	98	33-161	2	30
Dinoseb	N.D.	.05	ug/l	47	56	14-108	18	30
2,4,5-T	N.D.	.01	ug/l	101	107	59-156	5	30
Batch number: 010930017A	Sample number(s): 3581189							
Endrin Ketone	N.D.	.004	ug/l	105	107	74-115	2	30
Alpha Chlordane	N.D.	.002	ug/l	107	109	70-117	2	30
Gamma Chlordane	N.D.	.002	ug/l	106	110*	60-107	4	30
Alpha BHC	N.D.	.002	ug/l	107	108	49-151	1	30
Beta BHC	N.D.	.002	ug/l	119	121	64-122	1	30
Gamma BHC - Lindane	0.0076 J	.002	ug/l	106	108	57-143	2	30
Delta BHC	N.D.	.0058	ug/l	119	120	64-132	1	30
Heptachlor	N.D.	.002	ug/l	75	85	38-129	13	30
Aldrin	N.D.	.002	ug/l	50	62	42-112	22	30
Heptachlor Epoxide	N.D.	.002	ug/l	112	113	52-136	1	30
DDE	N.D.	.004	ug/l	105	110	46-140	5	30
DDD	N.D.	.004	ug/l	117	118	60-134	1	30
DDT	N.D.	.004	ug/l	122	122	34-162	0	30
Dieldrin	N.D.	.004	ug/l	112	114	50-145	2	30
Endrin	N.D.	.004	ug/l	136	134	68-156	2	30
Toxaphene	N.D.	.3	ug/l					
Endosulfan II	N.D.	.004	ug/l	112	114	42-143	1	30
Endosulfan I	N.D.	.002	ug/l	110	111	37-146	1	30
Endosulfan Sulfate	N.D.	.004	ug/l	113	114	67-132	1	30
Endrin Aldehyde	N.D.	.004	ug/l	88	91	52-142	3	30
PCB-1016	N.D.	.1	ug/l					
PCB-1221	N.D.	.1	ug/l					
PCB-1232	N.D.	.1	ug/l					
PCB-1242	N.D.	.1	ug/l					

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Lancaster Laboratories
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Quality Control Summary

Client Name: DaimlerChrysler Corporation Group Number: 756805
Reported: 04/16/01 at 01:30 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1248	N.D.	.1	ug/l					
PCB-1254	N.D.	.1	ug/l					
PCB-1260	N.D.	.1	ug/l					
Methoxychlor	N.D.	.02	ug/l	121	120	72-160	1	30
Batch number: 010936254002	Sample number(s): 3581189							
Arsenic (furnace method)	N.D.	.0014	mg/l	101		83-116		
Selenium (furnace method)	N.D.	.0012	mg/l	107		79-114		
Batch number: 01094112101A	Sample number(s): 3581189							
Sulfide (Reactivity)	N.D.	32.9	mg/kg	85		80-120		
Batch number: 01094WAB026	Sample number(s): 3581189							
4-Chloroaniline	N.D.	1.	ug/l	78	75	29-122	3	30
Dibenzofuran	N.D.	1.	ug/l	84	85	67-112	1	30
2-Methylnaphthalene	N.D.	1.	ug/l	76	78	50-114	3	30
2-Nitroaniline	N.D.	2.	ug/l	109	106	75-127	2	30
3-Nitroaniline	N.D.	2.	ug/l	77	73	36-138	6	30
4-Nitroaniline	N.D.	2.	ug/l	93	89	61-126	5	30
2,4,5-Trichlorophenol	N.D.	2.	ug/l	104	101	71-122	3	30
2-Chlorophenol	N.D.	1.	ug/l	93	91	66-116	3	30
Phenol	N.D.	1.	ug/l	41	40	17-70	3	30
2-Nitrophenol	N.D.	1.	ug/l	105	104	70-123	1	30
2,4-Dimethylphenol	N.D.	1.	ug/l	82	80	65-113	3	30
2,4-Dichlorophenol	N.D.	1.	ug/l	97	96	69-118	1	30
4-Chloro-3-methylphenol	N.D.	1.	ug/l	95	94	67-120	1	30
2,4,6-Trichlorophenol	N.D.	2.	ug/l	106	104	67-124	1	30
2,4-Dinitrophenol	N.D.	20.	ug/l	106	104	22-147	2	30
4-Nitrophenol	N.D.	10.	ug/l	44	42	10-77	5	30
4,6-Dinitro-2-methylphenol	N.D.	5.	ug/l	108	109	38-148	1	30
Pentachlorophenol	N.D.	3.	ug/l	99	99	36-133	0	30
bis(2-Chloroethyl)ether	N.D.	1.	ug/l	91	91	66-118	1	30
1,3-Dichlorobenzene	N.D.	1.	ug/l	54	55	26-103	2	30
1,4-Dichlorobenzene	N.D.	1.	ug/l	57	57	27-107	1	30
1,2-Dichlorobenzene	N.D.	1.	ug/l	64	65	33-107	2	30
Hexachloroethane	N.D.	1.	ug/l	32	32	8-108	0	30
N-Nitroso-di-n-propylamine	N.D.	1.	ug/l	88	89	64-123	1	30
Nitrobenzene	N.D.	1.	ug/l	87	89	68-120	2	30
Isophorone	N.D.	1.	ug/l	86	85	66-113	1	30
bis(2-Chloroethoxy)methane	N.D.	1.	ug/l	93	92	67-116	0	30
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	64	65	33-110	1	30
Naphthalene	N.D.	1.	ug/l	81	83	54-110	2	30
Hexachlorobutadiene	N.D.	2.	ug/l	29	30	4-112	3	30
Hexachlorocyclopentadiene	N.D.	5.	ug/l	32	36	5-100	10	30
2-Chloronaphthalene	N.D.	1.	ug/l	80	83	57-114	4	30
Acenaphthylene	N.D.	1.	ug/l	83	84	63-109	1	30
Dimethylphthalate	N.D.	2.	ug/l	59	62	1-95	5	30
2,6-Dinitrotoluene	N.D.	2.	ug/l	105	101	71-131	3	30
Acenaphthene	N.D.	1.	ug/l	84	85	62-113	1	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Quality Control Summary

Client Name: DaimlerChrysler Corporation Group Number: 756805
Reported: 04/16/01 at 01:30 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2,4-Dinitrotoluene	N.D.	1.	ug/l	105	102	71-123	3	30
Fluorene	N.D.	1.	ug/l	91	91	65-122	0	30
4-Chlorophenyl-phenylether	N.D.	1.	ug/l	87	89	62-121	2	30
Diethylphthalate	N.D.	2.	ug/l	82	80	37-113	3	30
N-Nitrosodiphenylamine	N.D.	1.	ug/l	100	100	72-127	0	30
4-Bromophenyl-phenylether	N.D.	2.	ug/l	94	99	70-122	5	30
Hexachlorobenzene	N.D.	2.	ug/l	104	108	71-127	3	30
Phenanthrene	N.D.	1.	ug/l	93	96	69-120	2	30
Anthracene	N.D.	1.	ug/l	97	97	71-121	0	30
Di-n-butylphthalate	N.D.	2.	ug/l	94	93	66-121	1	30
Fluoranthene	N.D.	1.	ug/l	100	101	68-124	1	30
Pyrene	N.D.	1.	ug/l	98	94	67-122	4	30
Butylbenzylphthalate	N.D.	2.	ug/l	88	85	51-125	3	30
Benzo(a)anthracene	N.D.	1.	ug/l	101	99	69-118	2	30
Chrysene	N.D.	1.	ug/l	100	95	66-121	5	30
3,3'-Dichlorobenzidine	N.D.	3.	ug/l	73	74	27-127	2	30
bis(2-Ethylhexyl)phthalate	N.D.	2.	ug/l	99	94	66-130	5	30
Di-n-octylphthalate	N.D.	2.	ug/l	100	96	70-135	3	30
Benzo(b)fluoranthene	N.D.	1.	ug/l	97	96	67-115	1	30
Benzo(k)fluoranthene	N.D.	1.	ug/l	101	99	70-120	2	30
Benzo(a)pyrene	N.D.	1.	ug/l	98	97	71-120	1	30
Indeno(1,2,3-cd)pyrene	N.D.	1.	ug/l	101	100	69-125	0	30
Dibenz(a,h)anthracene	N.D.	1.	ug/l	105	102	72-126	2	30
Benzo(g,h,i)perylene	N.D.	1.	ug/l	101	98	69-123	3	30
2-Methylphenol	N.D.	1.	ug/l	82	80	58-109	2	30
2,2'-oxybis(1-Chloropropane)	N.D.	1.	ug/l	83	86	64-124	3	30
4-Methylphenol	N.D.	3.	ug/l	82	80	51-105	3	30
Carbazole	N.D.	2.	ug/l	98	99	82-115	1	30
Batch number: 01095104201A	Sample number(s): 3581189							
Cyanide (Reactivity)	N.D.	99.9900 01	mg/kg	94		90-112		
Batch number: 01096043001A	Sample number(s): 3581189							
Flash Point for Liquids				101	99	97-103	2	2
Batch number: P010901AB	Sample number(s): 3581189-3581190							
Chloromethane	N.D.	2.	ug/l	81	83	46-131	2	30
Vinyl Chloride	N.D.	1.	ug/l	90	86	57-127	5	30
Bromomethane	N.D.	2.	ug/l	84	79	21-120	7	30
Chloroethane	N.D.	2.	ug/l	76	74	36-125	4	30
1,1-Dichloroethene	N.D.	1.	ug/l	119	110	79-136	8	30
Methylene Chloride	N.D.	2.	ug/l	112	107	84-128	5	30
trans-1,2-Dichloroethene	N.D.	1.	ug/l	115	112	83-129	3	30
1,1-Dichloroethane	N.D.	1.	ug/l	114	114	84-128	0	30
cis-1,2-Dichloroethene	N.D.	1.	ug/l	106	106	85-126	0	30
Chloroform	N.D.	1.	ug/l	120	117	86-124	2	30
1,1,1-Trichloroethane	N.D.	1.	ug/l	131*	127	83-127	3	30
Carbon Tetrachloride	N.D.	1.	ug/l	137*	129	77-130	6	30

*- Outside of specification
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(2) The background result was more than four times the spike added.

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Quality Control Summary

Client Name: DaimlerChrysler Corporation
Reported: 04/16/01 at 01:30 PM

Group Number: 756805

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	N.D.	1.	ug/l	104	102	85-125	2	30
1,2-Dichloroethane	N.D.	1.	ug/l	130	126	84-131	3	30
Trichloroethene	N.D.	1.	ug/l	112	109	86-126	3	30
1,2-Dichloropropane	N.D.	1.	ug/l	93	91	83-123	3	30
Bromodichloromethane	N.D.	1.	ug/l	114	112	83-121	1	30
Toluene	N.D.	1.	ug/l	102	99	86-123	4	30
1,1,2-Trichloroethane	N.D.	1.	ug/l	104	103	86-120	0	30
Tetrachloroethene	N.D.	1.	ug/l	121	113	79-136	8	30
Dibromochloromethane	N.D.	1.	ug/l	111	105	78-119	5	30
Chlorobenzene	N.D.	1.	ug/l	107	104	87-121	4	30
Ethylbenzene	N.D.	1.	ug/l	110	105	88-124	4	30
Styrene	N.D.	1.	ug/l	110	107	87-122	3	30
Bromoform	N.D.	1.	ug/l	98	98	69-121	0	30
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l	83	82	78-120	1	30
Acetone	N.D.	6.	ug/l	96	96	66-127	1	30
Carbon Disulfide	N.D.	1.	ug/l	111	106	61-134	5	30
2-Butanone	N.D.	3.	ug/l	75	77	69-131	2	30
trans-1,3-Dichloropropene	N.D.	1.	ug/l	96	94	79-120	1	30
cis-1,3-Dichloropropene	N.D.	1.	ug/l	93	94	81-121	0	30
4-Methyl-2-pentanone	N.D.	3.	ug/l	89	91	70-132	3	30
2-Hexanone	N.D.	3.	ug/l	87	88	67-131	1	30
Xylene (Total)	N.D.	1.	ug/l	108	105	89-124	3	30

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 01092020001A	Sample number(s): 3581189								
pH						7.31	7.31	0	2
Batch number: 010921848002	Sample number(s): 3581189								
Chromium	101	102	89-117	0	20	N.D.	N.D.	0 (1)	20
Barium TR	97	97	90-109	0	20	0.0220	0.0219	1	20
Copper TR	99	99	86-119	0	20	0.0044	0.0063	36* (1)	20
Lead TR	100	100	77-123	1	20	N.D.	N.D.	0 (1)	20
Silver TR	101	103	82-127	2	20	N.D.	N.D.	0 (1)	20
Zinc TR	99	100	79-121	2	20	0.0245	0.0172 J	35* (1)	20
Batch number: 010925704003	Sample number(s): 3581189								
Cadmium (furnace method)	95	96	80-120	1	20	N.D.	N.D.	0 (1)	20
Batch number: 010925713001	Sample number(s): 3581189								
Mercury	98	101	75-125	3	20	N.D.	N.D.	200* (1)	20
Batch number: 010936254002	Sample number(s): 3581189								

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Quality Control Summary

Client Name: DaimlerChrysler Corporation Group Number: 756805
Reported: 04/16/01 at 01:30 PM

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Arsenic (furnace method)	80	82	80-120	2	20	0.0073	0.0066	10 (1)	20
Selenium (furnace method)	84	78*	80-120	5	20	0.0033 J	0.0037 J	11 (1)	20
Batch number: 01094112101A	Sample number(s): 3581189								
Sulfide (Reactivity)	53	47	0-136	12	19				
Batch number: 01095104201A	Sample number(s): 3581189								
Cyanide (Reactivity)	2	3	0-20	51*	14				
Batch number: 01096043001A	Sample number(s): 3581189								
Flash Point for Liquids						62.	72.	15 (1)	20
Batch number: P010901AB	Sample number(s): 3581189-3581190								
Chloromethane	70		45-139						
Vinyl Chloride	79		46-144						
Bromomethane	79		19-129						
Chloroethane	73		28-139						
1,1-Dichloroethene	120		67-155						
Methylene Chloride	113		81-134						
trans-1,2-Dichloroethene	116		78-140						
1,1-Dichloroethane	115		77-142						
cis-1,2-Dichloroethene	109		76-140						
Chloroform	124		76-138						
1,1,1-Trichloroethane	136		78-141						
Carbon Tetrachloride	144		66-148						
Benzene	107		73-140						
1,2-Dichloroethane	132		75-141						
Trichloroethene	118		70-145						
1,2-Dichloropropane	92		82-128						
Bromodichloromethane	118		81-127						
Toluene	106		80-135						
1,1,2-Trichloroethane	103		82-127						
Tetrachloroethene	120		61-152						
Dibromochloromethane	109		74-125						
Chlorobenzene	107		77-132						
Ethylbenzene	112		77-140						
Styrene	109		67-145						
Bromoform	95		62-127						
1,1,2,2-Tetrachloroethane	84		70-129						
Acetone	98		59-132						
Carbon Disulfide	112		48-151						
2-Butanone	78		32-162						
trans-1,3-Dichloropropene	93		76-124						
cis-1,3-Dichloropropene	84		78-125						
4-Methyl-2-pentanone	91		69-136						
2-Hexanone	90		65-137						
Xylene (Total)	109		81-136						

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

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Quality Control Summary

Client Name: DaimlerChrysler Corporation
Reported: 04/16/01 at 01:30 PM

Group Number: 756805

Surrogate Quality Control

Analysis Name: AppendixIX Herbicides - Waters
Batch number: 010930012A

	2,4-Dichlorophenylacetic acid
3581189	443*
Blank	106
LCS	156*
LCSD	268*
Limits:	37-151

Analysis Name: TCL Pesticides in Waters
Batch number: 010930017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
3581189	85	74
Blank	90	132
LCS	88	129
LCSD	91	128
Limits:	36-121	19-153

Analysis Name: TCL SW846 Semivolatiles/Waters
Batch number: 01094WAB026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5
3581189	28	36	97	87
Blank	62	40	103	87
LCS	62	40	109	89
LCSD	60	38	104	91
Limits:	15-105	10-89	35-147	52-136

	2-Fluorobiphenyl	Terphenyl-d14
3581189	86	100
Blank	70	94
LCS	79	102
LCSD	79	98
Limits:	59-117	41-139

Analysis Name: TCL by 8260 (water)
Batch number: P010901AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene

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Quality Control Summary

Client Name: DaimlerChrysler Corporation Group Number: 756805
Reported: 04/16/01 at 01:30 PM

Surrogate Quality Control

3581189	108	94	97	101
3581190	104	91	96	93
Blank	99	92	96	93
LCS	105	93	100	103
LCSD	104	92	99	101
MS	104	93	100	103
Limits:	86-118	80-120	88-110	86-115

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10160 5581189-90

DAIMLERCHRYSLER Chain-of-Custody

1374 B

Bldg 50 Sewer Cleanout

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17601 Phone Number: (717) 656-2300 Fax Number: (717) 656-2681	Project Name: Dayton Thermal Products Site Location: Dayton OH Site Code: SC001 RFA Number: YGQP2001212 ~~(212A)~~ DaimlerChrysler PM: Gary Stanczuk	Consultant: Leggette Brashears + Graham, Inc. Address: 1210 West Cnty Rd E Suite 700 St. Paul MN 55112 Consultant PM Ken Vogel Phone: 651-490-1405 Fax: 651-490-1006

Turn-around Time Request: (circle)
24 calendar hrs.
48 calendar hrs.
7 calendar days
14 calendar days

Data Package Deliverables: (circle)
DaimlerChrysler Level 1
DaimlerChrysler Level 2
CLP

Matrix Codes
S - Soil
SW - Surface Water
GW - Groundwater
A - Air
Sed. - Sediment
O - Other (specify)

Are aqueous samples field filtered for metals? Yes No

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TCL VOC 5030B/5035/8260B	TCL SVOC 8270C	10 MI Metals 6/7000	TCL PCB 8082	TCL Pesticides 8081A	Herbicides 8151A	Corrosivity, pH	Reactivity	Ignitability	Remarks
WL41131	3/30/01	0950	G	O	12	X	X	X	X	X	X	X	X	X	Sewer cleanout rinsate water from line(s) between line 50A and the west wall in Bldg 50.

Sampler(s) Mike Plante

Cooler ID # —

Samples Relinquished under Airbill No. 824181891686

Temperature (corrected) 3.0c

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact?
[signature]	3/30/01	1830				Yes No

Is RFA sampling complete? Yes No

Relinquished by:	Date:	Time:	Received for Laboratory by:	Date:	Time:	Custody Seal Intact?
			[signature]	03/31/01	1015	Yes No

DaimlerChrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

Revision No. 3
Created: July 9, 1999

EPA Region 5 Records Ctr.
349862

DAYTON THERMAL PRODUCTS
DAYTON, OHIO

SEWER CLEANOUT
SUMMARY OF POSITIVE DETECTIONS

ORIGIN	SAMPLE ID	DATESAMP	PARAMETER	OHIO EPA TCLP REGULATORY LEVEL	RESULT	QUAL	UNITS	MATRIX	GROUP
FRAC TANK #4113, FIRST SAMPLE, RINSE WATER FROM BLDG 50 SUMP AND SUMP LINES BETWEEN LINE 50A AND THE WEST WALL.	WL41131	3/30/2001	2,4,5-T	--	1.02		UG/L	WATER	HERB
	WL41131	3/30/2001	2,4-D	10000	5.97		UG/L	WATER	HERB
	WL41131	3/30/2001	Dinoseb	--	0.71		UG/L	WATER	HERB
	WL41131	3/30/2001	Arsenic	5	0.0073		MG/L	WATER	METALS
	WL41131	3/30/2001	Barium TR	100	1.72		MG/L	WATER	METALS
	WL41131	3/30/2001	Cadmium	1	0.0024		MG/L	WATER	METALS
	WL41131	3/30/2001	Chromium	5	0.0449		MG/L	WATER	METALS
	WL41131	3/30/2001	Copper TR	--	0.449		MG/L	WATER	METALS
	WL41131	3/30/2001	Lead TR	5	13.5		MG/L	WATER	METALS
	WL41131	3/30/2001	Mercury	0.2	0.000034	J	MG/L	WATER	METALS
	WL41131	3/30/2001	Selenium	1	0.0033	J	MG/L	WATER	METALS
	WL41131	3/30/2001	Silver TR	5	0.0231		MG/L	WATER	METALS
	WL41131	3/30/2001	Zinc TR	--	4.25		MG/L	WATER	METALS
	WL41131	3/30/2001	Alpha Chlordane	--	0.0132		UG/L	WATER	PEST
	WL41131	3/30/2001	DDT	--	0.0054	J	UG/L	WATER	PEST
	WL41131	3/30/2001	Dieldrin	--	0.032		UG/L	WATER	PEST
	WL41131	3/30/2001	Endosulfan I	--	0.0970		UG/L	WATER	PEST
	WL41131	3/30/2001	Endosulfan Sulfate	--	0.0047	J	UG/L	WATER	PEST
	WL41131	3/30/2001	2,4-Dimethylphenol	--	1	J	UG/L	WATER	SVOC
	WL41131	3/30/2001	2,6-Dinitrotoluene	--	2	J	UG/L	WATER	SVOC
	WL41131	3/30/2001	4-Methylphenol	--	86		UG/L	WATER	SVOC
	WL41131	3/30/2001	bis(2-Ethylhexyl)phthalate	--	39		UG/L	WATER	SVOC
	WL41131	3/30/2001	Butylbenzylphthalate	--	220		UG/L	WATER	SVOC
	WL41131	3/30/2001	Di-n-butylphthalate	--	3	J	UG/L	WATER	SVOC
	WL41131	3/30/2001	Phenol	--	18		UG/L	WATER	SVOC
	WL41131	3/30/2001	Pyrene	--	3	J	UG/L	WATER	SVOC
	WL41131	3/30/2001	2-Butanone (MEK)	200000	25		UG/L	WATER	VOC
	WL41131	3/30/2001	Acetone	--	54		UG/L	WATER	VOC
	WL41131	3/30/2001	Chloroform	6000	2	J	UG/L	WATER	VOC
	WL41131	3/30/2001	Styrene	--	2	J	UG/L	WATER	VOC
	WL41131	3/30/2001	Toluene	--	1	J	UG/L	WATER	VOC

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FAX Cover Page

Pages 7

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EDD 4/13/01
MCP
4/13/01

2425 New Holland Pike
Lancaster, PA 17605-2425

Phone: 717-656-2300
Fax: 717-656-2681

Archive

EDD 4/18/01
MCP
4/18/01

Deliver to: Mr. Ken Vogel

Company: 10160 417 320 Mr. Ken VogDAIMLERCHRYSLER CORPORATIO

Fax: 16514901006

From: Gwen A. Birchall Ext

Message:

RFA 01-212

Frac Tank 4113

Sample WL41131

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

EDD 4/13/01
MCP
4/13/01

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION
Date Submitted: 03/31/01 Date Reported: NOT REP
Date Collected: 03/30/01

WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

Arc View
EDD 4/18/01
MCP
4/18/01

	ANALYSIS NAME	RESULT	METHOD DETECTION LIMIT	UNITS
0200	pH	7.74	0.010	
0259	Mercury	0.000034J	0.00002	mg/l
0430	Flash Point for Liquids	No Flash Observed	50.	Degrees F

No flash observed below 172F.
Test flame extinguished at 152F.
Flash point was determined using Pensky Martens closed cup apparatus.
==========

0496	Corrosivity	See Below		See Below

Corrosivity:
The pH of a sample was 7.74 indicating that the sample is not corrosive.
A waste is corrosive if it exhibits a pH equal to or less than 2
or equal to or greater than 12.5.
==========

0937 TCL Pesticides in Waters
Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The gamma-chlordane recovery is outside the QC limits for the LCSD. Since the recovery is high and gamma-chlordane was not detected in the sample, the results are reported.
==========

1600	Alpha BHC	N.D.	0.0020	ug/l
1601	Beta BHC	N.D.	0.0020	ug/l
1603	Delta BHC	N.D.	0.0057	ug/l
1602	Gamma BHC - Lindane	N.D.	0.0020	ug/l
1604	Heptachlor	N.D.	0.0020	ug/l
1605	Aldrin	N.D.	0.0020	ug/l
1606	Heptachlor Epoxide	N.D.	0.0020	ug/l
1616	Endosulfan I	0.0970	0.0020	ug/l
1610	Dieldrin	0.032	0.0039	ug/l

1607	DDE	N.D.	0.0039	ug/l

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

1611	Endrin	N.D.	0.0039	ug/l
1615	Endosulfan II	N.D.	0.0039	ug/l
1608	DDD	N.D.	0.0039	ug/l
1617	Endosulfan Sulfate	0.0047 J	0.0039	ug/l ✓
1609	DDT	0.0054 J	0.0039	ug/l ✓
0938	Endrin Ketone	N.D.	0.0039	ug/l
1860	Methoxychlor	N.D.	0.020	ug/l
1361	Alpha Chlordane	0.0132	0.0020	ug/l ✓
1362	Gamma Chlordane	N.D.	0.0020	ug/l
1613	Toxaphene	N.D.	0.30	ug/l
1618	Endrin Aldehyde	N.D.	0.0039	ug/l
1619	PCB-1016	N.D.	0.099	ug/l
1620	PCB-1221	N.D.	0.099	ug/l
1621	PCB-1232	N.D.	0.099	ug/l
1622	PCB-1242	N.D.	0.099	ug/l
1623	PCB-1248	N.D.	0.099	ug/l
1624	PCB-1254	N.D.	0.099	ug/l
1626	PCB-1260	N.D.	0.099	ug/l

==========

1045	Arsenic (furnace method)	0.0073	0.0014	mg/l ✓
1049	Cadmium (furnace method)	0.0024	0.00015	mg/l ✓
1064	Selenium (furnace method)	0.0033 J	0.0012	mg/l ✓
1121	Reactivity	See Below		See Below

Reactivity:
The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide. This waste is not considered reactive and hazardous because it does not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were established by the Solid Waste Branch of EPA, July, 1992. These results do not reflect total cyanide or total sulfide.

==========

1122	Sulfide (Reactivity)	N.D.	33.	mg/kg
1123	Cyanide (Reactivity)	N.D.	100.	mg/kg
1316	AppendixIX Herbicides - Waters			

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample extraction.

==========

0288	2,4-D	5.97	0.097	ug/l ✓
1314	Dinoseb	0.71	0.048	ug/l ✓
0289	2,4,5-TP	N.D.	0.0097	ug/l
1315	2,4,5-T	1.02	0.0097	ug/l ✓

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

1751	Chromium	0.0449		0.0017	mg/l
4678	TCL SW846 Semivolatiles/Waters				
3925	Phenol	18.		1.	ug/l
3936	bis(2-Chloroethyl)ether	N.D.		1.	ug/l
3924	2-Chlorophenol	N.D.		1.	ug/l
3937	1,3-Dichlorobenzene	N.D.		1.	ug/l
3938	1,4-Dichlorobenzene	N.D.		1.	ug/l
3939	1,2-Dichlorobenzene	N.D.		1.	ug/l
4680	2-Methylphenol	N.D.		1.	ug/l
4681	2,2'-oxybis(1-Chloropropane)	N.D.		1.	ug/l
4682	4-Methylphenol	86.		3.	ug/l

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.

==========

3942	N-Nitroso-di-n-propylamine	N.D.		1.	ug/l
3941	Hexachloroethane	N.D.		1.	ug/l
3943	Nitrobenzene	N.D.		1.	ug/l
3944	Isophorone	N.D.		1.	ug/l
3926	2-Nitrophenol	N.D.		1.	ug/l
3927	2,4-Dimethylphenol	1.	J	1.	ug/l
3945	bis(2-Chloroethoxy)methane	N.D.		1.	ug/l
3928	2,4-Dichlorophenol	N.D.		1.	ug/l
3946	1,2,4-Trichlorobenzene	N.D.		1.	ug/l
3947	Naphthalene	N.D.		1.	ug/l
3871	4-Chloroaniline	N.D.		1.	ug/l
3948	Hexachlorobutadiene	N.D.		2.	ug/l
3929	4-Chloro-3-methylphenol	N.D.		1.	ug/l
3905	2-Methylnaphthalene	N.D.		1.	ug/l
3949	Hexachlorocyclopentadiene	N.D.		5.	ug/l
3930	2,4,6-Trichlorophenol	N.D.		2.	ug/l
3922	2,4,5-Trichlorophenol	N.D.		2.	ug/l
3950	2-Chloronaphthalene	N.D.		1.	ug/l
3907	2-Nitroaniline	N.D.		2.	ug/l
3952	Dimethylphthalate	N.D.		2.	ug/l
3951	Acenaphthylene	N.D.		1.	ug/l

==========

4679 TCL SW846 Semivolatiles/Waters

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

==========

3908	3-Nitroaniline	N.D.		2.	ug/l
3954	Acenaphthene	N.D.		1.	ug/l
3931	2,4-Dinitrophenol	N.D.		19.	ug/l

3932	4-Nitrophenol	N.D.	10.	ug/l

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2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

3879	Dibenzofuran	N.D.		1.	ug/l
3955	2,4-Dinitrotoluene	N.D.		1.	ug/l
3953	2,6-Dinitrotoluene	2.	J	2.	ug/l
3958	Diethylphthalate	N.D.		2.	ug/l
3957	4-Chlorophenyl-phenylether	N.D.		1.	ug/l
3956	Fluorene	N.D.		1.	ug/l
3909	4-Nitroaniline	N.D.		2.	ug/l
3933	4,6-Dinitro-2-methylphenol	N.D.		5.	ug/l
3960	N-Nitrosodiphenylamine	N.D.		1.	ug/l

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine.
The result reported for N-nitrosodiphenylamine represents the combined
total of both compounds.

==========

3961	4-Bromophenyl-phenylether	N.D.		2.	ug/l
3962	Hexachlorobenzene	N.D.		2.	ug/l
3934	Pentachlorophenol	N.D.		3.	ug/l
3963	Phenanthrene	N.D.		1.	ug/l
3964	Anthracene	N.D.		1.	ug/l
4684	Carbazole	N.D.		2.	ug/l
3965	Di-n-butylphthalate	3.	J	2.	ug/l
3966	Fluoranthene	N.D.		1.	ug/l
3967	Pyrene	3.	J	1.	ug/l
3969	Butylbenzylphthalate	220.		4.	ug/l
3972	3,3'-Dichlorobenzidine	N.D.		3.	ug/l
3970	Benzo(a)anthracene	N.D.		1.	ug/l
3973	bis(2-Ethylhexyl)phthalate	39.		2.	ug/l
3971	Chrysene	N.D.		1.	ug/l
3974	Di-n-octylphthalate	N.D.		2.	ug/l
3975	Benzo(b)fluoranthene	N.D.		1.	ug/l
3976	Benzo(k)fluoranthene	N.D.		1.	ug/l
3977	Benzo(a)pyrene	N.D.		1.	ug/l
3978	Indeno(1,2,3-cd)pyrene	N.D.		1.	ug/l
3979	Dibenz(a,h)anthracene	N.D.		1.	ug/l
3980	Benzo(g,h,i)perylene	N.D.		1.	ug/l

==========

6291 TCL by 8260 (Water)

Sufficient sample volume was not available to perform a MSD for this
analysis. However, a MS was performed. In addition, a LCS/LCSD was
performed to demonstrate precision and accuracy at a batch level.

==========

5385	Chloromethane	N.D.		2.	ug/l
5387	Bromomethane	N.D.		2.	ug/l
5386	Vinyl Chloride	N.D.		1.	ug/l
5388	Chloroethane	N.D.		2.	ug/l
5391	Methylene Chloride	N.D.		2.	ug/l
6302	Acetone	54.		6.	ug/l

6303	Carbon Disulfide	N.D.		1.	ug/l

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2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

5390	1,1-Dichloroethene	N.D.		1.	ug/l	
5393	1,1-Dichloroethane	N.D.		1.	ug/l	
5396	Chloroform	2.	J	1.	ug/l	✓
5402	1,2-Dichloroethane	N.D.		1.	ug/l	
6305	2-Butanone	25.		3.	ug/l	✓
5398	1,1,1-Trichloroethane	N.D.		1.	ug/l	
5399	Carbon Tetrachloride	N.D.		1.	ug/l	
5406	Bromodichloromethane	N.D.		1.	ug/l	
5421	1,1,2,2-Tetrachloroethane	N.D.		1.	ug/l	
5404	1,2-Dichloropropane	N.D.		1.	ug/l	
6306	trans-1,3-Dichloropropene	N.D.		1.	ug/l	
5403	Trichloroethene	N.D.		1.	ug/l	
5411	Dibromochloromethane	N.D.		1.	ug/l	
5408	1,1,2-Trichloroethane	N.D.		1.	ug/l	
5401	Benzene	N.D.		1.	ug/l	
6307	cis-1,3-Dichloropropene	N.D.		1.	ug/l	
5419	Bromoform	N.D.		1.	ug/l	
6308	4-Methyl-2-pentanone	N.D.		3.	ug/l	
6309	2-Hexanone	N.D.		3.	ug/l	
5409	Tetrachloroethene	N.D.		1.	ug/l	
5407	Toluene	1.	J	1.	ug/l	✓
5413	Chlorobenzene	N.D.		1.	ug/l	
5415	Ethylbenzene	N.D.		1.	ug/l	
5418	Styrene	2.	J	1.	ug/l	✓
6310	Xylene (Total)	N.D.		1.	ug/l	
5392	trans-1,2-Dichloroethene	N.D.		1.	ug/l	
5395	cis-1,2-Dichloroethene	N.D.		1.	ug/l	

==========

7046	Barium TR	1.72		0.00042	mg/l ✓
7053	Copper TR	0.449		0.0024	mg/l ✓
7055	Lead TR	13.5		0.0088	mg/l ✓
7066	Silver TR	0.0231		0.0013	mg/l ✓
7072	Zinc TR	4.25		0.0032	mg/l ✓

Sample Number: WW3581190 Account: 10160 DAIMLERCHRYSLER CORPORATION
Date Submitted: 03/31/01 Date Reported: NOT REP
Date Collected:

Trip Blank Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

	ANALYSIS NAME	RESULT		METHOD DETECTION LIMIT	UNITS
6291	TCL by 8260 (water)				

ufficient sample volume was not available to perform a MSD for this

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581190 Account: 10160 DAIMLERCHRYSLER CORPORATION

analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

==========

5385	Chloromethane	N.D.	2.	ug/l
5387	Bromomethane	N.D.	2.	ug/l
5386	Vinyl Chloride	N.D.	1.	ug/l
5388	Chloroethane	N.D.	2.	ug/l
5391	Methylene Chloride	N.D.	2.	ug/l
6302	Acetone	N.D.	6.	ug/l
6303	Carbon Disulfide	N.D.	1.	ug/l
5390	1,1-Dichloroethene	N.D.	1.	ug/l
5393	1,1-Dichloroethane	N.D.	1.	ug/l
5396	Chloroform	N.D.	1.	ug/l
5402	1,2-Dichloroethane	N.D.	1.	ug/l
6305	2-Butanone	N.D.	3.	ug/l
5398	1,1,1-Trichloroethane	N.D.	1.	ug/l
5399	Carbon Tetrachloride	N.D.	1.	ug/l
5406	Bromodichloromethane	N.D.	1.	ug/l
5421	1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l
5404	1,2-Dichloropropane	N.D.	1.	ug/l
6306	trans-1,3-Dichloropropene	N.D.	1.	ug/l
5403	Trichloroethene	N.D.	1.	ug/l
5411	Dibromochloromethane	N.D.	1.	ug/l
5408	1,1,2-Trichloroethane	N.D.	1.	ug/l
5401	Benzene	N.D.	1.	ug/l
6307	cis-1,3-Dichloropropene	N.D.	1.	ug/l
5419	Bromoform	N.D.	1.	ug/l
6308	4-Methyl-2-pentanone	N.D.	3.	ug/l
6309	2-Hexanone	N.D.	3.	ug/l
5409	Tetrachloroethene	N.D.	1.	ug/l
5407	Toluene	N.D.	1.	ug/l
5413	Chlorobenzene	N.D.	1.	ug/l
5415	Ethylbenzene	N.D.	1.	ug/l
5418	Styrene	N.D.	1.	ug/l
6310	Xylene (Total)	N.D.	1.	ug/l
5392	trans-1,2-Dichloroethene	N.D.	1.	ug/l
5395	cis-1,2-Dichloroethene	N.D.	1.	ug/l

==========

Lancaster Laboratories
Where quality is a science.

FAX Cover Page

Pages 8

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2425 New Holland Pike
Lancaster, PA 17605-2425

Phone: 717-656-2300
Fax: 717-656-2681

Deliver to: Mr. Ken Vogel

Company: 10160 417 884 Mr. Ken VogDAIMLERCHRYSLER CORPORATIO

Fax: 16514901006

From: Gwen A. Birchall Ext

Message:

RFA 01-212
Sewer cleanout
Frac tank 4113

WL41131

Complete

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION
Date Submitted: 03/31/01 Date Reported: 04/16/01
Date Collected: 03/30/01

WL41131 Grab Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

	ANALYSIS NAME	RESULT	METHOD DETECTION LIMIT	UNITS
0200	pH	7.74	0.010	
0259	Mercury	0.000034J	0.00002	mg/l
0430	Flash Point for Liquids	No Flash Observed	50.	Degrees F

No flash observed below 172F.
Test flame extinguished at 152F.
Flash point was determined using Pensky Martens closed cup apparatus.
==========

0496	Corrosivity	See Below		See Below

Corrosivity:
The pH of a sample was 7.74 indicating that the sample is not corrosive.
A waste is corrosive if it exhibits a pH equal to or less than 2
or equal to or greater than 12.5.
==========

0937 TCL Pesticides in Waters
Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The gamma-chlordane recovery is outside the QC limits for the LCSD. Since the recovery is high and gamma-chlordane was not detected in the sample, the results are reported.
==========

1600	Alpha BHC	N.D.	0.0020	ug/l
1601	Beta BHC	N.D.	0.0020	ug/l
1603	Delta BHC	N.D.	0.0057	ug/l
1602	Gamma BHC - Lindane	N.D.	0.0020	ug/l
1604	Heptachlor	N.D.	0.0020	ug/l
1605	Aldrin	N.D.	0.0020	ug/l
1606	Heptachlor Epoxide	N.D.	0.0020	ug/l
1616	Endosulfan I	0.0970	0.0020	ug/l
1610	Dieldrin	0.032	0.0039	ug/l

1607	DDE	N.D.	0.0039	ug/l

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2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

1611	Endrin	N.D.	0.0039	ug/l
1615	Endosulfan II	N.D.	0.0039	ug/l
1608	DDD	N.D.	0.0039	ug/l
1617	Endosulfan Sulfate	0.0047 J	0.0039	ug/l
1609	DDT	0.0054 J	0.0039	ug/l
0938	Endrin Ketone	N.D.	0.0039	ug/l
1860	Methoxychlor	N.D.	0.020	ug/l
1361	Alpha Chlordane	0.0132	0.0020	ug/l
1362	Gamma Chlordane	N.D.	0.0020	ug/l
1613	Toxaphene	N.D.	0.30	ug/l
1618	Endrin Aldehyde	N.D.	0.0039	ug/l
1619	PCB-1016	N.D.	0.099	ug/l
1620	PCB-1221	N.D.	0.099	ug/l
1621	PCB-1232	N.D.	0.099	ug/l
1622	PCB-1242	N.D.	0.099	ug/l
1623	PCB-1248	N.D.	0.099	ug/l
1624	PCB-1254	N.D.	0.099	ug/l
1626	PCB-1260	N.D.	0.099	ug/l

==========

1045	Arsenic (furnace method)	0.0073	0.0014	mg/l
1049	Cadmium (furnace method)	0.0024	0.00015	mg/l
1064	Selenium (furnace method)	0.0033 J	0.0012	mg/l
1121	Reactivity	See Below		See Below

Reactivity:
The sample was extracted by the interim method described in SW 846, Chapter 7.3. This solution was analyzed for cyanide and sulfide. This waste is not considered reactive and hazardous because it does not generate a quantity of hydrogen cyanide exceeding 250 mg/kg or hydrogen sulfide exceeding 500 mg/kg. These interim threshold limits were established by the Solid Waste Branch of EPA, July, 1992. These results do not reflect total cyanide or total sulfide.

==========

1122	Sulfide (Reactivity)	N.D.	33.	mg/kg
1123	Cyanide (Reactivity)	N.D.	100.	mg/kg
1316	AppendixIX Herbicides - Waters			

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample extraction.

==========

0288	2,4-D	5.97	0.097	ug/l
1314	Dinoseb	0.71	0.048	ug/l
0289	2,4,5-TP	N.D.	0.0097	ug/l
1315	2,4,5-T	1.02	0.0097	ug/l

==========

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

1751	Chromium	0.0449		0.0017	mg/l
4678	TCL SW846 Semivolatiles/Waters				
3925	Phenol	18.		1.	ug/l
3936	bis(2-Chloroethyl)ether	N.D.		1.	ug/l
3924	2-Chlorophenol	N.D.		1.	ug/l
3937	1,3-Dichlorobenzene	N.D.		1.	ug/l
3938	1,4-Dichlorobenzene	N.D.		1.	ug/l
3939	1,2-Dichlorobenzene	N.D.		1.	ug/l
4680	2-Methylphenol	N.D.		1.	ug/l
4681	2,2'-oxybis(1-Chloropropane)	N.D.		1.	ug/l
4682	4-Methylphenol	86.		3.	ug/l

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.

==========

3942	N-Nitroso-di-n-propylamine	N.D.		1.	ug/l
3941	Hexachloroethane	N.D.		1.	ug/l
3943	Nitrobenzene	N.D.		1.	ug/l
3944	Isophorone	N.D.		1.	ug/l
3926	2-Nitrophenol	N.D.		1.	ug/l
3927	2,4-Dimethylphenol	1.	J	1.	ug/l
3945	bis(2-Chloroethoxy)methane	N.D.		1.	ug/l
3928	2,4-Dichlorophenol	N.D.		1.	ug/l
3946	1,2,4-Trichlorobenzene	N.D.		1.	ug/l
3947	Naphthalene	N.D.		1.	ug/l
3871	4-Chloroaniline	N.D.		1.	ug/l
3948	Hexachlorobutadiene	N.D.		2.	ug/l
3929	4-Chloro-3-methylphenol	N.D.		1.	ug/l
3905	2-Methylnaphthalene	N.D.		1.	ug/l
3949	Hexachlorocyclopentadiene	N.D.		5.	ug/l
3930	2,4,6-Trichlorophenol	N.D.		2.	ug/l
3922	2,4,5-Trichlorophenol	N.D.		2.	ug/l
3950	2-Chloronaphthalene	N.D.		1.	ug/l
3907	2-Nitroaniline	N.D.		2.	ug/l
3952	Dimethylphthalate	N.D.		2.	ug/l
3951	Acenaphthylene	N.D.		1.	ug/l

==========

4679 TCL SW846 Semivolatiles/Waters

Sufficient sample volume was not available to perform a MS/MSD for this analysis. Therefore, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

==========

3908	3-Nitroaniline	N.D.		2.	ug/l
3954	Acenaphthene	N.D.		1.	ug/l
3931	2,4-Dinitrophenol	N.D.		19.	ug/l

3932	4-Nitrophenol	N.D.	10.	ug/l

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

3879	Dibenzofuran	N.D.		1.	ug/l
3955	2,4-Dinitrotoluene	N.D.		1.	ug/l
3953	2,6-Dinitrotoluene	2.	J	2.	ug/l
3958	Diethylphthalate	N.D.		2.	ug/l
3957	4-Chlorophenyl-phenylether	N.D.		1.	ug/l
3956	Fluorene	N.D.		1.	ug/l
3909	4-Nitroaniline	N.D.		2.	ug/l
3933	4,6-Dinitro-2-methylphenol	N.D.		5.	ug/l
3960	N-Nitrosodiphenylamine	N.D.		1.	ug/l

N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.

==========

3961	4-Bromophenyl-phenylether	N.D.		2.	ug/l
3962	Hexachlorobenzene	N.D.		2.	ug/l
3934	Pentachlorophenol	N.D.		3.	ug/l
3963	Phenanthrene	N.D.		1.	ug/l
3964	Anthracene	N.D.		1.	ug/l
4684	Carbazole	N.D.		2.	ug/l
3965	Di-n-butylphthalate	3.	J	2.	ug/l
3966	Fluoranthene	N.D.		1.	ug/l
3967	Pyrene	3.	J	1.	ug/l
3969	Butylbenzylphthalate	220.		4.	ug/l
3972	3,3'-Dichlorobenzidine	N.D.		3.	ug/l
3970	Benzo(a)anthracene	N.D.		1.	ug/l
3973	bis(2-Ethylhexyl)phthalate	39.		2.	ug/l
3971	Chrysene	N.D.		1.	ug/l
3974	Di-n-octylphthalate	N.D.		2.	ug/l
3975	Benzo(b)fluoranthene	N.D.		1.	ug/l
3976	Benzo(k)fluoranthene	N.D.		1.	ug/l
3977	Benzo(a)pyrene	N.D.		1.	ug/l
3978	Indeno(1,2,3-cd)pyrene	N.D.		1.	ug/l
3979	Dibenz(a,h)anthracene	N.D.		1.	ug/l
3980	Benzo(g,h,i)perylene	N.D.		1.	ug/l

==========

6291 TCL by 8260 (water)

Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The percent recovery for 1,1,1-trichloroethane in the LCS was 131%, which exceeds the QC window of 83 - 127%. This compound was within QC specifications for the MS and the LCSD. Also, 1,1,1-trichloroethane was not detected in this sample.

==========

5385	Chloromethane	N.D.	2.	ug/l

5387	Bromomethane	N.D.	2.	ug/l

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581189 Account: 10160 DAIMLERCHRYSLER CORPORATION

5386	Vinyl Chloride	N.D.		1.	ug/l
5388	Chloroethane	N.D.		2.	ug/l
5391	Methylene Chloride	N.D.		2.	ug/l
6302	Acetone	54.		6.	ug/l
6303	Carbon Disulfide	N.D.		1.	ug/l
5390	1,1-Dichloroethene	N.D.		1.	ug/l
5393	1,1-Dichloroethane	N.D.		1.	ug/l
5396	Chloroform	2.	J	1.	ug/l
5402	1,2-Dichloroethane	N.D.		1.	ug/l
6305	2-Butanone	25.		3.	ug/l
5398	1,1,1-Trichloroethane	N.D.		1.	ug/l
5399	Carbon Tetrachloride	N.D.		1.	ug/l
5406	Bromodichloromethane	N.D.		1.	ug/l
5421	1,1,2,2-Tetrachloroethane	N.D.		1.	ug/l
5404	1,2-Dichloropropane	N.D.		1.	ug/l
6306	trans-1,3-Dichloropropene	N.D.		1.	ug/l
5403	Trichloroethene	N.D.		1.	ug/l
5411	Dibromochloromethane	N.D.		1.	ug/l
5408	1,1,2-Trichloroethane	N.D.		1.	ug/l
5401	Benzene	N.D.		1.	ug/l
6307	cis-1,3-Dichloropropene	N.D.		1.	ug/l
5419	Bromoform	N.D.		1.	ug/l
6308	4-Methyl-2-pentanone	N.D.		3.	ug/l
6309	2-Hexanone	N.D.		3.	ug/l
5409	Tetrachloroethene	N.D.		1.	ug/l
5407	Toluene	1.	J	1.	ug/l
5413	Chlorobenzene	N.D.		1.	ug/l
5415	Ethylbenzene	N.D.		1.	ug/l
5418	Styrene	2.	J	1.	ug/l
6310	Xylene (Total)	N.D.		1.	ug/l
5392	trans-1,2-Dichloroethene	N.D.		1.	ug/l
5395	cis-1,2-Dichloroethene	N.D.		1.	ug/l

==========

7046	Barium TR	1.72	0.00042	mg/l
7053	Copper TR	0.449	0.0024	mg/l
7055	Lead TR	13.5	0.0088	mg/l
7066	Silver TR	0.0231	0.0013	mg/l
7072	Zinc TR	4.25	0.0032	mg/l

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581190 Account: 10160 DAIMLERCHRYSLER CORPORATION
Date Submitted: 03/31/01 Date Reported: 04/16/01
Date Collected:

Trip Blank Water Sample
Site Code: SC001 RFA# YGQP2001212
Dayton Thermal, Sewer Cleanout, Bldg 50

	ANALYSIS NAME	RESULT	METHOD DETECTION LIMIT	UNITS
6291	TCL by 8260 (water)			

Sufficient sample volume was not available to perform a MSD for this analysis. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

The percent recovery for 1,1,1-trichloroethane in the LCS was 131%, which exceeds the QC window of 83 - 127%. This compound was within QC specifications for the MS and the LCSD. Also, 1,1,1-trichloroethane was not detected in this sample.

==========

5385	Chloromethane	N.D.	2.	ug/l
5387	Bromomethane	N.D.	2.	ug/l
5386	Vinyl Chloride	N.D.	1.	ug/l
5388	Chloroethane	N.D.	2.	ug/l
5391	Methylene Chloride	N.D.	2.	ug/l
6302	Acetone	N.D.	6.	ug/l
6303	Carbon Disulfide	N.D.	1.	ug/l
5390	1,1-Dichloroethene	N.D.	1.	ug/l
5393	1,1-Dichloroethane	N.D.	1.	ug/l
5396	Chloroform	N.D.	1.	ug/l
5402	1,2-Dichloroethane	N.D.	1.	ug/l
6305	2-Butanone	N.D.	3.	ug/l
5398	1,1,1-Trichloroethane	N.D.	1.	ug/l
5399	Carbon Tetrachloride	N.D.	1.	ug/l
5406	Bromodichloromethane	N.D.	1.	ug/l
5421	1,1,2,2-Tetrachloroethane	N.D.	1.	ug/l
5404	1,2-Dichloropropane	N.D.	1.	ug/l
6306	trans-1,3-Dichloropropene	N.D.	1.	ug/l
5403	Trichloroethene	N.D.	1.	ug/l
5411	Dibromochloromethane	N.D.	1.	ug/l
5408	1,1,2-Trichloroethane	N.D.	1.	ug/l
5401	Benzene	N.D.	1.	ug/l
6307	cis-1,3-Dichloropropene	N.D.	1.	ug/l

5419	Bromoform	N.D.	1.	ug/l

***** Lancaster Laboratories Analytical Report *****
2425 New Holland Pike, Lancaster, PA 17601

Sample Number: WW3581190 Account: 10160 DAIMLERCHRYSLER CORPORATION

6308	4-Methyl-2-pentanone	N.D.	3.	ug/l
6309	2-Hexanone	N.D.	3.	ug/l
5409	Tetrachloroethene	N.D.	1.	ug/l
5407	Toluene	N.D.	1.	ug/l
5413	Chlorobenzene	N.D.	1.	ug/l
5415	Ethylbenzene	N.D.	1.	ug/l
5418	Styrene	N.D.	1.	ug/l
6310	Xylene (Total)	N.D.	1.	ug/l
5392	trans-1,2-Dichloroethene	N.D.	1.	ug/l
5395	cis-1,2-Dichloroethene	N.D.	1.	ug/l

==========

MAY -4 2001

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number:
Account Number: COMPUCHEM-529

Login #: L0104143
Report Date: 04/16/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 04/06/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0104143-01	WS24117		

Rollo.t

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

David L. Bumgarner

Certified By
David L. Bumgarner

KEMRON
ENVIRONMENTAL SERVICES

REPORT NARRATIVE
GC/MS VOLATILE ORGANICS

KEMRON Login No: L0104143

METHOD

Preparation: SW- 846 5030B
Analysis: SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Samples: All acceptance criteria were met.

Matrix Spikes: The MS/MSD results were not associated with this smaple delivery group.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: CMS REVIEWED: Stephanie L Sepe DATE: 4/16/01

REPORT NARRATIVE
GC/MS SEMIVOLATILE ORGANICS

KEMRON Report No.: L0104143

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8270C

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: No MS/MSD analysis were associated with this SDG.

SAMPLES

Internal Standards: All acceptance criteria were met.
Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: mdc

REVIEWED: _____ DATE: 4/25/01

Rev. 6/00

REPORT NARRATIVE
GC PESTICIDES

KEMRON Report No.:L0104143

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8081

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : File 9g15065 yielded a difference of greater than 15% for endosulfan II on the secondary column. The primary column was good and there were no hits associated with this sample delivery group. All other acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: There were no MS/MSD results with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Endrin/ DDT Breakdown : All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 4/13/01

Rev. 7/14/00

REPORT NARRATIVE
GC PCB

KEMRON Report No.:L0104143

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8082

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 20 %, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: All acceptance criteria were met.
Matrix Spikes: The MS/MSD results were not associated with this sample delivery group.

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: Stephanie Lepe DATE: 4/16/01

Rev. 7/14/00

REPORT NARRATIVE
GC HERBICIDES

KEMRON Report No.:L0104143

METHOD

Preparation: SW- 846 3550B(Soils) 3510C(Waters)
Analysis: SW-846 8151

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: For all compounds which yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Samples: The LCS recovered above the upper control limit for 2,4-DB. There was no 2,4-DB found in the sample. All other acceptance criteria were met.
Matrix Spikes: The laboratory chose sample 01 for MS/MSD analysis. 2,4-DB recovered above the upper control limit. All other acceptance criteria were met

SAMPLES

Surrogates: All acceptance criteria were met.
Samples: All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ECL REVIEWED: _____ DATE: 4/13/01

Rev. 7/14/00

REPORT NARRATIVE
METALS

KEMRON Login No: L0104143

METHOD

Analysis: SW-846 6010/6020/7000

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial calibrations: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Continuing Calibration : All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met

SAMPLES

All acceptance criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: SLP

REVIEWED: Maren Beery DATE: 04/11/01

Rev. 6/00

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING

Matrix: Soil
Collected: 04/05/01 16:35

% Solid: 94
COC Info: 04640/

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	weight %	94		1.0	1	N/A	TMM	04/09/01		D2216-90
Paint Filter Liquid Test.....			NFL		1	N/A	TMM	04/09/01	14:15	9095
Silver, Total.....	mg/kg		ND	2.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Arsenic, Total.....	mg/kg		ND	5.3	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Beryllium, Total.....	mg/kg		ND	0.53	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Cadmium, Total.....	mg/kg		ND	0.53	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Chromium, Total.....	mg/kg	4.1		1.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Copper, Total.....	mg/kg	8.6		1.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Mercury, Total.....	mg/kg		ND	0.27	1	N/A	AMT	04/10/01	10:36	7471A\METHO
Nickel, Total.....	mg/kg	5.7		2.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Lead, Total.....	mg/kg		ND	5.3	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Antimony, Total.....	mg/kg		ND	11	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Selenium, Total.....	mg/kg		ND	5.3	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Thallium, Total.....	mg/kg		ND	27	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Zinc, Total.....	mg/kg	22		1.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B

EPA Region 5 Records Ctr.
349863

RL = Reporting Limit

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8081 - Pesticides & PCB's

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/10/01 Time: 01:23

Instrument: HP9
Analyst: ECL
Lab File ID: 9G15057

Method: 8081A\3550B
Run ID: R120127
Batch : WG95214

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/kg		ND	1.8	1
319-85-7	beta-BHC	ug/kg		ND	1.8	1
319-86-8	delta-BHC	ug/kg		ND	1.8	1
58-89-9	gamma-BHC (Lindane)	ug/kg		ND	1.8	1
76-44-8	Heptachlor	ug/kg		ND	1.8	1
309-00-2	Aldrin	ug/kg		ND	1.8	1
1024-57-3	Heptachlor epoxide	ug/kg		ND	1.8	1
959-98-8	Endosulfan I	ug/kg		ND	1.8	1
60-57-1	Dieldrin	ug/kg		ND	3.5	1
72-55-9	4,4'-DDE	ug/kg		ND	3.5	1
72-20-8	Endrin	ug/kg		ND	3.5	1
33213-65-9	Endosulfan II	ug/kg		ND	3.5	1
72-54-8	4,4'-DDD	ug/kg		ND	3.5	1
1031-07-8	Endosulfan sulfate	ug/kg		ND	3.5	1
50-29-3	4,4'-DDT	ug/kg		ND	3.5	1
72-43-5	Methoxychlor	ug/kg		ND	18	1
53494-70-5	Endrin ketone	ug/kg		ND	3.5	1
7421-93-4	Endrin aldehyde	ug/kg		ND	3.5	1
5103-71-9	alpha Chlordane	ug/kg		ND	1.8	1
5103-74-2	gamma Chlordane	ug/kg		ND	1.8	1
8001-35-2	Toxaphene	ug/kg		ND	35	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	83.8	(29 - 133%)
Decachlorobiphenyl	106	(30 - 173%)

RL = Reporting Limit

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8082 - PCB

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/09/01 Time: 23:00

Instrument: HP4
Analyst: ECL
Lab File ID: 4GR7835

Method: 8082\3550B
Run ID: R120258
Batch : WG95215

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	18	1
11104-28-2	Aroclor-1221	ug/kg		ND	18	1
11141-16-5	Aroclor-1232	ug/kg		ND	18	1
53469-21-9	Aroclor-1242	ug/kg		ND	18	1
12672-29-6	Aroclor-1248	ug/kg		ND	18	1
11097-69-1	Aroclor-1254	ug/kg		ND	18	1
11096-82-5	Aroclor-1260	ug/kg		ND	18	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	87.3	(29 - 133%)
Decachlorobiphenyl	110	(30 - 173%)

RL = Reporting Limit

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Product: 8151 - Herbicides

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/09/01
Analysis Date: 04/10/01 Time: 15:41

Instrument: HP1
Analyst: ECL
Lab File ID: 1G3699

Method: 8151A
Run ID: R120279
Batch : WG95306

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
94-75-7	2,4-D	ug/kg		ND	43	1
94-82-6	2,4-DB	ug/kg		ND	43	1
93-76-5	2,4,5-T	ug/kg		ND	4.3	1
93-72-1	2,4,5-TP (Silvex)	ug/kg		ND	3.2	1
75-99-0	Dalapon	ug/kg		ND	110	1
1918-00-9	Dicamba	ug/kg		ND	4.3	1
120-36-5	Dichloroprop	ug/kg		ND	43	1
88-85-7	Dinoseb	ug/kg		ND	21	1
94-74-6	MCPA	ug/kg		ND	4300	1
93-65-2	MCPP	ug/kg		ND	4300	1
87-86-5	Pentachlorophenol	ug/kg		ND	4.3	1

SURROGATES- In Percent Recovery:

2,4-Dichlorophenylacetic acid	90.0	(51 - 146%)

RL = Reporting Limit

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Product: 827-VAP2 - Semivolatile Compounds

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/10/01 Time: 19:06

Instrument: HPMS4
Analyst: MDC
Lab File ID: 4M7782

Method: 8270C\3550B
Run ID: R120476
Batch : WG95504

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/kg		ND	180	1
111-44-4	Bis(2-Chloroethyl)ether	ug/kg		ND	180	1
95-57-8	2-Chlorophenol	ug/kg		ND	180	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	180	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	180	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	180	1
95-48-7	2-Methylphenol	ug/kg		ND	180	1
108-60-1	bis(2-Chloroisopropyl)ether	ug/kg		ND	180	1
106-44-5	4-Methylphenol	ug/kg		ND	180	1
621-64-7	N-Nitroso-di-n-propylamine	ug/kg		ND	180	1
67-72-1	Hexachloroethane	ug/kg		ND	180	1
98-95-3	Nitrobenzene	ug/kg		ND	180	1
78-59-1	Isophorone	ug/kg		ND	180	1
88-75-5	2-Nitrophenol	ug/kg		ND	180	1
105-67-9	2,4-Dimethylphenol	ug/kg		ND	180	1
111-91-1	Bis(2-Chloroethoxy)Methane	ug/kg		ND	180	1
120-83-2	2,4-Dichlorophenol	ug/kg		ND	180	1
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	180	1
91-20-3	Naphthalene	ug/kg		ND	180	1
106-47-8	4-Chloroaniline	ug/kg		ND	180	1
87-68-3	Hexachlorobutadiene	ug/kg		ND	180	1
59-50-7	4-Chloro-3-methylphenol	ug/kg		ND	180	1
91-57-6	2-Methylnaphthalene	ug/kg		ND	180	1
77-47-4	Hexachlorocyclopentadiene	ug/kg		ND	180	1
88-06-2	2,4,6-Trichlorophenol	ug/kg		ND	180	1
95-95-4	2,4,5-Trichlorophenol	ug/kg		ND	880	1
91-58-7	2-Chloronaphthalene	ug/kg		ND	180	1
88-74-4	2-Nitroaniline	ug/kg		ND	880	1
131-11-3	Dimethylphthalate	ug/kg		ND	180	1
208-96-8	Acenaphthylene	ug/kg		ND	180	1
606-20-2	2,6-Dinitrotoluene	ug/kg		ND	180	1
99-09-2	3-Nitroaniline	ug/kg		ND	880	1
83-32-9	Acenaphthene	ug/kg		ND	180	1
51-28-5	2,4-Dinitrophenol	ug/kg		ND	880	1
100-02-7	4-Nitrophenol	ug/kg		ND	880	1
132-64-9	Dibenzofuran	ug/kg		ND	180	1
121-14-2	2,4-Dinitrotoluene	ug/kg		ND	180	1
84-66-2	Diethylphthalate	ug/kg		ND	180	1
7005-72-3	4-Chlorophenyl-phenyl ether	ug/kg		ND	180	1

RL = Reporting Limit

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Product: 827-VAP2 - Semivolatile Compounds

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/10/01 Time: 19:06

Instrument: HPMS4
Analyst: MDC
Lab File ID: 4M7782

Method: 8270C\3550B
Run ID: R120476
Batch : WG95504

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
86-73-7	Fluorene	ug/kg		ND	180	1
100-01-6	4-Nitroaniline	ug/kg		ND	880	1
534-52-1	4,6-Dinitro-2-methylphenol	ug/kg		ND	880	1
86-30-6	N-Nitrosodiphenylamine	ug/kg		ND	180	1
101-55-3	4-Bromophenyl-phenylether	ug/kg		ND	180	1
118-74-1	Hexachlorobenzene	ug/kg		ND	180	1
87-86-5	Pentachlorophenol	ug/kg		ND	880	1
85-01-8	Phenanthrene	ug/kg		ND	180	1
120-12-7	Anthracene	ug/kg		ND	180	1
84-74-2	Di-N-Butylphthalate	ug/kg		ND	180	1
206-44-0	Fluoranthene	ug/kg		ND	180	1
129-00-0	Pyrene	ug/kg		ND	180	1
85-68-7	Butylbenzylphthalate	ug/kg		ND	180	1
91-94-1	3,3'-Dichlorobenzidine	ug/kg		ND	350	1
56-55-3	Benzo(a)anthracene	ug/kg		ND	180	1
218-01-9	Chrysene	ug/kg		ND	180	1
117-81-7	bis(2-Ethylhexyl)phthalate	ug/kg		ND	180	1
117-84-0	Di-n-octylphthalate	ug/kg		ND	180	1
205-99-2	Benzo(b)fluoranthene	ug/kg		ND	180	1
207-08-9	Benzo(k)fluoranthene	ug/kg		ND	180	1
50-32-8	Benzo(a)pyrene	ug/kg		ND	180	1
193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg		ND	180	1
53-70-3	Dibenzo(a,h)Anthracene	ug/kg		ND	180	1
191-24-2	Benzo(g,h,i)Perylene	ug/kg		ND	180	1
86-74-8	Carbazole	ug/kg		ND	180	1

SURROGATES- In Percent Recovery:

2-Fluorophenol	34.9	(25 - 121%)
Phenol-d5	39.1	(24 - 113%)
Nitrobenzene-d5	36.3	(23 - 120%)
2-Fluorobiphenyl	39.5	(30 - 115%)
2,4,6-Tribromophenol	59.4	(19 - 122%)
p-Terphenyl-d14	86.3	(18 - 137%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Product: 826-VAP2 - Volatile Organics

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/09/01 Time: 14:51

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M25160

Method: 8260B\5035
Run ID: R120090
Batch : WG95200

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/kg		ND	110	1
71-43-2	Benzene	ug/kg		ND	5.3	1
108-86-1	Bromobenzene	ug/kg		ND	5.3	1
74-97-5	Bromochloromethane	ug/kg		ND	5.3	1
75-27-4	Bromodichloromethane	ug/kg		ND	5.3	1
75-25-2	Bromoform	ug/kg		ND	5.3	1
74-83-9	Bromomethane	ug/kg		ND	11	1
78-93-3	2-Butanone	ug/kg		ND	110	1
104-51-8	n-Butylbenzene	ug/kg		ND	5.3	1
135-98-8	sec-Butylbenzene	ug/kg		ND	5.3	1
98-06-6	tert-Butylbenzene	ug/kg		ND	5.3	1
75-15-0	Carbon disulfide	ug/kg		ND	5.3	1
56-23-5	Carbon tetrachloride	ug/kg		ND	5.3	1
108-90-7	Chlorobenzene	ug/kg		ND	5.3	1
124-48-1	Chlorodibromomethane	ug/kg		ND	5.3	1
75-00-3	Chloroethane	ug/kg		ND	11	1
110-75-8	2-Chloroethyl vinyl ether	ug/kg		ND	11	1
67-66-3	Chloroform	ug/kg		ND	5.3	1
74-87-3	Chloromethane	ug/kg		ND	11	1
95-49-8	2-Chlorotoluene	ug/kg		ND	5.3	1
106-43-4	4-Chlorotoluene	ug/kg		ND	5.3	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	5.3	1
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.3	1
74-95-3	Dibromomethane	ug/kg		ND	5.3	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.3	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.3	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.3	1
75-71-8	Dichlorodifluoromethane	ug/kg		ND	11	1
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.3	1
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.3	1
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.3	1
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	5.3	1
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	5.3	1
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.3	1
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.3	1
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.3	1
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.3	1
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.3	1
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.3	1

RL = Reporting Limit

Login #L0104143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES

Product: 826-VAP2 - Volatile Organics

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/09/01 Time: 14:51

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M25160

Method: 8260B\5035
Run ID: R120090
Batch : WG95200

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/kg	0.72	J	5.3	1
110-54-3	n-Hexane	ug/kg		ND	11	1
591-78-6	2-Hexanone	ug/kg		ND	11	1
87-68-3	Hexachlorobutadiene	ug/kg		ND	5.3	1
98-82-8	Isopropylbenzene	ug/kg		ND	5.3	1
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.3	1
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	11	1
75-09-2	Methylene chloride	ug/kg		ND	5.3	1
91-20-3	Naphthalene	ug/kg		ND	11	1
103-65-1	n-Propylbenzene	ug/kg		ND	5.3	1
100-42-5	Styrene	ug/kg		ND	5.3	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.3	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.3	1
127-18-4	Tetrachloroethene	ug/kg		ND	5.3	1
108-88-3	Toluene	ug/kg		ND	5.3	1
87-61-6	1,2,3-Trichlorobenzene	ug/kg		ND	5.3	1
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	5.3	1
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.3	1
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.3	1
79-01-6	Trichloroethene	ug/kg	6.5		5.3	1
75-69-4	Trichlorofluoromethane	ug/kg		ND	11	1
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.3	1
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.3	1
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.3	1
108-05-4	Vinyl acetate	ug/kg		ND	11	1
75-01-4	Vinyl chloride	ug/kg		ND	2.1	1
95-47-6	o-Xylene	ug/kg		ND	5.3	1
108-38-3	m-Xylene	ug/kg		ND	5.3	1
106-42-3	p-Xylene	ug/kg		ND	5.3	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	99.5	(80 - 120%)
1,2-Dichloroethane-d4	111	(80 - 120%)
Toluene-d8	97.8	(81 - 117%)
4-Bromofluorobenzene	104	(74 - 121%)

RL = Reporting Limit

Order #: 01-04-143
April 16, 2001 08:47 am

KEMRON ENVIRONMENTAL SERVICES
WORK GROUPS

Work Group	Run ID	Sample	Dil Type	Matrix	Product	Method	Date Collected	Department
WG95162	R120476	L0104143-01		Soil	Semivolatile Compounds	8270C\3550B	05-APR-2001	Extraction
WG95183	R120127	L0104143-01		Soil	Pesticides & PCB's	8081A\3550B	05-APR-2001	Extraction
WG95184	R120258	L0104143-01		Soil	PCB	8082\3550	05-APR-2001	Extraction
WG95191	R120367	L0104143-01		Soil	DIG-METALS	6010B\3050B	05-APR-2001	Digestion
WG95197	R120279	L0104143-01		Soil	Herbicides	8151A	05-APR-2001	Extraction
WG95200	R120090	L0104143-01		Soil	Volatile Organics	8260B\5035	05-APR-2001	Volatile - GC/MS
WG95214	R120127	L0104143-01		Soil	Pesticides & PCB's	8081A\3550B	05-APR-2001	Semivolatile - GC
WG95215	R120258	L0104143-01		Soil	PCB	8082\3550	05-APR-2001	Semivolatile - GC
WG95227	R120177	L0104143-01		Soil	Percent Solids	D2216-90	05-APR-2001	Conventionals
WG95248	R120247	L0104143-01		Soil	DIG-METALS	7471A\7471A	05-APR-2001	Digestion
WG95271	R120367	L0104143-01		Soil	ICP-METALS	6010B\3050B	05-APR-2001	Metals - ICP
WG95306	R120279	L0104143-01		Soil	Herbicides	8151A	05-APR-2001	Semivolatile - GC
WG95314	R120247	L0104143-01		Soil	Mercury, Total	7471A\7471A	05-APR-2001	Metals - AA
WG95315	R120109	L0104143-01		Soil	Paint Filter Liquid Test	9095	05-APR-2001	Conventionals
WG95504	R120476	L0104143-01		Soil	Semivolatile Compounds	8270C\3550B	05-APR-2001	Semivolatile - GC/MS

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG95504
METHOD : 8270
MATRIX : SOIL
CONCENTRATION UNITS : ug/kg
PREP WORK GRP : WG95162

EXT DATE : 04/02/2001
BENCH SHEET : V16091
BLK FLNM : 4M7775
LCS FLNM : 4M7776

RUN DATE : 04/10/2001
SMPL ID : L0104134-01
SMPL FLNM : 4M7795
MS FLNM : 4M7796
MSD FLNM : 4M7797

INSTRUMENT : HPMS4
ANALYST : mdc

	CONCENTRATION , ug / kg								PERCENT RECOVERY , %										PERCENT			BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS	LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	% RPD	RPD LIMIT	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
PYRIDINE	165	ND	1667	0	ND	1667	610	592	NA	0 0	25		150	NA	36.6	35.5	25	150	3	40				L		
N-NITROSODIMETHYLAMINE	165	ND	1667	565	ND	1667	659	650	NA	33.9	40		106	NA	39 6	39.0	40	106	1	40				L	L	L
ANILINE	165	ND	1667	179	ND	1667	764	772	NA	10 8	25		150	NA	45 8	46 3	25	150	1	40				L		
PHENOL	165	ND	1667	557	ND	1667	692	665	NA	33 4	18		90	NA	41 5	39.9	18	90	4	40						
BIS(2-CHLOROETHYL)ETHER	165	ND	1667	563	ND	1667	674	670	NA	33 8	19		88	NA	40.4	40.2	19	88	1	40						
2-CHLOROPHENOL	165	ND	1667	529	ND	1667	648	629	NA	31 8	20		84	NA	38 9	37.7	20	84	3	40						
1,3-DICHLOROBENZENE	165	ND	1667	522	ND	1667	592	580	NA	31 3	20		79	NA	35.5	34.8	20	79	2	40						
1,4-DICHLOROBENZENE	165	ND	1667	528	ND	1667	596	586	NA	31 7	20		81	NA	35.8	35.2	20	81	2	40						
BENZYL ALCOHOL	165	ND	1667	556	ND	1667	664	644	NA	33 3	11		94	NA	39 8	38 7	11	94	3	40						
1,2-DICHLOROBENZENE	165	ND	1667	533	ND	1667	613	603	NA	32 0	19		83	NA	36.8	36.2	19	83	2	40						
2-METHYLPHENOL	165	ND	1667	562	ND	1667	730	701	NA	33 7	21		90	NA	43 8	42.0	21	90	4	40						
BIS(2-CHLOROISOPROPYL)ET	165	ND	1667	583	ND	1667	723	711	NA	35.0	10		92	NA	43 4	42.7	10	92	2	40						
3- & 4-METHYLPHENOL	165	ND	1667	576	ND	1667	762	735	NA	34 6	23		91	NA	45.7	44.1	23	91	4	40						
N-NITROSO-DI-N-PROPYLAMIN	165	ND	1667	645	ND	1667	814	807	NA	38 7	19		93	NA	48 8	48.4	19	93	1	40						
HEXACHLOROETHANE	165	ND	1667	484	ND	1667	557	527	NA	29 0	18		85	NA	33.4	31.6	18	85	5	40						
NITROBENZENE	165	ND	1667	559	ND	1667	666	648	NA	33.5	20		91	NA	40.0	38.9	20	91	3	40						
ISOPHORONE	165	ND	1667	745	ND	1667	986	958	NA	44.7	20		102	NA	59.2	57.5	20	102	3	40						
2-NITROPHENOL	165	ND	1667	551	ND	1667	656	632	NA	33 1	20		90	NA	39.3	37.9	20	90	4	40						
2,4-DIMETHYLPHENOL	165	ND	1667	581	ND	1667	771	741	NA	34 9	23		98	NA	46 3	44.5	23	98	4	40						
BIS(2-CHLOROETHOXY)METH	165	ND	1667	596	ND	1667	707	688	NA	35 7	23		96	NA	42 4	41.3	23	96	3	40						
BENZOIC ACID	825	ND	1667	579	ND	1667	576	689	NA	34 8	10		95	NA	34 6	41.3	10	95	18	40						
2,4-DICHLOROPHENOL	165	ND	1667	578	ND	1667	789	771	NA	34 7	21		93	NA	47 3	46.2	21	93	2	40						
1,2,4-TRICHLOROBENZENE	165	ND	1667	538	ND	1667	637	619	NA	32 3	19		87	NA	38.2	37.1	19	87	3	40						
NAPHTHALENE	165	ND	1667	570	ND	1667	710	688	NA	34 2	21		89	NA	42.6	41.3	21	89	3	40						
4-CHLOROANILINE	165	ND	1667	351	ND	1667	775	765	NA	21 1	10		94	NA	46.5	45.9	10	94	1	40						
HEXACHLOROBUTADIENE	165	ND	1667	598	ND	1667	736	719	NA	35.9	18		96	NA	44 1	43.1	18	96	2	40						
4-CHLORO-3-METHYLPHENOL	165	ND	1667	712	ND	1667	1096	1106	NA	42 7	26		99	NA	65 8	66 3	26	99	1	40						
2-METHYLNAPHTHALENE	165	ND	1667	585	ND	1667	757	729	NA	35.1	21		90	NA	45 4	43.7	21	90	4	40						
HEXACHLOROCYCLOPENTAD	165	ND	1667	559	ND	1667	251	226	NA	33 5	10		89	NA	15 0	13.5	10	89	11	40						
2,4,6-TRICHLOROPHENOL	165	ND	1667	676	ND	1667	987	974	NA	40 5	26		97	NA	59 2	58.4	26	97	1	40						
2,4,5-TRICHLOROPHENOL	165	ND	1667	693	ND	1667	1020	1029	NA	41 6	27		96	NA	61.2	61.7	27	96	1	40						
2-CHLORONAPHTHALENE	165	ND	1667	605	ND	1667	796	763	NA	36.3	23		93	NA	47.7	45.8	23	93	4	40						
2-NITROANILINE	825	ND	1667	717	ND	1667	940	937	NA	43 0	27		104	NA	56.4	56.2	27	104	0	40						
DIMETHYLPHTHALATE	165	ND	1667	844	ND	1667	960	979	NA	50 7	23		98	NA	57 6	58.8	23	98	2	40						
ACENAPHTHYLENE	165	ND	1667	676	110.89	1667	1083	1050	NA	40 6	25		101	NA	58.3	56.3	25	101	3	40						
2,6-DINITROTOLUENE	165	ND	1667	813	ND	1667	1048	1063	NA	48 8	31		103	NA	62.9	63.8	31	103	1	40						
3-NITROANILINE	825	ND	1667	1061	ND	1667	1284	1340	NA	63.6	10		134	NA	77 0	80.4	10	134	4	40						
ACENAPHTHENE	165	ND	1667	730	225	1667	1210	1188	NA	43 8	22		100	NA	59 1	57.8	22	100	2	40						
2,4-DINITROPHENOL	825	ND	1667	928	ND	1667	705	703	NA	55.7	11		102	NA	42.3	42.2	11	102	0	40						
4-NITROPHENOL	825	ND	1667	960	ND	1667	1033	1069	NA	57.6	30		118	NA	62 0	64.1	30	118	3	40						
DIBENZOFURAN	165	ND	1667	661	72.9	1667	1006	1002	NA	39 6	28		96	NA	56 0	55.7	28	96	0	40						
2,4-DINITROTOLUENE	165	ND	1667	977	ND	1667	1134	1183	NA	58.6	41		109	NA	68 0	71.0	41	109	4	40						

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG95504 **EXT DATE :** 04/02/2001 **RUN DATE :** 04/10/2001 **INSTRUMENT :** HPMS4
METHOD : 8270 **BENCH SHEET :** V16091 **SMPL ID :** L0104134-01 **ANALYST :** mdc
MATRIX : SOIL **BLK FLNM :** 4M7775 **SMPL FLNM :** 4M7795
CONCENTRATION UNITS : ug/kg **LCS FLNM :** 4M7776 **MS FLNM :** 4M7796
PREP WORK GRP : WG95162 **MSD FLNM :** 4M7797

	CONCENTRATION , ug / kg								PERCENT RECOVERY , %									PERCENT			BEYOND LIMITS				
ANALYTE	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	% RPD	RPD LIMIT	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
DIETHYLPHTHALATE	165	ND	1667	1004	ND	1667	1111	1157	NA	60 3	42	108	NA	66 6	69.4	42	108	4	40						
FLUORENE	165	ND	1667	760	163	1667	1216	1220	NA	45.6	33	101	NA	63 2	63 4	33	101	0	40						
4-CHLOROPHENYL-PHENYL E	165	ND	1667	705	ND	1667	958	967	NA	42 3	29	99	NA	57 5	58.0	29	99	1	40						
4-NITROANILINE	825	ND	1667	1183	ND	1667	1447	1531	NA	71 0	34	114	NA	86 8	91.9	34	114	6	40						
1,2-DIPHENYLHYDRAZINE *	165	ND	1667	777	ND	1667	1033	1054	NA	46 6	25	150	NA	62.0	63.2	25	150	2	40						
4,6-DINITRO-2-METHYLPHENO	825	ND	1667	984	ND	1667	246	240	NA	59.0	33	110	NA	14.8	14.4	33	110	3	40				L	L	
N-NITROSODIPHENYLAMINE *	165	ND	1667	1020	ND	1667	1159	1198	NA	61 2	25	135	NA	69 5	71.9	25	135	3	40						
4-BROMOPHENYL-PHENYL ET	165	ND	1667	778	ND	1667	927	948	NA	46.7	32	94	NA	55 6	56.9	32	94	2	40						
HEXACHLOROBENZENE	165	ND	1667	996	ND	1667	1093	1126	NA	59 8	39	103	NA	65 6	67.6	39	103	3	40						
PENTACHLOROPHENOL	825	ND	1667	1019	ND	1667	1009	1059	NA	61.2	26	114	NA	60 5	63.6	26	114	5	40						
PHENANTHRENE	165	ND	1667	1034	2399 2	1667	3749	3799	NA	62 0	38	111	NA	81 0	84.0	38	111	1	40						
ANTHRACENE	165	ND	1667	1073	521.6	1667	1754	1798	NA	64 4	44	105	NA	74.0	76.6	44	105	2	40						
CARBAZOLE	165	ND	1667	1692	263 5	1667	2322	2410	NA	101 5	25	150	NA	123 5	128.8	25	150	4	40						
DI-N-BUTYLPHTHALATE	165	ND	1667	1206	ND	1667	1268	1327	NA	72 4	45	116	NA	76.1	79.6	45	116	5	40						
FLUORANTHENE	165	ND	1667	1163	4483.5	1667	5804	5657	NA	69 8	46	114	NA	79.2	70.4	46	114	3	40						
PYRENE	165	ND	1667	1192	3697	1667	5157	4996	NA	71 5	41	120	NA	87 6	77.9	41	120	3	40						
BUTYLBENZYLPHTHALATE	165	ND	1667	1311	ND	1667	1414	1478	NA	78.7	45	135	NA	84 8	88.7	45	135	4	40						
BENZO(A)ANTHRACENE	330	ND	1667	1265	2067.97	1667	3376	3339	NA	75.9	41	119	NA	78 5	76.3	41	119	1	40						
3,3'-DICHLOROBENZIDINE	165	ND	1667	459	ND	1667	1592	1751	NA	27.5	10	146	NA	95.5	105.1	10	146	10	40						
CHRYSENE	165	ND	1667	1306	2183 54	1667	3477	3471	NA	78 4	44	118	NA	77.6	77.2	44	118	0	40						
BIS(2-ETHYLHEXYL)PHTHALAT	165	ND	1667	1329	ND	1667	1465	1511	NA	79 7	48	122	NA	87.9	90.7	48	122	3	40						
DI-N-OCTYLPHTHALATE	165	ND	1667	1180	ND	1667	1680	1739	NA	70 8	40	127	NA	100.8	104.3	40	127	3	40						
BENZO[B]FLUORANTHENE	165	ND	1667	1240	2597.07	1667	4326	4349	NA	74 4	34	124	NA	103.7	105.1	34	124	1	40						
BENZO[K]FLUORANTHENE	165	ND	1667	1218	1615.23	1667	3017	3012	NA	73.1	37	124	NA	84.1	83.8	37	124	0	40						
BENZO[A]PYRENE	165	ND	1667	1229	2204 8	1667	3618	3590	NA	73 7	41	115	NA	84 8	83.1	41	115	1	40						
INDENO[1,2,3-CD]PYRENE	165	ND	1667	1315	830 28	1667	1537	1595	NA	78 9	33	126	NA	42.4	45.9	33	126	4	40						
DIBENZ[A,H]ANTHRACENE	165	ND	1667	1362	ND	1667	1103	1150	NA	81 7	31	127	NA	66 2	69.0	31	127	4	40						
BENZO[G,H,I]PERYLENE	165	ND	1667	1317	921 12	1667	1567	1551	NA	79 0	34	120	NA	38.7	37.8	34	120	1	40						
SURROGATES																									
2-FLUOROPHENOL		39 10	100	32.52	40.68	100	37.20	35 78	39.1	32 5	25	121	40.68	37.20	35.78	25	121								
PHENOL - D5		42.73	100	35.75	50.40	100	43.14	41 74	42.7	35 8	24	113	50 40	43.14	41.74	24	113								
NITROBENZENE - D5		19 46	50	17.23	22.64	50	20.14	19 64	38 9	34 5	23	120	45.28	40 28	39.28	23	120								
2-FLUOROBIPHENYL		21.48	50	19.59	25 12	50	24.10	23.16	43 0	39 2	30	115	50.24	48 20	46.32	30	115								
2,4,6-TRIBROMOPHENOL		35 07	100	56.53	69.84	100	66 56	69 56	35 1	56 5	19	122	69 84	66 56	69.56	19	122								
p-TERPHENYL - D14		40.00	50	38.25	38.30	50	36.18	38 06	80.0	76.5	18	137	76.60	72.36	76.12	18	137								

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT
NS = NOT SPIKED
L= below QC limit
H=above QC limit
* = RPD above limit

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG95504
METHOD : 8270
MATRIX : SOIL
CONCENTRATION UNITS : ug/kg
PREP WORK GRP : WG95162

EXT DATE : 4/2/2001
BENCH SHEET : V16091
BLK FLNM : 4M7775
LCS FLNM : 4M7776

RUN DATE : 4/10/2001
SMPL ID : L0104134-01
SMPL FLNM : 4M7795
MS FLNM : 4M7796
MSD FLNM : 4M7797

INSTRUMENT : HPMS4
ANALYST : mdc

ANALYTE	CONCENTRATION , ug / kg								PERCENT RECOVERY , %										PERCENT			BEYOND LIMITS				
	RDL	BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	% RPD	RPD LIMIT	RPD > LIMIT	SAMPLE	BLANK	LCS	MS	MSD
PYRIDINE	165	ND	1667	0	ND	1667	610	592	NA	0.0	25	150	NA	36.6	35.5	25	150	3	40				L		
N-NITROSODIMETHYLAMINE	165	ND	1667	565	ND	1667	659	650	NA	33.9	40	106	NA	39.8	39.0	40	106	1	40				L	L	L
ANILINE	165	ND	1667	179	ND	1667	764	772	NA	10.8	25	150	NA	45.8	46.3	25	150	1	40				L		
PHENOL	165	ND	1667	557	ND	1667	692	665	NA	33.4	18	90	NA	41.5	39.9	18	90	4	40						
BIS(2-CHLOROETHYL)ETHER	165	ND	1667	563	ND	1667	674	670	NA	33.8	19	88	NA	40.4	40.2	19	88	1	40						
2-CHLOROPHENOL	165	ND	1667	529	ND	1667	648	629	NA	31.8	20	84	NA	38.9	37.7	20	84	3	40						
1,3-DICHLOROBENZENE	165	ND	1667	522	ND	1667	592	580	NA	31.3	20	79	NA	35.5	34.8	20	79	2	40						
1,4-DICHLOROBENZENE	165	ND	1667	528	ND	1667	596	586	NA	31.7	20	81	NA	35.8	35.2	20	81	2	40						
BENZYL ALCOHOL	165	ND	1667	556	ND	1667	664	644	NA	33.3	11	94	NA	39.8	38.7	11	94	3	40						
1,2-DICHLOROBENZENE	165	ND	1667	533	ND	1667	613	603	NA	32.0	19	83	NA	36.8	36.2	19	83	2	40						
2-METHYLPHENOL	165	ND	1667	562	ND	1667	730	701	NA	33.7	21	90	NA	43.8	42.0	21	90	4	40						
BIS(2-CHLOROISOPROPYL)ETHER	165	ND	1667	583	ND	1667	723	711	NA	35.0	10	92	NA	43.4	42.7	10	92	2	40						
3- & 4-METHYLPHENOL	165	ND	1667	576	ND	1667	762	735	NA	34.6	23	91	NA	45.7	44.1	23	91	4	40						
N-NITROSO-DI-N-PROPYLAMINE	165	ND	1667	645	ND	1667	814	807	NA	38.7	19	93	NA	48.8	48.4	19	93	1	40						
HEXACHLOROETHANE	165	ND	1667	484	ND	1667	557	527	NA	29.0	18	85	NA	33.4	31.6	18	85	5	40						
NITROBENZENE	165	ND	1667	559	ND	1667	668	648	NA	33.5	20	91	NA	40.0	38.9	20	91	3	40						
ISOPHORONE	165	ND	1667	745	ND	1667	986	958	NA	44.7	20	102	NA	59.2	57.5	20	102	3	40						
2-NITROPHENOL	165	ND	1667	551	ND	1667	658	632	NA	33.1	20	90	NA	39.3	37.9	20	90	4	40						
2,4-DIMETHYLPHENOL	165	ND	1667	581	ND	1667	771	741	NA	34.9	23	98	NA	46.3	44.5	23	98	4	40						
BIS(2-CHLOROETHOXY)METHANE	165	ND	1667	596	ND	1667	707	688	NA	35.7	23	96	NA	42.4	41.3	23	96	3	40						
BENZOIC ACID	825	ND	1667	579	ND	1667	576	689	NA	34.8	10	95	NA	34.6	41.3	10	95	18	40						
2,4-DICHLOROPHENOL	165	ND	1667	576	ND	1667	789	771	NA	34.7	21	93	NA	47.3	46.2	21	93	2	40						
1,2,4-TRICHLOROBENZENE	165	ND	1667	538	ND	1667	637	619	NA	32.3	19	87	NA	38.2	37.1	19	87	3	40						
NAPHTHALENE	165	ND	1667	570	ND	1667	710	688	NA	34.2	21	89	NA	42.6	41.3	21	89	3	40						
4-CHLOROANILINE	165	ND	1667	351	ND	1667	775	765	NA	21.1	10	94	NA	46.5	45.9	10	94	1	40						
HEXACHLOROBUTADIENE	165	ND	1667	598	ND	1667	736	719	NA	35.9	18	96	NA	44.1	43.1	18	96	2	40						
4-CHLORO-3-METHYLPHENOL	165	ND	1667	712	ND	1667	1096	1106	NA	42.7	26	99	NA	65.8	66.3	26	99	1	40						
2-METHYLNAPHTHALENE	165	ND	1667	585	ND	1667	757	729	NA	35.1	21	90	NA	45.4	43.7	21	90	4	40						
HEXACHLOROCYCLOPENTADIENE	165	ND	1667	559	ND	1667	251	226	NA	33.5	10	89	NA	15.0	13.5	10	89	11	40						
2,4,6-TRICHLOROPHENOL	165	ND	1667	676	ND	1667	987	974	NA	40.5	26	97	NA	59.2	58.4	26	97	1	40						
2,4,5-TRICHLOROPHENOL	165	ND	1667	693	ND	1667	1020	1029	NA	41.6	27	96	NA	61.2	61.7	27	96	1	40						
2-CHLORONAPHTHALENE	165	ND	1667	605	ND	1667	796	763	NA	36.3	23	93	NA	47.7	45.8	23	93	4	40						
2-NITROANILINE	825	ND	1667	717	ND	1667	940	937	NA	43.0	27	104	NA	56.4	56.2	27	104	0	40						
DIMETHYLPHTHALATE	165	ND	1667	844	ND	1667	960	979	NA	50.7	23	98	NA	57.8	58.8	23	98	2	40						
ACENAPHTHYLENE	165	ND	1667	676	110.89	1667	1083	1050	NA	40.6	25	101	NA	58.3	56.3	25	101	3	40						
2,6-DINITROTOLUENE	165	ND	1667	813	ND	1667	1048	1063	NA	48.8	31	103	NA	62.9	63.8	31	103	1	40						
3-NITROANILINE	825	ND	1667	1061	ND	1667	1284	1340	NA	63.6	10	134	NA	77.0	80.4	10	134	4	40						
ACENAPHTHENE	165	ND	1667	730	225	1667	1210	1186	NA	43.8	22	100	NA	59.1	57.8	22	100	2	40						
2,4-DINITROPHENOL	825	ND	1667	928	ND	1667	705	703	NA	55.7	11	102	NA	42.3	42.2	11	102	0	40						
4-NITROPHENOL	825	ND	1667	960	ND	1667	1033	1069	NA	57.6	30	118	NA	62.0	64.1	30	118	3	40						
DIBENZOFURAN	165	ND	1667	661	72.9	1667	1006	1002	NA	39.6	28	96	NA	56.0	55.7	28	96	0	40						
2,4-DINITROTOLUENE	165	ND	1667	977	ND	1667	1134	1183	NA	58.6	41	109	NA	68.0	71.0	41	109	4	40						

KEMRON ENVIRONMENTAL SERVICES , OVL
SEMI-VOLATILES QUALITY CONTROL SUMMARY

ANAL WORK GRP : WG95504
METHOD : 8270
MATRIX : SOIL
CONCENTRATION UNITS : ug/kg
PREP WORK GRP : WG95162

EXT DATE : 4/2/2001
BENCH SHEET : V16091
BLK FLNM : 4M7775
LCS FLNM : 4M7776

RUN DATE : 4/10/2001
SMPL ID : L0104134-01
SMPL FLNM : 4M7795
MS FLNM : 4M7796
MSD FLNM : 4M7797

INSTRUMENT : HPMS4
ANALYST : mdc

ANALYTE	RDL	CONCENTRATION , ug / kg BLANK	LCS SPIKE ADDED	LCS	SAMPLE	MS SPIKE ADDED	MS	MSD	PERCENT RECOVERY , % BLANK	LCS	LCS LCL	LCS UCL	SAMPLE	MS	MSD	MS LCL	MS UCL	PERCENT % RPD	RPD LIMIT	RPD > LIMIT	BEYOND LIMITS SAMPLE	BLANK	LCS	MS	MSD
DIETHYLPHTHALATE	165	ND	1667	1004	ND	1667	1111	1157	NA	60.3	42	108	NA	66.6	69.4	42	108	4	40						
FLUORENE	165	ND	1667	760	163	1667	1218	1220	NA	45.6	33	101	NA	63.2	63.4	33	101	0	40						
4-CHLOROPHENYL-PHENYL ETHE	165	ND	1667	705	ND	1667	958	967	NA	42.3	29	99	NA	57.5	58.0	29	99	1	40						
4-NITROANILINE	825	ND	1667	1183	ND	1667	1447	1531	NA	71.0	34	114	NA	86.8	91.9	34	114	6	40						
1,2-DIPHENYLHYDRAZINE *	165	ND	1667	777	ND	1667	1033	1054	NA	46.6	25	150	NA	62.0	63.2	25	150	2	40						
4,6-DINITRO-2-METHYLPHENOL	825	ND	1667	984	ND	1667	246	240	NA	59.0	33	110	NA	14.8	14.4	33	110	3	40				L	L
N-NITROSODIPHENYLAMINE **	165	ND	1667	1020	ND	1667	1159	1198	NA	61.2	25	135	NA	69.5	71.9	25	135	3	40						
4-BROMOPHENYL-PHENYL ETHE	165	ND	1667	778	ND	1667	927	948	NA	46.7	32	94	NA	55.6	56.9	32	94	2	40						
HEXACHLOROBENZENE	165	ND	1667	996	ND	1667	1093	1126	NA	59.8	39	103	NA	65.6	67.6	39	103	3	40						
PENTACHLOROPHENOL	825	ND	1667	1019	ND	1667	1009	1059	NA	61.2	26	114	NA	60.5	63.6	26	114	5	40						
PHENANTHRENE	165	ND	1667	1034	2399.2	1667	3749	3799	NA	62.0	38	111	NA	81.0	84.0	38	111	1	40						
ANTHRACENE	165	ND	1667	1073	521.6	1667	1754	1798	NA	64.4	44	105	NA	74.0	76.6	44	105	2	40						
CARBAZOLE	165	ND	1667	1692	263.5	1667	2322	2410	NA	101.5	25	150	NA	123.5	128.8	25	150	4	40						
DI-N-BUTYLPHTHALATE	165	ND	1667	1206	ND	1667	1268	1327	NA	72.4	45	116	NA	76.1	79.6	45	116	5	40						
FLUORANTHENE	165	ND	1667	1163	4483.5	1667	5804	5657	NA	69.8	46	114	NA	79.2	70.4	46	114	3	40						
PYRENE	165	ND	1667	1192	3697	1667	5157	4998	NA	71.5	41	120	NA	87.6	77.9	41	120	3	40						
BUTYLBENZYLPHTHALATE	165	ND	1667	1311	ND	1667	1414	1478	NA	78.7	45	135	NA	84.8	88.7	45	135	4	40						
BENZO(A)ANTHRACENE	330	ND	1667	1265	2067.97	1667	3376	3339	NA	75.9	41	119	NA	78.5	76.3	41	119	1	40						
3,3'-DICHLOROBENZIDINE	165	ND	1667	459	ND	1667	1592	1751	NA	27.5	10	146	NA	95.5	105.1	10	146	10	40						
CHRYSENE	165	ND	1667	1308	2183.54	1667	3477	3471	NA	78.4	44	118	NA	77.6	77.2	44	118	0	40						
BIS(2-ETHYLHEXYL)PHTHALATE	165	ND	1667	1329	ND	1667	1465	1511	NA	79.7	48	122	NA	87.9	90.7	48	122	3	40						
DI-N-OCTYLPHTHALATE	165	ND	1667	1180	ND	1667	1680	1739	NA	70.8	40	127	NA	100.8	104.3	40	127	3	40						
BENZO[B]FLUORANTHENE	165	ND	1667	1240	2597.07	1667	4326	4349	NA	74.4	34	124	NA	103.7	105.1	34	124	1	40						
BENZO[K]FLUORANTHENE	165	ND	1667	1218	1615.23	1667	3017	3012	NA	73.1	37	124	NA	84.1	83.8	37	124	0	40						
BENZO[A]PYRENE	165	ND	1667	1229	2204.8	1667	3618	3590	NA	73.7	41	115	NA	84.8	83.1	41	115	1	40						
INDENO(1,2,3-CD]PYRENE	165	ND	1667	1315	830.28	1667	1537	1595	NA	78.9	33	126	NA	42.4	45.9	33	126	4	40						
DIBENZ[A,H]ANTHRACENE	165	ND	1667	1362	ND	1667	1103	1150	NA	81.7	31	127	NA	66.2	69.0	31	127	4	40						
BENZO[G,H,I]PERYLENE	165	ND	1667	1317	921.12	1667	1567	1651	NA	79.0	34	120	NA	38.7	37.6	34	120	1	40						
SURROGATES																									
2-FLUOROPHENOL		39.10	100	32.52	40.68	100	37.20	35.78	39.1	32.5	25	121	40.68	37.20	35.78	25	121								
PHENOL - D6		42.73	100	35.75	50.40	100	43.14	41.74	42.7	35.8	24	113	50.40	43.14	41.74	24	113								
NITROBENZENE - D5		19.46	50	17.23	22.64	50	20.14	19.64	38.9	34.5	23	120	45.28	40.28	39.28	23	120								
2-FLUOROBIPHENYL		21.48	50	19.59	25.12	50	24.10	23.16	43.0	39.2	30	115	50.24	48.20	46.32	30	115								
2,4,6-TRIBROMOPHENOL		35.07	100	56.53	69.84	100	66.56	69.56	35.1	56.5	19	122	69.84	66.56	69.56	19	122								
p-TERPHENYL - D14		40.00	50	38.25	38.30	50	38.18	38.06	80.0	76.5	18	137	76.60	72.36	76.12	18	137								

NOTES & DEFINITIONS :
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

NS = NOT SPIKED
L= below QC limit
H=above QC limit

* = RPD above limit

KEMRON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / PCB SOILS, REAR

	INSTRUMENT : HP4		SMPL ID : NA
EXT'N DATE : 4/6/2001	ANALYST : ECL	BLK FLNM : 4GR7826	SMPL FLNM : NA
EXT'N BENCH SHT : V160 P99	RUN DATE : 4/9/2001	LCS FLNM : 4GR7827	MS FLNM : NA
EXT'N WORK GRP : WG95184	ANAL WORK GRP : WG95215		MSD FLNM : NA

		CONCENTRATION , ug/Kg					% RECOVERY									PERCENT						
COMPOUND	RDL	Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
AROCLOR 1016	17.0	ND	83.4	ND	NA	NA	NA	100	10	241	NA	NA	NA	10	241	NA	0-49					
AROCLOR 1221	17.0	ND	NA	ND	NA	NA	NA	NA	10	180	NA	NA	NA	10	180	NA	0-39					
AROCLOR 1232	17.0	ND	NA	ND	NA	NA	NA	NA	11	205	NA	NA	NA	11	205	NA	0-36					
AROCLOR 1242	17.0	ND	NA	ND	NA	NA	NA	NA	30	165	NA	NA	NA	30	165	NA	0-37					
AROCLOR 1248	17.0	ND	NA	ND	NA	NA	NA	NA	31	175	NA	NA	NA	31	175	NA	0-39					
AROCLOR 1254	17.0	ND	NA	ND	NA	NA	NA	NA	22	149	NA	NA	NA	22	149	NA	0-37					
AROCLOR 1260	17.0	ND	84.2	ND	NA	NA	NA	101	10	272	NA	NA	NA	10	272	NA	0-62					
SURROGATES																						
2,4,5,6-TETRACHLORO-M-XYLENE		18.9	15.6	NA	NA	NA	94.3	78.0	29	133	NA	NA	NA	29	133							
DECACHLOROBIPHENYL		22.9	20.7	NA	NA	NA	114	103	30	173	NA	NA	NA	30	173							

NOTES & DEFINITIONS :

LCS, MS & MSD spiked at 83.3 ug/kg
SURROGATES spiked at 20 ug/kg
NA = NOT APPLICABLE
DL = DILUTED OUT
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

KEMRON ENVIRONMENTAL SERVICES
MARIETTA, OH
QUALITY CONTROL SUMMARY / 8151 SOILS , REAR

INSTRUMENT : HP1
EXT'N DATE : 4/9/2001
ANALYST : ECL
BLK FLNM : 1G3697
SMPL ID : L0104143-01
EXT'N BENCH SHT : V160 P105
RUN DATE : 4/10/2001
LCS FLNM : 1G3698
SMPL FLNM : 1G3699
EXT'N WORK GRP : WG95197
ANAL WORK GRP : WG95306
MS FLNM : 1G3700
MSD FLNM : 1G3701

COMPOUND	RL	CONCENTRATION , ug/kg					% RECOVERY									PERCENT						
		Blank	LCS	Sample	MS	MSD	Blank	LCS	LCS LCL	LCS UCL	Sample	MS	MSD	MS LCL	MS UCL	MS/MSD RPD	RPD Advisory Limits	Blank	LCS	Sample	MS	MSD
DALAPON	100	ND	114	ND	50.4	48.9	NA	45.5	10	99	NA	20.2	19.5	10	99	3.1	0-85					
DICAMBA	4.0	ND	12.0	ND	13.9	12.9	NA	120.4	33	146	NA	139	129	33	146	7.3	0-76					
MCPA	4000	ND	8186	ND	8960	8133	NA	81.9	19	147	NA	89.6	81.3	19	147	9.7	0-69					
MCPP	4000	ND	8011	ND	8585	7028	NA	80.1	10	219	NA	85.9	70.3	10	219	19.9	0-99					
DICHLOROPROP	40	ND	112	ND	117	107	NA	112	35	139	NA	117	107	35	139	9.0	0-65					
2,4-D	40	ND	60.4	ND	59.8	52.9	NA	60.4	32	132	NA	69.8	52.9	32	132	12.1	0-61					
SILVEX	3.0	ND	8.25	ND	8.01	7.38	NA	82.5	31	132	NA	80.1	73.8	31	132	8.2	0-57					
2,4,5-T	4.0	ND	9.27	ND	9.62	9.11	NA	92.7	20	144	NA	96.2	91.1	20	144	5.5	0-73					
2,4-DB	40	ND	212	ND	214	193	NA	212	29	134	NA	214	193	29	134	10.3	0-157		H		H	H
DINOSEB	20	ND	45.7	ND	32.6	29.9	NA	91.4	15	100	NA	65.2	59.7	15	100	8.9	0-49					
PENTACHLOROPHENOL	4.0	ND	11.2	ND	5.40	4.88	NA	112	31	132	NA	54.0	48.8	31	132	10.1	0-57					
SURROGATES																						
DCAA		494	500	450	490	470	98.7	99.9	51	146	90.0	98.0	93.9	51	146							

NOTES & DEFINITIONS :

SURROGATES spiked at 500 ug/kg
NA = NOT APPLICABLE
ND = NOT DETECTED
RDL=REPORTING DETECTION LIMIT

LCS=LABORATORY CONTROL SAMPLE
MS=MATRIX SPIKE
MSD=MATRIX SPIKE DUPLICATE

KEMRON ENVIRONMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP:	WG95271	RUN DATE:	4/9/01
METHOD:	6010B	PREP DATE:	4/6/01
MATRIX:	Soil	ANALYST:	SLP
UNITS:	mg/kg	DUPLICATE:	L0104136-02
INSTRUMENT:	IRIS	MS/MSD:	L0104136-01

			CONCENTRATION PPM								PERCENT RECOVERY							PERCENT		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Silver	2.00	0.181	10.000	9.000	ND	ND	0.326	10.000	9.100	9.090	90.0	80.0	120.0	87.7	87.6	75.0	125.0	NA	0.11	20
Aluminum	5.000	ND	500.000	481.000	10000.000	10500.000	9460.000	500.000	13600.000	15000.000	96.2	80.0	120.0	828.0	1108.0	75.0	125.0	4.88	9.79	20
Arsenic	5.000	ND	50.000	45.500	11.700	10.900	10.500	50.000	50.900	53.900	91.0	80.0	120.0	80.8	86.8	75.0	125.0	7.08	5.73	20
Barium	0.500	ND	500.000	448.000	41.700	43.400	43.600	500.000	494.000	495.000	89.6	80.0	120.0	90.1	90.3	75.0	125.0	4.00	0.20	20
Beryllium	0.500	ND	50.000	50.700	0.516	0.506	0.489	50.000	47.100	47.500	101.4	80.0	120.0	93.2	94.0	75.0	125.0	1.96	0.85	20
Calcium	10.000	ND	500.000	487.000	2360.000	2710.000	20700.000	500.000	32600.000	12600.000	97.4	80.0	120.0	2380.0		75.0	125.0	13.81	88.50	20
Cadmium	0.500	ND	50.000	45.000	ND	ND	0.195	50.000	43.900	44.200	90.0	80.0	120.0	87.4	88.0	75.0	125.0	NA	0.68	20
Cobalt	1.000	ND	50.000	46.900	3.400	3.520	4.380	50.000	45.900	47.700	93.8	80.0	120.0	83.0	86.6	75.0	125.0	3.47	3.85	20
Chromium	1.000	0.062	50.000	49.100	11.800	12.300	14.500	50.000	61.500	63.100	98.2	80.0	120.0	94.0	97.2	75.0	125.0	4.15	2.57	20
Copper	1.000	ND	50.000	45.800	16.600	16.500	20.200	50.000	63.200	63.000	91.6	80.0	120.0	86.0	85.6	75.0	125.0	0.60	0.32	20
Iron	2.000	ND	50.000	54.300	12500.000	12200.000	15400.000	50.000	12600.000	16500.000	108.6	80.0	120.0		2200.0	75.0	125.0	2.43	26.80	20
Potassium	50.000	ND	2500.000	2250.000	767.000	814.000	897.000	2500.000	4370.000	4000.000	90.0	80.0	120.0	138.9	124.1	75.0	125.0	5.95	8.84	20
Magnesium	25.000	5.080	500.000	488.000	1330.000	1520.000	10300.000	500.000	17700.000	6750.000	97.6	80.0	120.0	1480.0		75.0	125.0	13.33	89.57	20
Manganese	0.500	ND	50.000	48.800	125.000	127.000	189.000	50.000	296.000	244.000	97.6	80.0	120.0	214.0	110.0	75.0	125.0	1.59	19.26	20
Sodium	25.000	ND	2500.000	2180.000	36.300	39.600	276.000	2500.000	2540.000	2520.000	87.2	80.0	120.0	90.6	89.8	75.0	125.0	8.70	0.79	20
Nickel	2.000	ND	50.000	48.100	12.800	13.100	20.200	50.000	65.400	63.100	96.2	80.0	120.0	90.4	85.8	75.0	125.0	2.32	3.58	20
Lead	5.000	ND	50.000	47.400	56.800	57.200	26.200	50.000	69.900	71.100	94.8	80.0	120.0	87.4	89.8	75.0	125.0	0.70	1.70	20
Antimony	10.000	ND	50.000	45.700	0.960	0.535	1.860	50.000	32.100	32.700	91.4	80.0	120.0	60.5	61.7	75.0	125.0	56.86	1.85	20
Selenium	5.000	ND	50.000	45.700	5.310	5.570	5.550	50.000	48.600	50.000	91.4	80.0	120.0	86.1	88.9	75.0	125.0	4.78	2.84	20
Thallium	25.000	ND	50.000	47.800	ND	ND	ND	50.000	42.000	43.500	95.6	80.0	120.0	84.0	87.0	75.0	125.0	NA	3.51	20
Vanadium	0.500	ND	50.000	48.300	25.600	24.900	24.700	50.000	73.100	79.800	96.6	80.0	120.0	96.8	110.2	75.0	125.0	2.77	8.76	20
Zinc	1.000	ND	50.000	46.700	51.100	52.900	49.600	50.000	104.000	98.400	93.4	80.0	120.0	108.8	97.6	75.0	125.0	3.46	5.53	20
																		0.00	0.00	
																		0.00	0.00	
																		0.00	0.00	
																		0.00	0.00	
																		0.00	0.00	
																		0.00	0.00	

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
NA = NOT APPLICABLE
ND = NOT DETECTED
DL = DILUTED OUT (Concentration of sample > 4X spike concentration)

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

KEMRON ENVIRONMENTAL SERVICES
OHIO VALLEY LABORATORY
QUALITY CONTROL SUMMARY

WORKGROUP:	WG95314	**RUN DATE:**	04/10/2001
METHOD:	7471A	**PREP DATE:**	04/09/2001
MATRIX:	Soil	**ANALYST:**	AMT
UNITS:	mg/kg	**DUPLICATE**	L0104158-07
INSTRUMENT:	Leeman PS 202	**MS/MSD**	L0104158-04

			CONCENTRATION PPB								PERCENT RECOVERY							PERCENT RPD		
ANALYTE	RDL	Blank	T-LCS	LCS	REP1	REP2	SAMPLE RESULT	T-MS	MS	MSD	LCS	LCS LCL	LCS UCL	MS	MSD	MS LCL	MS UCL	REP RPD	MS RPD	RPD UCL
Mercury	0.1000	ND	0.1670	0.1780	ND	ND	ND	0.1670	0.1750	0.1710	106.6	77.0	120.0	104.8	102.4	77.0	120.0	NA	2.3	25.0

NOTES & DEFINITIONS :

RDL = REPORTING DETECTION LIMIT
DL = DILUTED OUT
NA = NOT APPLICABLE

LCS = LABORATORY CONTROL SAMPLE
T- LCS = TRUE VALUE OF LCS
REP1 = UNSPIKED SAMPLE REPLICATE 1
REP2 = UNSPIKED SAMPLE REPLICATE 2
SAMPLE RESULT = CONCENTRATION OF UNSPIKED MATRIX
T-MS = TRUE VALUE OF MATRIX SPIKE
MS = MATRIX SPIKE
MSD = MATRIX SPIKE DUPLICATE
LCL = LOWER CONTROL LIMIT
UCL = UPPER CONTROL LIMIT

REP RPD = % RELATIVE PERCENT DIFFERENCE OF SAMPLE REPLICATES
MS RPD = % RELATIVE PERCENT DIFFERENCE OF MATRIX SPIKES

KEMRON ANALYST LIST

Ohio Valley Laboratory

04/04/2001

ABW - ANGELA B. WIGAL
ADB - AMANDA D. BREEDLOVE
ADH - ANGELA D. HURST
AJF - AMANDA J. FICKIESEN
ALT - ANN L. THAYER
AMT - ANDREA M. TUCKER
ARS - ANGELINA R. SCOTT
BJM - BARRY J. MYERS
BRG - BRENDA R. GREGORY
CAF - CHERYL A. FLOWERS
CAK - CHERYL A. KOELSCH
CBN - CHARLES B. NOLL
CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD
CLK - CARL L. KING
CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEVENS
CRC - CARLA R. COCHRAN
CSH - CHRIS S. HILL
DAM - DAN A. MUSGRAVE
DAS - DALLAS A. SULLIVAN
DAT - DEBBIE A. TORNES
DCU - DAVID C. UNDERWOOD
DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON
DLA - DENISE L. ADAMS
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DLN - DEANNA L. NORTON
DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH
DP - DEANNA L. PIERSON
DST - DENNIS S. TEPE
DTK - DEENA T. KELLEY
EAN - ELIZABETH A. NICHOLSON
EAW - ELIZABETH A. WEBER
ECL - ERIC C. LAWSON
EIE - ELIZABETH I. EAGLE
GSG - GALEN S. GEORGE
GWH - GEORGE W. HUTCHISON
HD - HEATH DENNIS
HV - HEMA VILASAGAR
JAQ - JEROMY A. QUESENBERRY
JAW - JOYCE A. WITHERS
JKM - JUNE K. MORRIS
JKW - JANE K. WARDEN
JLH - JANICE L. HOLLAND
JMM - JARROD M. MARTIN
JMT - JOY M. THOMAS
JMW - JOHN M. WASS
JRM - JAY R. MCDOUGAL
JWR - JOHN W. RICHARDS
JWS - JACK W. SHEAVES
JYH - JI Y. HU
KDS - KRISTI D. STONE
KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON
KSL - KELLY S. LAUER
LBM - LAWRENCE B. MCSWEGAN
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LSA - LUCINDA S. ARNOLD
LSB - LESLIE S. BUCINA
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MDC - MICHAEL D. COCHRAN
MDG - MELISSA D. GRIMES
MEF - MIKE E. FLANAGAN
MES - MARY E. SCHILLING
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MRR - MICHELLE R. RAUCH
MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH
PML - PAULA M. LEIDY
RDC - REBECCA D. CUTLIP
REF - RON E. FERTILE
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RJW - RHONDA J. WITTEKIND
RLW - RON L. WATSON
RSH - RENEE S. HENNES
RSS - REGINA S. SIMMONS
RVC - RUTH V. CALLIHAN
RWC - ROD W. CAMPBELL
SAM - SAMUAL A. MILLS
SJK - SINDY J. KINNEY
SKH - SHARON K. HANDSCHUMACHER
SLC - SHAWN L. COLE
SLP - SHERI L. PFALZGRAF
SLT - STEPHANIE L. TEPE
SMW - SHAUNA M. WELCH
SPL - STEVE P. LEARN
SPS - STEVE P. SWATZEL
TJH - TIM J. HOEFLICH
TLD - TERESA L. DAVIS
TM - TODD MCGINNIS
TMM - TAMMY M. MORRIS
VC - VICKI COLLIER

KEMRON Environmental Services, Inc
List of Valid Qualifiers
December 15, 2000

Standard Qualifiers

These are KEMRON's Standard Report Qualifiers

A	See the report narrative
B	Present in the method blank
C	Confirmed by GC/MS
CG	Confluent growth
D	The analyte was quantified at a secondary dilution factor
DL	Surrogate or spike was diluted out
E	Estimated concentration due to sample matrix interference
FL	Free liquid
I	Semiquantitative result, out of instrument calibration range
J	Present below nominal reporting limit
L	Sample reporting limits elevated due to matrix interference
M	Duplicate injection precision not met
N	Tentatively Identified Compound (TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL)
NF	Not found
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentration >40% difference between The two GC columns
QNS	Quantity not sufficient to perform analysis
R	Analyte exceeds regulatory limit
RA	Re analysis confirms reported results
RE	Re analysis confirms sample matrix Interference
S	Analyzed by method of standard addition
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TNTC	Too numerous to count
U	Analyzed for but not detected
W	Post-digestion spike for furnace AA out Of control limits
Z	Can not be resolved from isomer.***
+	Correlation coefficient for the MSA is less Than 0.995
<	Less than
>	Greater than
*	Surrogate or spike compound out of range

***** Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semiquantative screens only
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene
3. N-nitrosodiphenylamine cannot be separated from diphenylamine
4. 3-Methyphenol and 4-Methyphenol are unresolvable compounds
5. m-Xylene and p-Xylene are unresolvable compounds
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent

AFCEE Qualifiers

These are KEMRON's AFCEE Report Qualifiers

J	The analyte was positively identified, the quantitation is an estimation
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the MDL
F	The analyte was positively identified but the associated numerical value is below the RL
R	The data is unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
B	The analyte was found in an associated blank, as well as in the sample
M	The matrix effect was present
S	To be applied to all field screening data
T	Tentatively identified compound (using GC/MS)

CHRYSLER CORPORATION

Drill Cuttings Characterization Offsite Drilling

Chain-of-Custody

04640 A

~~CompuChem~~ Kemron	Project Name: Dayton Thermal Products	Consultant: LBG
~~501 Madison Avenue~~ 109 Starlite Park	Site Location: 1600 Webster St Dayton OH	Address: 1210 West County Road E
~~Cary, NC 27513~~ Marietta OH 45750	Site Code: SC001	St Paul MN 55112
Phone Number: ~~1-800-833-5097~~ 740 373 4071	RFA Number: YGQP2001214	Consultant PM: Kenneth Vogel
Fax Number: (919) 379-4050	Chrysler PM: Gary Stanczuk	Phone: 651 490 1405 Fax: 1006

Turn-around Time Request:
24 calendar hrs.
48 calendar hrs.
10 days 14 day
28 days

Data Package Deliverables: (circle)
Chrysler Level 1
Chrysler Level 2
Other (specify):

Compound List-Parameter/Method/Bottle Type/Preservative

Matrix Codes
S - Soil SW - Surface Water
GW - Groundwater A - Air
Sed. - Sediment
O - Other (specify)

Field Sample Identification	Date Collected	Time Collected	Grab (G) or Composite (C)	Matrix Code	Total # of Containers	TCL VOCs 8260B	TCL SVOC 8270C	Herbicides 8151A Appendix IX	TCL Pesticides 8081A	TCL PCBs 8082	PPL Metals 6/7000 Series	Free Liquids Test 9095A			Lab Use Only: Volatiles pH <2	Metals pH < 2	Cyanide pH > 12	Other	Remarks
WS24117	4/5/01	1635	C	S	4	X	X	X	X	X	X	X							Soil cuttings generated
						four 4 OZ glass/No preservatives													during Offsite drilling
																			Roll Off # 24117/
																			Dayton 96

C/C sealed SB intact

Sampler(s)	Bottles Reliquished under Airbill No. NA			Samples Relinquished under Airbill No. 824181891712			Temperature (corrected) 0 C bla
David Strand	Relinquished by: [signature]	Date: 4/5/01	Time: Fed Ex	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Cooler ID # KL 998	Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody Seal Intact? Yes No
Is RFA sampling complete? Yes No	Relinquished by:	Date:	Time:	Received for Laboratory by: Brenda Gregory	Date: 4/6/01	Time: 0953	Custody Seal Intact? Yes No

Chrysler Corporation 800 Chrysler Drive, CIMS 482-00-51, Auburn Hills, Michigan 48326-2757

Distribution: White copy: Data package Yellow : Retained by laboratory Pink: Retained by sampler

KEMRON Internal Laboratory Chain of Custody

Work Order: L0104143 **Client:** Compuchem **# of Samples:** 01 **Due Date:** 4-13-01 **Page:** _____

Sample #	Analysis	Reason	Removed By ADT	Removed From	Moved To	Reliq. by	Ret'd By ADT	Ret'd To	Rec'd By	Reason
01A	8270	Ext	[illegible] 4/6/01 @ 1350	walkin	SLB	Blg	[illegible] 4/6/01 @ 1430	walkin	Blg	storage
01A	PST/PB	Ext	[illegible] 4/6/01 @ 1575	walkin	SLB	[illegible]	JAG 4/6/01 23:30	archive	[illegible]	archive
01	8260SL	anal	CWS 4-6-01 @ 1600	V-1	VOA	Brg	CWS 4-19-01 @ 0950	archive	Blg	archive
01A	MET	DIG	[illegible] 04-06-01 @ 1630	walkin	DIG	Blg	SJK 04-09-01 @ 1115	Archive	JKW	Archive
01 A	8151	Ext	[illegible] 4/9/01 @ 0800	walkin	SLB	CEB	[illegible] 04/09/01 @ 0850	walk In	Blg	Storage
01 A	RT-S	test	TMM 4/9/01 @ 0930	walkin	wet	Blg	TMM 4/9/01 @ 1120	Archive	JKW	Archive

KEMRON Environmental Services | **SAMPLES RECEIPT FORM #1** | Marietta Laboratory

CLIENT: Compuchem	DATE: 4-6-01	SHIPPED BY: (✓) FED-EX ( ) AIRBORNE ( ) UPS ( ) EMERY ( ) RPS ( ) US MAIL ( ) KEMRON ( ) CLIENT
BRG ARS Other _____		

COOLER ID: KL998	COOLER ID:	COOLER ID:
INDEX # : 824181891712	INDEX # :	INDEX # :
SEALED (✓) YES ( ) NO	SEALED ( ) YES ( ) NO	SEALED ( ) YES ( ) NO
CUSTODY (✓) YES ( ) NO	CUSTODY ( ) YES ( ) NO	CUSTODY ( ) YES ( ) NO
TEMP : (C) (D) °C	TEMP : (C) (D) °C	TEMP : (C) (D) °C
TEMP IN RANGE (4°C ± 2°) ( ) YES (✓) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO	TEMP IN RANGE (4°C ± 2°) ( ) YES ( ) NO
WET ICE (✓) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )	WET ICE ( ) BLUE ICE ( )
ICE FROZEN (✓) MELTED ( )	ICE FROZEN ( ) MELTED ( )	ICE FROZEN ( ) MELTED ( )
RADIATION CHECKED (✓) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO	RADIATION CHECKED ( ) YES ( ) NO
SAMPLE INTACT (✓) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO	SAMPLE INTACT ( ) YES ( ) NO SALVAGEBLE ( ) YES ( ) NO
SAMPLE TYPE: WATER (✓) SOIL (✓) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )	SAMPLE TYPE: WATER ( ) SOIL ( ) OTHER ( )
LABELS: INTACT (✓) YES ( ) NO LEGIBLE (✓) YES ( ) NO MATCH COC (✓) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO	LABELS: INTACT ( ) YES ( ) NO LEGIBLE ( ) YES ( ) NO MATCH COC ( ) YES ( ) NO
pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO	pH IN RANGE (2 - >9 - >12) AS APPROPRIATE ( ) YES ( ) NO
LOG-IN COMMENTS	LOG-IN COMMENTS	LOG-IN COMMENTS

TSR COMMENTS

CONTACT:	DATE:	TIME:

COMMENTS: ( ) VOICE ( ) FAX ( ) E-MAIL

Revised 02/21/01

COMPUCHEM
a division of Liberty Analytical Corp.
501 Madison Avenue
Cary, NC 27513

Visit our web site –
www.compuchemlabs.com

FAX

TO: KEN VOGEL
DAVE STRAND
FAX: (651) 490-1006
DATE: 4/30/01

FROM: CATHY DOVER
PHONE: (919) 379-4100
FAX: (919) 379-4050

PAGES WITH COVER: 10

COMMENTS:

RFA 214 (ID: WS24117) RESULTS

TEST CERTIFICATE
KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

CompuChem
501 Madison Ave.
Cary, NC 27513

Attention: Diane Byrd

PO Number: 00205
Account Number: COMPUCHEM-529
Invoice Number: 551900

Login #: L0104143
Report Date: 04/30/01
Work ID: SC001/OFFSITE DRILLING
Date Received: 04/06/01

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L0104143-01	WS24117		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

Login #L0104143
April 30, 2001 03:29 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SCD01/OFFSITE DRILLING

Matrix: Soil
Collected: 04/05/01 16:35

% Solid: 94
COC Info: 04640/

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids.....	weight %	94		1.0	1	N/A	TMM	04/09/01		D2216-90
Paint Filter Liquid Test.....			NFL		1	N/A	TMM	04/09/01	14:15	9095
Silver, Total.....	mg/kg		ND	2.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Arsenic, Total.....	mg/kg		ND	5.3	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Beryllium, Total.....	mg/kg		ND	0.53	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Cadmium, Total.....	mg/kg		ND	0.53	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Chromium, Total.....	mg/kg	4.1		1.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Copper, Total.....	mg/kg	8.6		1.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Mercury, Total.....	mg/kg		ND	0.27	1	N/A	AMT	04/10/01	10:36	7471A\METHO
Nickel, Total.....	mg/kg	5.7		2.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Lead, Total.....	mg/kg		ND	5.3	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Antimony, Total.....	mg/kg		ND	11	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Selenium, Total.....	mg/kg		ND	5.3	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Thallium, Total.....	mg/kg		ND	27	1	N/A	SLP	04/09/01	16:29	6010B\3050B
Zinc, Total.....	mg/kg	22		1.1	1	N/A	SLP	04/09/01	16:29	6010B\3050B

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8081 - Pesticides & PCB's

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/10/01 Time: 01:23

Instrument: HP9
Analyst: ECL
Lab File ID: 9G15057

Method: 8081A\3550B
Run ID: R120127
Batch : WG95214

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/kg		ND	1.8	1
319-85-7	beta-BHC	ug/kg		ND	1.8	1
319-86-8	delta-BHC	ug/kg		ND	1.8	1
58-89-9	gamma-BHC (Lindane)	ug/kg		ND	1.8	1
76-44-8	Heptachlor	ug/kg		ND	1.8	1
309-00-2	Aldrin	ug/kg		ND	1.8	1
1024-57-3	Heptachlor epoxide	ug/kg		ND	1.8	1
959-98-8	Endosulfan I	ug/kg		ND	1.8	1
60-57-1	Dieldrin	ug/kg		ND	3.5	1
72-55-9	4,4'-DDE	ug/kg		ND	3.5	1
72-20-8	Endrin	ug/kg		ND	3.5	1
33213-65-9	Endosulfan II	ug/kg		ND	3.5	1
72-54-8	4,4'-DDD	ug/kg		ND	3.5	1
1031-07-8	Endosulfan sulfate	ug/kg		ND	3.5	1
50-29-3	4,4'-DDT	ug/kg		ND	3.5	1
72-43-5	Methoxychlor	ug/kg		ND	18	1
53494-70-5	Endrin ketone	ug/kg		ND	3.5	1
7421-93-4	Endrin aldehyde	ug/kg		ND	3.5	1
5103-71-9	alpha Chlordane	ug/kg		ND	1.8	1
5103-74-2	gamma Chlordane	ug/kg		ND	1.8	1
8001-35-2	Toxaphene	ug/kg		ND	35	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	83.8	(29 - 133%)
Decachlorobiphenyl	106	(30 - 173%)

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8082 - PCB

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/09/01 Time: 23:00

Instrument: HP4
Analyst: ECL
Lab File ID: 4GR7835

Method: 8082\3550B
Run ID: R120258
Batch : WG95215

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	18	1
11104-28-2	Aroclor-1221	ug/kg		ND	18	1
11141-16-5	Aroclor-1232	ug/kg		ND	18	1
53469-21-9	Aroclor-1242	ug/kg		ND	18	1
12672-29-6	Aroclor-1248	ug/kg		ND	18	1
11097-69-1	Aroclor-1254	ug/kg		ND	18	1
11096-82-5	Aroclor-1260	ug/kg		ND	18	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	87.3	(29 - 133%)
Decachlorobiphenyl	110	(30 - 173%)

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8151 - Herbicides

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/09/01
Analysis Date: 04/10/01 Time: 15:41

Instrument: HP1
Analyst: ECL
Lab File ID: 1G3699

Method: 8151A
Run ID: R120279
Batch : WG95306

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
94-75-7	2,4-D.....	ug/kg		ND	43	1
94-82-6	2,4-DB.....	ug/kg		ND	43	1
93-76-5	2,4,5-T.....	ug/kg		ND	4.3	1
93-72-1	2,4,5-TP (Silvex).....	ug/kg		ND	3.2	1
75-99-0	Dalapon.....	ug/kg		ND	110	1
1918-00-9	Dicamba.....	ug/kg		ND	4.3	1
120-36-5	Dichloroprop.....	ug/kg		ND	43	1
88-85-7	Dinoseb.....	ug/kg		ND	21	1
94-74-6	MCPA.....	ug/kg		ND	4300	1
93-65-2	MCPP.....	ug/kg		ND	4300	1
87-86-5	Pentachlorophenol.....	ug/kg		ND	4.3	1

SURROGATES- In Percent Recovery:
2,4-Dichlorophenylacetic acid..... 90.0 (51 - 146%)

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 827-VAP2 - Semivolatile Compounds

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/10/01 Time: 19:06

Instrument: HPMS4
Analyst: MDC
Lab File ID: 4M7782

Method: 8270C\3550B
Run ID: R120476
Batch : WG95504

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/kg		ND	180	1
111-44-4	Bis(2-Chloroethyl)ether	ug/kg		ND	180	1
95-57-8	2-Chlorophenol	ug/kg		ND	180	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	180	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	180	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	180	1
95-48-7	2-Methylphenol	ug/kg		ND	180	1
108-60-1	bis(2-Chloroisopropyl)ether	ug/kg		ND	180	1
106-44-5	4-Methylphenol	ug/kg		ND	180	1
621-64-7	N-Nitroso-di-n-propylamine	ug/kg		ND	180	1
67-72-1	Hexachloroethane	ug/kg		ND	180	1
98-95-3	Nitrobenzene	ug/kg		ND	180	1
78-59-1	Isophorone	ug/kg		ND	180	1
88-75-5	2-Nitrophenol	ug/kg		ND	180	1
105-67-9	2,4-Dimethylphenol	ug/kg		ND	180	1
111-91-1	Bis(2-Chloroethoxy)Methane	ug/kg		ND	180	1
120-83-2	2,4-Dichlorophenol	ug/kg		ND	180	1
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	180	1
91-20-3	Naphthalene	ug/kg		ND	180	1
106-47-8	4-Chloroaniline	ug/kg		ND	180	1
87-68-3	Hexachlorobutadiene	ug/kg		ND	180	1
59-50-7	4-Chloro-3-methylphenol	ug/kg		ND	180	1
91-57-6	2-Methylnaphthalene	ug/kg		ND	180	1
77-47-4	Hexachlorocyclopentadiene	ug/kg		ND	180	1
88-06-2	2,4,6-Trichlorophenol	ug/kg		ND	180	1
95-95-4	2,4,5-Trichlorophenol	ug/kg		ND	880	1
91-58-7	2-Chloronaphthalene	ug/kg		ND	180	1
88-74-4	2-Nitroaniline	ug/kg		ND	880	1
131-11-3	Dimethylphthalate	ug/kg		ND	180	1
208-96-8	Acenaphthylene	ug/kg		ND	180	1
606-20-2	2,6-Dinitrotoluene	ug/kg		ND	180	1
99-09-2	3-Nitroaniline	ug/kg		ND	880	1
83-32-9	Acenaphthene	ug/kg		ND	180	1
51-28-5	2,4-Dinitrophenol	ug/kg		ND	880	1
100-02-7	4-Nitrophenol	ug/kg		ND	880	1
132-64-9	Dibenzofuran	ug/kg		ND	180	1
121-14-2	2,4-Dinitrotoluene	ug/kg		ND	180	1
84-66-2	Diethylphthalate	ug/kg		ND	180	1
7005-72-3	4-Chlorophenyl-phenyl ether	ug/kg		ND	180	1

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KENRON ENVIRONMENTAL SERVICES

Product: 827-VAP2 - Semivolatile Compounds

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: 04/06/01
Analysis Date: 04/10/01 Time: 19:06

Instrument: HPMS4
Analyst: MDC
Lab File ID: 4M7782

Method: 8270C\3550B
Run ID: R120476
Batch : WG95504

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
86-73-7	Fluorene	ug/kg		ND	180	1
100-01-6	4-Nitroaniline	ug/kg		ND	880	1
534-52-1	4,6-Dinitro-2-methylphenol	ug/kg		ND	880	1
86-30-6	N-Nitrosodiphenylamine	ug/kg		ND	180	1
101-55-3	4-Bromophenyl-phenylether	ug/kg		ND	180	1
118-74-1	Hexachlorobenzene	ug/kg		ND	180	1
87-86-5	Pentachlorophenol	ug/kg		ND	880	1
85-01-8	Phenanthrene	ug/kg		ND	180	1
120-12-7	Anthracene	ug/kg		ND	180	1
84-74-2	Di-N-Butylphthalate	ug/kg		ND	180	1
206-44-0	Fluoranthene	ug/kg		ND	180	1
129-00-0	Pyrene	ug/kg		ND	180	1
85-68-7	Butylbenzylphthalate	ug/kg		ND	180	1
91-94-1	3,3'-Dichlorobenzidine	ug/kg		ND	350	1
56-55-3	Benzo(a)anthracene	ug/kg		ND	180	1
218-01-9	Chrysene	ug/kg		ND	180	1
117-81-7	bis(2-Ethylhexyl)phthalate	ug/kg		ND	180	1
117-84-0	Di-n-octylphthalate	ug/kg		ND	180	1
205-99-2	Benzo(b)fluoranthene	ug/kg		ND	180	1
207-08-9	Benzo(k)fluoranthene	ug/kg		ND	180	1
50-32-8	Benzo(a)pyrene	ug/kg		ND	180	1
193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg		ND	180	1
53-70-3	Dibenzo(a,h)Anthracene	ug/kg		ND	180	1
191-24-2	Benzo(g,h,i)Perylene	ug/kg		ND	180	1
86-74-8	Carbazole	ug/kg		ND	180	1

SURROGATES- In Percent Recovery:

2-Fluorophenol	34.9	(25 - 121%)
Phenol-d5	39.1	(24 - 113%)
Nitrobenzene-d5	36.3	(23 - 120%)
2-Fluorobiphenyl	39.5	(30 - 115%)
2,4,6-Tribromophenol	59.4	(19 - 122%)
p-Terphenyl-d14	86.3	(18 - 137%)

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 826-VAP2 - Volatile Organics

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/
Date Collected: 04/05/01

Sample Weight: N/A
Extract Volume: N/A
% Solid: 94

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/09/01 Time: 14:51

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M25160

Method: 8260B\5035
Run ID: R120090
Batch : WG95200

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/kg		ND	110	1
71-43-2	Benzene	ug/kg		ND	5.3	1
108-86-1	Bromobenzene	ug/kg		ND	5.3	1
74-97-5	Bromochloromethane	ug/kg		ND	5.3	1
75-27-4	Bromodichloromethane	ug/kg		ND	5.3	1
75-25-2	Bromoform	ug/kg		ND	5.3	1
74-83-9	Bromomethane	ug/kg		ND	11	1
78-93-3	2-Butanone	ug/kg		ND	110	1
104-51-8	n-Butylbenzene	ug/kg		ND	5.3	1
135-98-8	sec-Butylbenzene	ug/kg		ND	5.3	1
98-06-6	tert-Butylbenzene	ug/kg		ND	5.3	1
75-15-0	Carbon disulfide	ug/kg		ND	5.3	1
56-23-5	Carbon tetrachloride	ug/kg		ND	5.3	1
108-90-7	Chlorobenzene	ug/kg		ND	5.3	1
124-48-1	Chlorodibromomethane	ug/kg		ND	5.3	1
75-00-3	Chloroethane	ug/kg		ND	11	1
110-75-8	2-Chloroethyl vinyl ether	ug/kg		ND	11	1
67-66-3	Chloroform	ug/kg		ND	5.3	1
74-87-3	Chloromethane	ug/kg		ND	11	1
95-49-8	2-Chlorotoluene	ug/kg		ND	5.3	1
106-43-4	4-Chlorotoluene	ug/kg		ND	5.3	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	5.3	1
106-93-4	1,2-Dibromoethane	ug/kg		ND	5.3	1
74-95-3	Dibromomethane	ug/kg		ND	5.3	1
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	5.3	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	5.3	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	5.3	1
75-71-8	Dichlorodifluoromethane	ug/kg		ND	11	1
75-34-3	1,1-Dichloroethane	ug/kg		ND	5.3	1
107-06-2	1,2-Dichloroethane	ug/kg		ND	5.3	1
75-35-4	1,1-Dichloroethene	ug/kg		ND	5.3	1
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	5.3	1
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	5.3	1
78-87-5	1,2-Dichloropropane	ug/kg		ND	5.3	1
142-28-9	1,3-Dichloropropane	ug/kg		ND	5.3	1
594-20-7	2,2-Dichloropropane	ug/kg		ND	5.3	1
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	5.3	1
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	5.3	1
563-58-6	1,1-Dichloropropene	ug/kg		ND	5.3	1

RL = Reporting Limit

Login #L0104143
April 30, 2001 03:29 pm

KENRON ENVIRONMENTAL SERVICES

Product: 826-VAP2 - Volatile Organics

Lab Sample ID: L0104143-01
Client Sample ID: WS24117
Site/Work ID: SC001/OFFSITE DRILLING
Matrix: Soil

Dil. Type: N/A
COC Info: 04640/

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 04/05/01

% Solid: 94

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 04/09/01 Time: 14:51

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6M25160

Method: 8260B\5035
Run ID: R120090
Batch : WG95200

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/kg	0.72	J	5.3	1
110-54-3	n-Hexane	ug/kg		ND	11	1
591-78-6	2-Hexanone	ug/kg		ND	11	1
87-68-3	Hexachlorobutadiene	ug/kg		ND	5.3	1
98-82-8	Isopropylbenzene	ug/kg		ND	5.3	1
99-87-6	p-Isopropyltoluene	ug/kg		ND	5.3	1
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	11	1
75-09-2	Methylene chloride	ug/kg		ND	5.3	1
91-20-3	Naphthalene	ug/kg		ND	11	1
103-65-1	n-Propylbenzene	ug/kg		ND	5.3	1
100-42-5	Styrene	ug/kg		ND	5.3	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	5.3	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	5.3	1
127-18-4	Tetrachloroethene	ug/kg		ND	5.3	1
108-88-3	Toluene	ug/kg		ND	5.3	1
87-61-6	1,2,3-Trichlorobenzene	ug/kg		ND	5.3	1
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	5.3	1
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	5.3	1
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	5.3	1
79-01-6	Trichloroethene	ug/kg	6.5		5.3	1
75-69-4	Trichlorofluoromethane	ug/kg		ND	11	1
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	5.3	1
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	5.3	1
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	5.3	1
108-05-4	Vinyl acetate	ug/kg		ND	11	1
75-01-4	Vinyl chloride	ug/kg		ND	2.1	1
95-47-6	o-Xylene	ug/kg		ND	5.3	1
108-38-3	m-Xylene	ug/kg		ND	5.3	1
106-42-3	p-Xylene	ug/kg		ND	5.3	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	99.5	(80 - 120%)
1,2-Dichloroethane-d4	111	(80 - 120%)
Toluene-d8	97.8	(81 - 117%)
4-Bromofluorobenzene	104	(74 - 121%)

RL = Reporting Limit

ACCESS AGREEMENT

THIS ACCESS AGREEMENT ("Agreement") is made this _____ day of _____, 2000, by and between DaimlerChrysler Corporation, whose address is 1000 Chrysler Drive, Auburn Hills, MI 48326 and __Industrial Fiberglass Specialties___ ("Owner"), whose address is __521 Kiser Avenue_____ _____Dayton, Ohio 45404_____, and a legal description of which is attached as Exhibit A ("Owner's Property").

In consideration of the mutual promises and covenants contained in this Agreement, the receipt and sufficiency of which is acknowledged by both parties, Owner and DaimlerChrysler Corporation agree as follows:

1. Owner grants to DaimlerChrysler Corporation, its employees, and agents (collectively, "DaimlerChrysler") access to Owner's Property to place two monitoring wells. The right of access that Owner grants to DaimlerChrysler also includes access to maintain and repair the wells, as well as to take periodic samples of groundwater from the wells.

2. After installing the wells, DaimlerChrysler will promptly restore Owner's Property to its original condition to the extent possible, excluding the wells themselves. DaimlerChrysler will cooperate with Owner in reasonable efforts to camouflage the wells.

3. DaimlerChrysler will conduct the activities described in paragraph 1 of this Agreement during reasonable business hours, and will attempt to give Owner 48 hours notice by telephone before entering Owner's Property to conduct these activities. DaimlerChrysler will promptly provide Owner with a copy of the results of sampling conducted on its property if Owner requests those results in writing.

4. Owner agrees that the wells will be locked at all times, except when DaimlerChrysler unlocks the wells to conduct sampling, or to maintain or repair the wells. Owner agrees that it will not interfere, tamper with or cause damage to the wells.

5. DaimlerChrysler will defend and indemnify Owner from and against any and all claims made by any third party related to the installation, maintenance, repair and existence of the wells on Owner's Property.

6. This Agreement will continue until DaimlerChrysler terminates it. If DaimlerChrysler has not sampled, repaired or conducted maintenance on the wells for a period of two years after its installation, then Owner may request, in

writing, that the wells be removed and this Agreement terminated. DaimlerChrysler will then have 60 days to respond in writing to either continue or terminate the Agreement. Upon termination of this Agreement, DaimlerChrysler shall promptly remove the wells and restore Owner's Property to its original condition to the extent possible.

7. Any notices required under this Agreement shall be sent to :

If to DaimlerChrysler: Gary Stanczuk
DaimlerChrysler Corporation
CIMS 482-00-51
1000 Chrysler Drive
Auburn Hills, MI 48326

If to Owner: _____
_____
_____
_____

8. This Agreement is governed by the laws of the State of Ohio. If any provision of this Agreement is deemed invalid, such invalidity shall have no effect on the other provisions, which shall remain in full force and effect. This Agreement shall be binding on and inure to the benefit of the parties' successors and assigns.

9. This Agreement may be executed in counterparts, which shall together constitute the entire document. If DaimlerChrysler deems it necessary, DaimlerChrysler may record this Agreement.

IN WITNESS WHEREOF, the parties have set their hands on this _____ day of _____, 2000.

WITNESSES	**OWNER**
_____	_____
By: _____	By: _____
	Its: _____
_____	
By: _____	

STATE OF)
) **SS**
COUNTY OF)

BE IT REMEMBERED that on this ____ day of _____, 20____, before me, a Notary Public, personally came _____, and acknowledged that he/she did sign the foregoing instrument as his voluntary act and deed for the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my official seal on the day and year last aforesaid.

_____
_____, Notary Public
_____ County, _____.
My Commission expires:_____

WITNESSES	DAIMLERCHRYSLER CORPORATION
_____	_____
By: _____	By: _____
_____	Its: _____
By: _____	

STATE OF MICHIGAN)
) SS
COUNTY OF OAKLAND)

On this _____ day of _____, 19____, before me, the undersigned, a Notary Public in and for said County and State personally appeared _____ to me personally known, who being sworn did say that _____ is _____ of the Corporation in the foregoing instrument, and that the seal thereto affixed is the Corporate Seal of said Corporation and that said instrument was signed and sealed on behalf of said Corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said Corporation.

WITNESS my hand and Notarial Seal subscribed and affixed in said County and State, the day and year in this certificate above written.

_____
_____, Notary Public
_____ County, _____
My Commission expires:_____

This instrument was prepared by and should be returned to:
Kathleen M. Hennessey
DaimlerChrysler Corporation
1000 Chrysler Drive
Auburn Hills, MI 48326
(248) 512-4116

OhioEPA
State of Ohio Environmental Protection Agency

EPA Region 5 Records Ctr.
349864

STREET ADDRESS:
Lazarus Government Center
122 S. Front Street
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

June 12, 2003

DAIMLERCHRYSLER DOCUMENT CONTROL NO.
SC001.06182003.001

CERTIFIED MAIL
7001 1940 0000 6930

Mr. Gary M. Stanczuk
DaimlerChrysler Corporation
CIMS 482-00-51
800 Chrysler Drive
Auburn Hills, Michigan 48326-2757

Dear Mr. Stanczuk:

The applications submitted for an Underground Injection Control (UIC) Class V 5X26 Area Permit to Drill and UIC Class V 5X26 Area Permit to Operate have been reviewed by Ohio EPA's Division of Drinking and Ground Waters, Underground Injection Control Unit. The UIC Unit has recommended that the Director issue the above referenced Class V Permits as your proposals comply with all applicable Ohio UIC Rules.

Therefore, a Class V Area Permit to Drill, and a Class V Area Permit to Operate are issued to you today in **FINAL** form. The permits are effective on the date of issuance. Signed copies of the final permits are enclosed.

You are hereby notified that these actions of the Director are final and may be appealed to the Environmental Review Appeals Commission (Commission) pursuant to Section 3745.04 of the Ohio Revised Code. This appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. A copy of the appeal is also requested to be sent to the Office of the Attorney General, Environmental Enforcement Section. An appeal may be filed with the Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

for M.B.

Michael G. Baker, Chief
Division of Drinking and Ground Waters

CHRYSLERISSUE.ltr

Enclosure

cc: Tom Winston, Chief, SWDO (w/enclosure)
Lindsay Taliaferro III, UIC Manager
File

RECEIVED
JUN 16 2003
STATIONARY
ENVIRONMENTAL & ENERGY

OHIO ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF DRINKING AND GROUND WATERS
UNDERGROUND INJECTION CONTROL 5X26 AREA PERMIT TO DRILL AND PERMIT TO OPERATE CLASS V INJECTION WELLS

Ohio Permit Nos. UIC 05-57-10-PTD-V
UIC 05-57-10-PTO-V

OHIO E.P.A.
JUN 12 2003
ENTERED DIRECTOR'S JOURNAL

Applicant: DaimlerChrysler Corporation

Address: 1000 Chrysler Drive
Auburn Hills Michigan 48326

Telephone: (248) 576-7365

Facility Name: Dayton Thermal Products

Facility Location: 1600 Webster Street, Dayton, Ohio

Latitude 39° 46' 57.3", Longitude 84° 10' 55.6"
South Plant: Section 5, North Plant: Section 6, T1 R7

Montgomery County

Description: The purpose of the injection is to create a ground water containment system to prevent the off-site migration of chlorinated volatile organic compounds and establish hydraulic control of ground water flow at the site. In addition, the reinjected ground water will be augmented with sodium lactate to promote the reductive dechlorination of the chlorinated volatile organic compounds present in the aquifer.

Issuance Date: June 12, 2003

Effective Date: June 12, 2003

Expiration Date: June 12, 2008

I certify [illegible] copy of the official document filed in the records of the Ohio Environmental Protection Agency.
By [illegible] Date 6/12/03

The above named applicant is hereby ISSUED a 5X26 Area Permit to Drill and a 5X26 Area Permit to Operate for the above described underground injection wells pursuant to Sections 6111.043 and 6111.044 of the Ohio Revised Code and to Chapter 3745-34 of the Ohio Administrative Code. Issuance of this 5X26 Permit to Drill and 5X26 Permit to Operate does not constitute expressed or implied approval or agreement that, if constructed and/or modified in accordance with the specifications and/or information accompanying the permit applications, the above described activity will be in compliance with applicable State and Federal laws and rules and regulations. This 5X26 Area Permit to Drill and 5X26 Area Permit to Operate is issued subject to the attached conditions which are hereby incorporated and made a part hereof.

Expiration Date: This permit shall expire at midnight on the expiration date indicated above, unless terminated or modified under Chapter 3745-34 of the Ohio Administrative Code.

Christopher Jones, Director
OHIO ENVIRONMENTAL PROTECTION AGENCY

PART I
GENERAL PERMIT COMPLIANCE

A. EFFECT OF PERMIT

The permittee is authorized to engage in the drilling and operation of 5X26 Class V underground injection wells in accordance with Chapter 3745-34 of the Ohio Administrative Code (OAC) and the conditions of these permits. Notwithstanding any other provisions of these permits, the permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of injection or formation fluids into underground sources of drinking water (USDWs) if the presence of that material may cause a violation of any primary drinking water regulation under OAC Chapter 3745-81 or may otherwise adversely affect the health of persons. Any underground injection activity not specifically authorized in these permits is prohibited. Compliance with these permits during their term constitutes compliance for purposes of enforcement, with Sections 6111.043 and 6111.044 of the Ohio Revised Code (ORC). Such compliance does not constitute a defense to any action brought under ORC Sections 6109.31, 6109.32 or 6109.33 or any other common or statutory law other than ORC Sections 6111.043 and 6111.044. Issuance of these permits does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law. Nothing in these permits shall be construed to relieve the permittee of any duties under applicable state and federal law, regulations, or permits.

B. PERMIT ACTIONS

1. Modification, Revocation, Reissuance and Termination. The Director may, for cause or upon request from the permittee, modify, revoke and reissue, or terminate these permits in accordance with OAC Rules 3745-34-07, 3745-34-23, and 3745-34-24. Also, the permits are subject to minor modifications for cause as specified in OAC Rule 3745-34-25. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes, or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.

2. Transfer of Permits. These permits may be transferred to a new owner or operator only if they are modified or revoked and reissued pursuant to OAC Rule 3745-34-22(A), 3745-34-23, 3745-34-24, 3745-34-25(D) or 3745-34-26(L)(3), as applicable.

C. SEVERABILITY

The provisions of these permits are severable, and if any provision of these permits or the application of any provision of these permits to any circumstance is held invalid, the application of such provision to any other circumstances and the remainder of these permits shall not be affected thereby.

D. CONFIDENTIALITY

In accordance with OAC Rule 3745-34-03 any information submitted to the Ohio EPA pursuant to these permits may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the Ohio EPA may make the information available to the public without further notice. If a claim is asserted, documentation for the claim must be tendered and the validity of the claim will be assessed in accordance with the procedures in OAC Rule 3745-34-03. If the documentation for the claim of confidentiality is not received, the Ohio EPA may deny the claim without further inquiry. Claims of confidentiality for the following information will be denied:

1. The name and address of the permittee;

2. Information which deals with the existence, absence or level of contaminants in receiving water.

E. DUTIES AND REQUIREMENTS (OAC RULE 3745-34-26)

1. Duty to Comply. The permittee shall comply with all applicable UIC regulations and conditions of these permits, issued in accordance with OAC Rule 3745-34-19. Any permit noncompliance constitutes a violation of ORC Chapter 6109. or 6111. and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application. Such noncompliance also may be grounds for enforcement action under other applicable state and federal law.

2. Penalties for Violations of Permit Conditions. Any person who violates a permit requirement is subject to injunctive relief, civil penalties, fines and/or other enforcement action under ORC Chapters 6111., 6109., or 3734. Any person who knowingly or recklessly violates permit conditions may be subject to criminal prosecution.

3. Continuation of Expiring Permits.
   Duty to Reapply. If the permittee wishes to continue an activity regulated by these permits after the expiration date of these permits, the permittee shall

submit a complete application for new permits at least 180 days before expiration of these permits.

4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense, for a permittee in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of these permits.

5. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

6. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of these permits. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of these permits.

7. Duty to Provide Information. The permittee shall furnish to the Director, within a time specified, any information which the Director may request in order to determine whether cause exists for renewing, modifying, revoking and reissuing, or terminating these permits. To determine compliance with these permits, or to issue new permits the permittee shall furnish to the Director, upon request, copies of all records required to be kept by these permits.

8. Inspection and Entry. The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

   a. Enter permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of these permits;

   b. Have access at reasonable times to and copy any records that are kept under the conditions of these permits;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under these permits; and

d. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by ORC Chapter 6111. and OAC Chapter 3745-34, any substances or parameters at any location.

9. Records.

a. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all reports required by these permits for a period of at least five (5) years from the date of the sample, measurement or report or for the duration of the permitted life of the wells, whichever is longer.

b. The permittee shall maintain records of all data required to complete the permit application forms for permits and any supplemental information submitted under OAC Rule 3745-34-16 for a period of at least five (5) years from the date the applications were signed. These periods may be extended by request of the Director during that period of time.

c. The permittee shall retain records concerning the nature and composition of all injected fluids for three (3) years after the project has been completed.

d. The permittee shall continue to retain such records after the retention period specified by paragraphs (a) to (c) above, unless he delivers the records to the Director or obtains written approval from the Director to discard the records.

e. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

f. Records of monitoring information shall include the following as applicable pursuant to OAC Rule 3745-34-26(J)(3):

i. The date, exact place, and time of sampling or measurements;

ii. The name(s) of the individual(s) who performed the sampling or measurements;

iii. A precise description of sampling methodology;

iv. The date(s) analyses or measurements were performed;

v. The name(s) of the individual(s) who performed the analyses or measurements and the laboratory that performed the analyses ormeasurements;

vi. The analytical techniques or methods used; and

vii. All results of such analyses.

10. Signatory Requirements. All reports or other information, required to be submitted by these permits or requested by the Director, shall be signed and certified in accordance with OAC Rule 3745-34-17.

11. Reporting Requirements.

a. Planned Changes. The permittee shall give written notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted facility. Within ten (10) days of the verbal notification, or of the commencement of construction, the permittee shall give written notice to the Director with justification of any planned physical alterations to the permitted well(s).

b. Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of these permits shall be submitted no later than thirty (30) days following each schedule date.

d. Twenty-four (24) Hour Reporting.

1. The permittee shall report to the Director any noncompliance which may endanger health or the environment. Appropriate information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported orally within 24 hours:

i. Any monitoring or other information which indicates that any contaminant may cause an endangerment to an underground source of drinking water.

ii. Any noncompliance with a permit condition, or malfunction of the injection system, which may cause unpermitted fluid migration into or between underground sources of drinking water.

2. A written submission also shall be provided within five (5) business days of the time the permittee becomes aware of the circumstances of such noncompliance. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, the anticipated time it is expected to continue; and if the noncompliance has or has not been corrected, and steps taken or

planned to reduce, eliminate and prevent recurrence of the noncompliance.

e. Other Noncompliance. The permittee shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in permit condition 11(d)(2) above.

f. Other Information. When the permittee becomes aware of failure to submit any relevant facts in the permit applications or that incorrect information was submitted in a permit application or in any report to the Director, the permittee shall submit such facts and corrected information within ten (10) days.

g. The Director shall be notified immediately, in writing, if the person responsible for certification of documents pursuant to OAC Rule 3745-34-17 is changed.

F. PLUGGING AND ABANDONMENT

1. Plan for Plugging and Abandonment. Before any well installed pursuant to this permit is taken out of service, the permittee shall submit to the Ohio Environmental Protection Agency a plan for the plugging and abandonment of such well. The required plan shall specify procedures and contain such other provisions as are necessary to ensure that no movement of fluids into an underground source of drinking water is allowed. After review and acceptance of this plan by the Ohio Environmental Protection Agency, that plan shall automatically become a condition of this permit.

2. Abandonment Requirements. Injection wells declared as temporarily abandoned shall be maintained in strict compliance with Rule 3745-9-09 of the OAC to ensure that the well will not endanger underground sources of drinking water during the period of temporary abandonment. Injection wells declared as permanently abandoned shall be plugged in accordance with Rule 3745-9-10(C) of the OAC.

3. Plugging Report. Within 30 days after plugging the well, the permittee shall submit a plugging report to the Director. The report shall be certified as accurate by the person who performed the plugging operation and shall contain a statement defining the plugging procedure.

G. CORRECTIVE ACTION

1. Should routine monitoring or any other information indicate that primary drinking water standards as defined in Chapter 3745-81 of the OAC are, or may be, exceeded in any underground source of drinking water beyond the property boundary, or any monitored or other parameters are being significantly degraded in underground sources of drinking water not permitted for underground injection and as a consequence of the injection well operation, the permittee shall develop a corrective action plan. Such plan must include a determination of the nature, rate, and extent of the degradation. The plan may also be required to include appropriate remedial actions such as: additional chemical treatment, discontinuance of injection operations and/or others yet to be determined.

2. The plan for corrective action shall be submitted to the Director within 30 days of the date that indications of a violation of Chapter 3745-81 are noted, and are subject to approval by the Ohio EPA prior to implementation.

PART II
SPECIAL CONDITIONS

A. WELL CONSTRUCTION AND COMPLETION

All well construction and operations shall be conducted in accordance with the specifications submitted with the applications for this permit. Activities conducted under this permit include, but are not limited to, the following:

Injection Well Installation.

Up to ten (10) injection wells shall be drilled/installed to a depth of approximately 80 feet with the well screen interval extending from a depth of approximately 20 feet to 80 feet. Drilling and construction shall be supervised by a knowledgeable hydrogeologist or engineer representing the facility.

B. WELL OPERATION

1. Injection Zone. The injection zone is the Upper Great Miami Buried Valley Aquifer.

2. Injectate Quality Limits. Injectate shall be comprised of extracted ground water amended with sodium lactate. Constituents present in reinjected ground water shall not exceed the following limits:

1,1,1-Trichloroethane	0.710 mg/l
1,1-Dichloroethene	0.126 mg/l
1,2-Dichloroethane	0.114 mg/l
Carbon Tetratchloride	0.114 mg/l
Cis-1, 2-Dichloroethene	1.050 mg/l
Tetrachloroethene	1.913 mg/l
Trichloroethene	5.381 mg/l
Vinyl Chloride	0.114 mg/l

If at any time analyses indicate that the constituent limits established for reinjected ground water have been exceeded, the Director shall require that the permittee take corrective actions to bring the injected fluids back within the limits established in these permits. Further injection will be prohibited until the permittee adequately demonstrates that the exceedance has been corrected.

3. Injection Rate.

The maximum injection rate per well shall not exceed 100 gallons per minute (gpm).

C. MONITORING

1. Injected Fluids. To be monitored:

   a. Daily for average rate and injection volume; reported monthly;

   b. Monthly for 1,1,1-Trichloroethane; 1,1-Dichloroethene; 1,2-Dichloroethane; Carbon Tetratchloride; Cis-1, 2-Dichloroethene; Tetrachloroethene; Trichloroethene; and Vinyl Chloride; reported monthly;

   c. Quarterly for 1,2-Dichloropropane and 1,1,2-Trichloroethane; reported quarterly.

   d. Annually for Antimony; Arsenic; Barium; Cadmium; Chromium; Cyanide; Lead; Mercury; and Selenium; reported annually.

D. REPORTING

The permittee shall submit monitoring reports to the Ohio EPA, Division of Drinking and Ground Waters, Underground Injection Control Unit by the 15th day of the month following each month that monitoring results are required in accordance with schedules described in Part II(B) of this permit at the following address:

Ohio EPA
Division of Drinking and Ground Waters
Underground Injection Control Unit
Lazarus Government Center
122 South Front Street
P.O. Box 1049
Columbus, Ohio 43216-1049

Reports shall contain information regarding types of tests and methods used to generate monitoring data, as specified in Part I(E)(10) of this permit.

E. AGENCY INVOLVEMENT

Personnel from the Ohio EPA have unrestricted right of entry to the wells, as detailed in Part I (E)(8) of this permit.

F. GENERAL

The wells shall be constructed in such a manner that prevents the movement of the injectate of any fluid into any underground source of drinking water if the injectate or fluid may cause of violation of any primary drinking water rule under Chapter 3745-81 of the Ohio Administrative Code not included in this permitted remediation project or may otherwise adversely affect the health of persons.

Issuance of these permits presumes compliance on the part of the permittee with all applicable sections of OAC Rules 3745-34-26, 3745-34-27, all parts of OAC Rule 3745-34-20, effect of a Permit, and Chapter 6111. of the Ohio Revised Code.

J:\DATA\WP\DROBERTS\WP\ORR\ChryslerPTDPTO.wpd

For Office Use Only
PTI Application No. _____
Fee _____

DIVISION OF DRINKING AND GROUND WATER
UNDERGROUND INJECTION CONTROL PROGRAM
CLASS V INJECTION WELL FOR REMEDIATION
APPLICATION FOR AREA PERMIT TO OPERATE

Dayton Thermal Products **3585**
Facility Name Primary Sic Code

Gary Stanczuk
Person to Contact

1600 Webster Street
Facility Address

800 Chrysler Drive East CIMS 482-00-51
Mailing Address

Dayton **OH** **45404**
City State Zip

Auburn Hills **MI** **48326-2757**
City State Zip

Area 937 Number 224-2900
Telephone

Area **248** Number **576-7365**
Telephone

[ ] Federal [ ] State [X] Private [ ] Public [ ] Other
Entity Status (check on)

Yes [ ] No [X]
Is Facility on Indian Land?

DaimlerChrysler Corporation, 1000 Chrysler Drive, Auburn Hills, MI 48326
If Corporation, Name and Address of Statutory Agency

South Plant: Section 5, North Plant: Section 6, **T1** **R7** **Montgomery County**
Location of tract of land where the proposed well is to located, including: Section or Lot Number, City/Village, Township and County

Latitude (North) 39.782570 - 39° 46' 57.3" **Longitude (West) 84.182100 - 84° 10' 55.6"**
Latitude and longitude of proposed well locations

IW-1 through IW-7
Designation of the wells by number and name

I, being the individual specified in Rule 3745-34-17 of the Ohio Administrative Code (OAC), hereby apply for a Permit to Drill for the Class V Underground Injection Well described herein.

_____
Authorized Signature
(Pursuant to OAC Rule 3745-34-17)

_____
Title

_____
Date

Please be advised that this application must be accompanied by a non-refundable fee of $2,000.00 pursuant to OAC Rule 3745-34-16 (G)(1).

Please Note: Operation of an injection well without an effective Underground Injection Control Permit to Operate is prohibited pursuant to Ohio Revised Code 6111.044.

Area Class V PTO-UIC

For Office Use Only

DIVISION OF DRINKING AND GROUNDWATER UNDERGROUND INJECTION CONTROL PROGRAM CLASS V INJECTION WELL APPLICATION FOR AREA PERMIT TO OPERATE

1. **No. of Wells Proposed** **Max. Well Depth**
Min. Well Depth **Ave. Elevation of Wells** **(GL)**

A total of seven (7) injection wells will be installed under the current groundwater remediation design. It is anticipated that three (3) additional wells may be required. A total of ten (10) injection wells are requested for this permit. The injection wells will be installed to a depth of approximately 80 feet (to the top of the glacial rich till zone) with the well screen interval extending from a depth of approximately 20 feet to 80 feet. Average elevation of the injection wells will be 750 feet +/- 5 feet MSL.

2. **Max. Inj. Rate (GPM)** **Avg. Inj. Rate (GPM)** **Max. Surf. Injection Pressure (PSGI)**

The maximum injection rate per well is 100 gpm. The average injection rate per well is estimated to be 60 gpm. The maximum surface injection pressure per well is 30 psig.

3. **Name and Depth of Injection Zone** **KB to Ground Level**

The injection zone is the Upper Great Miami Buried Valley Aquifer formation, a quaternary age valley fill sand and gravel outwash unit that extends from ground surface to a depth of approximately 80 feet. The saturated thickness of the Upper Great Miami Buried Valley Aquifer is approximately 60 feet. A glacial till rich zone, encountered at a depth of approximately 80 feet, separates the Upper and Lower sand and gravel units of the Great Miami Buried Valley Aquifer. The glacial till rich zone ranges in thickness from 25 to 5 feet. The depth of the injection zone is approximately 20 to 80 feet below ground surface in the Upper Great Miami Buried Valley Aquifer.

KB to Ground Level: N/A.

4. **Provide a brief description of the nature of your firm's business.**

The Dayton Thermal Products Plant is an automotive component manufacturing plant. Manufactured products include automotive thermal products including air conditioners, radiators, and ventilation systems.

5. **Provide a description of the nature and type of the Class V wells.**

The Class V Injection Wells (aquifer remediation wells) will be installed in conjunction with a site-wide groundwater remediation system for the facility. The groundwater

remediation system consists of a groundwater extraction/injection system designed to contain the down-gradient migration of the contaminated groundwater at the south and east facility property boundaries and dose the up-gradient edge of the contaminant plume with sodium lactate to enhance the reductive dechlorination process. As this augmented groundwater travels from the injection wells down gradient to the extraction wells, reductive dechlorination will breakdown the chlorinated volatile organic compounds (CVOCs) present in the aquifer and remediate the groundwater beneath the facility.

6. **Describe activities conducted by the applicant which require that permits be obtained under the following environmental programs as applicable:**

   a) **Resource Conservation & Recovery Act (RCRA);**
   b) **Underground Injection Control Program (UIC);**
   c) **The National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act, and Chapter 6111. of the Ohio Revised Code;* and**
   d) **The Prevention of Significant Deterioration Program (PSD) under the Clean Air Act and Chapter 3704. of the Ohio Revised Code.**

<u>*Please Note:</u> **If liquid or semi-liquid wastes are discharged to a POTW, provide the POTW NPDES permit number.**

Activities to be conducted in conjunction with the groundwater remediation project, which require a permit include:

- Construction, installation, and operation of Class V Injection Wells under the Underground Injection Control Program (UIC)
- Discharge from two air strippers of approximately 200 gpm of treated groundwater under the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act (CWA) and Chapter 6111. of the Ohio Revised Code. NPDES permit # OH 000 9199

A comprehensive description of the groundwater and soil remediation activities to be completed at the facility is presented in Attachment A.

Currently there are no other groundwater remediation activities being conducted at the site that require a permit.

7. **Provide a listing of all permits or construction approvals received or applied for under any of the following programs:**

   a) **Hazardous Waste Management Program under RCRA and Chapter 3734. of the Ohio Revised code;**
   b) **UIC Program under the Safe Drinking Water Act (SDWA) and Chapter 6111. of the Ohio Revised Code;**
   c) **NPDES Program under the Clean Water Act (CWA) and Chapter 611. of the Ohio Revised Code;**

d) **The Prevention of Significant Deterioration Program (PSD) under the Clean Air Act and Chapter 3704. of the Ohio Revised Code;**
e) **Nonattainment Program under the Clean Air Act and Chapter 3704. of the Ohio Revised Code;**
f) **National Emission Standard of Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act of Chapter 32704. of the Ohio Revised Code.**
g) **Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act;**
h) **Dredge and Fill Permits under Section 404 of the CWA and Chapter 3745-32 of the Ohio Administrative Code; and**
i) **Other relevant environmental permits, including state permits.**

The permits applied for in conjunction with the groundwater remediation project include:

b. UIC Permit to Operate a Class V-Injection Well Area Permit for Remediation;
b. UIC Permit to Drill Permit to Drill (Construct and Install) a Class V – Injection Well Area Permit for Remediation
c. Modification of NPDES Permit #OH 000 9199

Existing / Operating permits currently in-place at the Dayton Thermal Facility include:

a. Hazardous Waste Management Program under RCRA and Chapter 3734. of the Ohio Revised code: OHD074703547
b. UIC Program under the Safe Drinking Water Act (SDWA) and Chapter 6111. of the Ohio Revised Code: None
c. NPDES Program under the Clean Water Act (CWA) and Chapter 611. of the Ohio Revised Code: OH0009199
d. The Prevention of Significant Deterioration Program (PSD) under the Clean Air Act and Chapter 3704. of the Ohio Revised Code: None
e. Nonattainment Program under the Clean Air Act and Chapter 3704. of the Ohio Revised Code: None
f. National Emission Standard of Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act of Chapter 32704. of the Ohio Revised Code: Facility ID: 0857040734, Source #'s P019, P020, P021, P022, P025, P030-P044, P045-P049, P050, P051, P052, P053, P057, P062, P065, P067, P068, P071, P072, P080, P085, P086, P087, P088, P089, P090, P093, P095, P096, P098, P099, P100, P101, & P102. B001, B002, B003, & B004. T005, T006, T007-T011, T012, & T0013.
g. Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act: None

geochemistry (increased dissolved oxygen, etc.) during the sodium lactate dosing and injection process. The groundwater, augmented with sodium lactate, will be injected at a rate of approximately 60 gpm (100 gpm maximum rate) at each injection well. Each injection well will be fitted with an injection piping system that allows discrete injection at the 25 to 35 foot, 40 to 50 foot, and 60 to 70 foot below grade elevations to provide even application of injected water across the thickness of the aquifer. Injection equipment and process flow diagrams are presented in Attachment C.

10. Provide the dates that the wells will be/were drilled and constructed.

Wells will be drilled and constructed upon permit approval by the OEPA. Construction of the groundwater remediation system will be completed in August 2003.

11. Submit a construction narrative and as built engineering plans for the wells.

Drilling for the installation of the injection wells will be completed using a Rotosonic drill rig. The injection wells will be installed with a well screen interval extending from a depth of approximately 20 feet to 80 feet below ground surface. Wells will consist of 6" PVC piping and well screens sized to match the formation materials. The well screen interval will be backfilled with appropriately sized filter pack sand or natural in-situ formation materials. From ground surface to the well screen interval will be sealed with bentonite. Engineering plans for the wells are included in Attachment C.

12. If relevant, submit an anticipated maintenance and inspection schedule for the wells.

Maintenance of the injection wells will be on an as needed basis. The injection wells will be inspected quarterly. The injection well performance will be monitored by the groundwater remediation system program logic controller (PLC). Groundwater mounding at the injection wellhead will be monitored with pressure transducers installed in each injection well.

13. Submit with this application a plan for plugging and abandonment the wells.

Where well abandonment is necessary, the well will either be completely filled with grout or such other material to prevent contaminants from entering ground water in compliance with the Ohio Administrative Code 3745-9-10 – "Abandonment of Test Holes and Wells".

14. Submit evidence of financial responsibility including surety bond, for other adequate assurance, such as financial statement or other materials acceptable to the Director.

This project will be constructed, operated, and maintained by DaimlerChrysler.

h. Dredge and Fill Permits under Section 404 of the CWA and Chapter 3745-32 of the Ohio Administrative Code: None

i. Other relevant environmental permits, including state permits: None

8. **Provide a topographical map (or other map if a topographical map is unavailable) on a scale not smaller than four hundred feet to the inch, prepared by an Ohio Registered surveyor, extending one mile beyond the property boundaries of the source depicting the facility and each of its intake and discharge; each of its hazardous waste treatment, storage or disposal facilities, including but not limited to neutralization ponds, segregating or mixing tanks, and any solid waste disposal areas on site; each well where fluids from the facility are infected underground, including but not limited to known mines, mineral deposits, and other oil and gas reserves; and those wells, springs and other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within a quarter mile of the facility property boundary. If the well is or is to be located within the excavations and workings of a mine, the map shall also include the location of such mine, the name of the mine, and the name of the person operating the mine.**

The topographical map certified by a State of Ohio registered surveyor is presented in Attachment B.

9. **Describe the type of drilling/installation, completion, and injection equipment used and/or to be used.**

Drilling for the installation of the injection wells will be completed using a Roto-Sonic drill rig. The injection wells will be installed with a well screen interval extending from a depth of approximately 20 feet to 80 feet below ground surface. Wells will consist of 6" PVC piping and well screens sized to match the formation materials. The well screen interval will be backfilled with appropriately sized filter pack sand or natural in-situ formation materials. From ground surface to the well screen interval will be sealed with bentonite. A subterranean vault with a manhole will be constructed for each well to house the injection well manifold equipment.

The injection process and associated equipment includes up to ten injection wells, six groundwater extraction wells, distribution piping, and sodium lactate/groundwater mixing equipment. The groundwater will be pumped at a combined rate of approximately 600 gpm from six extraction wells located along the south and east property boundary. Of the 600 gpm removed by the extraction wells, approximately 400 gpm will be injected back into the aquifer. The remaining 200 gpm of the extracted groundwater will be treated with an air stripper and discharged to the storm sewer system under an NPDES permit. The 400 gpm of injected groundwater will remain untreated and will be augmented with sodium lactate prior to injection to promote reductive dechlorination of chlorinated VOCs. The water will be managed to minimize altering the natural groundwater

15. Submit a plan for the disposal of water or other waste substances generated during the operation of the well.

It is not anticipated that water or waste products will be generated in connection with the injection process. Approximately 600 gpm of groundwater will be pumped by the six groundwater extraction wells. The 600 gpm flow rate will be segregated into two separate lines to allow flexibility in directing the water for air stripping or injection. Approximately 200 gpm will be treated with an air stripper to reduce concentrations to meet applicable NPDES permit requirements and discharged to the storm sewer under an NPDES permit. The remaining 400 gpm of groundwater will remain untreated and will be augmented with sodium lactate prior to injection to promote reductive dechlorination of chlorinated volatile organic compounds present in the groundwater. Groundwater will be either re-introduced into the aquifer through injection or discharged to the storm sewer under an NPDES permit.

16. Chemical composition and physical properties of the fluid injected including an analysis for all constituents listed in the primary drinking water regulation under Chapter 3745-81 of the Administrative Code.

The substance to be injected is groundwater, impacted with chlorinated volatile organic compounds, pumped from the south and east property boundary. The groundwater will be augmented with sodium lactate prior to injection to promote the reductive dechlorination of the chlorinated volatile organic compounds present in the aquifer. The injected groundwater will be captured down gradient of the injection wells by the extraction well capture zone located along the south and east property boundary. Travel time from the injection wells to the extraction wells is estimated to be one year based on groundwater flow modeling. The chemical composition of the impacted groundwater, based on laboratory analytical results from adjacent groundwater monitoring wells, is presented in Attachment D. Based on the information presented in Attachment D, the highest average concentration of groundwater pumped from the east and south property boundary and the requested injection permit concentration limits to account for uncertainty in the concentration analysis and fluctuations in groundwater quality are as follows:

Maximum Concentrations Possible From Combinations Analyzed and Requested Permit Limits

Chemical of Interest	Highest Average Concentration from Attachment D **Combined (ug/l)**	Requested Permit Concentration Limits to Account for Uncertainty in the Analysis of Attachment D. **Combined (ug/l)**
1,1,1-Trichloroethane	590.7	710

1,1-Dichloroethene	104.6	126
1,2-Dichloroethane	94.3	114
Carbon Tetrachloride	94.3	114
Cis-1, 2-Dichloroethene	875.3	1051
Tetrachloroethene	1593.5	1913
Trichloroethene	4484.0	5381
Vinyl Chloride	94.3	114

The MSDS for sodium lactate is included in Attachment E.

17a. Chemical characteristics of formation fluid, including complete chemical analysis;*

***Minimum analysis to include (provide reasons if any of the following are omitted):**

calcium	**sulfate**	**temperature**	**boron**
magnesium	**chloride**	**total dissolved solids**	**strontium**
sodium	**fluoride**	**potassium**	**cadmium**
carbonate	**nitrate**	**manganese**	**iron**
bicarbonate	**conductivity**	**barium**	**pH**

Chemical characteristics of the formation fluid are included in Attachment F.

17b. Geologic description of the injection zone including: name of formation; depth; thickness; and lithology.

The injection zone is the Upper Great Miami Buried Valley Aquifer formation, a quaternary age valley fill sand and gravel outwash unit that extends from ground surface to a depth of approximately 80 feet. The saturated thickness of the Upper Great Miami Buried Valley Aquifer is approximately 60 feet. A glacial till rich zone, encountered at a depth of approximately 80 feet, separates the Upper and Lower sand and gravel units of the Great Miami Buried Valley Aquifer. The glacial till rich zone ranges in thickness from 25 to 5 feet. The depth of the injection zone is approximately 20 to 80 feet below ground surface in the Upper Great Miami Buried Valley Aquifer.

18. If relevant, for an existing well being converted to a Class V well or a permit renewal, provide a chronology of all major workovers and well malfunctions, a brief description of reasons for the well failure, and the corrective actions taken.

N/A

19. **Provide a map showing the injection well(s) for which a permit is sought and the applicable area of review. The area of review shall be one-quarter mile beyond the injection well(s). Within the area of review, the map must show the number or name, and location of:**

    a. **all producing oil and natural gas wells** (None Identified);
    b. **injection wells** (As Proposed);
    c. **abandoned wells** (None Identified);
    d. **dry holes** (None Identified);
    e. **surface bodies of water** (None Identified);
    f. **springs** (None Identified);
    g. **mines (surface and subsurface)** (None Identified);
    h. **quarries** (None Identified);
    i. **water supply wells** (As Shown);
    j. **other pertinent surface features including residences and roads** (As Shown); **and**
    k. **faults, if known or suspected** (None Identified).

The applicable area of review is presented in Attachment G.

20. **Provide maps and cross sections indicating the general vertical and lateral limits of all underground sources of drinking water within the area of review, their position relative to the injection formation and the direction of water movement where known, in each underground source of drinking water which may be affected by the proposed injection.**

The following text is the description of geologic units for the North Dayton Area (pages 44 and 45) from the Ground-Water Resources of the Dayton Area, Ohio U.S. Geological Survey Water Supply Paper 1808. The maps and cross-sections referenced in the text are presented in Attachment H.

NORTH DAYTON AREA

Geologic sections D-D' and D'-D'' illustrate the character of the valley-fill deposits in the northern part of Dayton. Section D-D' is based on meager data, chiefly that from wells drilled at the plants of the Dayton Castings Co., Premier Rubber Co., and the Chrysler Airtemp Sales Corp., but it is presented to show that in this area, too, the valley fill deposits evidently are separated by till into an upper and a lower sand and gravel aquifer, similar to generally prevailing conditions in the Dayton Area.

Geologic section D'-D'' is drawn northward from the corner of Troy and Valley Streets through the Miami River well field of the City of Dayton, on the west bank of the Miami River approximately 3.5 miles northeast of the center of Dayton. Logs of

wells drilled at the Miami River well field clearly show the till-rich zone, which separates the sand and gravel deposits into an upper and lower aquifer. The upper aquifer, lying immediately beneath the soil and the river alluvium, consists of 30 – 40 feet of coarse sand and gravel, into which the Miami River has cut its channel. Beneath the upper aquifer are deposits of till, reported in nearly all the well logs, constituting a well defined till-rich zone between depths of about 40 to 90 feet.

Beneath the till-rich zone at the Miami River well field are 50 – 70 feet of coarse sand and gravel. The lower sand and gravel aquifer is generally underlain by till, which in turn overlies the shale bedrock. Most wells are screened between depths of about 65 and 130 feet, as the test holes records show that in this interval the sand and gravel deposits are coarsest.

Within the area of review, the Great Miami Buried Valley Aquifer is a quaternary age valley fill sand and gravel outwash unit that is separated into an upper and lower aquifer unit by a glacial till rich zone, encountered at a depth of approximately 80 feet. The glacial till rich zone ranges in thickness from 25 to 5 feet. The saturated thickness of the Upper Great Miami Buried Valley Aquifer is approximately 60 feet and the depth of the injection zone is approximately 20 to 80 feet below ground surface. The Lower Great Miami Buried Valley Aquifer is likely 60 to 100 feet thick sequence of outwash sand and gravel deposits. In the area of review, the groundwater flow direction of the Great Miami Buried Valley Aquifer is predominantly from the northwest to the south and southeast.

Based on the USGS investigations, the Great Miami Buried Valley Aquifer in the area of review is underlain by glacial till, which in turn overlies shale bedrock. The glacial till and the shale bedrock are not used as a source of drinking water in the area of review.

Completed by_____

Title_____

Date_____

Soil and Groundwater Remediation Summary – Dayton Thermal Products, Dayton, Ohio

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DATE: March 4, 2003

Introduction

This technical memorandum has been prepared to outline the soil and groundwater remediation activities and off-site groundwater contaminant plume delineation activities to be conducted at the Dayton Thermal Products facility located in Dayton, Ohio. The facility location is presented on Figure 1. The on-site soil and groundwater remediation strategies include soil vapor extraction, groundwater extraction and re-injection, and in-situ reductive dechlorination. The remediation strategies, developed over the course of the last year, emphasis completing construction and system start-up activities during the summer of 2003. The off-site groundwater contaminant plume delineation strategy is currently being developed and field activities will be initiated in the spring of 2003.

The SVE system has been designed to provide coverage of the primary contaminant source area (defined as the area having a high probability of soil contamination). The SVE well points, with overlapping radii of influences, will remove contaminants from the unsaturated zone and the upper portion of the capillary fringe. Operation of SVE system across the primary contaminant source area will remediate the wide spread contamination. Over time, as portions of the source area are remediated, monitoring and optimization of the extraction and injection well points will focus the soil remediation efforts in the remaining hot spot areas.

The groundwater extraction/re-injection system is designed to contain the down-gradient migration of the contaminated groundwater at the south and east property boundaries and dose the up-gradient edge of the contaminant plume with sodium lactate to enhance the reductive dechlorination process. As this augmented groundwater travels from the re-injection wells to the extraction wells, reductive dechlorination will breakdown the CVOCs and remediate the groundwater beneath the facility. Reductive dechlorination at the capillary fringe will occur during remediation of the groundwater, and this will also promote the breakdown of CVOCs within the unsaturated zone above the capillary fringe.

Available historic information suggests the main body of the contaminant plume extends to the southeast, south, and southwest of the facility in the direction of the predominant groundwater flow direction. Lower concentrations of contaminants to the east and northeast of the facility, are likely due

to intermittent changes in the groundwater flow direction toward the northeast. Plume delineation activities will be conducted to evaluate the off-site geology, hydrogeology, groundwater chemistry, natural attenuation capacity of the aquifer, and to delineate the horizontal and vertical extent of the contaminant plume. The results of the plume delineation will be used for the design and installation of an effective monitoring well network to monitor groundwater chemistry and the natural attenuation of contaminants. Following the delineation of the off-site plume, the design and installation of a permanent monitoring well network will be completed.

Soil Remediation

The nature and extent of soil impacts at the facility and the potential for the migration of contaminants in the subsurface have been investigated in sufficient detail to complete the design, construction, and operation of SVE remediation system. The potential soil contaminant sources encompass approximately the southern two-thirds of the facility. The estimated delineation of the primary contaminant source area, presented on Figure 2, is based on potential contaminant sources, the delineation of CVOCs identified in groundwater, and through SVE pilot-scale testing in the field (discussed below). The primary contaminant source area is the focus of the SVE Pre-design Investigation and SVE system design, construction, and operation.

Based on the current understanding of the site and the identified primary contaminant source area, an innovative source delineation and remediation strategy has been developed. The remediation strategy consists of estimating the extent of the primary contaminant source area based on available site information, installing SVE wells at regularly spaced intervals throughout the source area, and monitoring the SVE well performance to determine the effectiveness of the soil remediation.

To increase the confidence that the SVE system will remediate the primary contaminant source area, SVE pilot-scale testing was performed at 17 suspected source areas prior to the SVE system design. The SVE pilot-scale testing identified and confirmed potential sources within the 25 to 50 foot radius of influence at the vapor extraction point and demonstrated that a significant volume of VOCs can be recovered using SVE technology. The results of the pilot-scale testing are presented on Figure 3.

Soil Vapor Extraction System Overview

The strategy for SVE to remediate the primary contaminant source area is to provide coverage of the source area with extraction/injection well points. The SVE design objectives included the following:

- Provide a reliable design to remove soil contaminants to prevent the migration of contaminants to groundwater;
- Provide SVE coverage of the primary contaminant source area;
- Provide an integrated extraction/injection system to focus remediation in hot spot areas;
- Install the SVE extraction points at regularly spaced intervals based on the radius of influence measured during the SVE pilot-scale testing and operation of the existing SVE system in Building 40B;
- Install extraction points screened near the capillary fringe to promote potential hot spot remediation;
- Evaluate contaminants at individual extraction points to map the distribution of contaminants within the primary contaminant source area;
- Design a flexible system to accommodate the initial removal of contaminants over a wide area and long term focused remediation at the capillary fringe and hot spots;

- Design an expandable system to remediate contaminants delineated outside the primary contaminant source area, if deemed necessary; and,
- Monitor system performance to maximize contaminant removal and effectively manage system to remediate contaminant hot spots and demonstrate contaminate removal to obtain a "No Further Action Letter" from Ohio EPA.

The SVE system is designed as two independent units and is presented in Figure 4. The northern unit provides coverage for Buildings 50, and 53, and part of 59 and the truck-way. The southern unit, which includes the integration of the existing SVE system in Building 40B, provides coverage for Buildings 40, 40A, 40B, and the remaining portion of Building 59. Each unit consists of independently-operated banks of up to 10 SVE well points activated by pneumatic valves set by timers. Banks of well points, cycled by timers, are necessary to maintain the required vacuum (or pressure) for establishing the radius of influence at each well point. A total of 117 soil vapor extraction/injection well points are located within the buildings and beneath the concrete in the truck-way.

Each unit includes a skid-mounted building with blowers capable of achieving 1000 scfm at 8-inches of mercury and a knock out chamber capable of removing entrained moisture at the maximum capacity of 1000 SCFM. The vacuum will be induced by the use of two regenerative blowers driven by 30 HP motors. The banks are connected to both the extraction and the injection manifolds to provide flexibility to use a well point bank as an extraction or injection system. The combined ability to both extract and inject air provides the flexibility to focus the flow of air as needed during remediation. The process flow diagram for the SVE system is presented in Figure 5.

Each well point, used as either an extraction or injection point, will be plumbed in banks not exceeding 10 well points per bank. Each bank will be connected to both an extraction and an injection manifold actuated automatically by use of pneumatically operated valves. The SVE wells will be installed at approximately 80- foot centers as shown on Figure 4. Each well will be screened across the twenty foot unsaturated zone below the surface. Well points will consist of 1.5-inch PVC screened from a depth of approximately 5 feet to 20 feet below ground surface. The wells will be installed near to or adjacent to the structural columns. Piping will be trenched from the well to the column and routed up to the well bank main piping. Well points will be installed by Geoprobe direct push methods.

The distribution and concentration of contaminants in the primary contaminant source area will be mapped based on the analytical laboratory results and the radius of influence of the extraction points. Air emissions will be directed through granulated carbon pending the results of the analytical laboratory testing. Mapping the distribution and concentration of contaminants will allow the system to be operated as a conventional SVE system in areas of wide spread contamination and be focused using a combination of extraction and injection points in hot spot areas and potential void zones encountered by equipment in the plant. As areas are remediated to acceptable concentrations to protect groundwater, individual well points can be shut down to increase the vacuum and airflow in other well points in the bank. The net effect of shutting down well points and focusing extraction/injection as the remediation progresses is to increase the strength of the SVE system for the remediation of the highest concentration areas.

SVE System Start-up

During the system start-up, each well point bank will be balanced and operated for several days to up to one week. Individual well points and bank samples will be collected at regular intervals to evaluate maximum contaminant removal per bank to estimate daily emission rates. Individual well point samples will be used to estimate concentrations and determine if any points can be shut down early in the start-up process. The start-up monitoring will also be used to optimize the duration that individual banks will be operated within the cycling regime of the multiple well point bank system The radius of

influence of select wells will also be confirmed during start-up. During start-up, air emissions will be directed through granulated carbon pending the results of the analytical laboratory testing.

The results for individual well points will be mapped to delineate the extent of contamination within the system coverage area and monitor progress of the remediation effort. At completion of the start-up phase, the system will be optimized for contaminant removal and bank cycle duration and the contaminant distribution will be established. This information will be used to project the estimated time required to complete the SVE remediation.

The emission requirements for full-scale operation will also be evaluated at the completion of the start-up phase. Air emission requirements under OEPA allow for de minis emissions of 10 pounds per day and 1 ton per month for each operating system. The maximum for the multiple remediation systems would be 25 tons per year. The system emission rates established during start-up and the decline in removal rates over time will be considered when recommending the emission control system if one is required. For example, because the system is operated in a cycled bank regime, granulated carbon may be used only on the banks that exceed the de minis 10 pounds per day and not on the remaining banks in the system. Carbon use would then be discontinued when the limits are attained.

SVE System Operation and Maintenance

The operation and maintenance will include monitoring the output by sampling and balancing and tuning of the system based on the sample results, field measurements, and an on-going evaluation of the contaminant distribution and concentrations. Monitoring of the system will allow the operator to continue to maximize the remediation by adjusting individual well banks and begin to integrate air injection into the operational cycles of the system. Injection will be focused to drive air to identified contaminant hot spots. The decrease in concentrations over time will determine the approximate location of persistent hot spots and allow the focus of more intense SVE efforts in these areas. Emission test results will be tracked and documented for regulatory compliance. Operation and maintenance will also include routine maintenance of the mechanical system as recommended by the equipment manufacturers.

Groundwater Remediation

The groundwater remedial approach consists of the design, construction and operation of a groundwater containment system along the south and east property boundaries and an on-site groundwater remediation system using a combination of air stripping and in-situ reductive dechlorination technologies. The groundwater containment system design will prevent off-site migration of chlorinated volatile organic compounds (CVOCs) and establish hydraulic control of groundwater flow at the site. The reductive dechlorination technology consists of the up-gradient re-injection of extraction well groundwater augmented with sodium lactate to promote in-situ reductive dechlorination of CVOCs. The reductive dechlorination will degrade the PCE, TCE, DCE, and VC to ethane and will significantly reduce the timeframe for operating a conventional groundwater containment system. The objectives of the groundwater remedial approach include the following:

- Design a reliable containment system to prevent further off-site migration of contaminants;
- Recover and remediate the contaminant hot spot on the southern site boundary within the radius of influence of the extraction wells;

- Remediate the on-site dissolved phase CVOC plume;
- Design a flexible system to accommodate variations in groundwater flow direction and groundwater contaminant concentrations;
- Perform system monitoring to demonstrate the effectiveness of in-situ reductive dechlorination and, demonstrate contaminate removal to obtain a "No Further Action Letter" from Ohio EPA.
- Minimize interruption to plant activities.

Pre-Design Investigation

Pre-Design Investigation activities were conducted to achieve the following objectives:

- Obtain and evaluate site-specific aquifer hydraulic conductivity data to confirm the physical parameters of the aquifer; and,
- Obtain and evaluate site-specific groundwater geochemistry data to assess the suitability and feasibility of reductive dechlorination.

This data was necessary to support groundwater-modeling efforts and quantify the groundwater extraction well capture zones and groundwater mounding expected with up-gradient groundwater re-injection. The groundwater geochemistry data was evaluated to establish the sodium lactate dosage rate and identify other nutrient requirements necessary to promote reductive dechlorination.

Hydraulic Conductivity

Earth Tech conducted a total of 21 in-situ hydraulic conductivity tests at 11 locations during the Pre-design Investigation to confirm the in-situ hydraulic conductivity. The hydraulic conductivity data evaluation was performed using the AQTESOLV program and a program developed by the Kansas Geological Survey to evaluate the oscillating data collected during some of the field tests. The hydraulic conductivities calculated using the AQTESOLV program ranged from 0.001 to 0.20 cm/sec (4 to 560 ft/day) and 0.03 to 0.09 cm/sec (96 to 264 ft/day) using the oscillating data program. The hydraulic conductivity of the adjacent GEM City well pump test data is approximately 0.23 cm/sec (750 ft/day), which is similar to the values calculated using the AQTESOLV data analysis.

A hydraulic conductivity value of 0.35 cm/sec (1000 ft/day) was selected for design analysis. This value is about 35% greater than the average value calculated from the GEM City pump test and on-site slug tests. A higher design value was chosen to allow for flexibility in system pumping rates. This flexibility is recommended to account for several potential changes in the aquifer system including hydraulic conductivity, transmissivity, and groundwater flow direction. Details of the hydraulic conductivity testing are presented in the Hydraulic Conductivity Technical Memorandum is included in Appendix A.

Groundwater Geochemistry

Pre-design Investigation groundwater geochemistry samples were collected from 30 groundwater monitoring wells located both on-site and within the down-gradient contamination plume to assess overall groundwater geochemistry and evaluate contaminant reductive dechlorination and natural attenuation processes. The groundwater geochemistry sampling and data evaluation indicates the groundwater geochemistry and the native microbial population present at the site are well suited for reductive dechlorination. Currently, PCE and TCE are breaking down to cis-1, 2-dichloroethylene, and with additional augmentation of an electron donor (sodium lactate), the breakdown process will

be enhanced and accelerated. Details of the groundwater geochemistry are presented in the Groundwater Geochemistry Technical Memorandum included in Appendix B.

Groundwater Remediation System Overview

The groundwater remediation system will provide hydraulic capture in the area of highest concentration of contaminants along the southern and eastern border of the property, and inject an electron donor (sodium lactate) into and up-gradient of the PCE/TCE plume to promote reductive dechlorination of the groundwater contaminants. The system design is comprised of three major components including groundwater extraction wells, groundwater treatment system (for water to be discharged to the storm sewer under NPDES permit, and for water to be re-injected), and groundwater re-injection wells. Six groundwater extraction wells will be installed to establish hydraulic control and seven re-injection wells will be installed in the interior of the site. The groundwater extraction and re-injection well locations and the proposed location of the treatment building are presented in Figure 6.

Hydraulic Control System

Based on the design maximum hydraulic conductivity of 0.35 cm/sec (1000 ft/day), groundwater modeling established that a groundwater extraction rate of 600 gpm (100 gpm from six extraction wells) would be required to maintain capture of the groundwater plume at the south and east property boundaries. The modeling also included the up-gradient re-injection of 400 gpm of groundwater to accommodate the dosing of the aquifer with sodium lactate. The remaining 200 gpm of groundwater is treated with an air stripper and discharged to the storm sewer under an NPDES permit to maintain a negative groundwater balance on-site.

The groundwater extraction and re-injection system will create hydraulic containment conditions along the south and east property boundary and groundwater mounding conditions at the injection wells located within the truck way between Buildings 40, 40A, 59 and 39 to the south and Buildings 50, 52 and 53 to the north. The groundwater flow paths shown on Figure 7 present the capture zone of the extraction wells and the reductive dechlorination zone created by the injection of groundwater augmented with sodium lactate. The groundwater flow paths indicate the following benefits of hydraulic control and re-injection:

- Off-site groundwater contamination south and east of the property boundary will be pulled back to the property boundary and recovered;
- On-site groundwater contamination is captured at the south and east property boundaries;
- The reductive dechlorination zone will be established by injection of groundwater, dosed with sodium lactate, into the upgradient portion of the contaminant plume. The reductive dechlorination zone will gradually move downgradient to the capture zone at the south and east property boundary.
- The capture zone, in conjunction with the re-injection wells, will maintain containment of the highly contaminated groundwater located in the central portion of the facility during periods of groundwater flow variation.

The 6-inch diameter extraction wells will be constructed with well screens penetrating the entire saturated thickness of the aquifer (approximately 60 feet). The 600 gpm flow rate will be segregated into two separate lines based on relative contaminant concentrations to allow flexibility in directing the water for air stripping or re-injection. Approximately 200 gpm of the highest contaminant concentration groundwater will be treated with an air stripper to reduce concentrations to meet

applicable NPDES permit requirements and discharged to the storm sewer under an NPDES permit. The remaining 400 gpm of groundwater will remain untreated and be augmented with sodium lactate prior to re-injection. The water segregated for re-injection will be managed to minimize altering the natural geochemistry (increased dissolved oxygen, etc.) during the lactate dosing and re-injection. Re-injection will be through seven 6-inch diameter, fully penetrating PVC well screens. Extraction and re-injection well and piping locations are presented in Figure 8.

Groundwater, augmented with sodium lactate, will be injected at a rate of approximately 60 gpm at each well. Distribution piping will connect the wells and will be routed from the groundwater/lactate mixer by a booster pump. Each injection well will be fitted with an injection system that allows discrete injection at the 25 to 35 foot, 40 to 50, and 60 to 70 foot below grade elevations to provide even application of injected water across the thickness of the aquifer. The necessary permits for the installation and operation of a Class V – Injection Well Area Permit for Remediation will be prepared and submitted for approval to the Ohio EPA, Division of Drinking and Groundwater, Underground Injection Control Section.

Groundwater Treatment System

The treatment system will include four main components consisting of two skid-mounted low-profile air stripper systems each rated at 100 gpm, a lactate/groundwater mixing system with lactate storage tank, and a programmable logic controller (PLC) to control and monitor system performance. The system flow diagram is presented in Figure 9. Groundwater entering the treatment system will be divided using the two distribution manifolds to route approximately 200 gpm of the groundwater volume to the air stripper manifold. The groundwater contaminant concentration will be monitored and maintained by adjusting the groundwater flow using the distribution line manifolds from the extraction wells. A transfer pump connected to the base of the stripper will convey the water from the air stripper to an existing 30" storm sewer pipe running north along Webster Avenue. The discharge of the treated groundwater will be performed following modification to the existing NPDES Permit for the facility.

The remaining 70% of the groundwater flow (400 gpm) will flow in the second manifold and pass directly into the lactate/groundwater mixer for sodium lactate augmentation. A booster pump will convey the augmented groundwater to the re-injection well distribution piping.

The system performance will be monitored by a PLC. The water elevation in the extraction and re-injection wells will be recorded by the PLC from calibrated input signals from pressure transducers located in each extraction and injection well. This water elevation data will be used to:

- Monitor that the capture zone is maintained by comparison to groundwater elevations in monitoring points near the extraction wells;
- Monitor that the re-injection rates do not exceed the capacity of the injection wells;
- Monitor the potential for well fouling over time; and,
- Plan well maintenance to minimize well down time of the system.

In addition to monitoring water levels, the PLC will monitor individual flow rates from each extraction well and the total combined flow to the air stripper system and the lactate augmentation system. The PLC will also monitor the collection sump within the treatment building containment for the presence of water. In the event of an abrupt change in water level in a well, a drop in the system flow, or detection of water in the collection sump, the PLC will shut the system down and notify the operator via the auto-dialer that system maintenance is required. During the system shut down, the

water elevations in the capture zone and the re-injection mound will return to the regional levels and flow direction. As a result of the relatively flat groundwater gradient at the site, the contaminants will gradually migrate (1.3 ft/day) in the direction of the regional groundwater flow. The re-start of the extraction system will recover the groundwater because of the 150 to 250 foot off-property capture zone.

System Start-up and Monitoring

During the system start-up, the extraction wells and re-injection wells will be brought on-line in a pre-determined sequence to provide an opportunity to perform field scale studies of the pumping rates and sodium lactate dose ratio. Field scale testing of the system will be prior to full-scale operation. Field scale testing will provide an opportunity to optimize the pumping rates of individual and combinations of extraction wells and measure the effective capture zone. The re-injection groundwater mounding will also be evaluated during this period.

The pilot-scale testing of the reductive dechlorination process will be evaluated during the system start-up and operation.

To monitor the groundwater anaerobic conditions and the dechlorination progress, groundwater samples will be collected from monitoring wells within the treatment zone. Analysis will include:

- VOCs and bioactivity indicators to evaluate sodium lactate dose requirements;
- Indicator parameters including Total Organic Carbon, Chemical Oxygen Demand, nitrates, manganese, iron, sulfate, and redox potential; and,
- Microcosm studies will be performed to evaluate nutritional needs and monitor the system's capacity to complete the dechlorination process. This information will be used to optimize the reductive dechlorination process.

The specific monitoring wells to be sampled will be determined during the start-up phase of the project. Samples will also be collected from the treatment system to determine the mass of contaminants removed and treatment efficiencies.

Off-Site Plume Delineation

The off-site groundwater plume delineation activities consist of the investigation of the geology and hydrogeology of the aquifer, and the groundwater chemistry and aquifer natural attenuation parameters of the contaminant plume. The plume delineation activities will be focused in the area presented on Figure 10. The objectives of the plume delineation strategy include the following:

- Identify and map the lower confining layer present beneath the site;
- Support the design and implementation of a monitored natural attenuation remedy for the off-site groundwater plume;
- Design and installation of an effective monitoring well network to monitor groundwater chemistry and the natural attenuation of contaminants;
- Design a flexible system to accommodate variations in groundwater flow direction and groundwater contaminant concentrations;

To delineate the horizontal and vertical extent of the plume, field activities include a Geoprobe membrane interface probe and electric conductivity (MIP/EC) investigation, groundwater interval sampling, existing well sampling, water well installation, and groundwater elevation monitoring. The Geoprobe MIP/EC investigation will provide semi-quantitative/qualitative information on volatile organic compound (VOC) contaminant levels in groundwater using the membrane interface probe and subsurface stratigraphy using the electrical conductivity probe. The real-time VOC contaminant level and stratigraphic data acquired with the MIP/EC probe will be evaluated on-site to select groundwater sample intervals. The fieldwork will be performed throughout the potential plume area to expand the understanding of geology and hydrogeology and groundwater chemistry and natural attenuation parameters. The fieldwork will be completed as an iterative process with field data integrated into a working model of the hydrogeologic processes and a 3-dimensional delineation of the contaminant plume. The groundwater plume delineation activities include the following:

Groundwater Level Measurements and Monitoring

To document the groundwater elevation and flow direction during plume delineation activities, ten temporary 1.5-inch diameter monitoring wells will be installed across the plume delineation area. Proposed temporary water table well locations are presented on Figure 1. The wells will be installed prior to the start of the Geoprobe investigation and the groundwater interval sampling (discussed below) to provide time to develop the wells, record water elevations, survey the well head top of casing, and prepare a groundwater flow map. The wells will be installed by direct push methods using a Geoprobe and will be and completed with a 15-foot well screens, concrete collars and locking flush mount covers.

The Geoprobe rig mobilized to install the temporary wells will be equipped with the MIP/EC probe system, which will be used to complete a MIP/EC sounding to the top of the confining layer at each location. Groundwater interval samples will also be collected as described in Task 4. The EC stratigraphic information will be used to select the well screen interval and map the top of the confining layer on a regional level. The MIP/EC data, groundwater laboratory analytical results and the groundwater elevations from the temporary wells will provide a preliminary indication of the groundwater flow direction, stratigraphy, and plume location.

To monitor and document short and long fluctuations in groundwater elevation and subsequent changes in groundwater flow direction, twelve dedicated pressure transducers will be installed to record continuous water level information. The transducers will be installed at selected existing monitoring well locations and the temporary wells described above. The selected locations will be equally spaced across the existing monitoring well network and plume delineation area. Water level data will be downloaded and contoured to document groundwater flow conditions in the investigation area.

Groundwater Monitoring Well Sampling

To provide a current baseline of groundwater contaminant concentrations within the contaminant plume, 16 well nest locations for a total of 42 existing groundwater monitoring wells will be sampled and analyzed for VOCs and natural attenuation parameters. The groundwater contaminant concentrations within the presently identified limits of the plume will be evaluated prior to the delineation field activities to direct the proposed field activities. The laboratory analytical results from both the existing monitoring wells and the in-situ groundwater samples collected by Geoprobe sampling will be integrated into the final interpretation of the horizontal and vertical extent of the contaminant plume.

Geoprobe Investigation and Groundwater Interval Sampling

To delineate the horizontal and vertical extent of the plume, a Geoprobe investigation and Geoprobe groundwater sampling will be completed at the locations presented on Figure 10. The 60 proposed locations encompass the anticipated extent of the plume surrounding the facility. A Geoprobe rig equipped with a MIP/EC probe will provide semi-quantitative/qualitative information on volatile organic compound (VOC) contaminant levels in groundwater and stratigraphy. The real-time VOC contaminant level and stratigraphic data acquired with the MIP/EC probe will be evaluated on-site to select up to three Geoprobe groundwater sample intervals. Geoprobe groundwater samples will be collected to provide OEPA VAP certified laboratory analytical results for the groundwater plume delineation and to confirm the MIP probe results during the investigation. The Geoprobe groundwater samples will be collected using a second Geoprobe drill rig. Groundwater samples will be sent to a DCX partner laboratory for VOC and natural attenuation parameters analysis.

To initiate the plume delineation, the MIP/EC Geoprobe rig will begin sampling within the middle of the groundwater plume. The investigation will progress in a circular pattern around the known extent of the plume to close existing data gaps in the vertical extent of the plume and allow time for the laboratory to analyze the samples. Follow-up sample locations will be determined based on the MIP/EC probe results and laboratory analytical results with the objective to further delineate the leading edge of the plume. Following delineation of the leading edge of the contaminant plume, the remaining investigation locations within the plume would be completed to map the geology and hydrogeology and vertical extent of the contaminant plume.

A review of the site stratigraphy, groundwater flow, and contaminant distribution will be completed prior to demobilization. The objective of this review is to determine if the data collected are sufficient to support a natural attenuation remedy or if additional investigation of the contaminant plume is required. In the event additional investigation locations are selected based on the information review, the required utility clearance and final field investigation activities would be completed.

The Geoprobe groundwater sampling will be completed with a second Geoprobe rig by re-occupying the MIP/EC boring location and advancing an adjacent deep boring to the deepest Geoprobe groundwater sample interval. The deepest interval will be sampled first with progressively more shallow intervals sampled as the drill rods are withdrawn from the borehole. At each interval, the drill rods will be pulled back exposing the well screen to the formation and three volumes of the standing water in the drill rod will be removed by pumping the water from the top of the water column. The sample tubing will then be lowered to the bottom of the well screen and the groundwater purged and sampled. Groundwater samples will be collected with a peristaltic pump using low-flow sampling procedures. Upon completion of groundwater sampling, the second drill rig will seal both boreholes with bentonite grout. Boring locations will be surveyed for x, y, z coordinates by GPS upon completion of the drilling program.

Groundwater samples will be collected for VOC analysis to investigate the horizontal and vertical extent of the contaminant plume and to evaluate contaminant breakdown daughter products. Groundwater samples for natural attenuation parameter analysis will also be collected to evaluate the natural attenuation capacity of the aquifer. The natural attenuation and geochemistry sample parameters include the following:

- Oxidation Reduction Potential (ORP) – by Horiba
- Sulfates / Sulfites
- Nitrates / Nitrites
- Ferrous / Ferric Iron

- Dissolved oxygen (DO) – by Horiba
- PH – by Horiba
- Alkalinity
- Hardness
- Manganese
- Chemical Oxygen Demand (COD) – filtered and unfiltered
- Ethene and Ethane

Data Evaluation, Mapping, and Technical Memoranda

As stated previously, the goal of the proposed plume delineation is to develop sufficient understanding and documentation of existing groundwater conditions to support the design and implementation of a monitored natural attenuation remedy for the off-site groundwater plume. An off-site groundwater summary document and a series of technical memoranda for the plume delineation field activities will be completed following field activities. The off-site groundwater summary document will present an overview of the physical setting (geology and hydrogeology) for the plume and nature of the contaminants present with the objective of (a) evaluating the applicability of a natural attenuation remedy and (b) outlining the data collection requirements for implementation of a monitored natural attenuation remedy. The technical memoranda, which will be appended to the summary document, will contain concise presentations of the information collected during the investigation.

The following is a summary of the technical memoranda that will be prepared to document the existing conditions for the off-site groundwater plume.

- Geology and Hydrogeology. This memorandum will contain a compilation of previous and newly collected data on the physical setting in which the plume occurs (contaminant data will be addressed separately). Information presented in the document will include: a summary of the field program completed, electrical conductivity (EC) logs collected Geoprobe boring, up to four geologic cross sections, the final topographic map of the top of the confining layer, boring logs, monitoring well construction diagrams, groundwater level measurement data, groundwater potentiometric maps, a of summary groundwater flow directions and estimated flow rates, and a focused discussion of the geologic and hydrogeologic setting for the off-site plume.

- Groundwater Plume. This memorandum will combine previous and newly collected data on the nature of groundwater impacts in the off-site plume. Information presented in this document will include: a summary of the field program completed, tables summarizing membrane interface probe (MIP) measurements collected during Geoprobe borings, tables summarizing contaminant laboratory analytical data, tables summarizing measurement of natural attenuation parameters, up to three maps showing distribution for individual contaminants (and daughter products), up to four cross sections showing contaminant distribution data in profile, and a focused discussion summarizing the extent of the plume, the area of contaminant exceedances, and natural attenuation parameters.

Figures

Figure 1 – Site Location Map

Figure 2 – Primary Soil Contaminant Source Area

Figure 3 – SVE Pilot Scale Testing Results

Figure 4 – SVE System Layout

Figure 5 – SVE Process Flow and Instrumentation Diagram

Figure 6 – Groundwater System Layout

Figure 7 – Groundwater Flow Path – Normal Conditions

Figure 8 – Groundwater Piping Layout

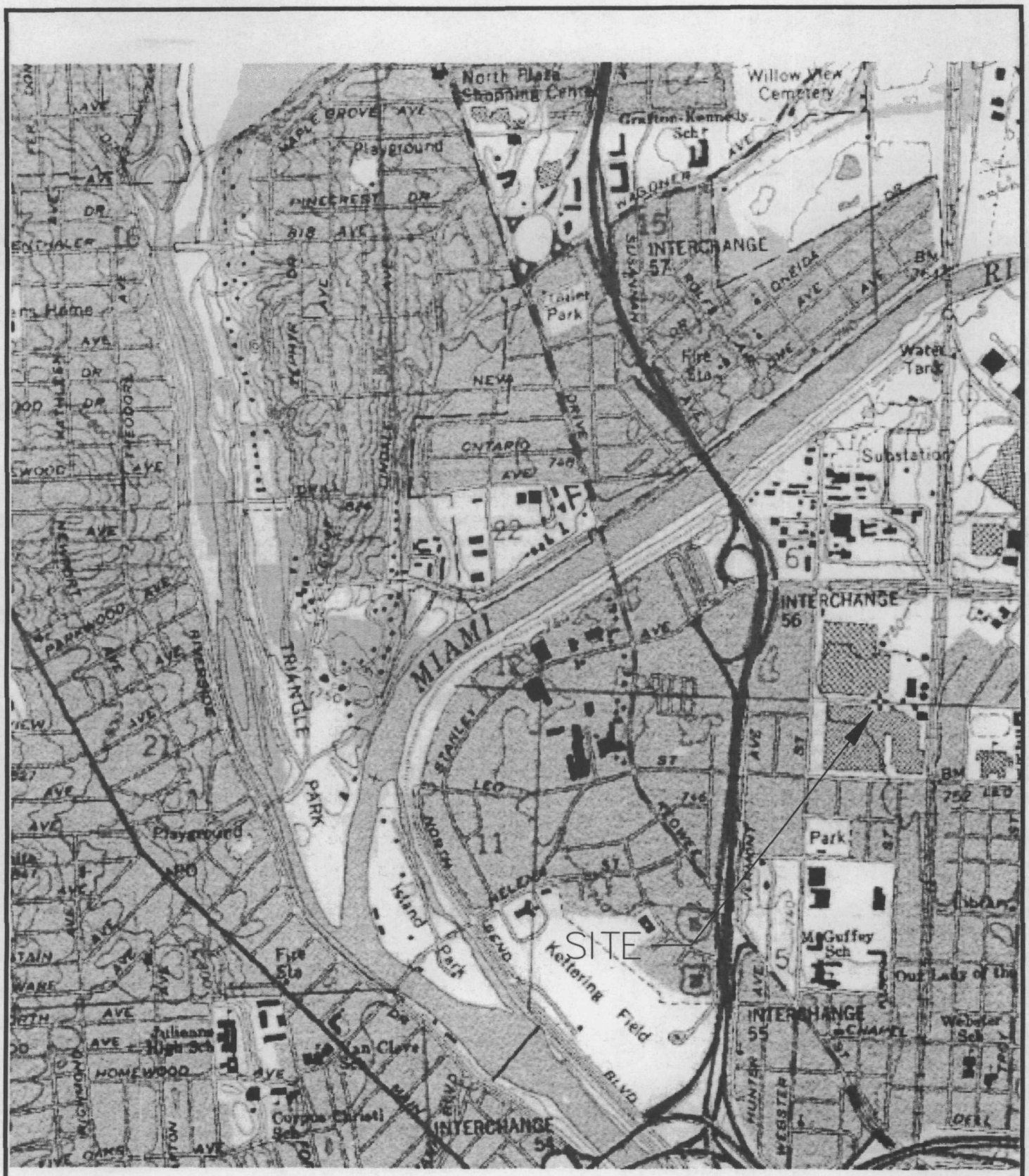
Figure 9 – Groundwater Process Flow and Instrumentation Diagram

Figure 10 – Groundwater Plume Delineation Proposed Sample Locations

Appendices

Appendix A - Hydraulic Conductivity Technical Memorandum

Appendix B - Geochemistry Technical Memorandum

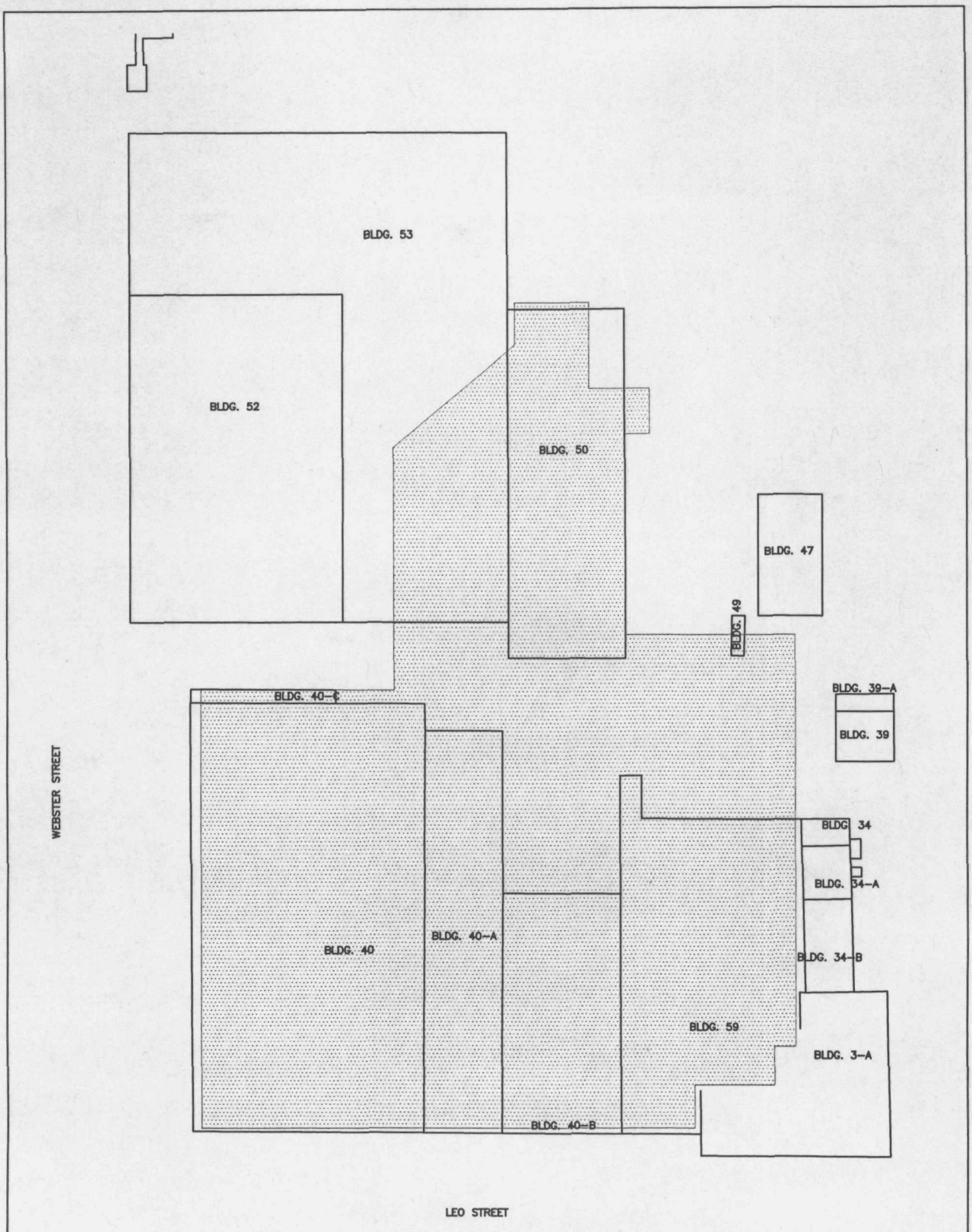


EARTH TECH

A tyco INTERNATIONAL LTD. COMPANY
4135 TECHNOLOGY PARKWAY, SHEBOYGAN, WISCONSIN 53083

FIGURE 1
VICINITY MAP
DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

DRAWN BY: JRD	EDITED BY: JRD	PROJECT NUMBER: 55465	FILE NAME:
CHECKED BY: JE	DATE: DEC. 20, 2002	SCALE: ------	WELL PLACEMENT REV1



LEGEND

– PRIMARY SOIL CONTAMINANT SORCE AREA AND APPROXIMATE SVE SYSTEM COVERAGE

BASED ON DRAWING 3CHDA06K BY LBG.

SOURCE FOR BUILDING OUTLINE:
RALPH L. WOOLPERT CO.,
CONSULTING ENGINEERS,
DAYTON, OHIO DECEMBER 1967

SOURCE FOR HAZARDOUS WASTE STREAM & STORAGE TANK FACILITIES:
HUBBELL, ROTH & CLARK, INC.,
CONSULTING ENGINEERS,
BLOOMFIELD HILLS, MICHIGAN JUNE 1989

NORTH

0 400 800
SCALE IN FEET

EARTH TECH
A tyco INTERNATIONAL LTD. COMPANY
4135 Technology Parkway, Sheboygan, WI 53083 (920) 459-5711

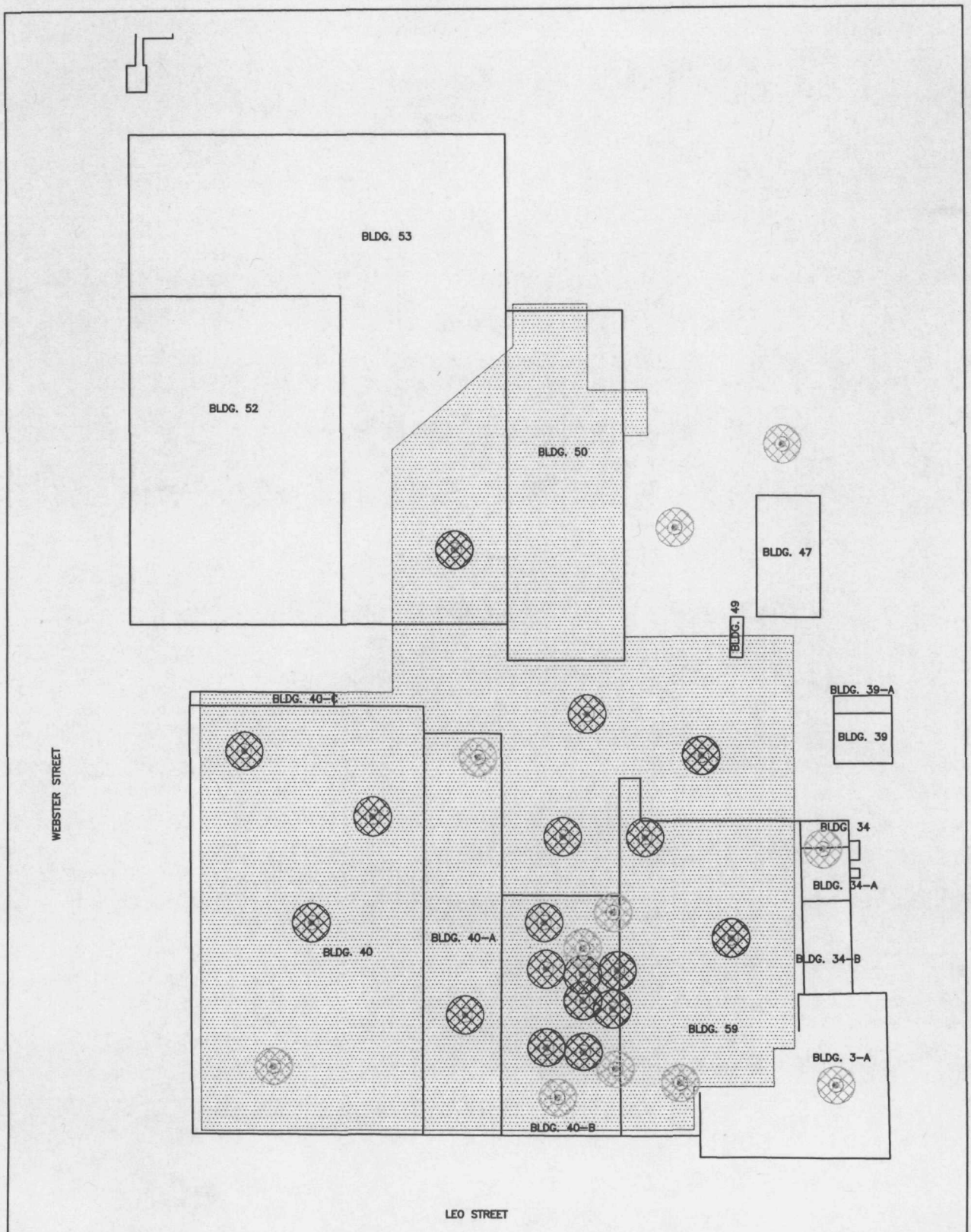
DRAWN BY: JRD	DATE: SEPT. 5, 2002
CHECKED BY: RS	EDITED BY: JRD090502
FILE NAME: SOURCE OVERLAY	

FIGURE 2

PRIMARY SOURCE AREA LOCATION MAP

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



SVE POINT LEGEND

- > 15 LBS/MONTH VOC PRODUCTION @ 100 SCFM
- 5 - 15 LBS/MONTH VOC PRODUCTION @ 100 SCFM
- < 5 LBS/MONTH VOC PRODUCTION @ 100 SCFM
- PRIMARY SOIL CONTAMINANT SORCE AREA AND APPROXIMATE SVE SYSTEM COVERAGE

BASED ON DRAWING 3CHDA08K BY LBG.

SOURCE FOR BUILDING OUTLINE:
RALPH L. WOOLPERT CO.,
CONSULTING ENGINEERS,
DAYTON, OHIO DECEMBER 1967

SOURCE FOR HAZARDOUS WASTE STREAM & STORAGE TANK FACILITIES:
HUBBELL, ROTH & CLARK, INC.,
CONSULTING ENGINEERS,
BLOOMFIELD HILLS, MICHIGAN JUNE 1989

NORTH

0 400 800
SCALE IN FEET

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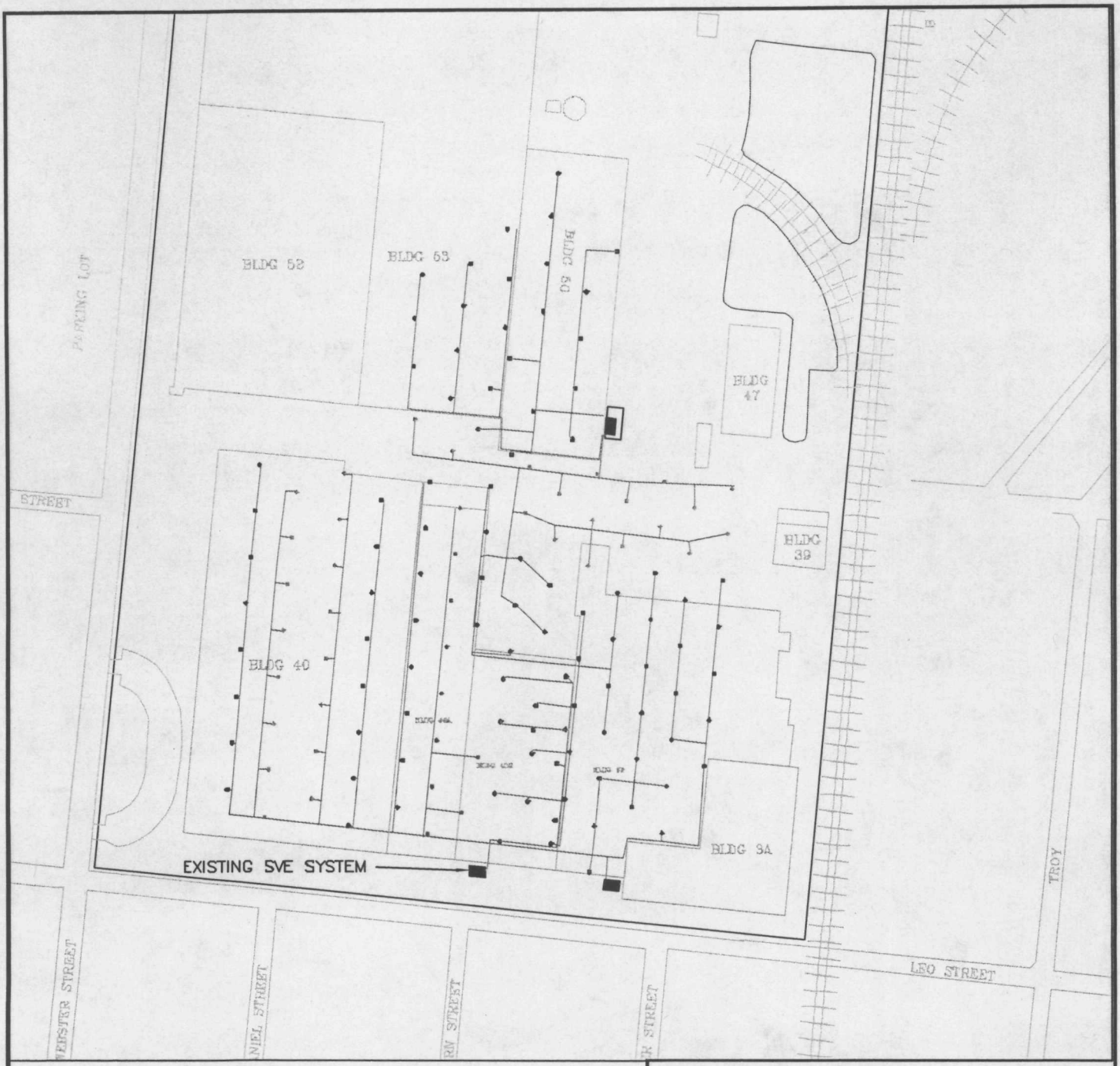
CHECKED BY: RS	EDITED BY: JRD090502
FILE NAME: SOURCE OVERLAY	

FIGURE 3

SVE PILOT AND EXISTING WELL LOCATIONS

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



LEGEND

- EXISTING SVE WELL PAIR (SHALLOW AND DEEP)
- NEW WELLS (COLORS INDICATE BANKS)
- SVE PIPING
- SVE SYSTEM BUILDING

NORTH

0 250 500

SCALE IN FEET

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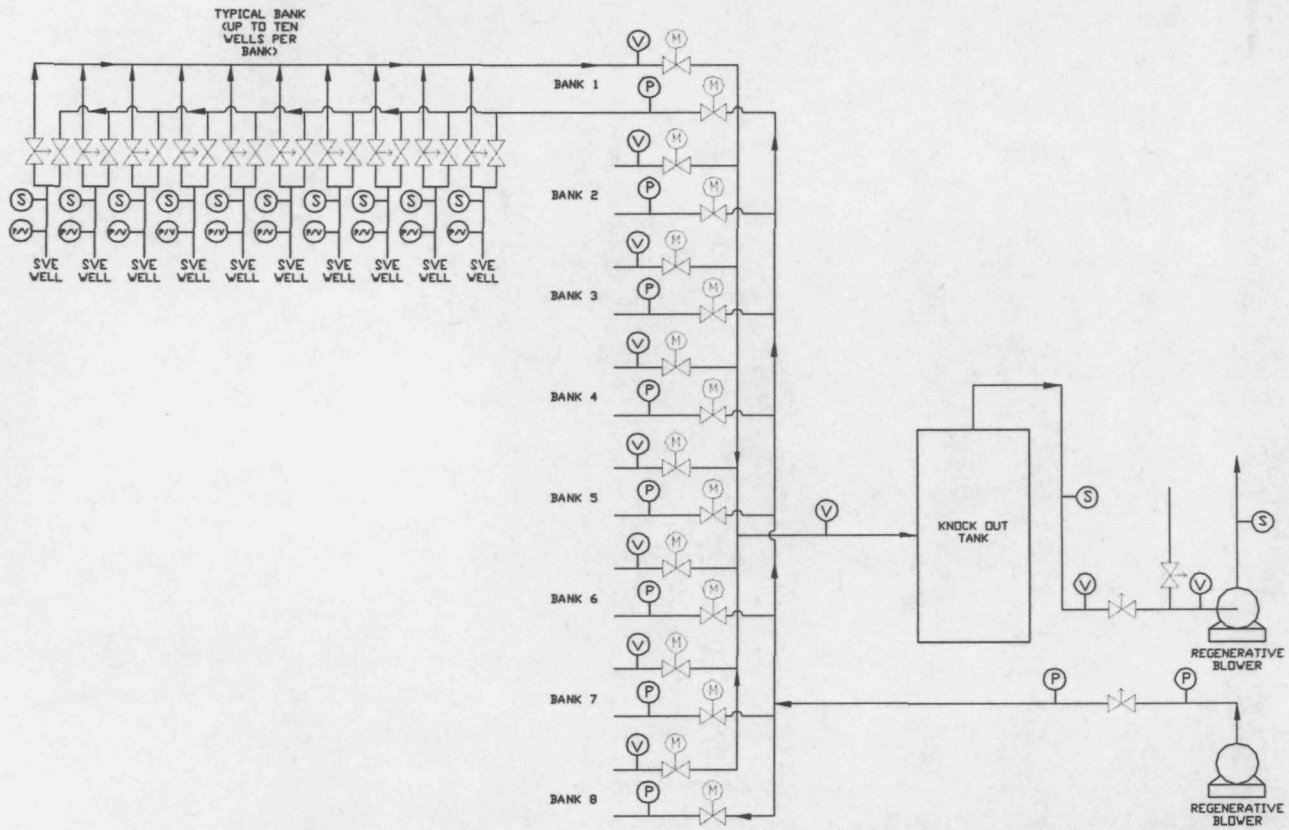
DRAWN BY: JRD	DATE: SEPT. 11, 2002
CHECKED BY: JE	EDITED BY: JRD091102
FILE NAME: BUILDING 40B SYSTEM	

FIGURE 4

SVE SYSTEM LAYOUT
WELL AND PIPING LOCATION

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



LEGEND

- P/V - COMBINED PRESSURE VACUUM GUAGE/SENSOR
- P - PRESSURE GUAGE/SENSOR
- V - VACUUM GUAGE/SENSOR
- S - SAMPLE PORT/PARAMETER SENSOR
- THROTTLE VALVE
- ISOLATION VALVE
- M - MOTORIZED BUTTERFLY VALVE
- EXTRACTION PIPING
- INJECTION PIPING

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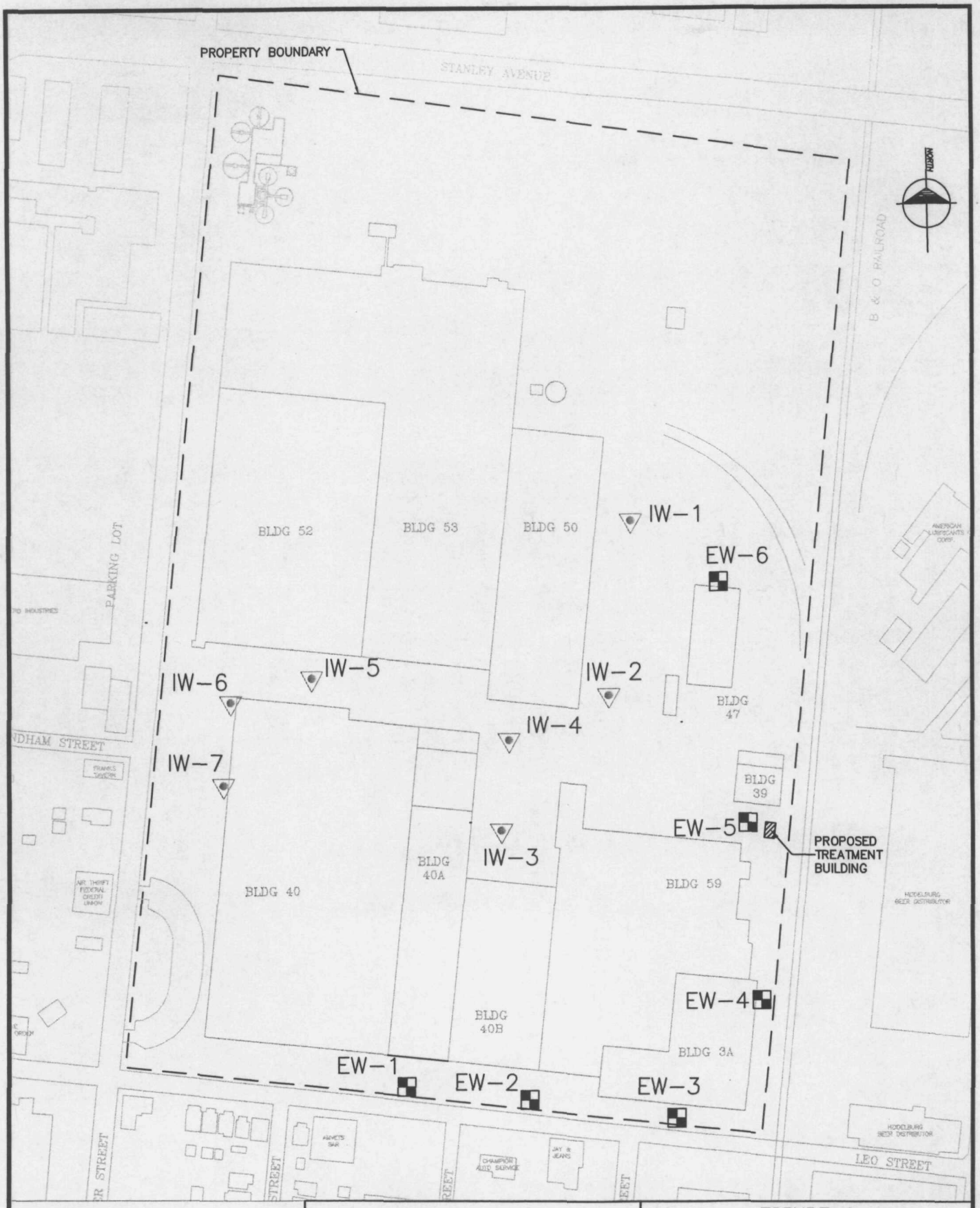
CHECKED BY: JE	EDITED BY: JRD070802
FILE NAME: GW PIDs	

FIGURE 5

SOIL VAPOR EXTRACTION
PROCESS FLOW AND INSTRUMENTATION
DIAGRAM

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



LEGEND

- PROPOSED INJECTION WELLS
- PROPOSED EXTRACTION WELLS

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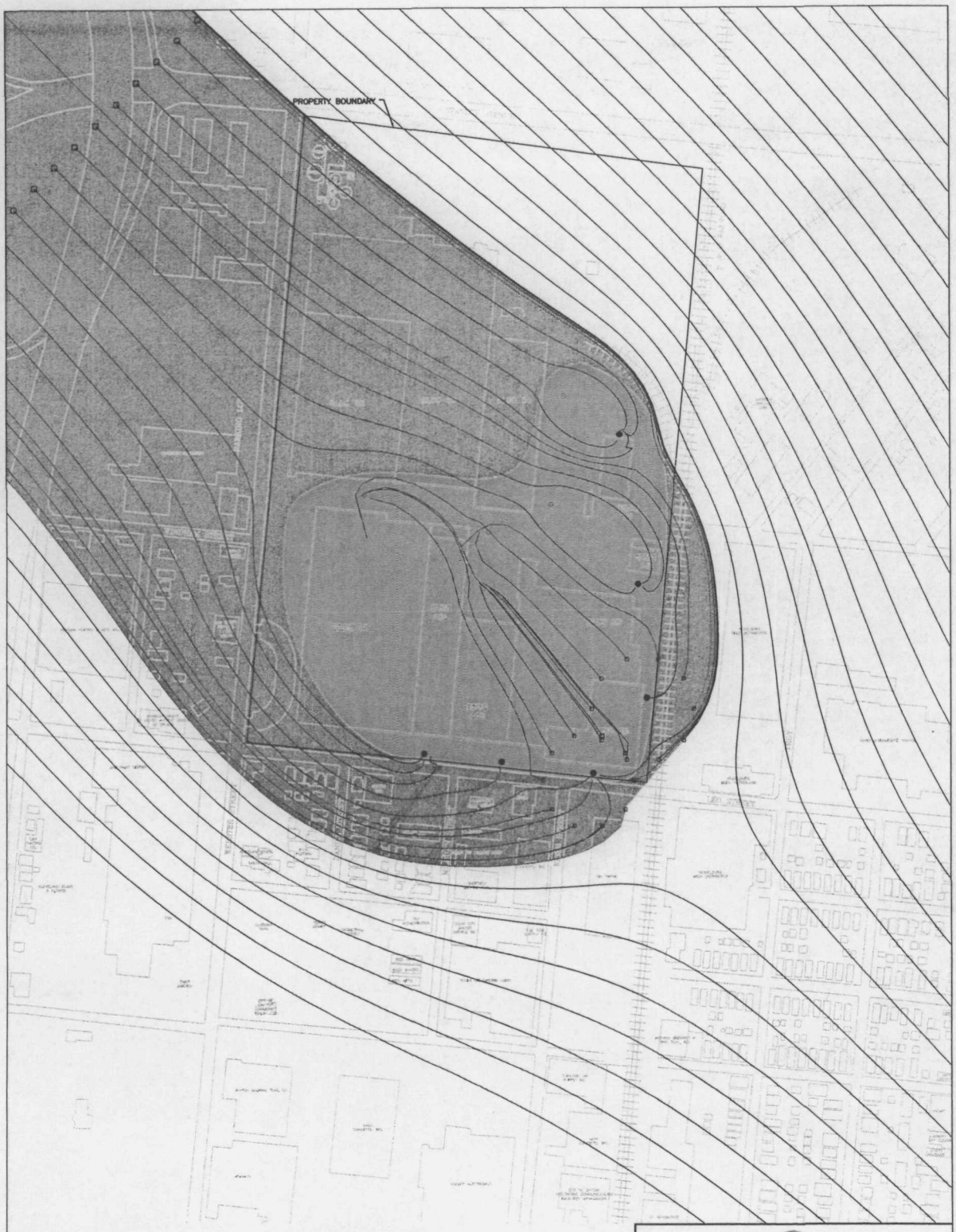
FIGURE 6
WELL LOCATIONS
DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

DRAWN BY: JRD	EDITED BY: JRD	PROJECT NUMBER: 55465	FILE NAME:
CHECKED BY: JE	DATE: MARCH 4, 2003	SCALE: 1:250	WELLS.DWG



LEGEND

- PROPOSED EXTRACTION WELL LOCATION
- PROPOSED INJECTION WELL LOCATION
- PARTICLE TRACE
- PROPERTY BOUNDARY
- SODIUM LACTATE TREATMENT ZONE
- APPROXIMATE CAPTURE ZONE

N

0' 150' 300' 600'
SCALE

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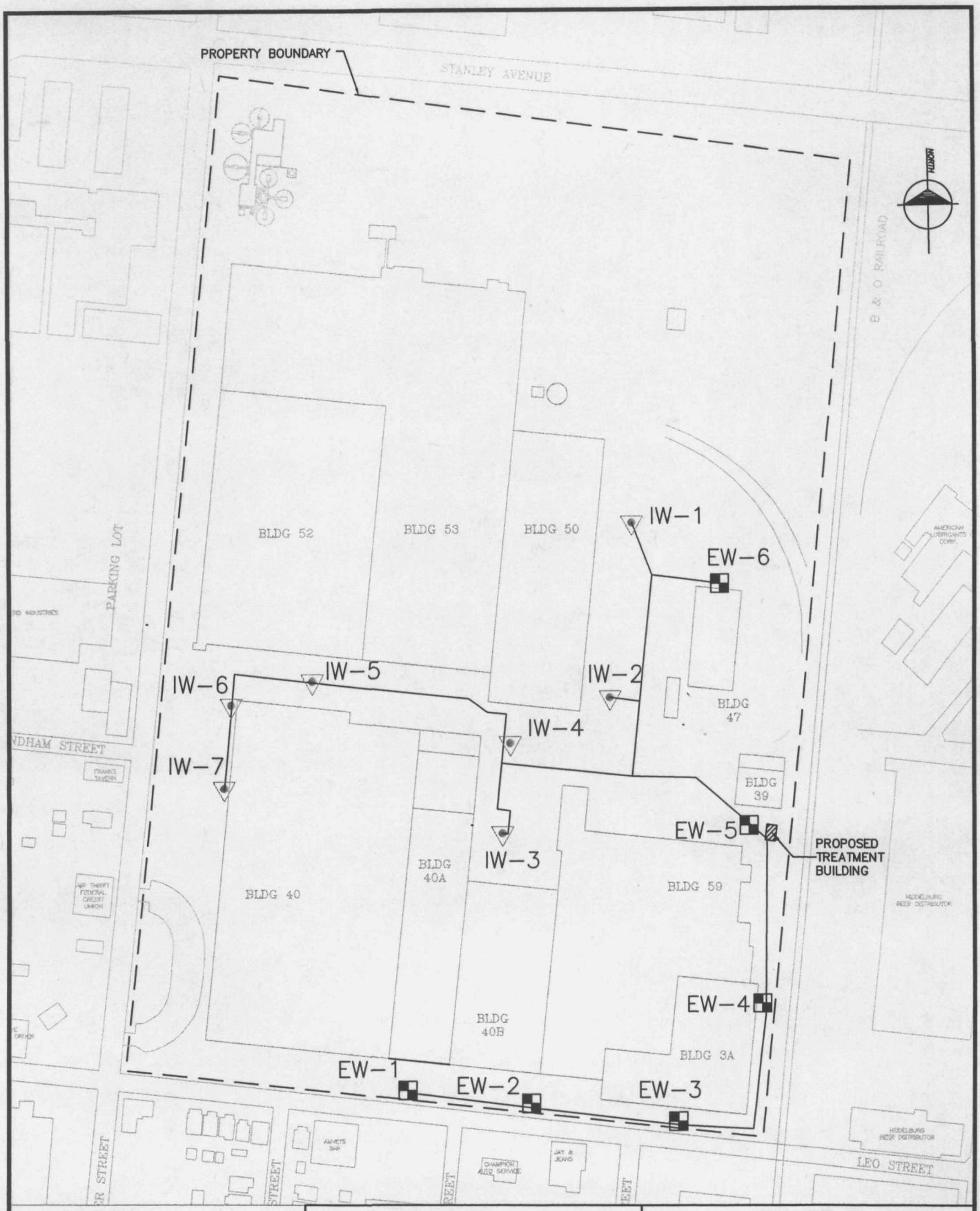
DRAWN BY: JRD	DATE: MARCH 4, 2003
CHECKED BY: JE	EDITED BY: JRD
FILE NAME: FLOW MODEL NORMAL	

FIGURE 7

CAPTURE ZONE AND
STREAMLINES FOR GROUNDWATER
REMEDY UNDER NORMAL FLOW DIRECTION

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



LEGEND

- PROPOSED INJECTION WELLS
- PROPOSED EXTRACTION WELLS
- TRENCH AND PIPE

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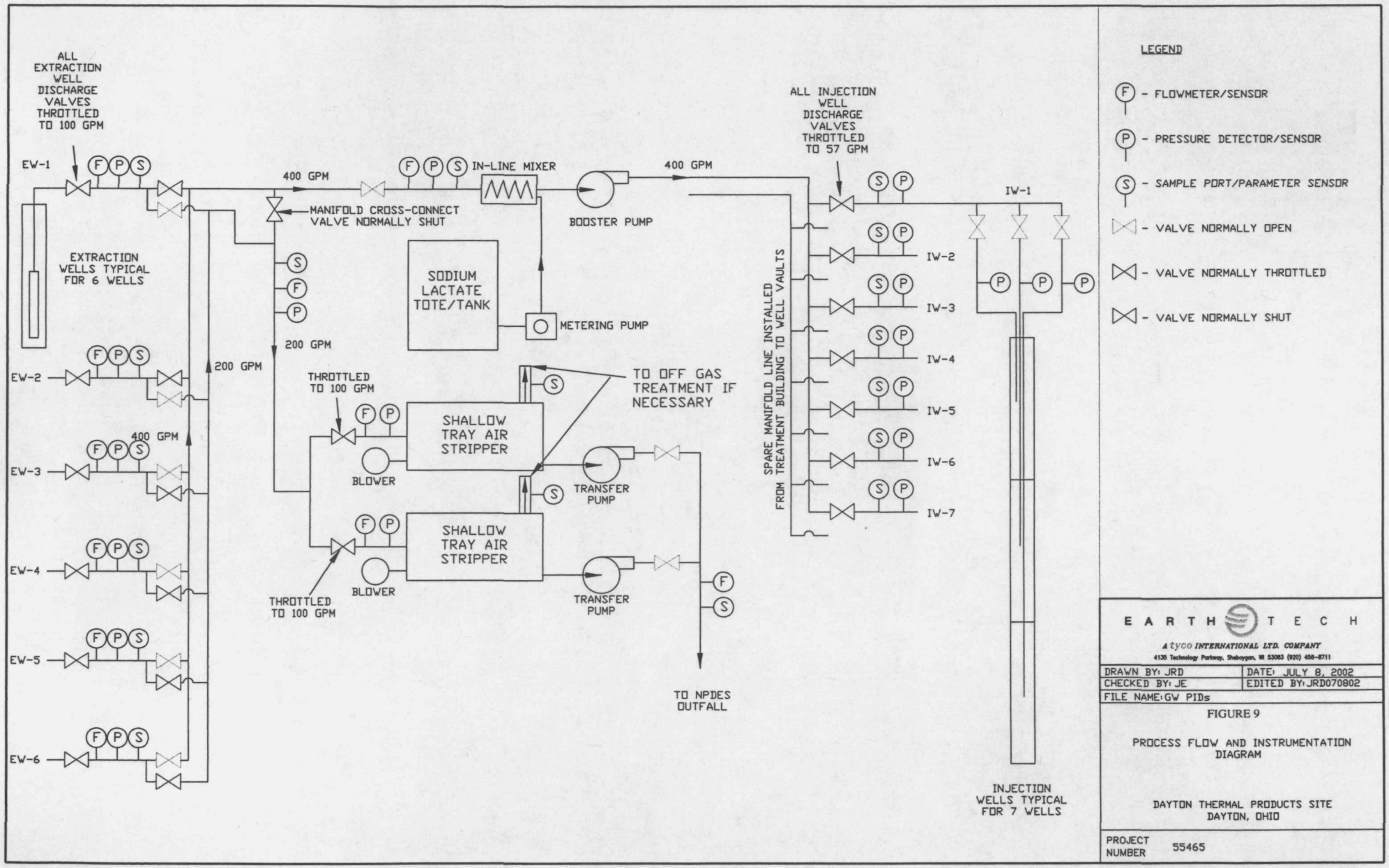
FIGURE 8
WELL LOCATIONS
DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

DRAWN BY: JRD	EDITED BY: JRD	PROJECT NUMBER: 55465	FILE NAME:
CHECKED BY: JE	DATE: MARCH 4, 2003	SCALE: 1:250	WELLS.DWG



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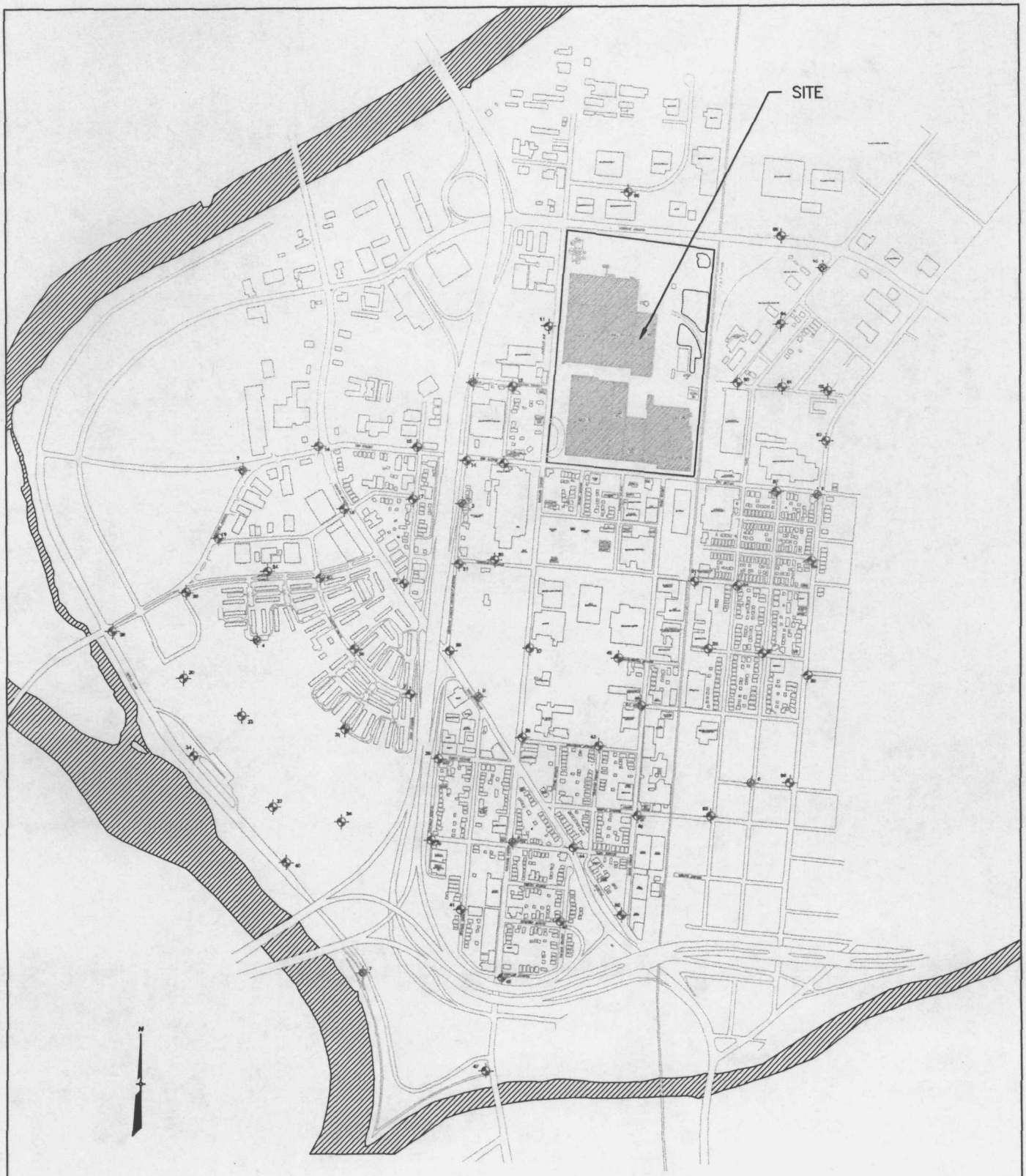
DRAWN BY: JRD	DATE: JULY 8, 2002
CHECKED BY: JE	EDITED BY: JRD070802
FILE NAME: GW PIDs	

FIGURE 9

PROCESS FLOW AND INSTRUMENTATION DIAGRAM

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



LEGEND

- PROPOSED MP LOCATION
- PROPOSED MP/WATER TABLE WELL LOCATION

SCALE 0' 500' 1000' 2000'

EARTH TECH

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DRAWN BY: JRD	DATE: MARCH 4, 2003
CHECKED BY: RS	EDITED BY: JRD
FILE NAME: PROPOSED MONITORING POINTS	

FIGURE 10

OFF-SITE PLUME INVESTIGATION AREA

Appendix A - Hydraulic Conductivity Technical Memorandum

MEMO

Date: June 26, 2002

To: Joan Underwood **cc:** Rob Stenson, Drew Lonergan

From: Mike Wolf/Tom Sampson

Subject: DC DAYTON AQUIFER TESTING

Aquifer hydraulic conductivity was determined by conducting slug tests at selected monitoring wells (MWB1, MWC1, PZ7I, MWB5, PZ8I, PZ8D, MWB3, PZ-16D, MWA2, MWB2, MWC2). Slug test equipment included a Hermit SE1000 data logger, 20 psi transducer, electronic water level indicator, K-packer assembly and a vacuum pump. A water level meter was used to measure the depth to water. The transducer was placed in the well approximately 15 to 20 feet below the water table and connected to the data logger through the K-packer assembly. The K-packer assembly was used to seal off the well from atmospheric pressure. The data logger records the change in groundwater level in the well as measured by the transducer.

The K-packer assemblage allows a vacuum to be created in the well casing utilizing the vacuum pump. The vacuum is applied to the well casing through tubing connected to an air port linked to the inside of the K-packer. The vacuum lifts a column of water in the well casing. When water appears in the vacuum tubing at the surface, a large diameter ball valve (2-inch) is opened which releases the vacuum and causes the column of water to flow back into the formation. This is correlative to dropping a PVC slug into the well and conducting a falling head test. Conversely, the well casing can be pressurized by connecting the tubing to the air outlet side of the vacuum pump, allowing for the depression of the water table. Releasing the air pressure allows the aquifer water to reenter the well casing and stabilize. This is correlative to removing a PVC slug from the well casing and conducting a rising head test.

Groundwater displacement (feet) and time (minutes) data were recorded during the rising head and falling head slug tests.

Data collected from several of the wells showed an oscillation of the water level after the slug of water was released. These data were processed using a different method than the "normal" slug test data.

Well and Aquifer Parameters

The data were analyzed following the Bouwer and Rice (1976) method for unconfined aquifers; however, the oscillating data sets were evaluated using a spreadsheet developed by the Kansas Geological Survey that is an extension of the Bouwer and Rice (1976) method. Based on the oscillating data set, a type curve is developed and matched to the oscillating data. The Bouwer and Rice equation is then corrected by parameters used in matching the type curve to the data.

The non-oscillating data were evaluated with the Bouwer and Rice method using AQTESOLV computer software (HYDROSOLVE, Inc., 1996). The following well and aquifer parameters were obtained from

well logs to assist in the curve matching: radius of borehole (r_w), radius of well casing (r_c), aquifer saturated thickness (b), effective well screen length (L), static height of water in the well (D), and filter pack porosity. The parameters vary based on the hydrogeologic conditions in the vicinity of the well.

The radius of well casing (r_c) is the radius of the well screen and well riser pipe. All of the well casings tested were two inches in diameter (r_c = 0.083 feet). The borehole radius (r_w) varies depending on the drilling method used and on the hydraulic contrast between the well filter pack and the formation. If the filter pack and the screened formation are hydraulically similar, then r_w is equal to the radius of the well casing (HYDROSOLVE, 1996). If the filter pack and the screened formation are hydraulically dissimilar, then r_w is equal to the radius of the borehole. All wells tested during this project assumed the filter pack to be hydraulically dissimilar to the formation being screened, therefore, r_w is assumed equal to the radius of the borehole. An assumption of an 8-inch borehole was used (r_w = 0.33 feet).

Aquifer saturated thickness (b) is the estimated saturated thickness of the aquifer being tested, within the effective well screen length of the well. Effective well screen length (L) varies depending on the hydraulic contrast between the well filter pack and the formation. If the filter pack and the screened formation are hydraulically similar, then L is equal to the length of the well screen (Bouwer and Rice, 1976, Bouwer, 1989). If the filter pack and the screened formation are hydraulically dissimilar, then L is equal to the length of the filter pack interval. However, if the water level intersects the well screen at the time of field testing, L equals the length from the bottom of the well to the water level.

All wells assumed the filter pack to be hydraulically similar to the formation being screened. Therefore, the effective screen length (L) was the length of the well screen.

The static height of water in the well (D) is the length from the bottom of the well to the water level. Filter pack porosity was estimated at 30 percent, which is within the porosity range for sand cited in standard literature (Freeze and Cherry, 1979; Domenico and Schwartz, 1990).

Curve matching assumptions

The underlying assumptions involved with the Bouwer and Rice method include: 1) Drawdown of the water table around the well is negligible; 2) Flow above the water table (capillary fringe) can be ignored; 3) Well losses are negligible; 4) The aquifer is homogeneous and isotropic; 5) The aquifer has infinite areal extent; 6) Aquifer is confined or unconfined; 7) Flow is steady; 8) A volume of water, V, is injected into or discharged from the well instantaneously; 9) Aquifer potentiometric surface is initially horizontal. Of these assumptions, Nos. 2 and 3 are typically met in field conditions. Assumptions No. 1 and No. 9 are met if the amount of initial drawdown is small. Assumption No. 4 is more difficult to meet since a geologic formation is rarely homogeneous and isotropic. For most practical purposes, assumption No. 5 is valid for slug testing. Freeze and Cherry (1979) note that geologic formations are usually heterogeneous and anisotropic, and consequently that the hydraulic conductivity values should be viewed as "best estimates".

Selection of the segment of the data plot of the natural logarithm of displacement/drawdown versus time to be used for the calculation of hydraulic conductivity is based on the fit of a straight line to the data (Bouwer and Rice, 1976). The straight-line portion of a plot of recovery versus time is the valid data to be used in the analysis. The non-oscillating drawdown data were evaluated using AQTESOLV.

The hydraulic conductivities calculated from the aquifer testing are summarized in Table 1. The spreadsheets and type curve-matching plots for the oscillating data are presented in Attachment A. The AQTESOLV curve-matching plots of the data are provided in Attachment B.

The hydraulic conductivities calculated using the spreadsheet for the oscillating data ranged from 72 to 172 feet/day ($2x10^{-2}$ to $6x10^{-2}$ cm/sec). The hydraulic conductivities calculated using the AQTESOLV program ranged from 112 to 1636 ft/day ($3.9x10^{-2}$ to $5.8x10^{-1}$ cm/sec). The hydraulic conductivity based on the GEM pump test data is approximately 750 ft/day ($2.6x10^{-1}$ cm/sec), which is similar to the values calculated using the non-oscillating slug test data. Soil boring logs for the wells generally indicate sand and gravel across the screened intervals that correspond to the high hydraulic conductivities observed.

Table 1
Hydraulic Conductivities

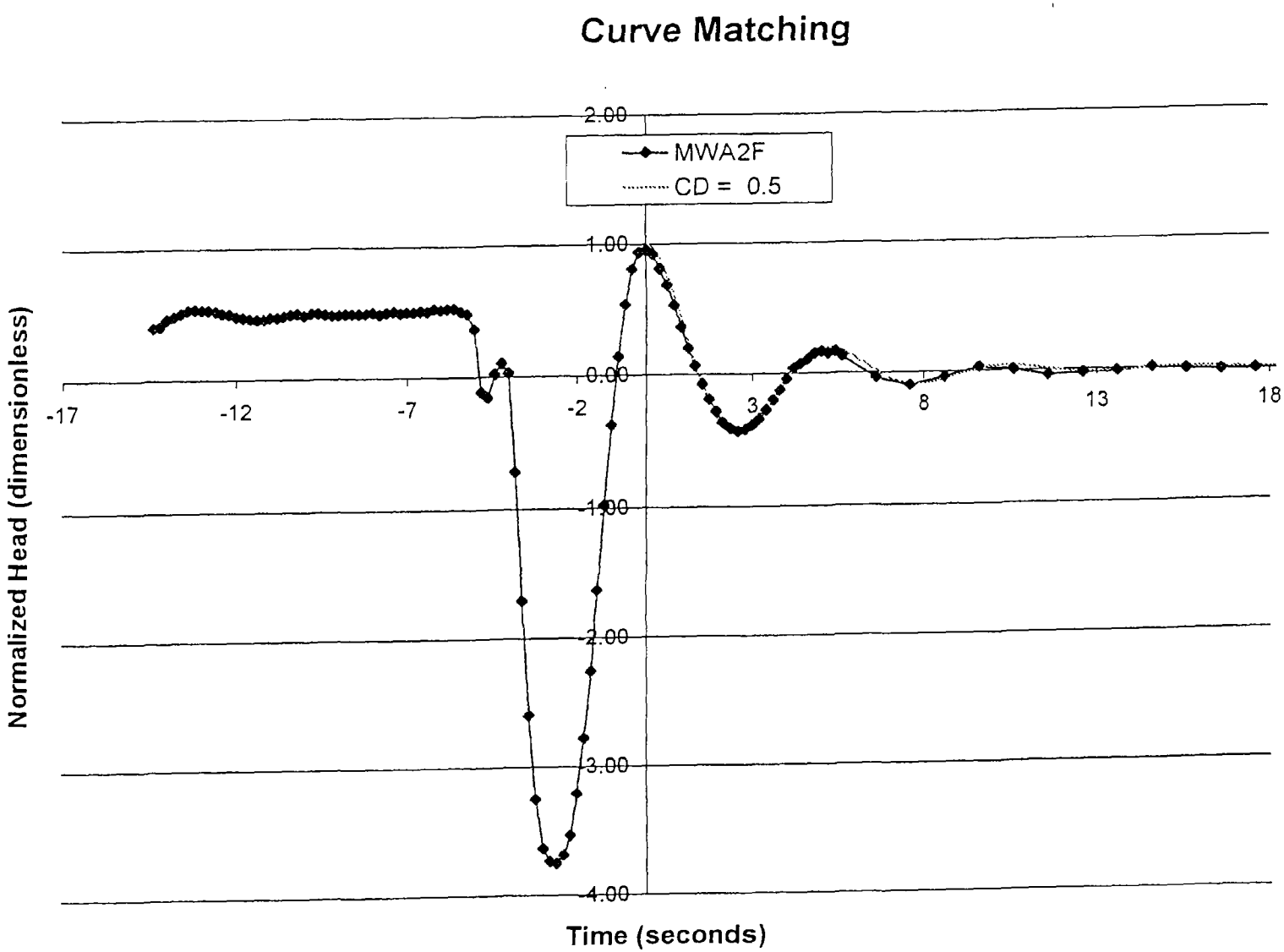
Well ID	Type	Evaluation Bower-Rice Only /Oscillation	Hydraulic Conductivity (cm/sec)	Hydraulic Conductivity (ft/day)
MW-A2	Falling	OSC	0.06	171
MW-B1	Rising	OSC	0.03	80
MW-B1	Rising	OSC	0.05	72
MW-B1	Falling	OSC	0.06	154
MW-B2	Rising	BR	0.06	182
MW-B2	Falling	BR	0.006	17
MW-B3	Rising	BR/OSC	0.32/0.02	908/63
MW-B3	Falling	BR	0.4	1136
MW-B5	Rising	OSC	0.03	76
MW-B5	Falling	OSC	0.04	118
MW-C1	Rising	BR	0.02	569
MW-C2	Rising	BR	0.04	114
MW-C2	Falling	BR	0.04	112
PZ-7I	Rising	BR	0.45	1267
PZ-7I	Falling	BR	0.45	1255
PZ-8I	Rising	BR	0.56	1602
PZ-8I	Falling	BR	0.58	1636
PZ-8D	Rising	BR	0.48	1354
PZ-8D	Falling	BR	0.45	1273
PZ-16D	Rising	BR	0.30	844
PZ-16D	Falling	BR	0.36	1031

ATTACHMENT A

Oscillating Data Plots and Spreadsheets

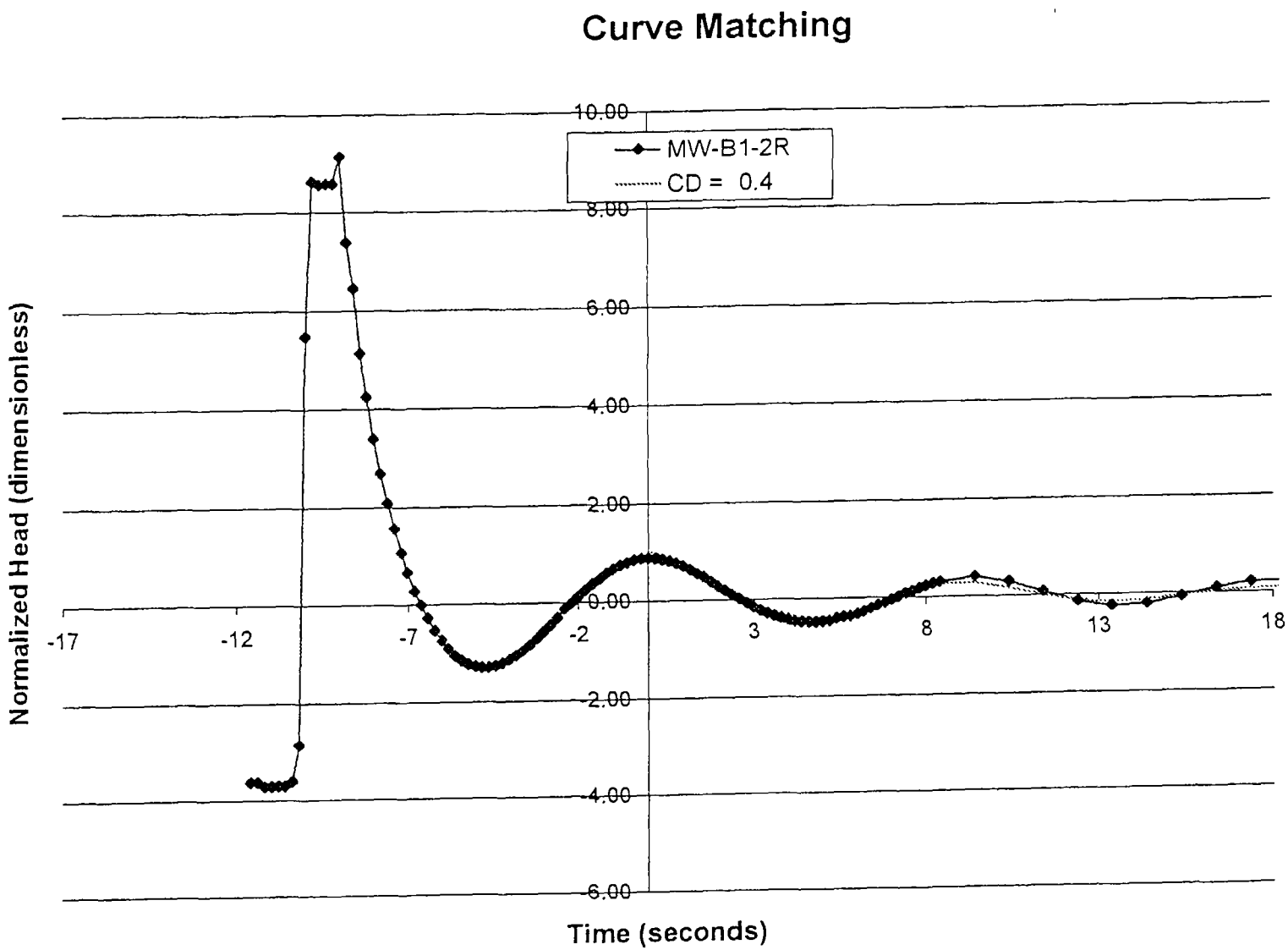
MW-A2
Falling Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit				Confined - High-K Hvorslev Model					
3	Time		Type Curve									
4	Correlation Ratio		C_D				K_r =	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	t_d^*/t^*		0.5					t^*	$2bC_D$			
6	1.250											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	20.61	ft								
9	nominal	Le =	11.77	ft			K_r =	2.79E-03 ft/sec				
10	% difference		75%					2.41E+02 ft/day		7.35E+01 m/day		
11								8.51E-02 cm/sec				
12												
13	Modulation Factor =		0.800				Unconfined - High-K Bouwer and Rice Model					
14												
15							K_r =	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	Dimensionless	C_D =		Adjusted				t^*	$2bC_D$			
17	Time	0.5		Time								
18	0	1		0			$\ln(R_e/r_w^*)$=	2.322		A =	2.359	
19	0.1	0.995086		0.0800						B =	0.373	
20	0.2	0.980714		0.1600				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.957485		0.2400					0.272			
22	0.4	0.926057		0.3200				second term		$(A+B^*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.887137		0.4000						0.159		
24	0.6	0.841468		0.4800				$\ln[(B-(d+b))/r_w^*]$		5.049		
25	0.7	0.789826		0.5600						Cannot exceed 6.		
26	0.8	0.733005		0.6400						See Butler (1997) - p.108.		
27	0.9	0.671812		0.7200								
28	1	0.607055		0.8000			K_r =	1.97E-03 ft/sec				
29	1.1	0.53954		0.8800				1.71E+02 ft/day		5.20E+01 m/day		
30	1.2	0.47006		0.9600				6.03E-02 cm/sec				


Curve Matching
MWA2F
CD = 0.5
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
-17
-12
-7
-2
3
8
13
18
Normalized Head (dimensionless)
Time (seconds)

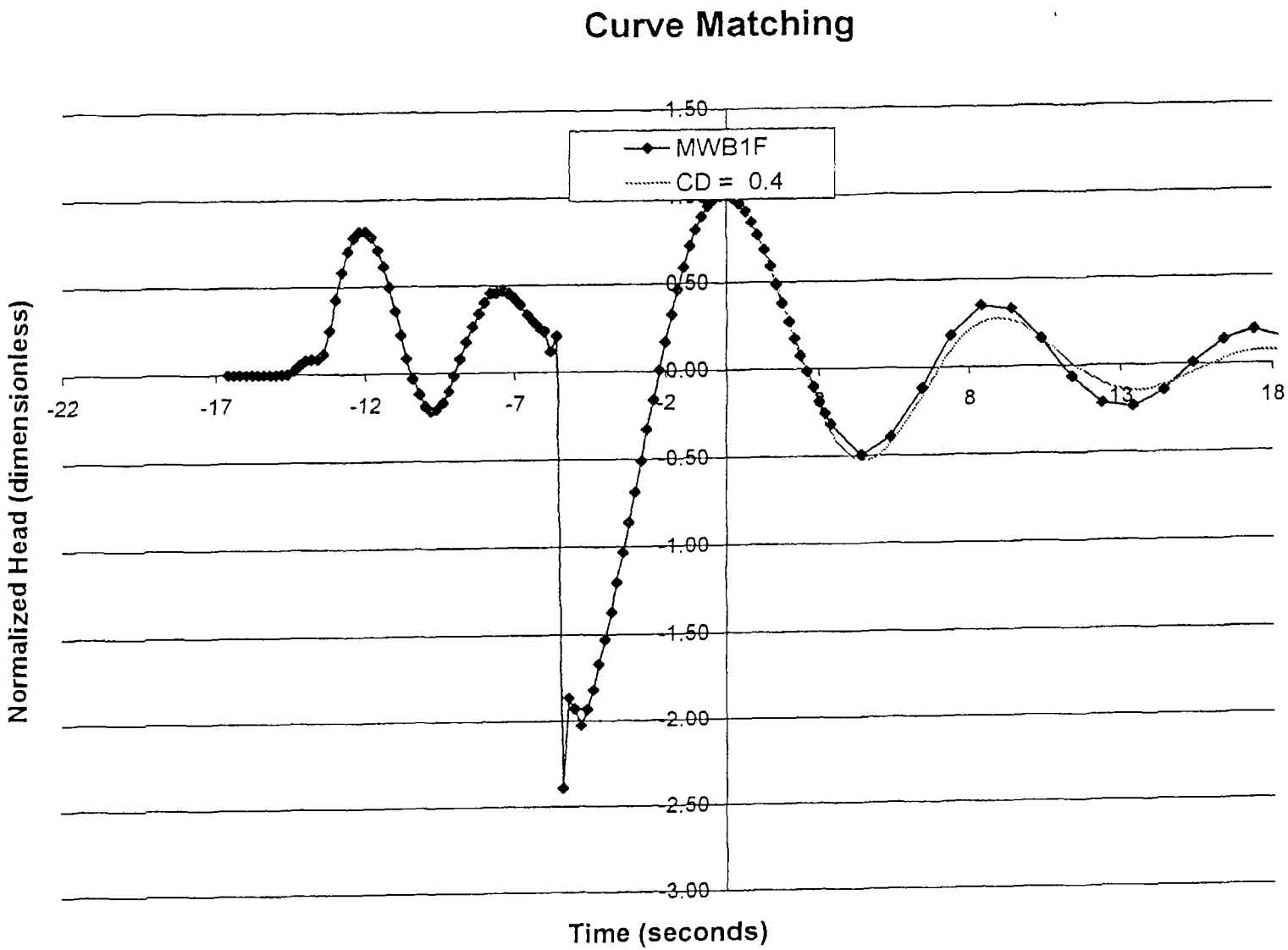
MW-B1
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit				Confined - High-K Hvorslev Model					
3	Time		Type Curve									
4	Correlation Ratio		C_D				K_r =	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	t_d^*/t^*		0.4					t^*	$2bC_D$			
6	0.714											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	63.11	ft								
9	nominal	Le =	51.31	ft			K_r =	**1.99E-03 ft/sec**				
10	% difference		23%					**1.72E+02 ft/day**		**5.25E+01 m/day**		
11								**6.08E-02 cm/sec**				
12												
13	**Modulation Factor =**		1.400				**Unconfined - High-K Bouwer and Rice Model**					
14												
15							K_r =	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	**Dimensionless**	C_D =		**Adjusted**				t^* $2bC_D$				
17	**Time**	**0.4**		**Time**								
18	0	1		0			$\ln(R_e/r_w^*)$=	2.939		***A*** =	2.359	
19	0.1	0.99507		0.1400						***B*** =	0.373	
20	0.2	0.980587		0.2800				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.957068		0.4200					0.209			
22	0.4	0.925097		0.5600				second term		$(A + B*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.885319		0.7000						0.131		
24	0.6	0.838429		0.8400				$\ln[(B-(d+b))/r_w^*]$		3.051		
25	0.7	0.785166		0.9800						Cannot exceed 6.		
26	0.8	0.726301		1.1200						See Butler (1997) - p.108.		
27	0.9	0.66263		1.2600								
28	1	0.594966		1.4000			K_r =	**1.78E-03 ft/sec**				
29	1.1	0.524128		1.5400				**1.54E+02 ft/day**		**4.70E+01 m/day**		
30	1.2	0.450934		1.6800				**5.45E-02 cm/sec**				


Curve Matching
MW-B1-2R
CD = 0.4
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-17
-12
-7
-2
3
8
13
18
Normalized Head (dimensionless)
Time (seconds)

MW-B1
Falling Head

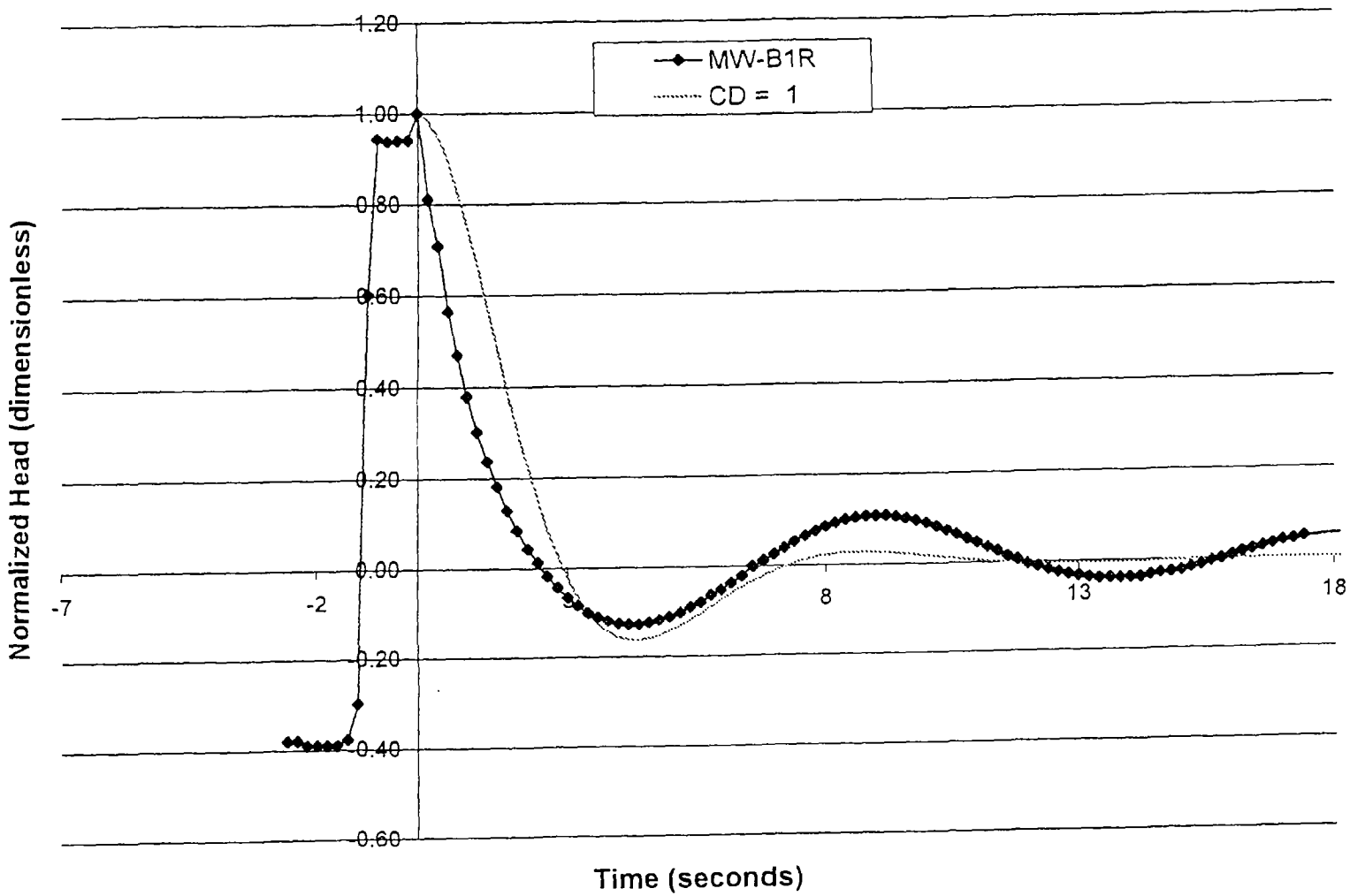
	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			**Best Fit**				**Confined - High-K Hvorslev Model**					
3	**Time**		**Type Curve**									
4	**Correlation Ratio**		**C_D**				$K_r =$	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	**t_d^*/t^***		0.4					t^*	$2bC_D$			
6	0.714											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	63.11	ft								
9	nominal	Le =	51.31	ft			$K_r =$	**1.99E-03 ft/sec**				
10	% difference		23%					**1.72E+02 ft/day**		**5.25E+01 m/day**		
11								**6.08E-02 cm/sec**				
12												
13	**Modulation Factor =**		1.400				**Unconfined - High-K Bouwer and Rice Model**					
14												
15							$K_r =$	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	**Dimensionless**	**C_D =**		**Adjusted**				t^* $2bC_D$				
17	**Time**	**0.4**		**Time**								
18	0	1		0			$\ln(R_e/r_w^*)=$	2.939		***A*** =	2.359	
19	0.1	0.99507		0.1400						***B*** =	0.373	
20	0.2	0.980587		0.2800				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.957068		0.4200					0.209			
22	0.4	0.925097		0.5600				second term		$(A+B*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.885319		0.7000						0.131		
24	0.6	0.838429		0.8400				$\ln[(B-(d+b))/r_w^*]$		3.051		
25	0.7	0.785166		0.9800						Cannot exceed 6.		
26	0.8	0.726301		1.1200						See Butler (1997) - p.108.		
27	0.9	0.66263		1.2600								
28	1	0.594966		1.4000			$K_r =$	**1.78E-03 ft/sec**				
29	1.1	0.524128		1.5400				**1.54E+02 ft/day**		**4.70E+01 m/day**		
30	1.2	0.450934		1.6800				**5.45E-02 cm/sec**				


Curve Matching
MWB1F
CD = 0.4
Normalized Head (dimensionless)
Time (seconds)
1.50
0.50
0.00
-0.50
-1.00
-1.50
-2.00
-2.50
-3.00
-22
-17
-12
-7
-2
8
13
18

MW-B1
Rising Head

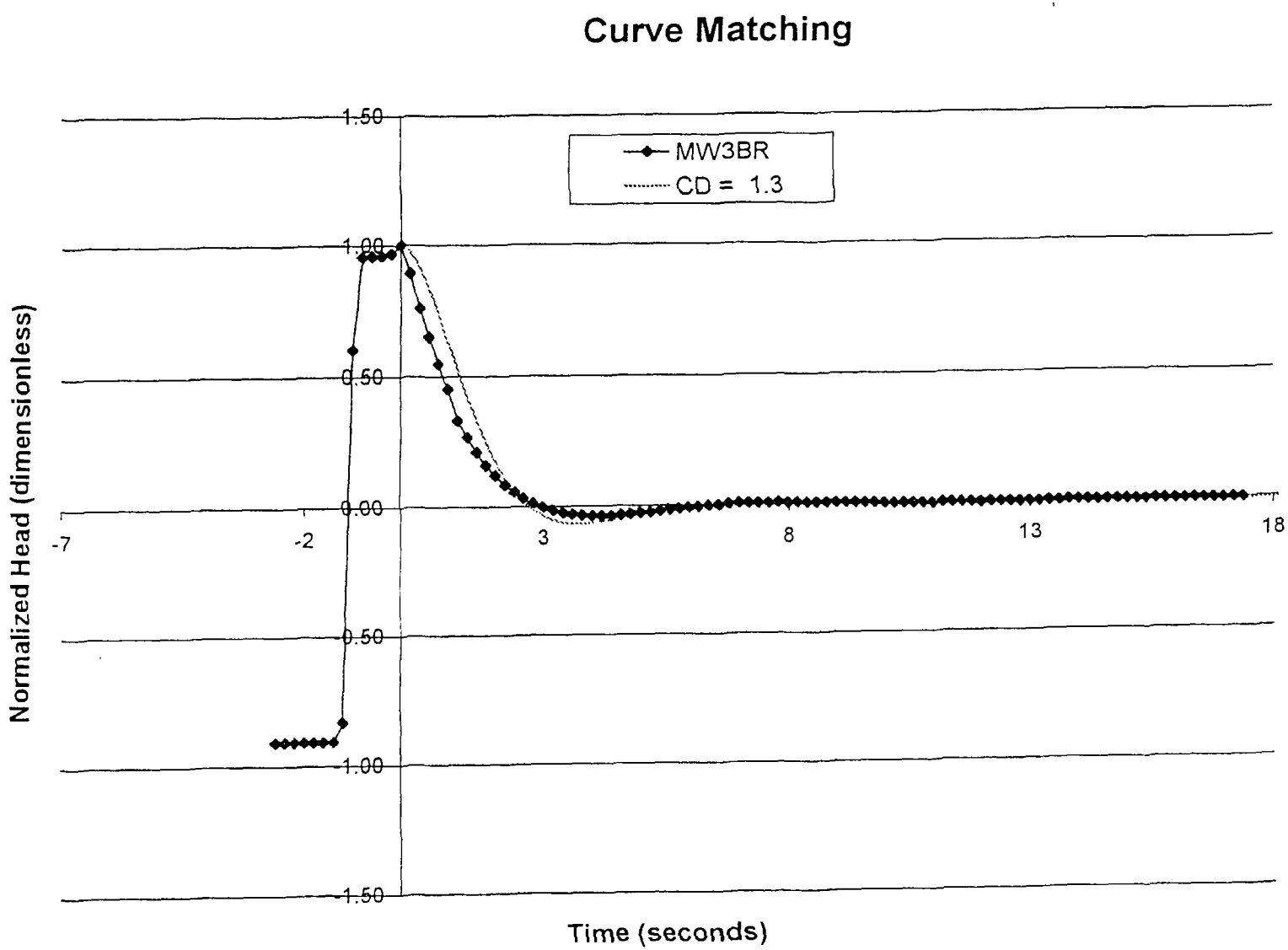
	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit				Confined - High-K Hvorslev Model					
3	Time		Type Curve									
4	Correlation Ratio		C_D				$K_r =$	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	t_d^*/t^*		1					$t^* \quad 2bC_D$				
6	0.833											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	46.37	ft								
9	nominal	Le =	51.31	ft			$K_r =$	9.31E-04 ft/sec				
10	% difference		10%					8.04E+01 ft/day		2.45E+01 m/day		
11								2.84E-02 cm/sec				
12												
13	Modulation Factor =		1.200				Unconfined - High-K Bouwer and Rice Model					
14												
15							$K_r =$	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	Dimensionless	$C_D =$		Adjusted				$t^* \quad 2bC_D$				
17	Time	1		Time								
18	0	1		0			$\ln(R_e/r_w^*)=$	2.939		$A =$	2.359	
19	0.1	0.995167		0.1200						$B =$	0.373	
20	0.2	0.981331		0.2400				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.959481		0.3600					0.209			
22	0.4	0.930587		0.4800				second term		$(A+B*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.895595		0.6000						0.131		
24	0.6	0.855416		0.7200				$\ln[(B-(d+b))/r_w^*]$		3.051		
25	0.7	0.810928		0.8400						Cannot exceed 6.		
26	0.8	0.762963		0.9600						See Butler (1997) - p.108.		
27	0.9	0.712308		1.0800								
28	1	0.6597		1.2000			$K_r =$	8.33E-04 ft/sec				
29	1.1	0.605826		1.3200				7.19E+01 ft/day		2.19E+01 m/day		
30	1.2	0.551319		1.4400				2.54E-02 cm/sec				

Curve Matching



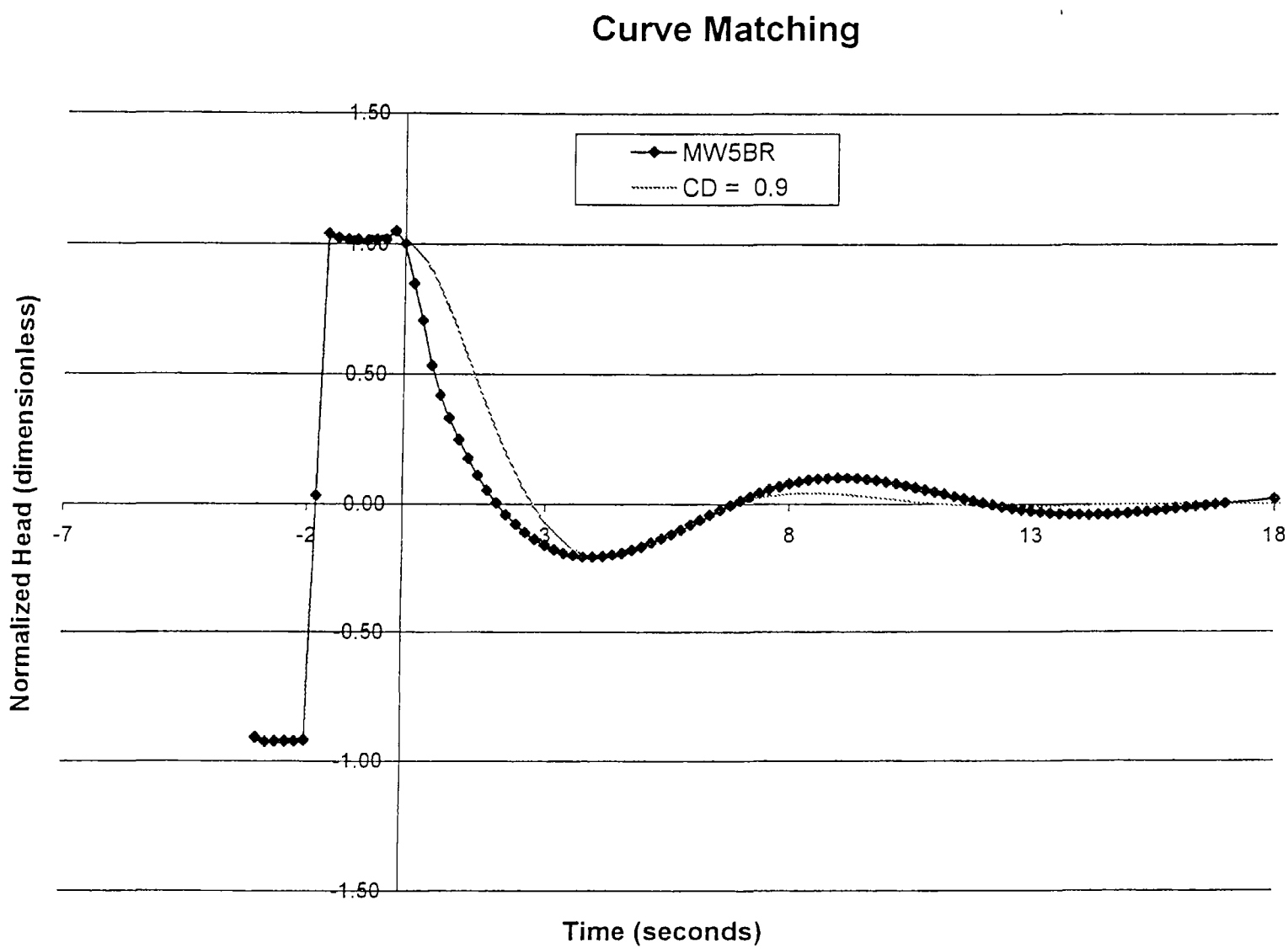
MW-B3
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			**Best Fit**				**Confined - High-K Hvorslev Model**					
3	**Time**		**Type Curve**									
4	**Correlation Ratio**		**C_D**				K_r =	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	**t_d^*/t^***		1.3					t^*	$2bC_D$			
6	1.111											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	26.08	ft								
9	nominal	Le =	25.97	ft			**K_r =**	**9.55E-04 ft/sec**				
10	% difference		0%					**8.25E+01 ft/day**		**2.51E+01 m/day**		
11								**2.91E-02 cm/sec**				
12												
13	**Modulation Factor =**		0.900				**Unconfined - High-K Bouwer and Rice Model**					
14												
15							K_r =	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	**Dimensionless**	**C_D =**		**Adjusted**				t^* $2bC_D$				
17	**Time**	**1.3**		**Time**								
18	0	1		0			$\ln(R_e/r_w^*)$=	2.522		***A*** =	2.359	
19	0.1	0.995214		0.0900						***B*** =	0.373	
20	0.2	0.981686		0.1800				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.96061		0.2700					0.241			
22	0.4	0.933103		0.3600				second term		$(A+B*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.900206		0.4500						0.155		
24	0.6	0.862885		0.5400				$\ln[(B-(d+b))/r_w^*]$		4.771		
25	0.7	0.822029		0.6300						Cannot exceed 6.		
26	0.8	0.778451		0.7200						See Butler (1997) - p.108.		
27	0.9	0.732893		0.8100								
28	1	0.686021		0.9000			**K_r =**	**7.33E-04 ft/sec**				
29	1.1	0.638435		0.9900				**6.33E+01 ft/day**		**1.93E+01 m/day**		
30	1.2	0.590669		1.0800				**2.24E-02 cm/sec**				


Curve Matching
MW3BR
CD = 1.3
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-7
-2
3
8
13
18
Normalized Head (dimensionless)
Time (seconds)

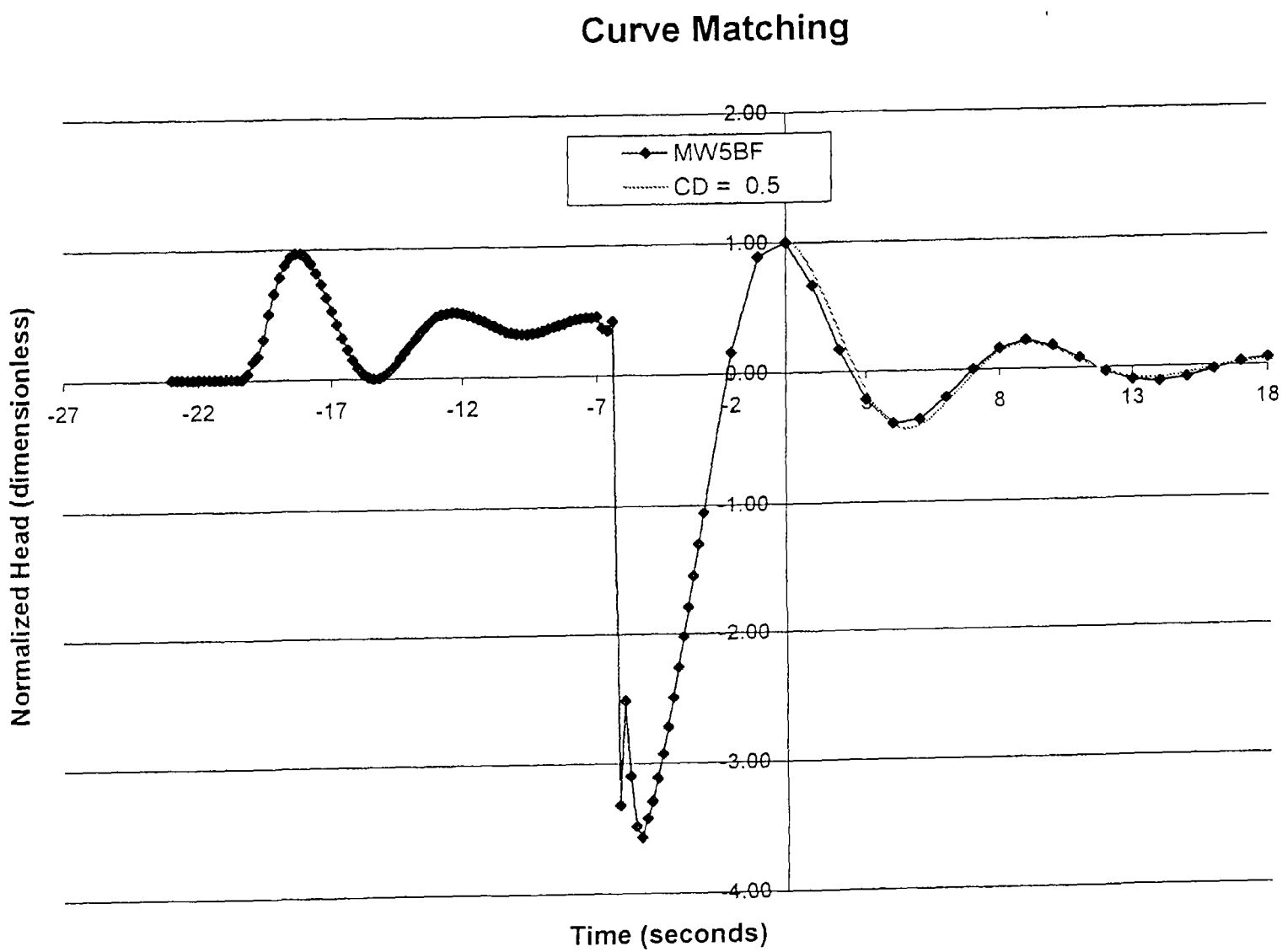
MW-B5
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			**Best Fit**				**Confined - High-K Hvorslev Model**					
3	**Time**		**Type Curve**									
4	**Correlation Ratio**		C_D				K_r =	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	t_d^*/t^*		0.9					t^*	$2bC_D$			
6	0.833											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	46.37	ft								
9	nominal	Le =	61.40	ft			K_r =	**1.03E-03 ft/sec**				
10	% difference		24%					**8.94E+01 ft/day**		**2.72E+01 m/day**		
11								**3.15E-02 cm/sec**				
12												
13	**Modulation Factor =**		1.200				**Unconfined - High-K Bouwer and Rice Model**					
14												
15							K_r =	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	**Dimensionless**	C_D =		**Adjusted**				t^*	$2bC_D$			
17	**Time**	**0.9**		**Time**								
18	0	1		0			$\ln(R_e/r_w^*)$=	2.808		***A*** =	2.359	
19	0.1	0.995151		0.1200						***B*** =	0.373	
20	0.2	0.98121		0.2400				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.959093		0.3600					0.210			
22	0.4	0.929716		0.4800				second term		$(A+B^*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.893983		0.6000						0.146		
24	0.6	0.852784		0.7200				$\ln[(B-(d+b))/r_w^*]$		4.152		
25	0.7	0.806982		0.8400						Cannot exceed 6.		
26	0.8	0.757411		0.9600						See Butler (1997) - p.108.		
27	0.9	0.70487		1.0800								
28	1	0.650115		1.2000			K_r =	**8.84E-04 ft/sec**				
29	1.1	0.593861		1.3200				**7.64E+01 ft/day**		**2.33E+01 m/day**		
30	1.2	0.536775		1.4400				**2.70E-02 cm/sec**				


Curve Matching
MW5BR
CD = 0.9
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-7
-2
3
8
13
18
Normalized Head (dimensionless)
Time (seconds)

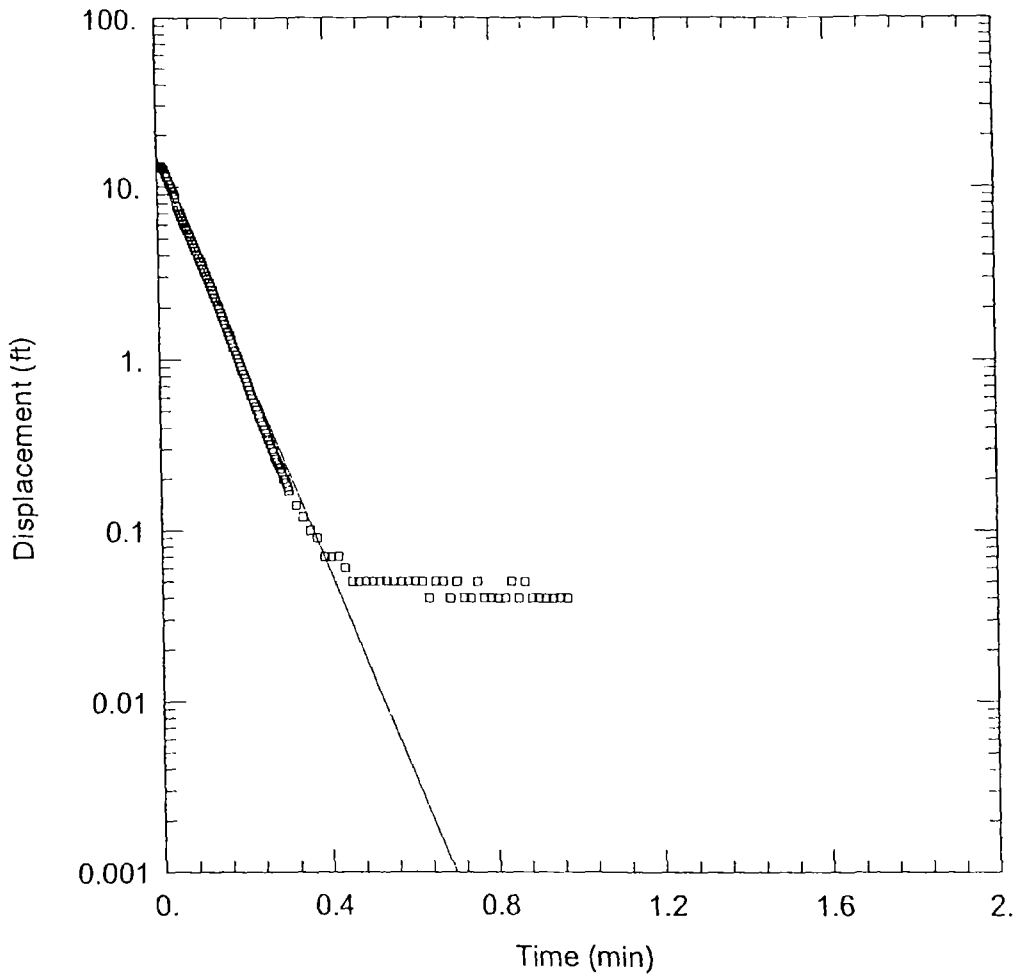
MW-B5
Falling Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			**Best Fit**				**Confined - High-K Hvorslev Model**					
3	**Time**		**Type Curve**									
4	**Correlation Ratio**		**C_D**				K_r =	$t_d^* r_c^2 \ln[b/(2r_w^*)+(1+(b/(2r_w^*))^2)^{0.5}]$				
5	**t_d^*/t^***		0.5					t^*	$2bC_D$			
6	0.714											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	63.11	ft								
9	nominal	Le =	61.40	ft			**K_r =**	**1.60E-03 ft/sec**				
10	% difference		3%					**1.38E+02 ft/day**		**4.20E+01 m/day**		
11								**4.86E-02 cm/sec**				
12												
13	**Modulation Factor =**		1.400				**Unconfined - High-K Bouwer and Rice Model**					
14												
15							K_r =	$t_d^* r_c^2 \ln[R_e/r_w^*]$				
16	**Dimensionless**	**C_D =**		**Adjusted**				t^*	$2bC_D$			
17	**Time**	**0.5**		**Time**								
18	0	1		0			$\ln(R_e/r_w^*)$=	2.808		***A*** =	2.359	
19	0.1	0.995086		0.1400						***B*** =	0.373	
20	0.2	0.980714		0.2800				first term	$1.1/(\ln((d+b)/r_w^*)$			
21	0.3	0.957485		0.4200					0.210			
22	0.4	0.926057		0.5600				second term		$(A + B*(\ln[(B-(d+b))/r_w^*]))/(b/r_w^*)$		
23	0.5	0.887137		0.7000						0.146		
24	0.6	0.841468		0.8400				$\ln[(B-(d+b))/r_w^*]$		4.152		
25	0.7	0.789826		0.9800						Cannot exceed 6.		
26	0.8	0.733005		1.1200						See Butler (1997) - p.108.		
27	0.9	0.671812		1.2600								
28	1	0.607055		1.4000			**K_r =**	**1.36E-03 ft/sec**				
29	1.1	0.53954		1.5400				**1.18E+02 ft/day**		**3.59E+01 m/day**		
30	1.2	0.47006		1.6800				**4.17E-02 cm/sec**				


Curve Matching
MW5BF
CD = 0.5
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
-27
-22
-17
-12
-7
-2
3
8
13
18
Normalized Head (dimensionless)
Time (seconds)

ATTACHMENT B

AQTESOLV Plots



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB2R.AQT
Date: 06/26/02 Time: 20:01:25

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWB2R
Test Date: 5/30/02

AQUIFER DATA

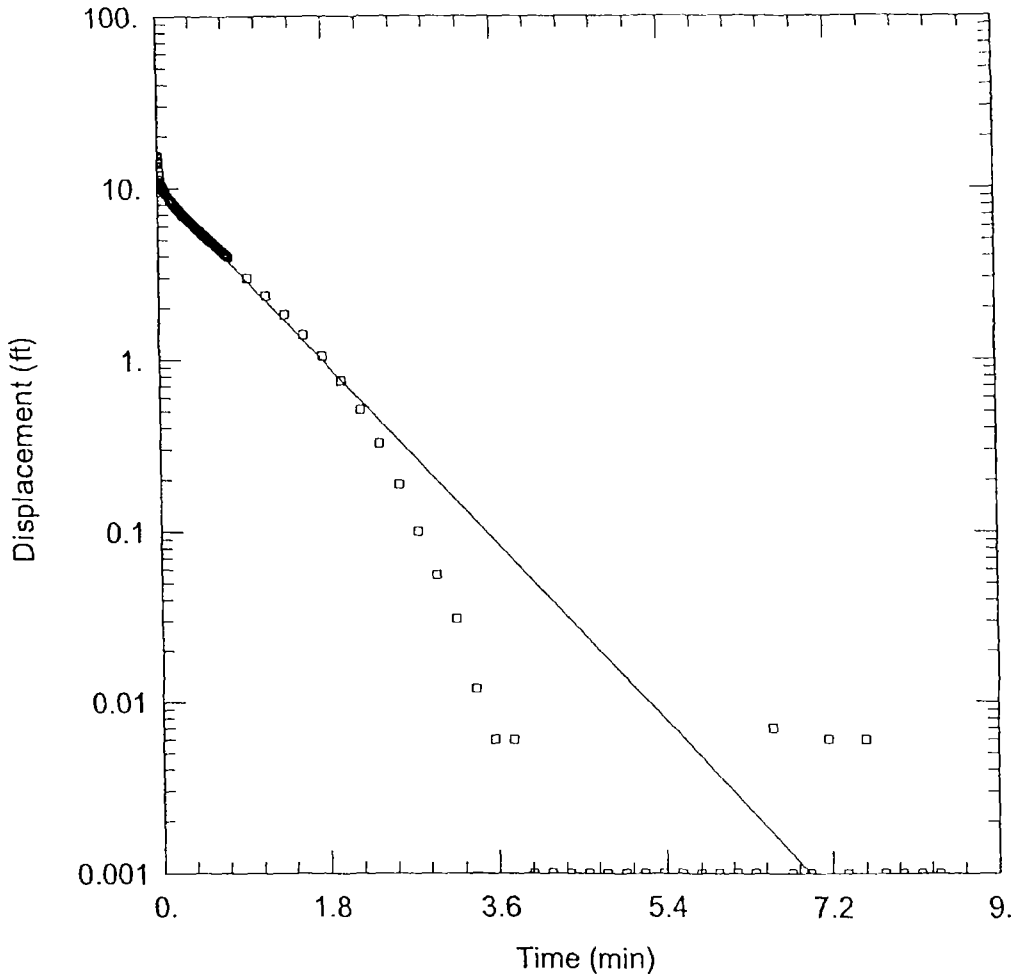
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.12 ft
Casing Radius: 0.08333 ft
Screen Length: 10. ft
Water Column Height: 67.1 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 181.8 ft/day
y0 = 14.92 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB2F.AQT
Date: 06/26/02 Time: 20:02:06

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWB2F
Test Date: 5/30/02

AQUIFER DATA

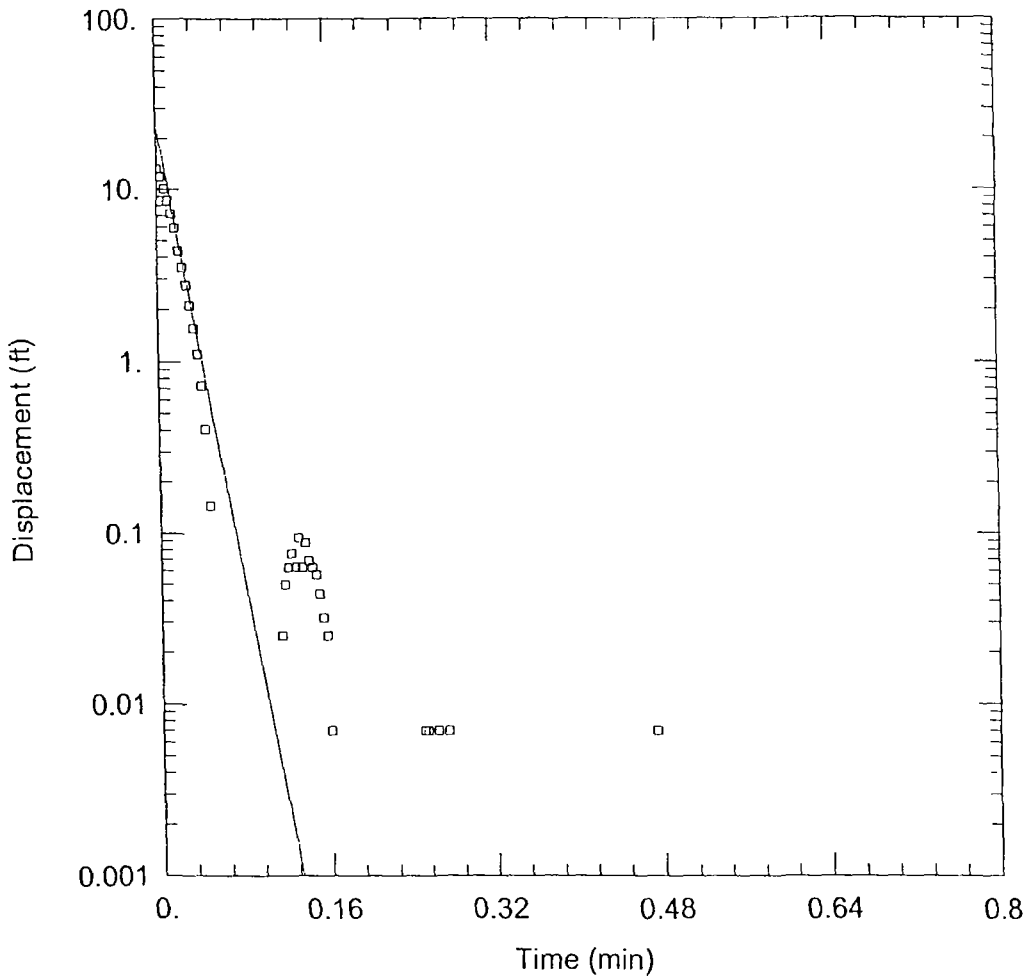
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 15.42 ft
Casing Radius: 0.08333 ft
Screen Length: 10. ft
Water Column Height: 67.1 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 17.47 ft/day
y0 = 10.38 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB3R.AQT
Date: 06/26/02 Time: 20:03:05

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWB3R
Test Date: 5/30/02

AQUIFER DATA

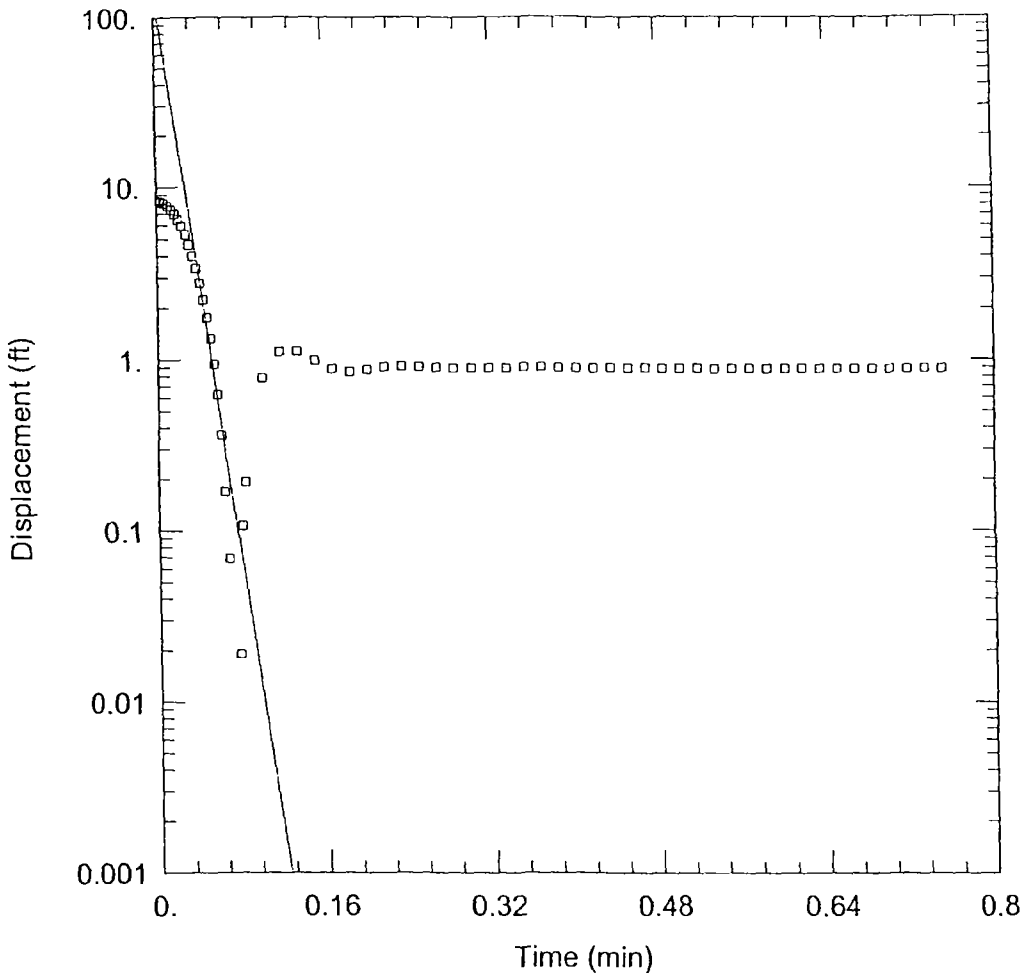
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.15 ft
Water Column Height: 35.73 ft
Casing Radius: 0.08333 ft
Wellbore Radius: 0.375 ft
Screen Length: 10. ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
K = 908.7 ft/day
Solution Method: Bouwer-Rice
y0 = 23.71 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB3F.AQT
Date: 06/26/02 Time: 20:02:47

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWB3F
Test Date: 5/30/02

$V/dc = \frac{1}{10}$

AQUIFER DATA

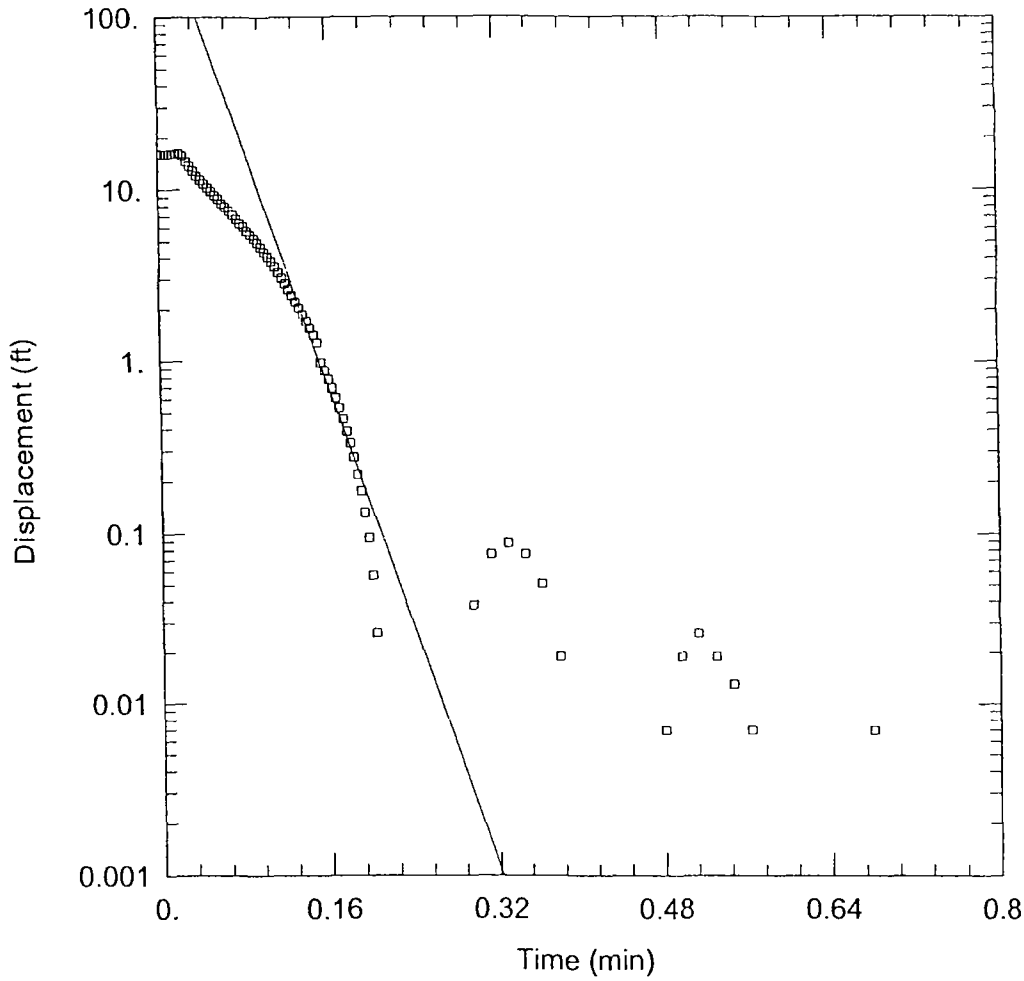
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 8.283 ft
Casing Radius: 0.08333 ft
Screen Length: 10. ft
Water Column Height: 35.73 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1135.8 ft/day
y0 = 137.7 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWC1R.AQT
Date: 06/26/02 Time: 19:26:22

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWC1R
Test Date: 5/30/02

AQUIFER DATA

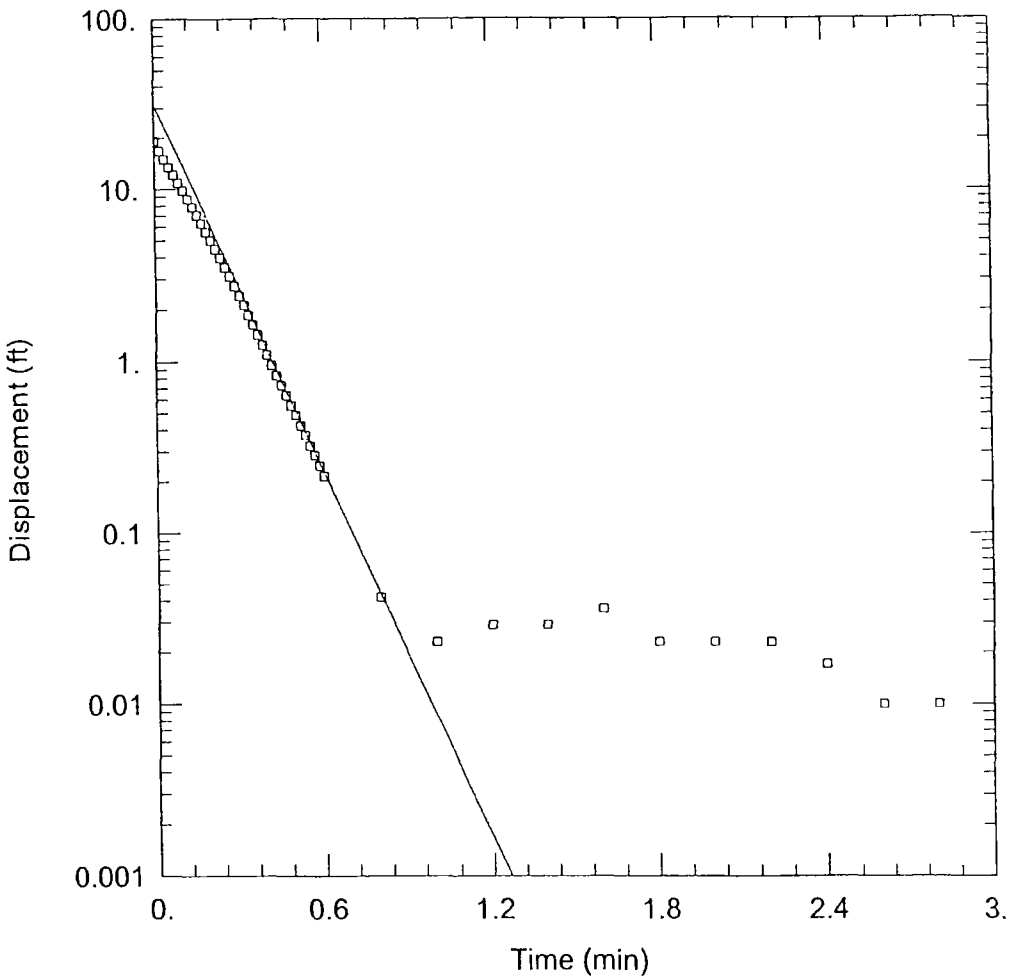
Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 16.07 ft
Casing Radius: 0.08333 ft
Screen Length: 10. ft
Water Column Height: 95.07 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 569.2 ft/day
y0 = 468. ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWC2F.AQT
Date: 06/26/02 Time: 19:26:53

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWC2F
Test Date: 5/30/02

AQUIFER DATA

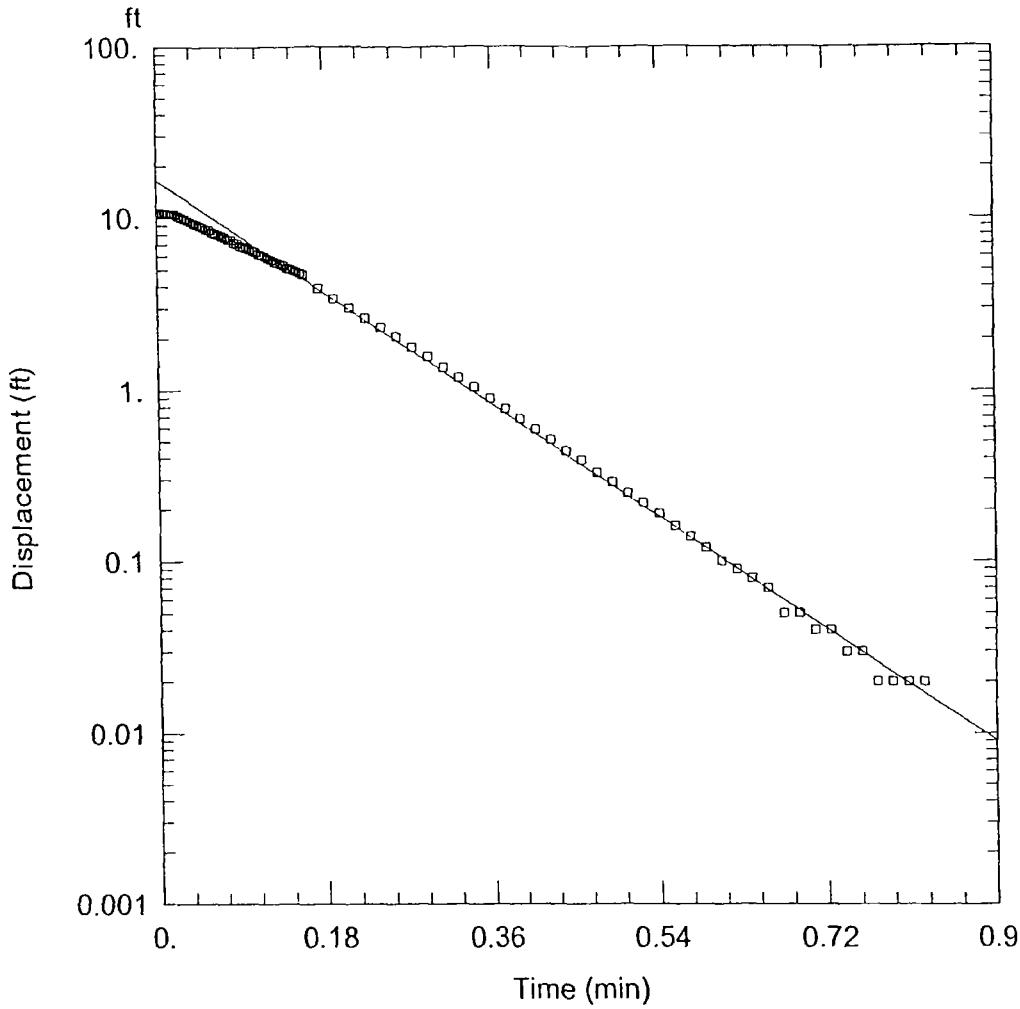
Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 19.17 ft
Casing Radius: 0.08333 ft
Screen Length: 10. ft
Water Column Height: 89.65 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 112. ft/day
y0 = 31.79 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWC2R.AQT
Date: 06/26/02 Time: 19:27:17

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: MWC2R
Test Date: 5/30/02

AQUIFER DATA

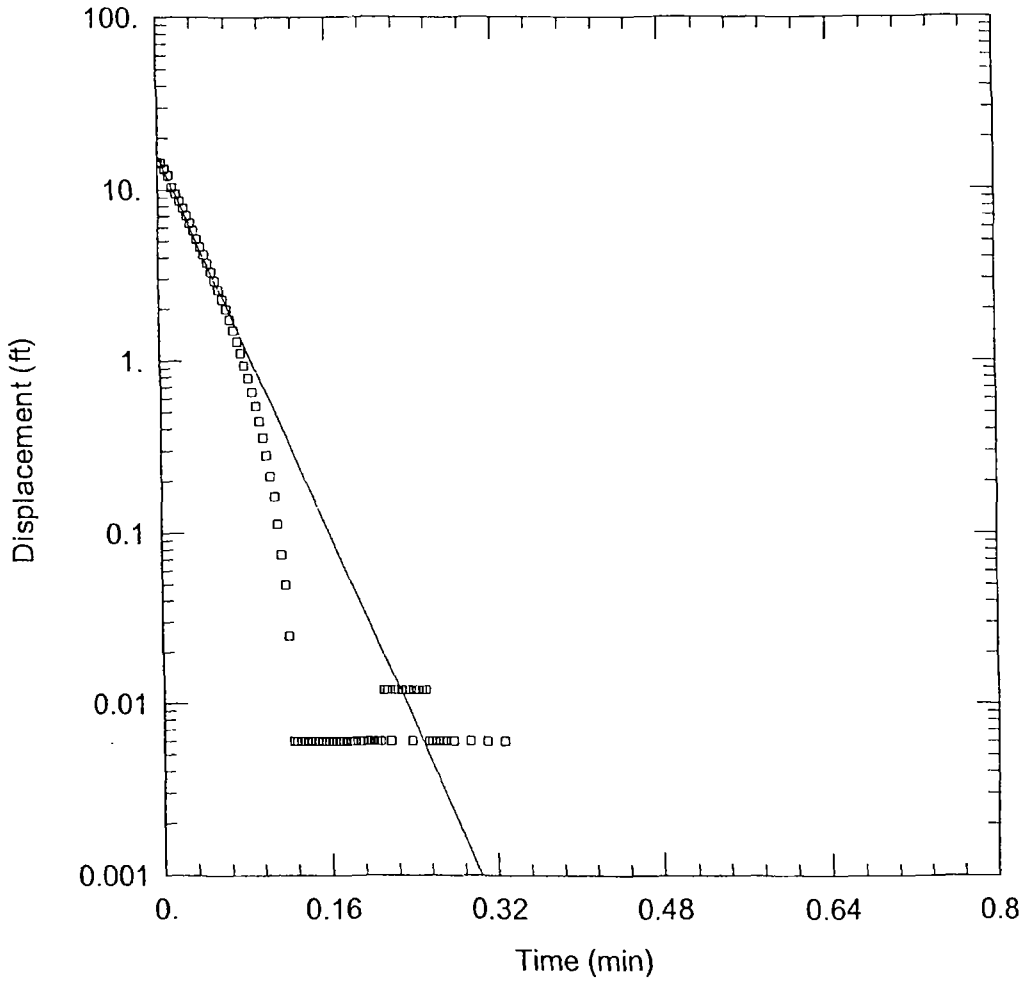
Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 10.75 ft Water Column Height: 89.65 ft
Screen Length: 10. ft 333 Gravel Pack Porosity: 0.3

SOLUTION

Solution Method: Bouwer-Rice y0 = 16.6 ft ft/day



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ7IR.AQT
Date: 06/26/02 Time: 20:04:07

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ7IR
Test Date: 5/30/02

AQUIFER DATA

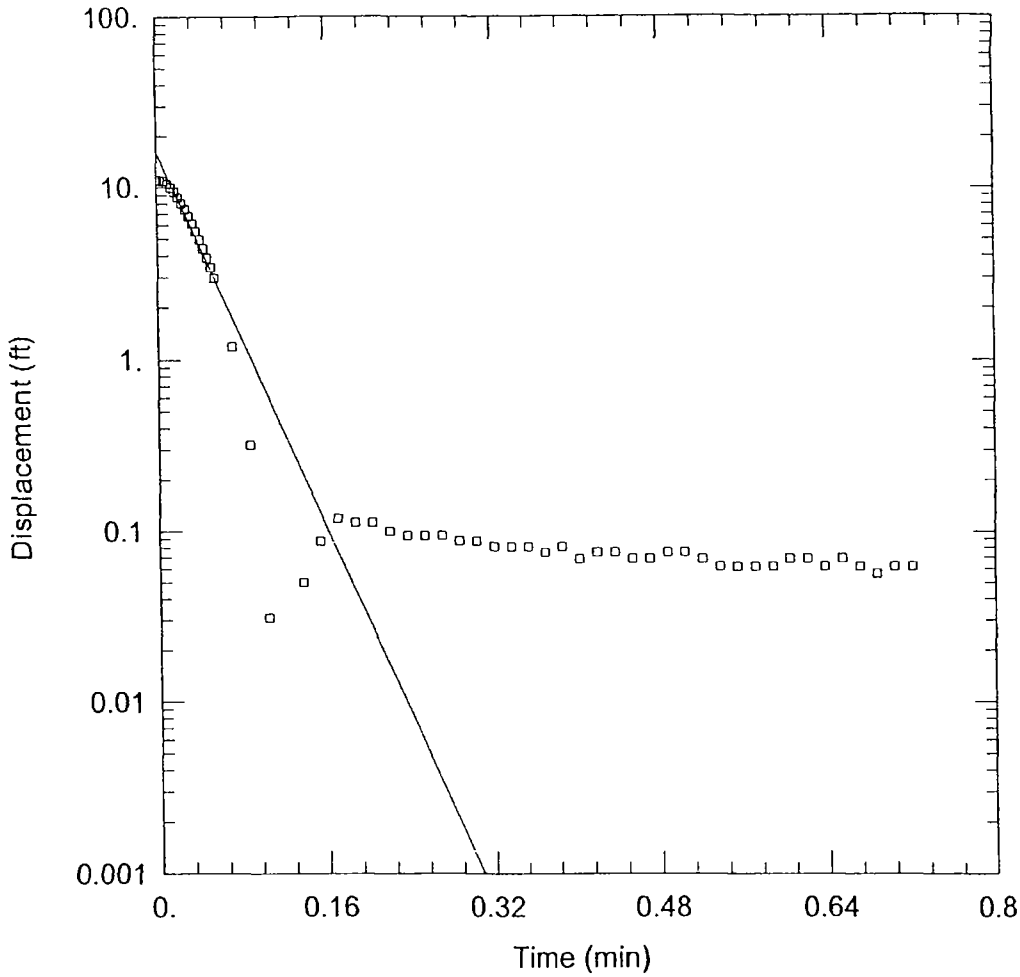
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 14.53 ft
Casing Radius: 0.08333 ft
Screen Length: 2. ft
Water Column Height: 36.42 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1267.1 ft/day
y0 = 15.88 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ7IF.AQT
Date: 06/26/02 Time: 19:27:48

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ7IF
Test Date: 5/30/02

AQUIFER DATA

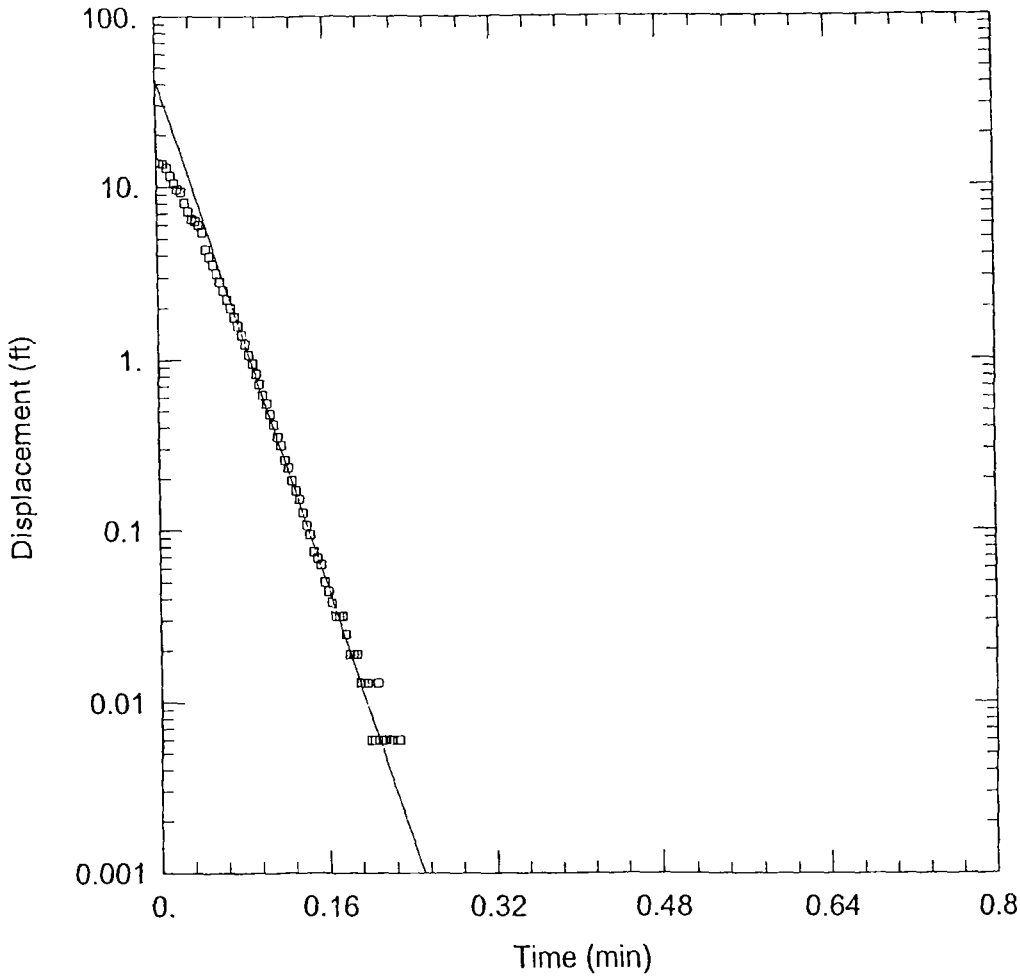
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 11.06 ft
Casing Radius: 0.08333 ft
Screen Length: 2. ft
Water Column Height: 36.42 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1254.9 ft/day
y0 = 16.19 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8IR.AQT
Date: 06/26/02 Time: 20:04:38

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ8IR
Test Date: 5/30/02

AQUIFER DATA

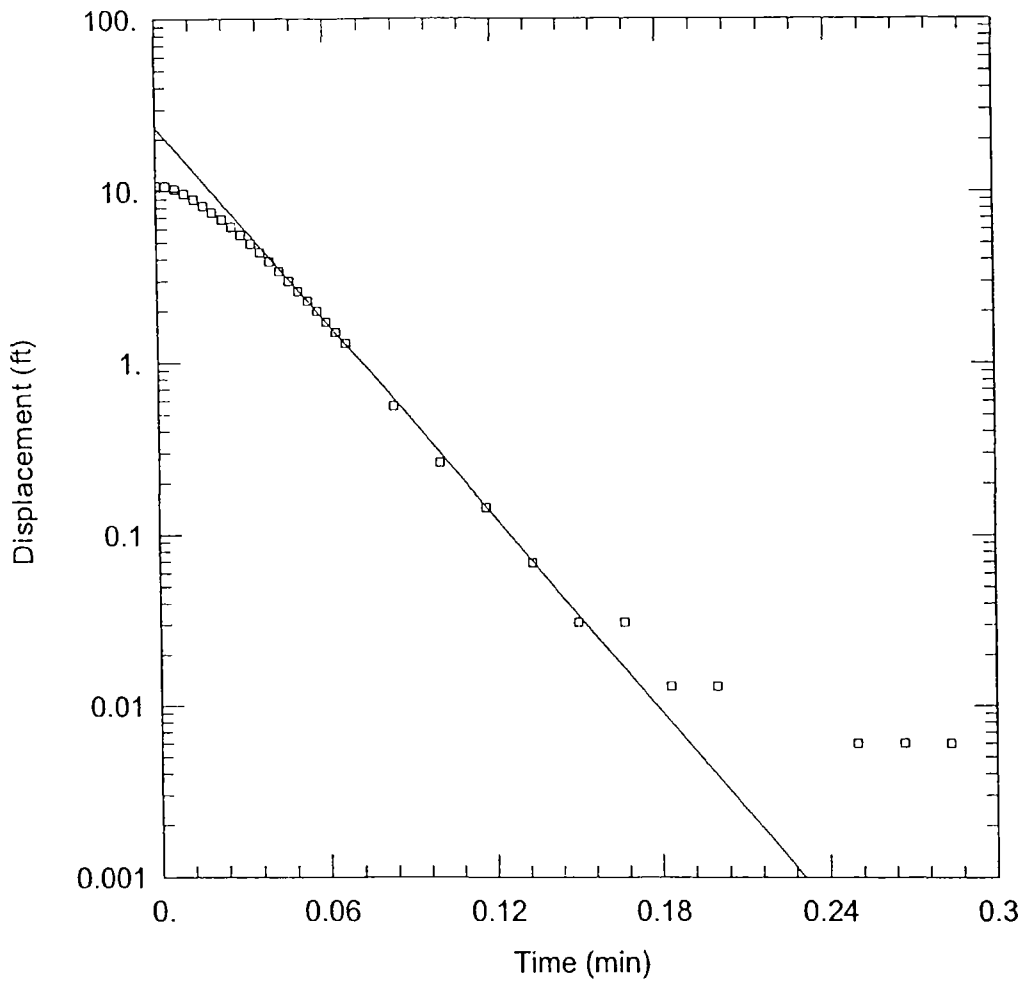
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.8 ft
Casing Radius: 0.08333 ft
Screen Length: 2. ft
Water Column Height: 19.31 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1601.8 ft/day
y0 = 43.08 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8IF.AQT
Date: 06/26/02 Time: 19:28:53

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ8IF
Test Date: 5/30/02

AQUIFER DATA

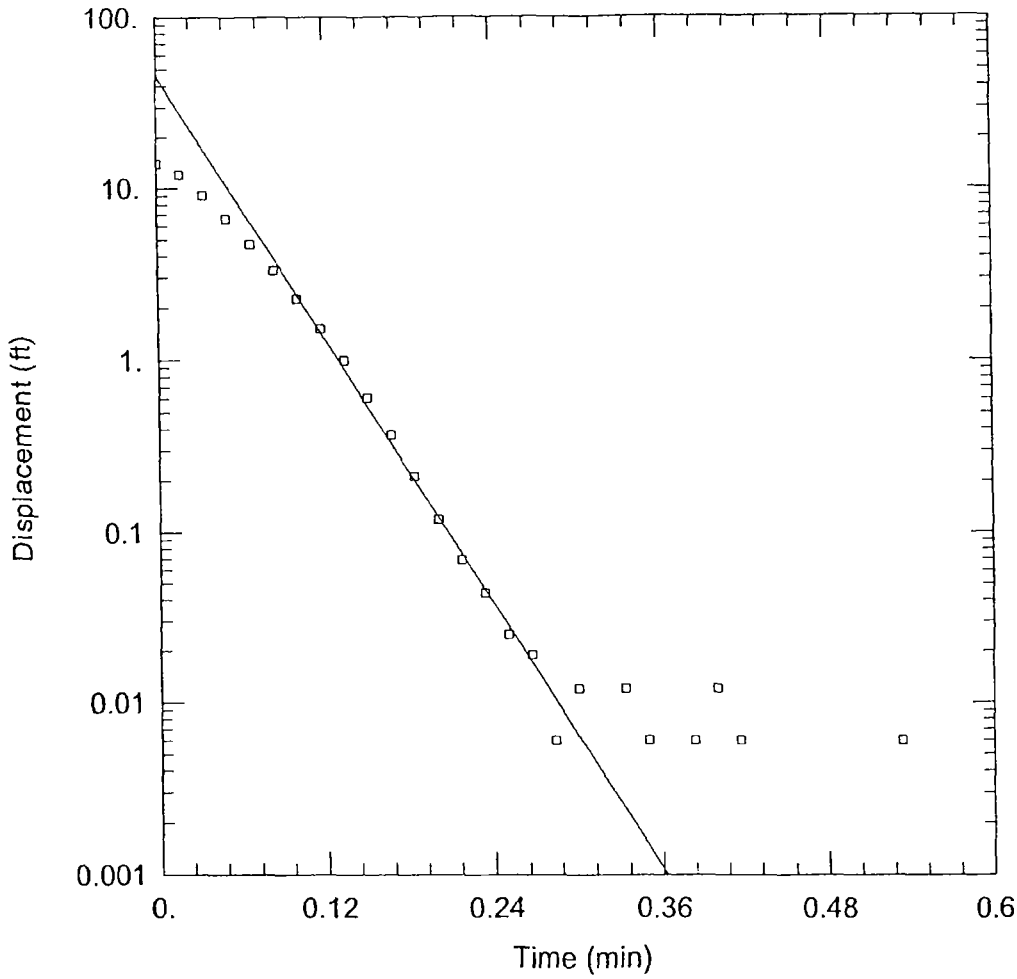
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 10.72 ft
Casing Radius: 0.08333 ft
Screen Length: 2. ft
Water Column Height: 19.31 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1636.4 ft/day
y0 = 23.64 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8DF.AQT
Date: 06/26/02 Time: 19:29:11

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ8DF
Test Date: 5/30/02

AQUIFER DATA

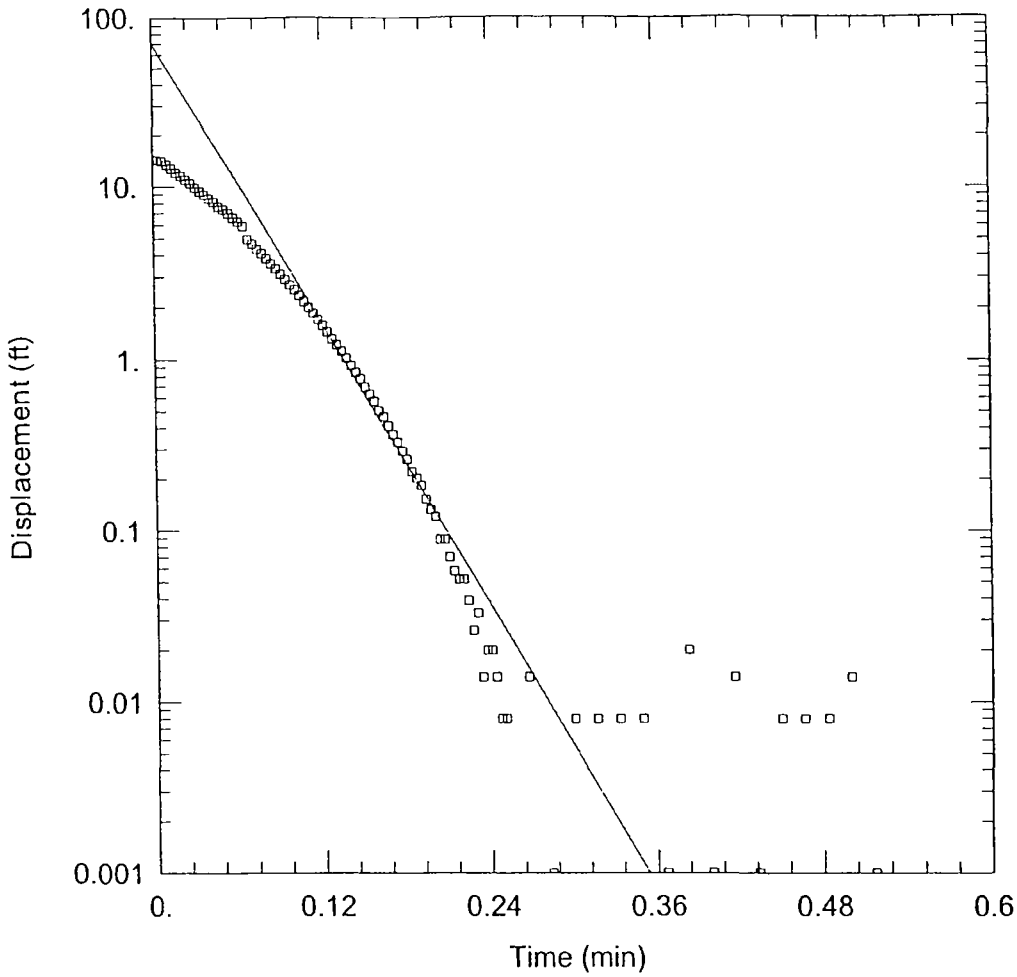
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.93 ft
Casing Radius: 0.08333 ft
Screen Length: 2. ft
Water Column Height: 60.49 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1273.1 ft/day
y0 = 46.57 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8DR.AQT
Date: 06/26/02 Time: 19:29:26

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ8DR
Test Date: 5/30/02

AQUIFER DATA

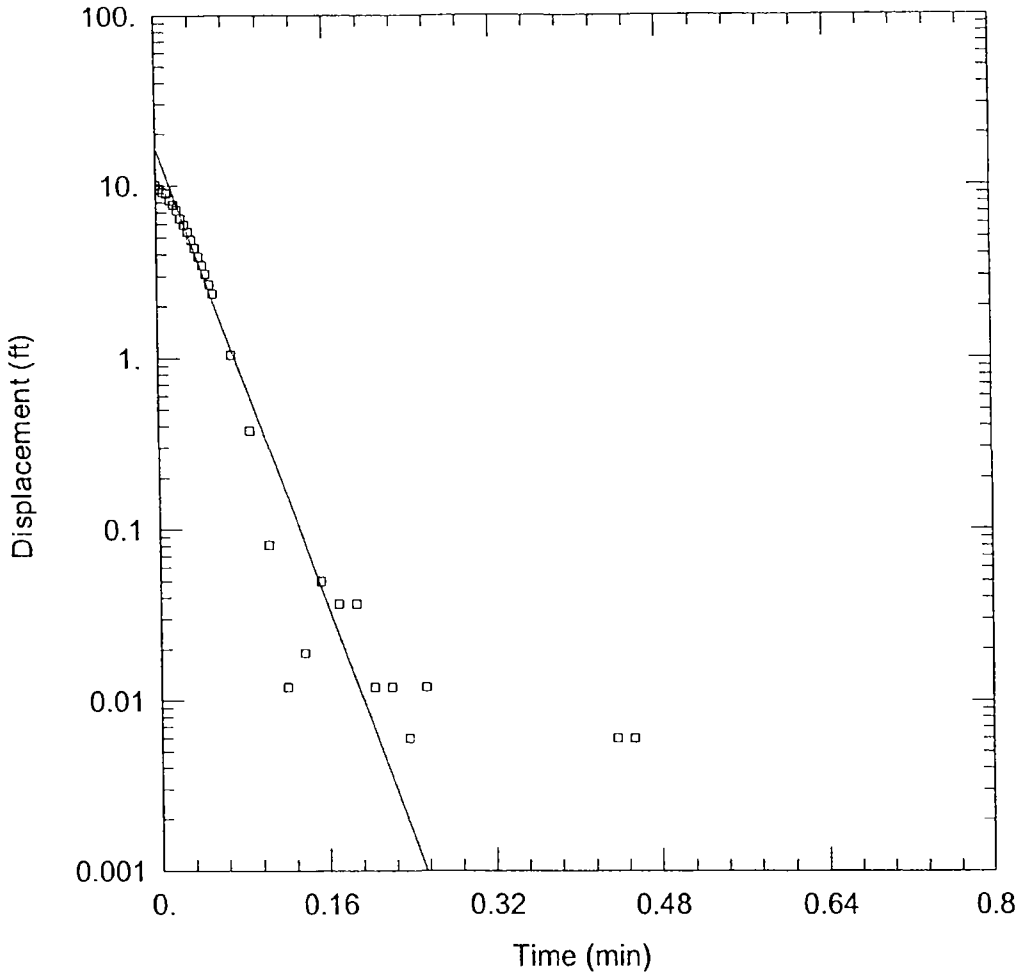
Saturated Thickness: 80. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 14.33 ft
Casing Radius: 0.08333 ft
Screen Length: 2. ft
Water Column Height: 60.49 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1354.3 ft/day
y0 = 70.83 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ16DF.AQT
Date: 06/26/02 Time: 19:30:21

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ16DF
Test Date: 5/30/02

AQUIFER DATA

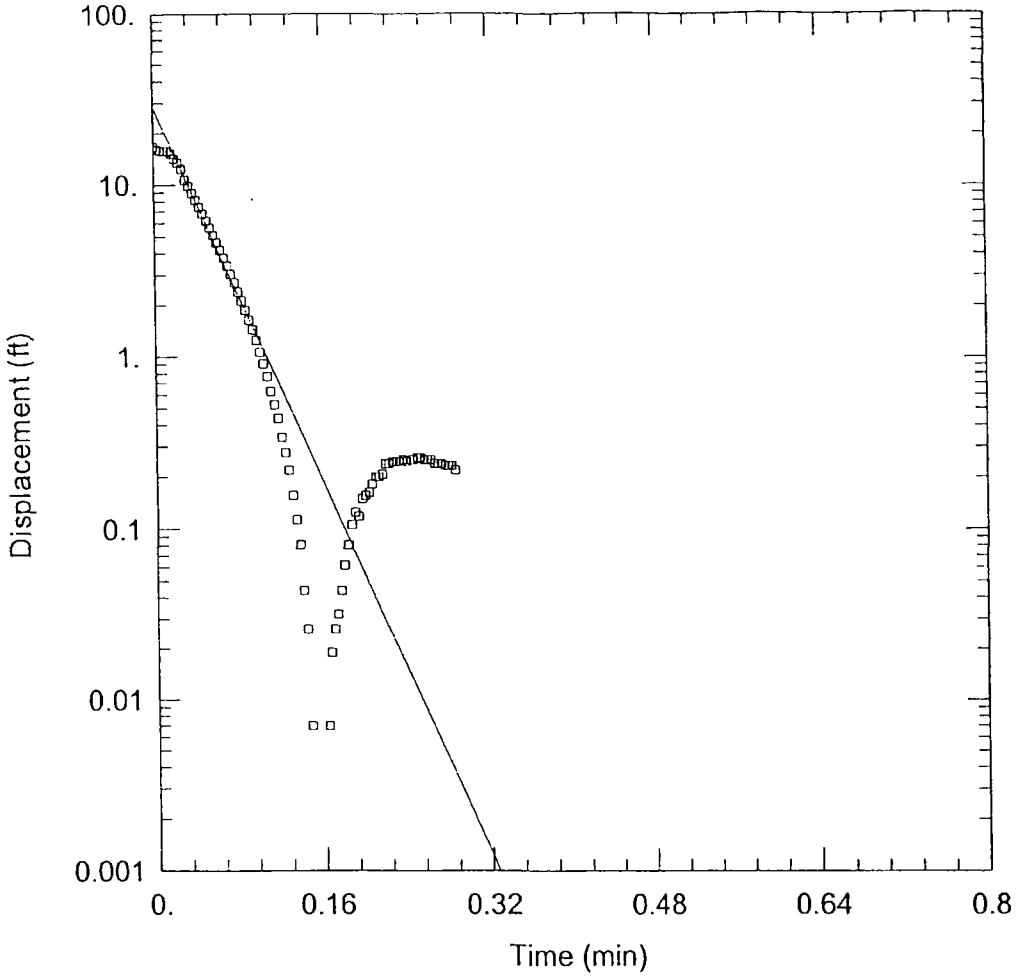
Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 10.04 ft
Casing Radius: 0.08333 ft
Screen Length: 4. ft
Water Column Height: 63.64 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1031.5 ft/day
y0 = 16.68 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ16DR.AQT
Date: 06/26/02 Time: 19:30:41

PROJECT INFORMATION

Company: Earth Tech
Client: Daimler Chrysler
Test Well: PZ16DR
Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 85. ft
Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 16.57 ft
Casing Radius: 0.08333 ft
Screen Length: 4. ft
Water Column Height: 63.64 ft
Wellbore Radius: 0.375 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 844. ft/day
y0 = 28.65 ft

Appendix B - Geochemistry Technical Memorandum

TECH MEMO

Date: July 3, 2002

To: Rob Stenson, Earth Tech
Gary Stanczuk, DaimlerChrysler

From: Paul Barnes

Subject: **Assessment of the Potential for Enhancing Natural Attenuation Processes Dayton Thermal Products Facility Dayton, Ohio**

Introduction

This technical memorandum is intended to assess the potential for applying enhanced natural attenuation principles to the treatment of groundwater contaminated by tetrachloroethylene (PCE) and trichloroethylene (TCE) at the Dayton Thermal Products facility. In general, TCE contamination at the site is widespread and varies greatly in concentration while the area of PCE concentration is smaller and always co-located with TCE contamination.

Natural attenuation of TCE contamination by either aerobic cometabolism or reductive dechlorination processes is possible at some sites. Since TCE itself is a poor substrate for microbial growth, aerobic cometabolism is generally possible only in the presence of an aerobically degradable substance that allows the growth of organisms that produce a group of enzymes called monooxygenases (MOs), that can begin the degradation process by cleaving the recalcitrant TCE molecule into smaller, more degradable products. These degradation products are many and generally non-persistent, so naturally occurring aerobic cometabloism is difficult to measure directly but this type of spontaneous aerobic cometabolism has been observed on sites where co-contamination with biodegradable compounds like light petroleum hydrocarbons exists.

Reductive dechlorination, the other potential process, must also be facilitated by the presence of another readily biodegradable substrate but reductive dechlorination occurs only under anaerobic and reducing conditions. This process produces a distinct pathway of sequential dechlorination through cis-1,2-dichloroethylene (cis-DCE), vinyl chloride, and ethene, intermediates that sometimes persist long enough to be measured as evidence of reductive dechlorination. Naturally occurring reductive dechlorination is possible in the presence of a significant input of biodegradable substrate combined with persistent reducing conditions.

Either process can be initiated and/or enhanced in most aquifers, depending upon geochemical and hydraulic conditions.

PCE is less amenable to biological treatment overall and aerobic cometabolism by indigenous organisms is not generally possible. PCE must typically be addressed by reductive dechlorination, at least to remove the first chlorine and produce TCE.

Data Evaluation

To determine if any natural attenuation is occurring or has the potential to be enhanced, evaluations of historical contaminant and water level data, and newly collected transformation product and geochemistry data were conducted. This evaluation consisted of reconstructing and correlating trends in contamination and water table elevation over time, as well as considering geochemical interactions and nutrient availability.

Geochemistry

With respect to overall geochemistry, the aquifer exhibits relatively low dissolved oxygen (<1.0 mg/L) in the most contaminated (shallow) zone, which lends itself to an anaerobic approach such as reductive dechlorination. Competing electron acceptors for reductive dechlorination in the forms of iron, manganese, nitrate, and sulfate are present but in relatively low concentrations, suggesting that contaminants could be addressed efficiently without using excess substrate. pH and alkalinity are also well within reasonable working ranges and the predominance of ferrous iron over ferric iron suggests that the overall redox is at least mildly reducing. In all, geochemical conditions are amenable to a reductive dechlorination approach. Additionally, the concentrations of other electron acceptors such as ferric iron, manganese, nitrate and sulfate are clearly lower in wells where some dechlorination is indicated, confirming that reducing conditions can be developed in the redox range necessary for the reductive dechlorination process to proceed.

Evidence of Existing Dechlorination Activity

In general, while evidence of partial reductive dechlorination is present at some locations, there is substantial heterogeneity in contaminant dynamics across the site. Conditions appear to range from no apparent evidence of attenuation to very significant production of cis-DCE, an indication of reductive dechlorination. Even in locations where the production of cis-DCE is obvious, however, there is little evidence of further dechlorination to vinyl chloride and ethene and the total contaminant mass is relatively unaffected. Fluctuations up to 6 feet in groundwater elevation further confound the evaluation of attenuation because there appears to be some correlation between groundwater elevation and contaminant concentration at many locations. Additionally, there is no substantial evidence of a potential electron donor for reductive dechlorination, though there is some history of petroleum LNAPL releases in some areas and some low concentrations of total organic carbon (TOC) were measurable, though neither could be specifically correlated to observed dechlorination.

To address the difficulties of interpretation, we have selected some individual wells for detailed and separate evaluation. All were selected from the group that was recently re-sampled and they appear to represent the range of site conditions fairly well.

In general, most of the shallow wells that contain PCE or TCE also exhibit some evidence of current or historical dechlorination activity. Specifically, MW008S, MW018S, MWA002, MWA005, MWA006, PZ-012I, and PZ-013I (from among the re-sampled set) showed significant concentrations of the TCE reductive dechlorination product cis-DCE. MWA002, MWA006 and PZ-012I are discussed individually below as examples.

Well ID	Summary of Results & Interpretation
MWA002 Depth: 40'	MWA002 (Figure 1) has historically had high PCE concentrations that may be positively correlated to water level. Moderate TCE concentrations may also have been correlated to water level until February of 2000, but have not rebounded from a concentration minimum (for the period considered) observed at that time. Relatively high cis-DCE concentrations were observed beginning in January 1998 and seem to be correlated to, but lagging PCE/TCE concentration change events. This significant reductive dechlorination may account for the continued decline of TCE concentrations despite increasing water levels and the corresponding increasing PCE concentration. Since 1 ug/L TCE should be dechlorinated to produce only 0.73 ug/L cis-DCE, the very high DCE concentrations observed in July and October of 1999, exceeding both the PCE and TCE concentrations, may indicate some significant dechlorination of PCE as well. This cannot be verified from the available data as groundwater elevation changes may also explain the decrease in PCE, however the PCE concentration in MWA002 has not fully rebounded to previous concentrations as groundwater elevations have returned to previous levels. MWA002 also provides some indication that the microbial population may be able to facilitate degradation beyond cis-DCE, although no vinyl chloride was observed. Peak cis-DCE concentrations did not persist, but the mechanism for its removal is unclear based upon the available data. Further evidence of biological reduction is given by concentrations of nitrate (.047(J) mg/L), and sulfate (35.3 mg/L) that are much lower than the apparent background concentrations which are probably between 2 and 6 mg/L for nitrate and between 80 and 150 mg/L for sulfate. Stimulation of reductive dechlorination in this area should be feasible, but nitrogen nutrient supplementation for bacteria stimulation may also be necessary.

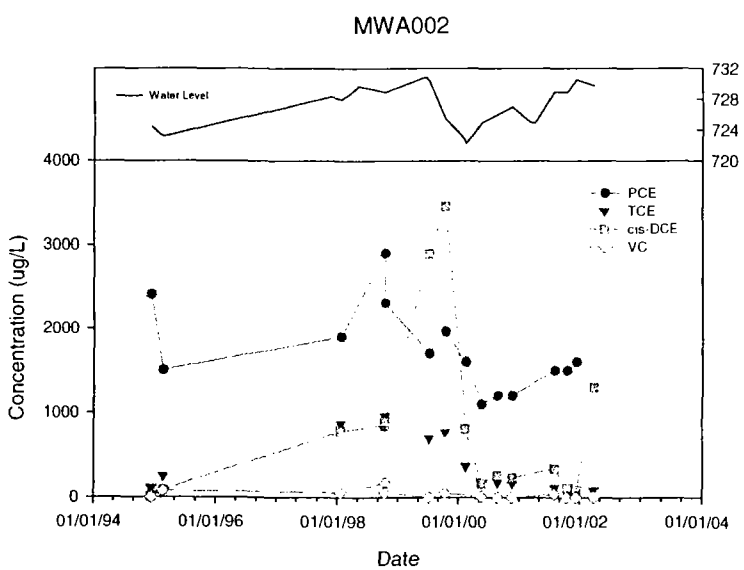


Figure 1: MWA002

Well ID	Summary of Results & Interpretation
MWA006 Depth: 40'	MWA006 (Figure 2) has historically shown TCE concentrations in the 1,500 to 2,000 ug/L range that may also be correlated with groundwater elevation. A groundwater elevation low around January of 2000 corresponded to a TCE concentration low, but also with the initiation of some apparent dechlorinating activity that has continued since then. This new level of activity has apparently produced a recent sharp decline in TCE concentration and a corresponding increase in cis-DCE. Nitrate and sulfate concentrations remain relatively high and may be facilitating the process without limitation at this stage, however significant concentrations of TCE and DCE are still present. Enhancement of reductive dechlorination in this area may be possible but would likely require some nitrogen supplementation. Also, it is not clear at this point why vinyl chloride has not been observed but it may be that the high concentrations of TCE favor the kinetics of the first dechlorination step over the subsequent ones.

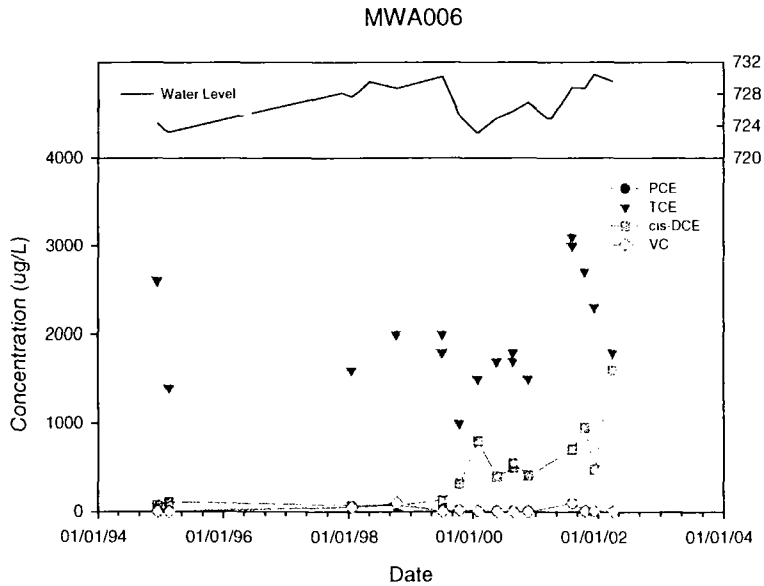


Figure 2: MWA006

Well ID	Summary of Results & Interpretation
PZ012I Depth: 60'	PZ012I (Figure 3) is different form MWs 002 and 006 in that its contamination profile does not seem to be immediately correlated to groundwater elevation. This is interesting and suggests that the shallow groundwater may be periodically in contact with non-dissolved contaminants in the vadose zone or capillary fringe when water levels change, while deeper groundwater received contaminant input through diffusion from above. PZ012I has shown TCE concentrations as high as 2,000 ug/L, which appeared as a maximum in October 1998. Shortly after this maximum was observed the DCE concentration peaked at around 1,500 ug/L, falling back to and persisting at approximately 500 ug/L since then. After reaching its peak, the TCE concentration declined to levels around 100 ug/L and have persisted in that range. Since the peak TCE concentration does not seem to be associated with a particular hydrologic event it is unclear whether the peak TCE concentration in this area represents a real continuing source or a single release event, however it is clear that additional enhancement will be needed to reach MCLs in this area, as well as to remove the accumulated cis-DCE. Nitrogen has been depleted in this area and may be limiting the capacity for further dechlorinating activity.

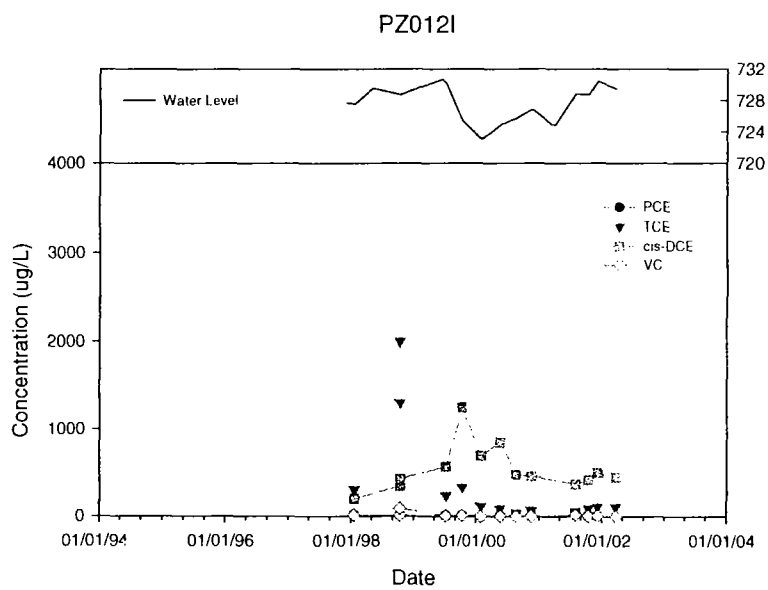


Figure 3: PZ012I

Two of the wells surveyed contained significant contamination but little or no evidence of dechlorination. PZ008I, near an apparently significant source area, and PZ037I, off-site and well separated from the primary release areas.

Well ID	Summary of Results & Interpretation
PZ008I Depth: 40'	Unlike the wells discussed above, there is very little evidence of dechlorination in PZ008I (Figure 4) despite very high concentrations of both PCE and TCE. Contaminant concentrations are not as well correlated to groundwater elevation in this area, possibly due to a much larger source of continuing contamination in the area. Nitrogen appears to be depleted here as well which may explain the lack of cis-DCE as the partial dechlorination of TCE does produce cis-DCE, but the partial dechlorination of PCE only produces more TCE. Any dechlorination potential expended on PCE in the area of PZ008I would therefore have contributed to the apparent TCE contamination and the concentrations are so high that the resulting increase in TCE concentration would likely be indistinguishable. Enhancement of reductive dechlorination in this area may be possible, but will require a large quantity of substrate and may require supplementation of nitrogen.

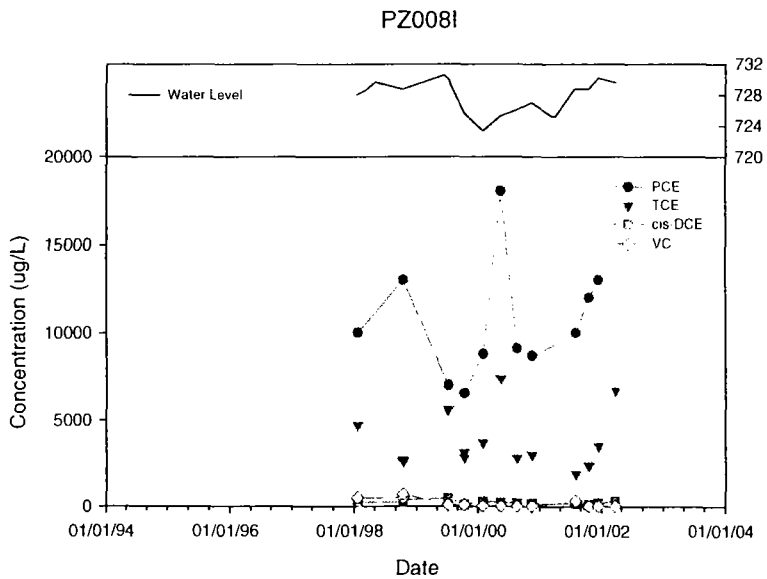


Figure 4: PZ008I

Well ID	Summary of Results & Interpretation
PZ037I Depth: 48'	No evidence of dechlorination is present in PZ037I despite TCE concentrations in the 4,000 ug/L range. Since little historical data from this location is available, no evaluation of trends can be made but, in the recent re-sample event, no available nitrogen was detected, which may suggest that nitrogen limitation prevents reductive dechlorination in that area.

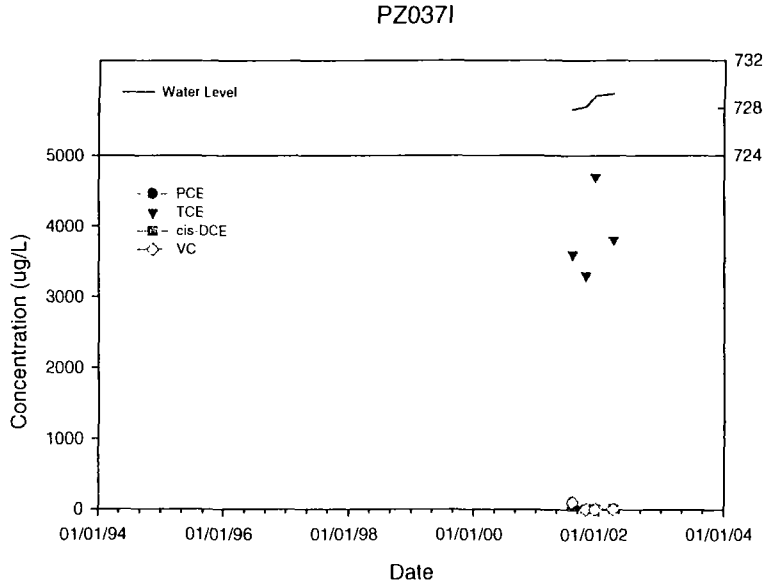


Figure 5: PZ037I

Technology Alternatives

The three primary classes of in-situ technology for remediation of groundwater contaminated by chlorinated solvents are enhanced bioremediation (subclasses discussed earlier), air sparging, and chemical oxidation. Air sparging will not be considered here as the infrastructure requirements and site logistical issues make it an undesirable option if others are available.

Chemical oxidation, consisting of the injection of a strong oxidant such as potassium permanganate, Fenton's reagent (hydrogen peroxide and ferrous iron), or ozone has been shown to be effective on chlorinated solvent contamination at some sites. The quantity of groundwater to be treated suggests that ozone treatment would be cost-prohibitive in this case and site geochemistry is less favorable for permanganate and Fenton's oxidation than might be the case at other sites. Both oxidants are most effective at low pH, as low as 4.0 to 4.5 for Fenton's reagent, which would require a substantial pH adjustment from the 6.0 to 7.8 range measured by Earth Tech. The pH adjustment would be complicated by a high natural buffer capacity. The aquifer's high alkalinity would also consume a substantial amount of any oxidant introduced, as would the naturally occurring organic matter. Other mitigating factors at this site might include the ability to deliver oxidant effectively directly to areas beneath structures and the safe handling of the large quantity of oxidant that would be needed.

In addition to these issues, Earth Tech believes chemical oxidation to be less appealing than reductive dechlorination because PCE and TCE are fundamentally recalcitrant under aerobic and mildly oxidizing conditions (without cometabolic enhancement). This suggests that any failure to completely remove contaminants by chemical oxidation would only leave the residuals in an environment that has already been shown to allow them to persist. The only solution in this case would be repeated attempts at oxidation until success is achieved which is complicated by access limitations. Alternatively, the reductive dechlorination method may also support downgradient cometabolism under aerobic conditions, and it produces degradation products that are known to be aerobically degradable. So, only the first-step dechlorination of the PCE component is required to eliminate the recalcitrant properties of the system. Once this is accomplished, even if reducing conditions were disrupted, there would still remain a possibility of degrading the remaining contaminants by another mechanism such as aerobic cometabolism (TCE) and simple aerobic heterotrophic degradation (vinyl chloride, ethene, ethane) which might be possible without any additional manipulation.

Because some difficulty in affecting in situ treatment can be expected at this type of site and because there is evidence of some naturally occurring capacity for reductive dechlorination, Earth Tech proposes the reductive dechlorination approach as a more cost-effective and logistically manageable alternative. Additionally, the reductive dechlorination technology can easily be combined with the hydraulic control system for delivery of enhancements in-situ, offering an alternative to a technology such as chemical oxidation that requires a more widespread and intrusive application of reagents.

Conclusions

The available data suggests that both groundwater geochemistry and the native microbial population are suitable for at least some reductive dechlorination to occur with additional enhancement. Potential limitations seem to include a lack of available nitrogen and, possibly, a reluctance to move beyond cis-DCE. Supplementing inorganic nitrogen along with the addition of reductive dechlorination substrate can easily address nitrogen limitation and would not be excessively costly. Facilitating dechlorination beyond cis-DCE should also be possible, if more difficult, because cases of genuine limitation in this area are rare. It is more likely that the limited pool of available nitrogen, combined with limited available carbon substrate and the relatively high contaminant concentrations result in a stoichiometric limitation that halts

microbial growth before the subsequent dechlorination steps can occur extensively enough to be measured.

Given all of this, Earth Tech would tentatively propose a reductive dechlorination approach for this site, contingent upon some additional pre-design testing to verify the microbial capacity of the system to complete the dechlorination process, as well as to evaluate the extent of nutritional stress imposed by the apparent lack of available nitrogen. Specific recommendations for additional work are described in the next section.

In general, the proposed approach would fit well with any hydraulic containment approach that may be necessary to halt or reverse contaminant migration, especially if such a system includes re-injection. Implementation in a recovery and re-injection configuration would allow substantial optimization of the process for type and quantity of substrate used, supplementation of other nutrients, or even re-distribution of microbial populations from areas of good activity to areas requiring more enhancement.

Recommendations for Additional Testing and Conceptual Approach

In order to address the potential limitations identified above, Earth Tech proposes a combination of microbiological assessment and simple microcosm studies that can be performed concurrently with the implementation of the hydraulic control system. Microbiological assessment would include phospholipid-fatty acid (PLFA) and DNA analysis to determine levels of microbial biomass and community structure with specific screening for known dechlorinating organisms. Microcosm studies would include only very simple stimulation studies to verify that stimulation and/or nitrogen supplementation do, in fact, produce the desired changes in microbial activity under these geochemical conditions. Specific attention would also be paid to verifying, at least qualitatively, further dechlorination or degradation of cis-DCE to vinyl chloride to ethene. These combined efforts would be intended to provide confirmation of gross feasibility and some suggestion of initial design parameters for implementation of a phased remediation program.

Microbiological Assessment

Earth Tech proposes to take samples from six locations representative of the variety of conditions observed. The proposed locations are MWA002, MWA005, MWA006, PZ008I, PZ037I, and MW020S. PLFA analyses will be used to evaluate and compare the microbial community structures in the areas sampled to determine what range of microbiological conditions is occurring without enhancement. The same data will also be used during treatment to evaluate changes affected by any purposeful enhancement. DNA analyses will also be used to identify and enumerate organisms that are known or likely to be capable of reductive dechlorination both before and during treatment and used, in combination with the results from bench scale pilots, to optimize enhancement for those types of organisms.

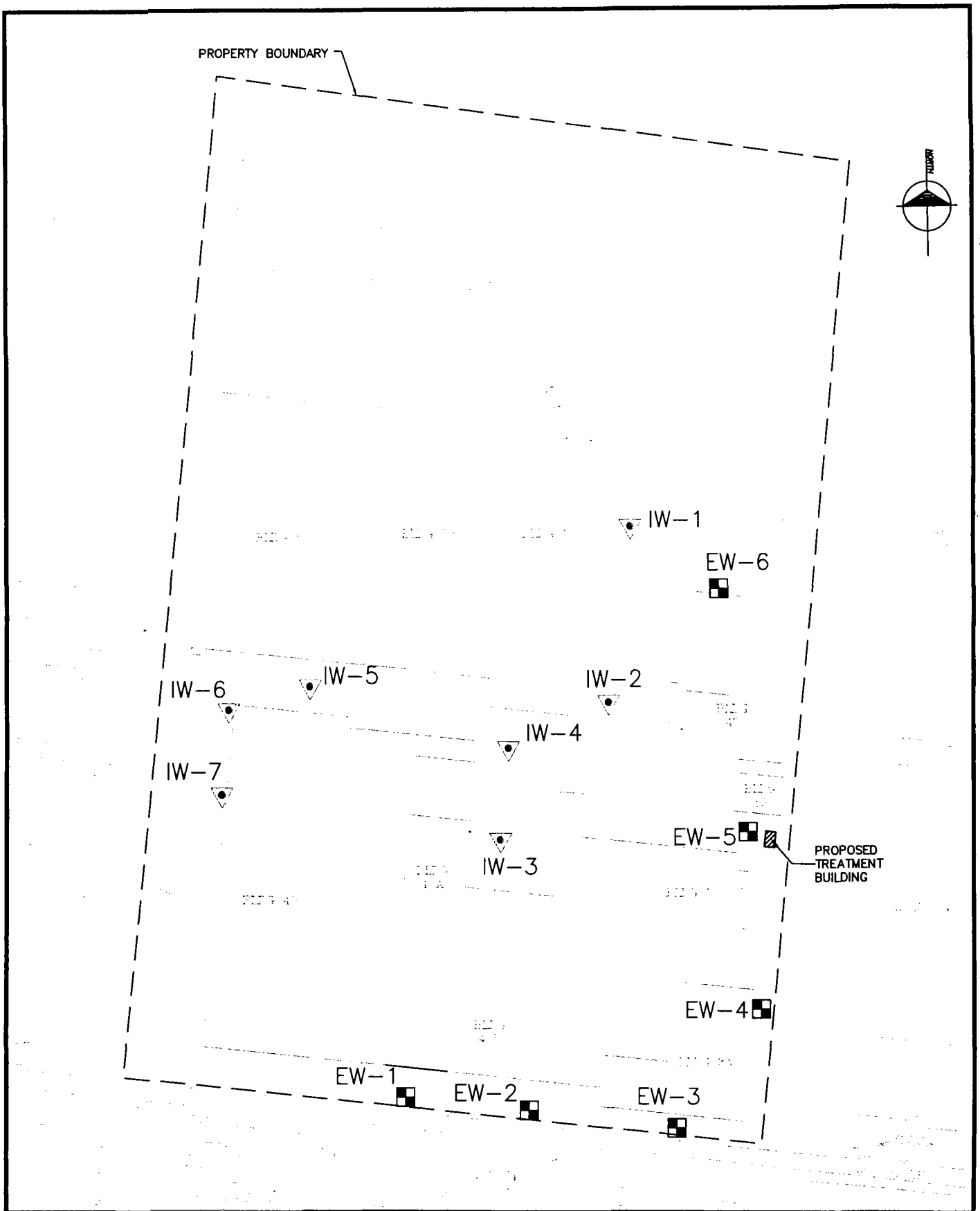
Microcosm Treatability

Microcosm studies are proposed to satisfy some simple pre-design objectives while hydraulic control is being established at the site. The studies proposed will be simple and focused very specifically on the following issues.

1. Verify and quantify enhancement of the anaerobic biological system in the context of site-specific geochemistry.

2. Evaluate nutritional stress due to the apparent lack of nitrogen, verify that nitrogen supplementation is effective.
3. Verify the system's capacity to complete the dechlorination process.

Studies will be conducted either as static or limited-recirculation microcosms designed to simulate in-situ geochemistry by combining both solid and liquid media from the site. The specific configuration of the physical apparatus will depend upon the properties of the combined media but, in general, will consist of triplicate bioreactors for each condition tested. Each microcosm will be constructed and maintained identically throughout the study (estimated at 60 days), with the exception of the amendment scenario being tested. Measurements of pH and Oxidation Reduction Potential (ORP) would indicate the development of reducing conditions and the time for direct sampling for contaminants and microbiological characterization. At the completion of the study, comparisons of the extents of treatment and/or impacts on the microbial populations under different amendment scenarios would be used to develop baseline design values for in-situ treatment as well as control limits for process monitoring and, possibly a predictive model for treatment.



LEGEND

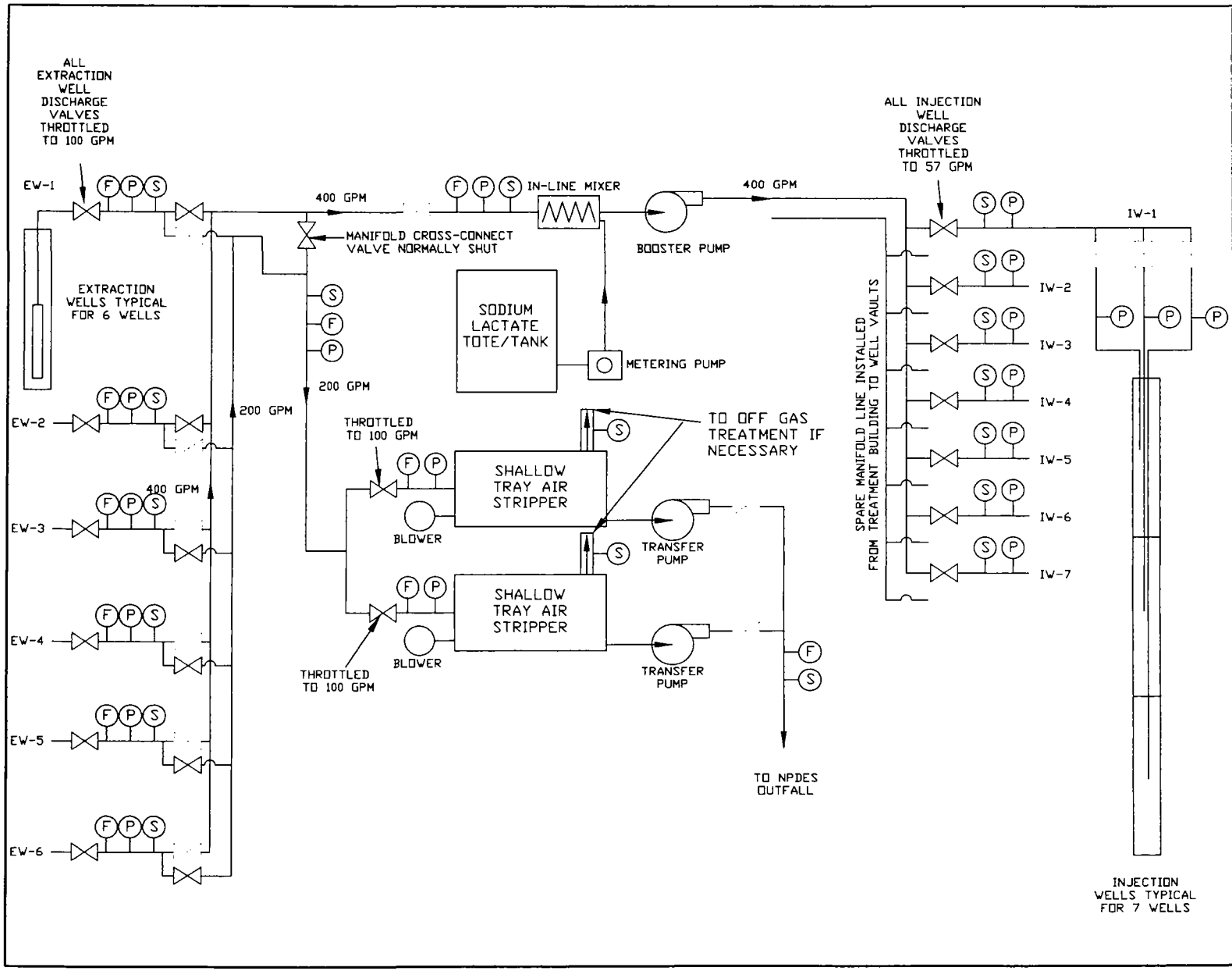
- PROPOSED INJECTION WELLS
- PROPOSED EXTRACTION WELLS

EARTH TECH

A tyco INTERNATIONAL LTD. COMPANY
4135 TECHNOLOGY PARKWAY, SHEBOYGAN, WISCONSIN 53083

WELL LOCATIONS
DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

DRAWN BY: JRD	EDITED BY: JRD	PROJECT NUMBER: 55465	FILE NAME:
CHECKED BY: JE	DATE: MARCH 4, 2003	SCALE: 1:250	WELLS.DWG



LEGEND

- F - FLOWMETER/SENSOR
- P - PRESSURE DETECTOR/SENSOR
- S - SAMPLE PORT/PARAMETER SENSOR
- VALVE NORMALLY OPEN
- VALVE NORMALLY THROTTLED
- VALVE NORMALLY SHUT

EARTH TECH

A INTERNATIONAL LTD. COMPANY

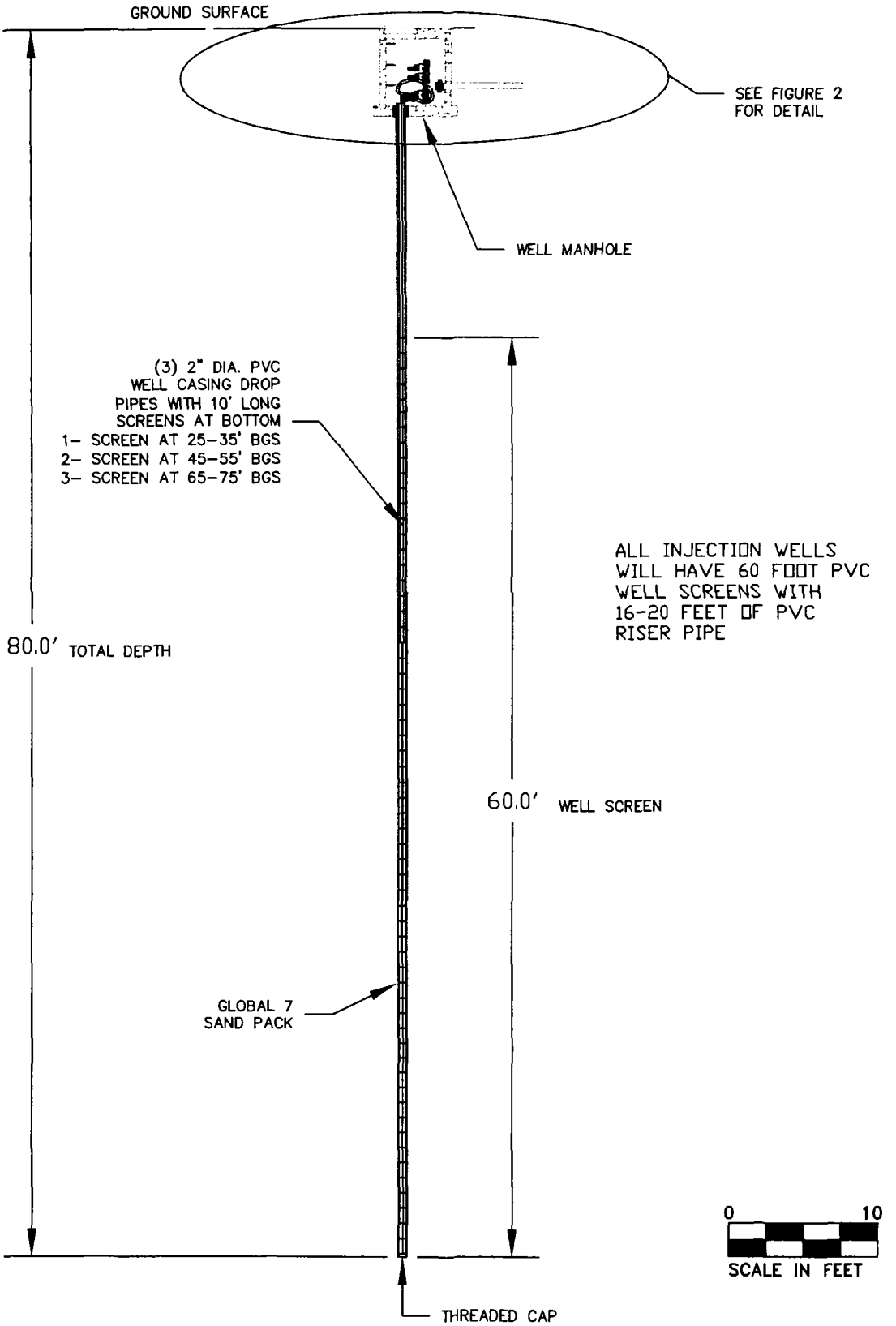
4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

DRAWN BY: JRD	DATE: JULY 8, 2002
CHECKED BY: JE	EDITED BY: JRD070802
FILE NAME: GW PIDs	

PROCESS FLOW AND INSTRUMENTATION DIAGRAM

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



E A R T H T E C H

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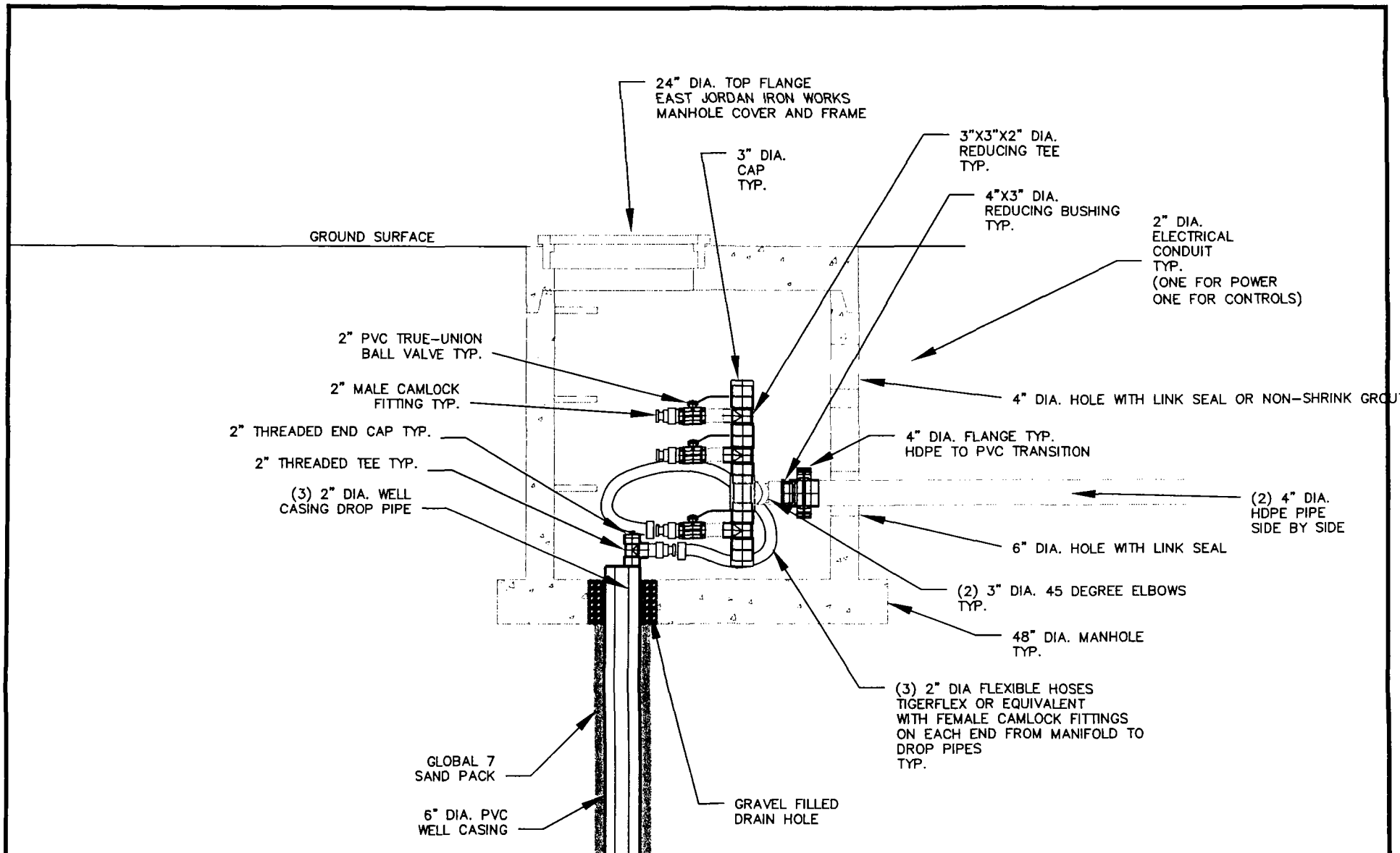
4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

DRAWN BY: JRD	DATE: FEB. 5, 2003
CHECKED BY: JE	EDITED BY: JRD
FILE NAME: INJECTION WELL DETAIL	

FIGURE 1

TYPICAL INJECTION WELL CROSS-SECTION

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO



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FILE NAME: INJECTION WELL DETAIL	

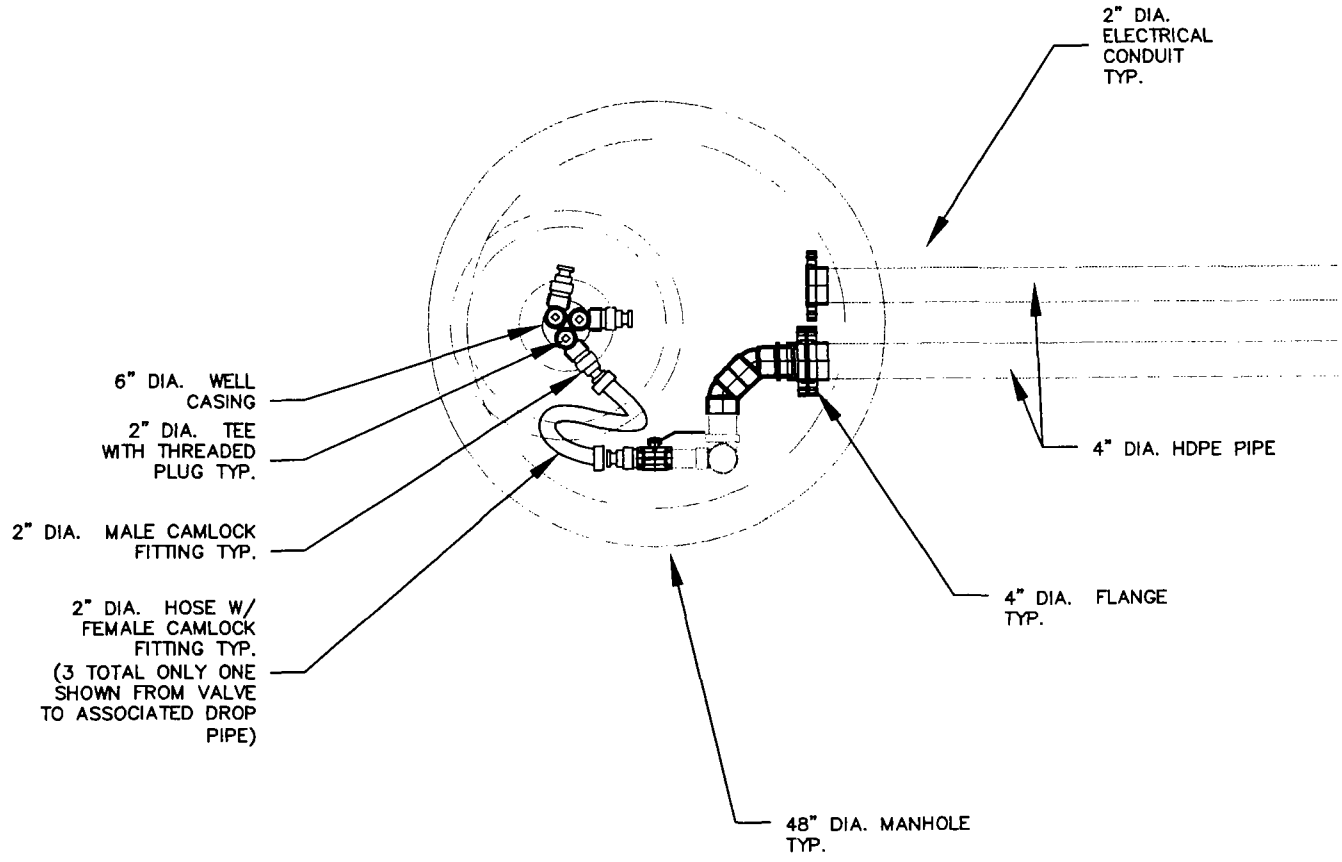
FIGURE 2

TYPICAL INJECTION WELL
PROFILE DETAIL

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

0 2

SCALE IN FEET



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DRAWN BY: JRD	DATE: FEB. 5, 2003
CHECKED BY: JE	EDITED BY: JRD
FILE NAME: INJECTION WELL DETAIL	

FIGURE 3

TYPICAL INJECTION WELL PLAN DETAIL

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

0 2

SCALE IN FEET

Date 3/12/2003

Injection Well Estimated VOC Concentration Analysis
Dayton Thermal Products Facility
Dayton, Ohio

Introduction

The objective of this document is to estimate the relative injection stream concentration by analyzing data collected from monitoring points located in the vicinity of the proposed extraction well locations on-site.

The soil remediation approach for the Dayton Thermal Products facility consists of the construction and operation of a site wide soil vapor extraction system. This system will operate ahead of and during the operation of the proposed groundwater extraction system discussed below.

The groundwater remedial approach for the Dayton Thermal Products facility consists of the construction and operation of a groundwater containment system along the south and east property boundaries and an on-site groundwater remediation system using a combination of air stripping and in-situ reductive dechlorination technologies. The groundwater containment system design will prevent off-site migration of chlorinated volatile organic compounds (CVOCs) and establish hydraulic control of groundwater flow at the site. The reductive dechlorination technology consists of the up-gradient re-injection of groundwater augmented with sodium lactate to promote in-situ reductive dechlorination of VOCs. The reductive dechlorination will degrade the PCE, TCE, DCE, and VC to ethane and ethane. In addition, this approach will significantly reduce the timeframe for operating a conventional groundwater containment system.

An estimated groundwater extraction rate of 600 gpm (100 gpm from six extraction wells) will be required to maintain capture of the groundwater plume at the south and east property boundaries. To accommodate the dosing of the aquifer with sodium lactate, approximately 400 gpm of the groundwater will be re-injected on site into the central portion of the contaminant plume within the capture zone of the extraction wells. The re-injected groundwater is eventually recovered by the groundwater containment system, creating in effect, a closed-loop bio-reactor designed for the degradation of CVOCs. The remaining 200 gpm of groundwater removed by the extraction wells will be treated with an air stripper and discharged to the storm sewer under an NPDES permit to maintain a negative groundwater balance on-site. This document describes the methodology used to estimate the CVOC concentrations in groundwater that will be re-injected into aquifer.

MCL Exceedances

To determine the dissolved chemicals of interest for this project, the site's analytical database was used to list all chemicals that exceeded their maximum contaminant limit (MCL) for drinking water. The USEPA criteria were compared to all analytical data collected in the last four sampling events. The events occurred on August 2001, October 2001, December 2001 and March 2002. All data collected from groundwater wells and piezometers that exceeded the MCL criteria are listed in Table A attached. From this list the list of chemicals of interest were compiled. The chemicals that exceeded the MCLs during the last four sampling events are as follows:

1,1,1-Trichloroethane (MCL = 200 ug/L);
1,1-Dichloroethene (MCL = 7 ug/L);
1,2-Dichloroethane (MCL = 5 ug/L);
Carbon Tetrachloride (MCL = 5 ug/L);
Cis-1, 2-Dichloroethene (MCL = 70 ug/L);
Tetrachloroethene (MCL = 5 ug/L);
Trichloroethene (MCL = 5 ug/L); and
Vinyl Chloride (MCL = 2 ug/L).

Because these are the only compounds that exceed the MCLs for the purposes of this analysis, only these data were compiled for the estimate of injection concentrations.

Estimated Extraction Well VOC Concentrations

The groundwater re-injection CVOC concentrations are estimated based on the average concentration of groundwater in the immediate vicinity of each of the six extraction wells. The estimated concentration of groundwater removed from each of the six extraction wells has been calculated based on the laboratory analytical results from groundwater monitoring wells in close proximity to each of the proposed extraction well locations. The location of the proposed extraction and re-injection wells are presented on Figure 1. The location of the existing groundwater monitoring wells in the vicinity of the proposed extraction wells are presented on Figure 2 through 7. The well construction, well separation distance, and groundwater flow gradient information for the groundwater monitoring wells in the vicinity of the proposed extraction wells is summarized in Table 1.

Table 1: Groundwater Monitoring Well Data

Extraction Well	Adjacent Monitoring Well	Monitoring Well Screen Interval (Feet BGS)	Separation Distance (Feet)	Groundwater Flow Gradient From EW
EW-1	MW008S	19-29	17	Down
	PZ008I	53-55	7	Up
	PZ008D	77-70	50	Side
EW-2	MWA004	35-45	80	Side
	PZ009D	66-68	57	Side
	MW010S	19-29	110	Side
	PZ010I	48-50	129	Side
EW-3	MW011S	19-29	77	Side
	MWB003	46-56	101	Side
	MWC003	74-84	111	Side
EW-4	PZ012D	82-84	54	Up
	PZ012I	56-58	73	Up
	MWA006	30-40	91	Up
EW-5	PZ013I	46-48	55	Side
	MWA005	29-39	82	Side/Up
EW-6	PZ017D	82-84	177	Side
	PZ017I	56-58	168	Side
	MW018S	20-30	171	Side
	MWB002	77-87	194	Side

The laboratory analytical data for the chemicals of interest collected in the last four sampling events for each of the groundwater monitoring wells identified in Table 1 was compiled for each proposed extraction well (Tables B-F). The groundwater sampling events used for this analysis were the same evaluated for MCL exceedances above. If a value was not detected for a chemical of interest, one half of the detection limit was inserted as a "modified result" (Tables B-F) to be conservative and if the value was above the detection limit then the given value was inserted as a "modified result."

The estimated extraction well concentration for each sampling event was calculated from the modified results with all depth intervals equally weighted. If there is more than one monitoring point for a given depth interval (i.e., shallow, intermediate, or deep), the mean concentration for that depth interval was calculated first and then the overall mean was calculated using the mean for each depth interval to estimate the extraction well concentration. For each extraction well, the highest estimated concentration for each chemical of interest (from the four sampling events) was selected to establish the maximum value for each compound per extraction well. The concentrations of the chemicals of interest, modified results, estimated

concentrations for each extraction well per sampling event and maximum value of the estimated concentrations are presented in Tables B-F.

Table G provides a summary of the estimated concentrations per sample event and the estimated maximum value for each of the six-extraction wells.

Injection Concentrations

The distribution piping interconnecting the six extraction wells has been designed with two distribution header pipes and valves to allow groundwater from individual extraction wells to be routed to the re-injection wells or to storm sewer discharge via the air stripper. Each distribution header pipe has also been sized to handle the discharge from all extraction wells combined. During system operation in the latter case, the discharge from the extraction wells will go into a single header and be combined. The combined flow from the header will be split for re-injection and/or air stripping with subsequent discharge to the sewer. The planned piping configuration allows for the operator to vary what water streams are directed to the air stripper and which water streams are re-injected.

Due to these possible configurations, three combinations of the extraction well streams have been calculated to estimate the highest anticipated re-injection concentration. In all cases, the mean of the each sampling event and the maximum value concentration from each extraction well was used because the flow-rate from each well will be the same. First, a combination of the four extraction wells with the highest estimated concentrations (EW 1,2, 3 and 4) were analyzed. Next, the combination of the four extraction wells with the lowest estimated concentrations (EW 3, 4, 5 and 6) were calculated. The final combination assumes that all six of the extraction wells will be combined and part of the combined flow will be re-injected. A summary of the data for the above extraction well combinations, as well as, the maximum value of the maximum value from all combinations is shown on Table H.

The highest average concentration has been calculated by taking the maximum value for each chemical of interest from the list of the overall maximum values from each combination analyzed and shown in Table H and in Table 2 below.

Table 2: Maximum Concentrations Possible From Combinations Analyzed

Chemical of Interest	Highest Average Concentration **Combined (ug/l)**
1,1,1-Trichloroethane	590.7
1,1-Dichloroethene	104.6
1,2-Dichloroethane	94.3
Carbon Tetrachloride	94.3
Cis-1, 2-Dichloroethene	875.3
Tetrachloroethene	1593.5
Trichloroethene	4484.0
Vinyl Chloride	94.3

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
3/26/2002	1MW007S		1MW007S	3/28/2002	3/27/2002	79-01-6	Trichloroethene	20		7	UG/L	WATER	100	SW846 8260B
3/26/2002	2MW018S		MW018S	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	570		70	UG/L	WATER	21	SW846 8260B
3/26/2002	2MW018S		MW018S	3/27/2002	3/27/2002	79-01-6	Trichloroethene	46		5	UG/L	WATER	14	SW846 8260B
3/26/2002	2MW018S		MW018S	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	280		200	UG/L	WATER	14	SW846 8260B
8/2/2001	MW007S		MW007S	8/9/2001	8/3/2001	79-01-6	Trichloroethene	66		70	UG/L	WATER	9.1	SW846 8260B
10/15/2001	MW007S	3707960	MW007S	10/22/2001	10/16/2001	79-01-6	Trichloroethene	67		5	UG/L	WATER	31	SW846 8260B
12/10/2001	MW007S	3742417	MW007S	12/13/2001	12/11/2001	79-01-6	Trichloroethene	93		200	UG/L	WATER	31	SW846 8260B
8/2/2001	MW008S		MW008S	8/10/2001	8/3/2001	79-01-6	Trichloroethene	440		5	UG/L	WATER	31	SW846 8260B
8/2/2001	MW008S		MW008S	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	1100		7	UG/L	WATER	31	SW846 8260B
10/17/2001	MW008S	3709930	MW008S	10/24/2001	10/18/2001	127-18-4	Tetrachloroethene	1100		70	UG/L	WATER	16	SW846 8260B
10/17/2001	MW008S	3709930	MW008S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	510		70	UG/L	WATER	420	SW846 8260B
12/12/2001	MW008S	3744801	MW008S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	430		5	UG/L	WATER	2	SW846 8260B
12/12/2001	MW008S	3744801	MW008S	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	1000		5	UG/L	WATER	10	SW846 8260B
3/26/2002	MW008S		MW008S	3/28/2002	3/27/2002	79-01-6	Trichloroethene	440		5	UG/L	WATER	5	SW846 8260B
3/26/2002	MW008S		MW008S	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	1100		5	UG/L	WATER	5	SW846 8260B
8/2/2001	MW008S DUPLICATE		MW008S	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	1100		2	UG/L	WATER	5	SW846 8260B
8/2/2001	MW008S DUPLICATE		MW008S	8/10/2001	8/3/2001	79-01-6	Trichloroethene	450		2	UG/L	WATER	1	SW846 8260B
8/2/2001	MW010S		MW010S	8/9/2001	8/3/2001	79-01-6	Trichloroethene	7200		5	UG/L	WATER	42	SW846 8260B
8/2/2001	MW010S		MW010S	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	1000		5	UG/L	WATER	42	SW846 8260B
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	9	J	70	UG/L	WATER	42	SW846 8260B
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	23	J	200	UG/L	WATER	100	SW846 8260B
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	23	J	5	UG/L	WATER	10	SW846 8260B
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	930		5	UG/L	WATER	25	SW846 8260B
10/17/2001	MW010S	3709933	MW010S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	7600		7	UG/L	WATER	100	SW846 8260B
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	26		5	UG/L	WATER	2	SW846 8260B
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	8300		5	UG/L	WATER	100	SW846 8260B
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	1000		5	UG/L	WATER	830	SW846 8260B
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	56		200	UG/L	WATER	200	SW846 8260B
3/27/2002	MW010S		MW010S	4/9/2002	3/28/2002	75-01-4	Vinyl chloride	43		5	UG/L	WATER	200	SW846 8260B
3/27/2002	MW010S		MW010S	4/9/2002	3/28/2002	75-35-4	1,1-Dichloroethene	15	J	70	UG/L	WATER	100	SW846 8260B
3/27/2002	MW010S		MW010S	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	560		200	UG/L	WATER	25	SW846 8260B
3/27/2002	MW010S		MW010S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	5700		70	UG/L	WATER	50	SW846 8260B
8/2/2001	MW011S		MW011S	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	270		7	UG/L	WATER	25	SW846 8260B
8/2/2001	MW011S		MW011S	8/9/2001	8/3/2001	79-01-6	Trichloroethene	2500		5	UG/L	WATER	330	SW846 8260B
10/17/2001	MW011S	3709936	MW011S	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	4	J	70	UG/L	WATER	42	SW846 8260B
10/17/2001	MW011S	3709936	MW011S	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	180		5	UG/L	WATER	1	SW846 8260B
10/17/2001	MW011S	3709936	MW011S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	1800		5	UG/L	WATER	330	SW846 8260B
10/17/2001	MW011S	3709936	MW011S	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	25		5	UG/L	WATER	1	SW846 8260B
12/12/2001	MW011S	3744808	MW011S	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	11		5	UG/L	WATER	3.3	SW846 8260B
12/12/2001	MW011S	3744808	MW011S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	2200		5	UG/L	WATER	3.3	SW846 8260B
12/12/2001	MW011S	3744808	MW011S	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	210		5	UG/L	WATER	1	SW846 8260B
3/27/2002	MW011S		MW011S	3/30/2002	3/28/2002	75-01-4	Vinyl chloride	13		70	UG/L	WATER	12	SW846 8260B
3/27/2002	MW011S		MW011S	4/1/2002	3/28/2002	79-01-6	Trichloroethene	1200		5	UG/L	WATER	83	SW846 8260B
3/27/2002	MW011S		MW011S	3/30/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	150		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	MW011S-DUP	3709937	MW011S	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	24		70	UG/L	WATER	5	SW-846 8260B
10/17/2001	MW011S-DUP	3709937	MW011S	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	4	J	5	UG/L	WATER	1	SW-846 8260B
10/17/2001	MW011S-DUP	3709937	MW011S	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	190		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	MW011S-DUP	3709937	MW011S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	1800		70	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW015S		MW015S	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	70		5	UG/L	WATER	2	SW-846 8260B
10/15/2001	MW015S	3707956	MW015S	10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	120		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	MW015S	3742413	MW015S	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	120		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW015S		MW015S	3/29/2002	3/28/2002	127-18-4	Tetrachloroethene	110		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW015SDUP		MW015SDUP	3/29/2002	3/28/2002	127-18-4	Tetrachloroethene	110		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW018S		MW018S	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	440		2	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW018S		MW018S	8/10/2001	8/3/2001	79-01-6	Trichloroethene	46		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW018S		MW018S	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	180		5	UG/L	WATER	1	SW-846 8260B
10/15/2001	MW018S	3707939	MW018S	10/22/2001	10/16/2001	79-01-6	Trichloroethene	45		2	UG/L	WATER	1	SW-846 8260B
10/15/2001	MW018S	3707939	MW018S	10/23/2001	10/16/2001	127-18-4	Tetrachloroethene	510		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	MW018S	3742405	MW018S	12/13/2001	12/11/2001	79-01-6	Trichloroethene	54		2	UG/L	WATER	1	SW-846 8260B
12/10/2001	MW018S	3742405	MW018S	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	530		5	UG/L	WATER	1	SW-846 8260B

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/10/2001	MW018S	3742405	MW018S	12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	150		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MW020S	3744798	MW020S	12/18/2001	12/14/2001	79-01-6	Trichloroethene	19		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW021S		MW021S	8/10/2001	8/3/2001	79-01-6	Trichloroethene	10		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW021S		MW021S	8/10/2001	8/3/2001	75-01-4	Vinyl chloride	31		7	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW021S		MW021S	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	130		70	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW023S		MW023S	8/10/2001	8/3/2001	75-01-4	Vinyl chloride	760		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MW023S		MW023S	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	6700		200	UG/L	WATER	2	SW-846 8260B
10/16/2001	MW025S	3708802	MW025S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	200		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW025S	3708802	MW025S	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	83		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW025S	3743181	MW025S	12/15/2001	12/12/2001	79-01-6	Trichloroethene	240		2	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW025S	3743181	MW025S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	80		2	UG/L	WATER	1	SW-846 8260B
3/25/2002	MW025S		MW025S	3/29/2002	3/27/2002	79-01-6	Trichloroethene	200		5	UG/L	WATER	5	SW-846 8260B
10/16/2001	MW025S-DUP	3708803	MW025S-DUP	10/22/2001	10/17/2001	79-01-6	Trichloroethene	180		2	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW025S-DUP	3708803	MW025S-DUP	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	77		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW026S	3708798	MW026S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	6		5	UG/L	WATER	2	SW-846 8260B
12/11/2001	MW026S	3743179	MW026S	12/14/2001	12/12/2001	79-01-6	Trichloroethene	14		7	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW028S	3708809	MW028S	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	1100		70	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW028S	3708809	MW028S	10/19/2001	10/17/2001	75-35-4	1,1-Dichloroethene	27	J	5	UG/L	WATER	25	SW-846 8260B
10/16/2001	MW028S	3708809	MW028S	10/19/2001	10/17/2001	75-01-4	Vinyl chloride	11	J	70	UG/L	WATER	10	SW-846 8260B
10/16/2001	MW028S	3708809	MW028S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	8200		7	UG/L	WATER	10	SW-846 8260B
12/11/2001	MW028S	3743173	MW028S	12/14/2001	12/12/2001	75-01-4	Vinyl chloride	10	J	2	UG/L	WATER	10	SW-846 8260B
12/11/2001	MW028S	3743173	MW028S	12/14/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1200		5	UG/L	WATER	5	SW-846 8260B
12/11/2001	MW028S	3743173	MW028S	12/14/2001	12/12/2001	75-35-4	1,1-Dichloroethene	24	J	5	UG/L	WATER	5	SW-846 8260B
12/11/2001	MW028S	3743173	MW028S	12/14/2001	12/12/2001	107-06-2	1,2-Dichloroethane	7	J	5	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW028S	3743173	MW028S	12/14/2001	12/12/2001	79-01-6	Trichloroethene	8200		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW028S		MW028S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	10000		70	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW028S		MW028S	4/9/2002	3/28/2002	75-35-4	1,1-Dichloroethene	25	J	5	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW028S		MW028S	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	1100		5	UG/L	WATER	10	SW-846 8260B
10/16/2001	MW029S	3708822	MW029S	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	240		70	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW029S	3708822	MW029S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	3600		70	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW029S	3743196	MW029S	12/15/2001	12/12/2001	79-01-6	Trichloroethene	9900		5	UG/L	WATER	50	SW-846 8260B
12/11/2001	MW029S	3743196	MW029S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	470		70	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW029S		MW029S	4/9/2002	3/28/2002	75-01-4	Vinyl chloride	110		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW029S		MW029S	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	880		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	MW029S		MW029S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	19000		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW030S	3708812	MW030S	10/19/2001	10/17/2001	79-01-6	Trichloroethene	7		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MW030S	3744811	MW030S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	27		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MW030S	3744811	MW030S	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	12		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MW030S/DUP	3744812	MW030S/DUP	12/19/2001	12/14/2001	79-01-6	Trichloroethene	30		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MW030S/DUP	3744812	MW030S/DUP	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	14		2	UG/L	WATER	1	SW-846 8260B
10/17/2001	MW032S	3709914	MW032S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	490		70	UG/L	WATER	10	SW-846 8260B
12/11/2001	MW032S	3743202	MW032S	12/15/2001	12/12/2001	79-01-6	Trichloroethene	550		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	MW032S		MW032S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	350		5	UG/L	WATER	5	SW-846 8260B
12/11/2001	MW032S/DUP	3743203	MW032S/DUP	12/15/2001	12/12/2001	79-01-6	Trichloroethene	530		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW033S	3708815	MW033S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	890		5	UG/L	WATER	10	SW-846 8260B
10/16/2001	MW033S	3708815	MW033S	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	110		7	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW033S	3743198	MW033S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	140		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW033S	3743198	MW033S	12/16/2001	12/12/2001	79-01-6	Trichloroethene	920		200	UG/L	WATER	1	SW-846 8260B
3/25/2002	MW033S		MW033S	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	240		5	UG/L	WATER	10	SW-846 8260B
3/25/2002	MW033S		MW033S	3/29/2002	3/27/2002	79-01-6	Trichloroethene	1400		2	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW034S	3708818	MW034S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	490		7	UG/L	WATER	1	SW-846 8260B
12/11/2001	MW034S	3743193	MW034S	12/16/2001	12/12/2001	79-01-6	Trichloroethene	350		70	UG/L	WATER	10	SW-846 8260B
3/25/2002	MW034S		MW034S	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	3	J	5	UG/L	WATER	1	SW-846 8260B
3/25/2002	MW034S		MW034S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	370		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW034S-DUP	3708819	MW034S-DUP	10/22/2001	10/17/2001	79-01-6	Trichloroethene	450		2	UG/L	WATER	3	SW-846 8260B
10/17/2001	MW035S	3709916	MW035S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	570		5	UG/L	WATER	3	SW-846 8260B
12/12/2001	MW035S	3744815	MW035S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	500		7	UG/L	WATER	3	SW-846 8260B
12/12/2001	MW035S	3744815	MW035S	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	9		70	UG/L	WATER	25	SW-846 8260B
3/25/2002	MW035S		MW035S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	460		200	UG/L	WATER	3	SW-846 8260B
10/17/2001	MW036S	3709911	MW036S	10/24/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	150		5	UG/L	WATER	25	SW-846 8260B

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August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
10/17/2001	MW036S	3709911	MW036S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	1500		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MW036S	3744823	MW036S	12/20/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	100		5	UG/L	WATER	20	SW-846 8260B
12/12/2001	MW036S	3744823	MW036S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	1400		7	UG/L	WATER	20	SW-846 8260B
3/25/2002	MW036S		MW036S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	1700		5	UG/L	WATER	20	SW-846 8260B
3/25/2002	MW036S		MW036S	3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	140		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	MW037S	3709920	MW037S	10/23/2001	10/18/2001	79-01-6	Trichloroethene	990		200	UG/L	WATER	20	SW-846 8260B
12/12/2001	MW037S	3744818	MW037S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	65		70	UG/L	WATER	1	SW-846 8260B
3/25/2002	MW037S		MW037S	3/29/2002	3/27/2002	79-01-6	Trichloroethene	890		5	UG/L	WATER	20	SW-846 8260B
10/17/2001	MW038S	3709908	MW038S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	660		200	UG/L	WATER	20	SW-846 8260B
12/12/2001	MW038S	3744821	MW038S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	700		5	UG/L	WATER	5	SW-846 8260B
3/25/2002	MW038S		MW038S	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	74		70	UG/L	WATER	20	SW-846 8260B
3/25/2002	MW038S		MW038S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	830		70	UG/L	WATER	1	SW-846 8260B
10/16/2001	MW039S	3708791	MW039S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	240		5	UG/L	WATER	20	SW-846 8260B
12/11/2001	MW039S	3743188	MW039S	12/16/2001	12/12/2001	79-01-6	Trichloroethene	270		5	UG/L	WATER	10	SW-846 8260B
12/11/2001	MW039S	3743188	MW039S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	74		5	UG/L	WATER	10	SW-846 8260B
3/27/2002	MW039S		MW039S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	450		7	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA001	3709922	MWA001	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	920		5	UG/L	WATER	5	SW-846 8260B
10/17/2001	MWA001	3709922	MWA001	10/23/2001	10/18/2001	79-01-6	Trichloroethene	580		5	UG/L	WATER	10	SW-846 8260B
10/17/2001	MWA001	3709922	MWA001	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	1800		7	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA001	3709922	MWA001	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	2400		70	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA001	3709922	MWA001	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	69		200	UG/L	WATER	10	SW-846 8260B
12/12/2001	MWA001	3744795	MWA001	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	720		5	UG/L	WATER	10	SW-846 8260B
12/12/2001	MWA001	3744795	MWA001	12/19/2001	12/14/2001	79-01-6	Trichloroethene	480		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA001	3744795	MWA001	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	1000		5	UG/L	WATER	2	SW-846 8260B
12/12/2001	MWA001	3744795	MWA001	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	2700		2	UG/L	WATER	2	SW-846 8260B
12/12/2001	MWA001	3744795	MWA001	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	32		7	UG/L	WATER	2	SW-846 8260B
3/26/2002	MWA001		MWA001	3/30/2002	3/27/2002	75-35-4	1,1-Dichloroethene	42		70	UG/L	WATER	25	SW-846 8260B
3/26/2002	MWA001		MWA001	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	2200		7	UG/L	WATER	2	SW-846 8260B
3/26/2002	MWA001		MWA001	4/1/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1000		5	UG/L	WATER	25	SW-846 8260B
3/26/2002	MWA001		MWA001	4/1/2002	3/27/2002	79-01-6	Trichloroethene	390		5	UG/L	WATER	25	SW-846 8260B
3/26/2002	MWA001		MWA001	4/1/2002	3/27/2002	127-18-4	Tetrachloroethene	760		5	UG/L	WATER	10	SW-846 8260B
8/2/2001	MWA002		MWA002	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	340		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA002		MWA002	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	1500		2	UG/L	WATER	5	SW-846 8260B
8/2/2001	MWA002		MWA002	8/10/2001	8/3/2001	79-01-6	Trichloroethene	120		7	UG/L	WATER	5	SW-846 8260B
8/2/2001	MWA002		MWA002	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	340		5	UG/L	WATER	5	SW-846 8260B
10/17/2001	MWA002	3709925	MWA002	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	1500		70	UG/L	WATER	5	SW-846 8260B
10/17/2001	MWA002	3709925	MWA002	10/23/2001	10/18/2001	79-01-6	Trichloroethene	120		5	UG/L	WATER	50	SW-846 8260B
10/17/2001	MWA002	3709925	MWA002	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	270		2	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA002	3709925	MWA002	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	110		70	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA002	3744799	MWA002	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	84		5	UG/L	WATER	20	SW-846 8260B
12/12/2001	MWA002	3744799	MWA002	12/19/2001	12/14/2001	79-01-6	Trichloroethene	100		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA002	3744799	MWA002	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	1600		2	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA002	3744799	MWA002	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	260		70	UG/L	WATER	1	SW-846 8260B
3/26/2002	MWA002		MWA002	3/28/2002	3/27/2002	79-01-6	Trichloroethene	86		5	UG/L	WATER	20	SW-846 8260B
3/26/2002	MWA002		MWA002	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1300		5	UG/L	WATER	20	SW-846 8260B
3/26/2002	MWA002		MWA002	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	1600		5	UG/L	WATER	20	SW-846 8260B
8/2/2001	MWA003		MWA003	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	160		7	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA003		MWA003	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	330		2	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA003		MWA003	8/9/2001	8/3/2001	79-01-6	Trichloroethene	96		5	UG/L	WATER	100	SW-846 8260B
8/2/2001	MWA003		MWA003	8/9/2001	8/3/2001	75-01-4	Vinyl chloride	14		70	UG/L	WATER	10	SW-846 8260B
8/2/2001	MWA003		MWA003	8/9/2001	8/3/2001	75-35-4	1,1-Dichloroethene	43		2	UG/L	WATER	10	SW-846 8260B
8/2/2001	MWA003		MWA003	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	200		5	UG/L	WATER	1	SW-846 8260B
10/15/2001	MWA003	3707949	MWA003	10/23/2001	10/16/2001	79-01-6	Trichloroethene	110		5	UG/L	WATER	1	SW-846 8260B
10/15/2001	MWA003	3707949	MWA003	10/23/2001	10/16/2001	75-35-4	1,1-Dichloroethene	17		5	UG/L	WATER	1	SW-846 8260B
10/15/2001	MWA003	3707949	MWA003	10/23/2001	10/16/2001	156-59-2	cis-1,2-Dichloroethene	140		70	UG/L	WATER	1	SW-846 8260B
10/15/2001	MWA003	3707949	MWA003	10/23/2001	10/16/2001	71-55-6	1,1,1-Trichloroethane	280		2	UG/L	WATER	1	SW-846 8260B
10/15/2001	MWA003	3707949	MWA003	10/23/2001	10/16/2001	127-18-4	Tetrachloroethene	130		5	UG/L	WATER	100	SW-846 8260B
10/15/2001	MWA003	3707949	MWA003	10/23/2001	10/16/2001	75-01-4	Vinyl chloride	7		5	UG/L	WATER	10	SW-846 8260B
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	79-01-6	Trichloroethene	130		70	UG/L	WATER	10	SW-846 8260B
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	150		5	UG/L	WATER	1	SW-846 8260B

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	71-55-6	1,1,1-Trichloroethane	250		7	UG/L	WATER	10	SW-846 8260B
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	110		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	75-35-4	1,1-Dichloroethene	12		2	UG/L	WATER	2	SW-846 8260B
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	75-01-4	Vinyl chloride	6		2	UG/L	WATER	20	SW-846 8260B
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1100		5	UG/L	WATER	20	SW-846 8260B
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	79-01-6	Trichloroethene	250		70	UG/L	WATER	2	SW-846 8260B
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	490		5	UG/L	WATER	10	SW-846 8260B
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	280		70	UG/L	WATER	1	SW-846 8260B
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	75-01-4	Vinyl chloride	16		70	UG/L	WATER	1	SW-846 8260B
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	130		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA004		MWA004	8/10/2001	8/3/2001	79-01-6	Trichloroethene	25000		200	UG/L	WATER	10	SW-846 8260B
8/2/2001	MWA004		MWA004	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	5400		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	47	J	5	UG/L	WATER	20	SW-846 8260B
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	27	J	5	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	1100		5	UG/L	WATER	10	SW-846 8260B
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	5100		5	UG/L	WATER	10	SW-846 8260B
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	79-01-6	Trichloroethene	26000		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	1100		5	UG/L	WATER	25	SW-846 8260B
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	21	J	5	UG/L	WATER	20	SW-846 8260B
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	4000		5	UG/L	WATER	20	SW-846 8260B
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	79-01-6	Trichloroethene	27000		70	UG/L	WATER	20	SW-846 8260B
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	5500		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	79-01-6	Trichloroethene	24000		200	UG/L	WATER	20	SW-846 8260B
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	75-35-4	1,1-Dichloroethene	41	J	5	UG/L	WATER	1	SW-846 8260B
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	490		70	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	75-35-4	1,1-Dichloroethene	340		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	79-01-6	Trichloroethene	1700		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	150		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	2600		200	UG/L	WATER	20	SW-846 8260B
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1500		70	UG/L	WATER	1	SW-846 8260B
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	85		7	UG/L	WATER	20	SW-846 8260B
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	107-06-2	1,2-Dichloroethane	6		5	UG/L	WATER	20	SW-846 8260B
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	1900		5	UG/L	WATER	100	SW-846 8260B
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	170		7	UG/L	WATER	20	SW-846 8260B
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	300		70	UG/L	WATER	50	SW-846 8260B
12/12/2001	MWA005	3744793	MWA005	12/18/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	160		200	UG/L	WATER	20	SW-846 8260B
12/12/2001	MWA005	3744793	MWA005	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	340		70	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA005	3744793	MWA005	12/18/2001	12/14/2001	127-18-4	Tetrachloroethene	68		7	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA005	3744793	MWA005	12/19/2001	12/14/2001	79-01-6	Trichloroethene	1600		2	UG/L	WATER	1	SW-846 8260B
12/12/2001	MWA005	3744793	MWA005	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	2000		5	UG/L	WATER	5	SW-846 8260B
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	150		5	UG/L	WATER	50	SW-846 8260B
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	330		200	UG/L	WATER	5	SW-846 8260B
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	83		5	UG/L	WATER	2	SW-846 8260B
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	79-01-6	Trichloroethene	1500		7	UG/L	WATER	5	SW-846 8260B
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1900		2	UG/L	WATER	5	SW-846 8260B
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1600		5	UG/L	WATER	25	SW-846 8260B
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	107-06-2	1,2-Dichloroethane	6		200	UG/L	WATER	2	SW-846 8260B
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	2200		70	UG/L	WATER	25	SW-846 8260B
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	170		5	UG/L	WATER	5	SW-846 8260B
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	83		70	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	340		5	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	540		5	UG/L	GROUNDWA	5	SW-846 8260B
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	79-01-6	Trichloroethene	3000		5	UG/L	GROUNDWA	4	SW-846 8260B
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	75-35-4	1,1-Dichloroethene	110		70	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	700		5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	130		5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	10	J	2	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	6	J	5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	79-01-6	Trichloroethene	2700		5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	580		5	UG/L	GROUNDWA	1	SW-846 8260B

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August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	950		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	79-01-6	Trichloroethene	2300		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	540		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	480		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	140		2	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	8	J	5	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	75-35-4	1,1-Dichloroethene	120		5	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	1600		5	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	71-55-6	1,1,1-Trichloroethane	340		200	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	79-01-6	Trichloroethene	1800		5	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	75-01-4	Vinyl chloride	5	J	70	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	560		7	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	75-35-4	1,1-Dichloroethene	120		2	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	79-01-6	Trichloroethene	3100		2	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	710		2	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWB003		MWB003	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	290		70	UG/L	GROUNDWA	5	SW-846 8260B
8/2/2001	MWB003		MWB003	8/9/2001	8/3/2001	79-01-6	Trichloroethene	7200		5	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWB003		MWB003	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	2100		7	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	2000		5	UG/L	GROUNDWA	10	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	60		70	UG/L	GROUNDWA	10	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	79-01-6	Trichloroethene	6800		2	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	300		70	UG/L	GROUNDWA	5	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	69		5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	25		7	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	107-06-2	1,2-Dichloroethane	50		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	79-01-6	Trichloroethene	6800		200	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	107-06-2	1,2-Dichloroethane	37		2	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	280		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	1600		5	UG/L	GROUNDWA	100	SW-846 8260B
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	18	J	5	UG/L	GROUNDWA	5	SW-846 8260B
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	67		5	UG/L	GROUNDWA	5	SW-846 8260B
3/27/2002	MWB003		MWB003	3/30/2002	3/28/2002	75-01-4	Vinyl chloride	23		70	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWB003		MWB003	3/30/2002	3/28/2002	75-35-4	1,1-Dichloroethene	110		5	UG/L	GROUNDWA	10	SW-846 8260B
3/27/2002	MWB003		MWB003	4/1/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	2100		5	UG/L	GROUNDWA	5	SW-846 8260B
3/27/2002	MWB003		MWB003	4/1/2002	3/28/2002	71-55-6	1,1,1-Trichloroethane	380		5	UG/L	GROUNDWA	2	SW-846 8260B
3/27/2002	MWB003		MWB003	3/30/2002	3/28/2002	107-06-2	1,2-Dichloroethane	74		5	UG/L	GROUNDWA	1	SW-846 8260B
3/27/2002	MWB003		MWB003	4/1/2002	3/28/2002	79-01-6	Trichloroethene	5800		5	UG/L	GROUNDWA	1	SW-846 8260B
12/10/2001	MWB004	3742402	MWB004	12/13/2001	12/11/2001	79-01-6	Trichloroethene	9		70	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWB005		MWB005	8/9/2001	8/3/2001	79-01-6	Trichloroethene	5.6		5	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	79-01-6	Trichloroethene	870		5	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	670		5	UG/L	GROUNDWA	5	SW-846 8260B
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	75-35-4	1,1-Dichloroethene	88		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	73		2	UG/L	GROUNDWA	5	SW-846 8260B
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	7		2	UG/L	GROUNDWA	3	SW-846 8260B
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1300		5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	1200		70	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	250		5	UG/L	GROUNDWA	1	SW-846 8260B
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	190		70	UG/L	GROUNDWA	5	SW-846 8260B
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	15		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB006	3744800	MWB006	12/18/2001	12/14/2001	75-01-4	Vinyl chloride	10		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB006	3744800	MWB006	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	400		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB006	3744800	MWB006	12/19/2001	12/14/2001	79-01-6	Trichloroethene	670		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB006	3744800	MWB006	12/18/2001	12/14/2001	127-18-4	Tetrachloroethene	6		5	UG/L	GROUNDWA	1	SW-846 8260B
12/12/2001	MWB006	3744800	MWB006	12/18/2001	12/14/2001	75-35-4	1,1-Dichloroethene	76		5	UG/L	GROUNDWA	1	SW-846 8260B
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1200		5	UG/L	GROUNDWA	1	SW-846 8260B
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	200		7	UG/L	GROUNDWA	5	SW-846 8260B
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	79-01-6	Trichloroethene	1400		5	UG/L	GROUNDWA	5	SW-846 8260B
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	210		70	UG/L	GROUNDWA	20	SW-846 8260B
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	75-01-4	Vinyl chloride	12		7	UG/L	GROUNDWA	1	SW-846 8260B
8/2/2001	MWC003		MWC003	8/9/2001	8/3/2001	79-01-6	Trichloroethene	25		5	UG/L	GROUNDWA	20	SW-846 8260B

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
3/26/2002	PZ007IDUP		PZ007IDUP	3/28/2002	3/27/2002	79-01-6	Trichloroethene	19		5	UG/L	GROUNDWA	50	SW-846 8260B
8/2/2001	PZ008D		PZ008D	8/9/2001	8/3/2001	79-01-6	Trichloroethene	17		2	UG/L	WATER	20	SW-846 8260B
8/2/2001	PZ008I		PZ008I	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	10000		70	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ008I		PZ008I	8/10/2001	8/3/2001	79-01-6	Trichloroethene	1900		5	UG/L	WATER	25	SW-846 8260B
10/17/2001	PZ008I	3709929	PZ008I	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	12000		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ008I	3709929	PZ008I	10/23/2001	10/18/2001	79-01-6	Trichloroethene	2400		5	UG/L	WATER	2	SW-846 8260B
10/17/2001	PZ008I	3709929	PZ008I	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	110		5	UG/L	WATER	10	SW-846 8260B
12/12/2001	PZ008I	3744803	PZ008I	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	210		200	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ008I	3744803	PZ008I	12/19/2001	12/14/2001	79-01-6	Trichloroethene	3500		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ008I	3744803	PZ008I	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	13000		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ008I		PZ008I	3/29/2002	3/27/2002	127-18-4	Tetrachloroethene	18000		5	UG/L	WATER	10	SW-846 8260B
3/26/2002	PZ008I		PZ008I	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	310		70	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ008I		PZ008I	3/29/2002	3/27/2002	79-01-6	Trichloroethene	6700		7	UG/L	WATER	20	SW-846 8260B
8/2/2001	PZ009D		PZ009D	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	150		200	UG/L	WATER	25	SW-846 8260B
8/2/2001	PZ009D		PZ009D	8/10/2001	8/3/2001	79-01-6	Trichloroethene	2000		2	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ009D	3709931	PZ009D	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1700		70	UG/L	WATER	20	SW-846 8260B
10/17/2001	PZ009D	3709931	PZ009D	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	16		5	UG/L	WATER	250	SW-846 8260B
10/17/2001	PZ009D	3709931	PZ009D	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	200		7	UG/L	WATER	10	SW-846 8260B
10/17/2001	PZ009D	3709931	PZ009D	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	18		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ009D	3744802	PZ009D	12/20/2001	12/14/2001	79-01-6	Trichloroethene	2000		7	UG/L	WATER	5	SW-846 8260B
12/12/2001	PZ009D	3744802	PZ009D	12/20/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	130		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ009D	3744802	PZ009D	12/20/2001	12/14/2001	75-01-4	Vinyl chloride	7	J	5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ009D		PZ009D	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	6	J	5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ009D		PZ009D	3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	130		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ009D		PZ009D	3/29/2002	3/27/2002	79-01-6	Trichloroethene	1900		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ010I		PZ010I	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	2600		5	UG/L	WATER	20	SW-846 8260B
8/2/2001	PZ010I		PZ010I	8/10/2001	8/3/2001	79-01-6	Trichloroethene	20000		70	UG/L	WATER	20	SW-846 8260B
10/17/2001	PZ010I	3709934	PZ010I	10/24/2001	10/18/2001	79-01-6	Trichloroethene	21000		5	UG/L	WATER	50	SW-846 8260B
10/17/2001	PZ010I	3709934	PZ010I	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	2900		70	UG/L	WATER	5	SW-846 8260B
10/17/2001	PZ010I	3709934	PZ010I	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	230		70	UG/L	WATER	25	SW-846 8260B
10/17/2001	PZ010I	3709934	PZ010I	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	15	J	5	UG/L	WATER	5	SW-846 8260B
12/12/2001	PZ010I	3744807	PZ010I	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	2800		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ010I	3744807	PZ010I	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	31	J	70	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ010I	3744807	PZ010I	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	240		5	UG/L	WATER	10	SW-846 8260B
12/12/2001	PZ010I	3744807	PZ010I	12/19/2001	12/14/2001	79-01-6	Trichloroethene	12000		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	PZ010I		PZ010I	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	2700		5	UG/L	WATER	5	SW-846 8260B
3/27/2002	PZ010I		PZ010I	4/9/2002	3/28/2002	75-01-4	Vinyl chloride	73	J	5	UG/L	WATER	10	SW-846 8260B
3/27/2002	PZ010I		PZ010I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	20000		7	UG/L	WATER	2	SW-846 8260B
8/2/2001	PZ012D		PZ012D	8/9/2001	8/3/2001	79-01-6	Trichloroethene	39		5	UG/L	WATER	5	SW-846 8260B
8/2/2001	PZ012I		PZ012I	8/9/2001	8/3/2001	79-01-6	Trichloroethene	61		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ012I		PZ012I	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	370		70	UG/L	WATER	10	SW-846 8260B
10/15/2001	PZ012I	3707948	PZ012I	10/23/2001	10/16/2001	156-59-2	cis-1,2-Dichloroethene	420		5	UG/L	WATER	3	SW-846 8260B
10/15/2001	PZ012I	3707948	PZ012I	10/23/2001	10/16/2001	79-01-6	Trichloroethene	91		5	UG/L	WATER	10	SW-846 8260B
12/10/2001	PZ012I	3742407	PZ012I	12/13/2001	12/11/2001	75-01-4	Vinyl chloride	3	J	2	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ012I	3742407	PZ012I	12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	500		7	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ012I	3742407	PZ012I	12/13/2001	12/11/2001	79-01-6	Trichloroethene	110		70	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ012I		PZ012I	3/28/2002	3/27/2002	79-01-6	Trichloroethene	110		200	UG/L	WATER	5	SW-846 8260B
3/26/2002	PZ012I		PZ012I	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	450		5	UG/L	WATER	5	SW-846 8260B
8/2/2001	PZ013I		PZ013I	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	560		5	UG/L	WATER	5	SW-846 8260B
8/2/2001	PZ013I		PZ013I	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	740		5	UG/L	WATER	2	SW-846 8260B
8/2/2001	PZ013I		PZ013I	8/10/2001	8/3/2001	79-01-6	Trichloroethene	1100		5	UG/L	WATER	20	SW-846 8260B
8/2/2001	PZ013I		PZ013I	8/10/2001	8/3/2001	75-35-4	1,1-Dichloroethene	88		2	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ013I		PZ013I	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	93		5	UG/L	WATER	20	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	56		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	6		2	UG/L	WATER	10	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	56-23-5	Carbon tetrachloride	130		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	79		5	UG/L	WATER	3	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	600		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	550		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ013I	3709926	PZ013I	10/23/2001	10/18/2001	79-01-6	Trichloroethene	750		5	UG/L	WATER	1	SW-846 8260B

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August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/12/2001	PZ013I	3744792	PZ013I	12/18/2001	12/14/2001	75-01-4	Vinyl chloride	4	J	5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ013I	3744792	PZ013I	12/18/2001	12/14/2001	75-35-4	1,1-Dichloroethene	39		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ013I	3744792	PZ013I	12/18/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	74		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ013I	3744792	PZ013I	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	470		5	UG/L	WATER	25	SW-846 8260B
12/12/2001	PZ013I	3744792	PZ013I	12/19/2001	12/14/2001	79-01-6	Trichloroethene	480		5	UG/L	WATER	25	SW-846 8260B
12/12/2001	PZ013I	3744792	PZ013I	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	690		70	UG/L	WATER	3	SW-846 8260B
3/26/2002	PZ013I		PZ013I	3/28/2002	3/27/2002	79-01-6	Trichloroethene	390		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ013I		PZ013I	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	890		5	UG/L	WATER	10	SW-846 8260B
3/26/2002	PZ013I		PZ013I	3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	450		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ013I		PZ013I	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	78		5	UG/L	WATER	25	SW-846 8260B
3/26/2002	PZ013I		PZ013I	3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	39		5	UG/L	WATER	50	SW-846 8260B
8/2/2001	PZ014I		PZ014I	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	10		5	UG/L	WATER	100	SW-846 8260B
8/2/2001	PZ014I		PZ014I	8/9/2001	8/3/2001	79-01-6	Trichloroethene	260		5	UG/L	WATER	5	SW-846 8260B
10/15/2001	PZ014I	3707950	PZ014I	10/22/2001	10/16/2001	156-59-2	cis-1,2-Dichloroethene	83		200	UG/L	WATER	5	SW-846 8260B
10/15/2001	PZ014I	3707950	PZ014I	10/24/2001	10/16/2001	79-01-6	Trichloroethene	290		70	UG/L	WATER	50	SW-846 8260B
10/15/2001	PZ014I	3707950	PZ014I	10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	12		70	UG/L	WATER	3	SW-846 8260B
12/10/2001	PZ014I	3742410	PZ014I	12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	85		2	UG/L	WATER	5	SW-846 8260B
12/10/2001	PZ014I	3742410	PZ014I	12/14/2001	12/11/2001	79-01-6	Trichloroethene	280		2	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ014I	3742410	PZ014I	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	10		200	UG/L	WATER	2	SW-846 8260B
3/26/2002	PZ014I		PZ014I	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	12		70	UG/L	WATER	25	SW-846 8260B
3/26/2002	PZ014I		PZ014I	3/28/2002	3/27/2002	79-01-6	Trichloroethene	290		7	UG/L	WATER	2	SW-846 8260B
8/2/2001	PZ015I		PZ015I	8/9/2001	8/3/2001	107-06-2	1,2-Dichloroethane	5.1		2	UG/L	WATER	2	SW-846 8260B
8/2/2001	PZ015I		PZ015I	8/9/2001	8/3/2001	79-01-6	Trichloroethene	5.8		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ015I		PZ015I	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	52		5	UG/L	WATER	10	SW-846 8260B
10/15/2001	PZ015I	3707957	PZ015I	10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	67		7	UG/L	WATER	5	SW-846 8260B
10/15/2001	PZ015I	3707957	PZ015I	10/22/2001	10/16/2001	107-06-2	1,2-Dichloroethane	6		200	UG/L	WATER	10	SW-846 8260B
12/10/2001	PZ015I	3742414	PZ015I	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	66		200	UG/L	WATER	5	SW-846 8260B
3/27/2002	PZ015I		PZ015I	3/29/2002	3/28/2002	107-06-2	1,2-Dichloroethane	7		5	UG/L	WATER	5	SW-846 8260B
3/27/2002	PZ015I		PZ015I	3/29/2002	3/28/2002	127-18-4	Tetrachloroethene	71		5	UG/L	WATER	1	SW-846 8260B
10/15/2001	PZ015I-DUP	3707958	PZ015I-DUP	10/22/2001	10/16/2001	107-06-2	1,2-Dichloroethane	6		70	UG/L	WATER	10	SW-846 8260B
10/15/2001	PZ015I-DUP	3707958	PZ015I-DUP	10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	67		5	UG/L	WATER	100	SW-846 8260B
8/2/2001	PZ016D		PZ016D	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	170		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ016D		PZ016D	8/9/2001	8/3/2001	79-01-6	Trichloroethene	14		7	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ016D		PZ016D	8/9/2001	8/3/2001	75-01-4	Vinyl chloride	14		2	UG/L	WATER	3	SW-846 8260B
10/15/2001	PZ016D	3707951	PZ016D	10/22/2001	10/16/2001	75-01-4	Vinyl chloride	13		5	UG/L	WATER	100	SW-846 8260B
10/15/2001	PZ016D	3707951	PZ016D	10/22/2001	10/16/2001	79-01-6	Trichloroethene	12		7	UG/L	WATER	1	SW-846 8260B
10/15/2001	PZ016D	3707951	PZ016D	10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	170		70	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ016D	3742411	PZ016D	12/13/2001	12/11/2001	75-01-4	Vinyl chloride	16		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ016D	3742411	PZ016D	12/13/2001	12/11/2001	79-01-6	Trichloroethene	11		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ016D	3742411	PZ016D	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	220		5	UG/L	WATER	5	SW-846 8260B
3/26/2002	PZ016D		PZ016D	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	240		2	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ016D		PZ016D	3/28/2002	3/27/2002	79-01-6	Trichloroethene	18		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ016D		PZ016D	3/28/2002	3/27/2002	75-01-4	Vinyl chloride	12		70	UG/L	WATER	10	SW-846 8260B
8/2/2001	PZ017D		PZ017D	8/10/2001	8/3/2001	75-01-4	Vinyl chloride	9.6		5	UG/L	WATER	10	SW-846 8260B
10/15/2001	PZ017D	3707944	PZ017D	10/23/2001	10/16/2001	75-01-4	Vinyl chloride	15		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ017D	3742406	PZ017D	12/13/2001	12/11/2001	75-01-4	Vinyl chloride	15		5	UG/L	WATER	3	SW-846 8260B
3/26/2002	PZ017D		PZ017D	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	16		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ017I		PZ017I	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	1700		5	UG/L	WATER	1	SW-846 8260B
8/2/2001	PZ017I		PZ017I	8/9/2001	8/3/2001	79-01-6	Trichloroethene	94		2	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ017I	3709921	PZ017I	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	1600		7	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ017I	3709921	PZ017I	10/23/2001	10/18/2001	79-01-6	Trichloroethene	130		70	UG/L	WATER	10	SW-846 8260B
12/12/2001	PZ017I	3744797	PZ017I	12/19/2001	12/14/2001	79-01-6	Trichloroethene	82		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ017I	3744797	PZ017I	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	1500		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ017I		PZ017I	3/30/2002	3/27/2002	79-01-6	Trichloroethene	110		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ017I		PZ017I	4/1/2002	3/27/2002	127-18-4	Tetrachloroethene	1500		7	UG/L	WATER	3	SW-846 8260B
10/15/2001	PZ019I	3707940	PZ019I	10/22/2001	10/16/2001	79-01-6	Trichloroethene	9		2	UG/L	WATER	3	SW-846 8260B
12/10/2001	PZ019I	3742400	PZ019I	12/13/2001	12/11/2001	79-01-6	Trichloroethene	10		70	UG/L	WATER	25	SW-846 8260B
3/26/2002	PZ019I		PZ019I	3/27/2002	3/27/2002	79-01-6	Trichloroethene	9		5	UG/L	WATER	3	SW-846 8260B
10/15/2001	PZ020D	3707946	PZ020D	10/23/2001	10/16/2001	75-01-4	Vinyl chloride	3	J	5	UG/L	WATER	25	SW-846 8260B
12/12/2001	PZ020D	3744796	PZ020D	12/18/2001	12/14/2001	75-01-4	Vinyl chloride	3	J	2	UG/L	WATER	1	SW-846 8260B

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/12/2001	PZ020D	3744796	PZ020D	12/18/2001	12/14/2001	79-01-6	Trichloroethene	10		5	UG/L	WATER	5	SW-846 8260B
3/26/2002	PZ020D		PZ020D	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	3	J	5	UG/L	WATER	20	SW-846 8260B
10/15/2001	PZ021I	3707943	PZ021I	10/23/2001	10/16/2001	79-01-6	Trichloroethene	9		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ021I	3742401	PZ021I	12/13/2001	12/11/2001	79-01-6	Trichloroethene	9		5	UG/L	WATER	1	SW-846 8260B
3/26/2002	PZ021I		PZ021I	3/27/2002	3/27/2002	79-01-6	Trichloroethene	8		200	UG/L	WATER	3	SW-846 8260B
10/15/2001	PZ022I	3707935	PZ022I	10/19/2001	10/16/2001	79-01-6	Trichloroethene	10		5	UG/L	WATER	1	SW-846 8260B
12/10/2001	PZ022I	3742398	PZ022I	12/13/2001	12/11/2001	79-01-6	Trichloroethene	11		70	UG/L	WATER	1	SW-846 8260B
3/27/2002	PZ022I		PZ022I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	10		5	UG/L	WATER	25	SW-846 8260B
12/11/2001	PZ024D	3743185	PZ024D	12/15/2001	12/12/2001	79-01-6	Trichloroethene	10		5	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ024D/DUP	3743186	PZ024D/DUP	12/15/2001	12/12/2001	79-01-6	Trichloroethene	11		70	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ024I	3708794	PZ024I	10/20/2001	10/17/2001	75-01-4	Vinyl chloride	5	J	5	UG/L	WATER	5	SW-846 8260B
10/16/2001	PZ024I	3708794	PZ024I	10/20/2001	10/17/2001	75-35-4	1,1-Dichloroethene	61		70	UG/L	WATER	2	SW-846 8260B
10/16/2001	PZ024I	3708794	PZ024I	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	580		5	UG/L	WATER	5	SW-846 8260B
10/16/2001	PZ024I	3708794	PZ024I	10/20/2001	10/17/2001	71-55-6	1,1,1-Trichloroethane	290		5	UG/L	WATER	5	SW-846 8260B
10/16/2001	PZ024I	3708794	PZ024I	10/22/2001	10/17/2001	79-01-6	Trichloroethene	840		70	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ024I	3743187	PZ024I	12/15/2001	12/12/2001	79-01-6	Trichloroethene	930		5	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ024I	3743187	PZ024I	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	640		5	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ024I	3743187	PZ024I	12/15/2001	12/12/2001	75-35-4	1,1-Dichloroethene	64		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ024I	3743187	PZ024I	12/15/2001	12/12/2001	71-55-6	1,1,1-Trichloroethane	250		200	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ024I	3743187	PZ024I	12/15/2001	12/12/2001	75-01-4	Vinyl chloride	5		70	UG/L	WATER	20	SW-846 8260B
3/27/2002	PZ024I		PZ024I	4/8/2002	3/28/2002	75-01-4	Vinyl chloride	4	J	5	UG/L	WATER	200	SW-846 8260B
3/27/2002	PZ024I		PZ024I	4/8/2002	3/28/2002	75-35-4	1,1-Dichloroethene	88		2	UG/L	WATER	2	SW-846 8260B
3/27/2002	PZ024I		PZ024I	4/4/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	760		70	UG/L	WATER	2	SW-846 8260B
3/27/2002	PZ024I		PZ024I	4/4/2002	3/28/2002	71-55-6	1,1,1-Trichloroethane	370		5	UG/L	WATER	20	SW-846 8260B
3/27/2002	PZ024I		PZ024I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	1400		200	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ025D	3743182	PZ025D	12/15/2001	12/12/2001	79-01-6	Trichloroethene	15		5	UG/L	WATER	2	SW-846 8260B
10/16/2001	PZ025I	3708800	PZ025I	10/22/2001	10/17/2001	79-01-6	Trichloroethene	63		7	UG/L	WATER	2	SW-846 8260B
10/16/2001	PZ025I	3708800	PZ025I	10/22/2001	10/17/2001	75-01-4	Vinyl chloride	9		5	UG/L	WATER	20	SW-846 8260B
10/16/2001	PZ025I	3708800	PZ025I	10/22/2001	10/17/2001	75-35-4	1,1-Dichloroethene	15		70	UG/L	WATER	2	SW-846 8260B
10/16/2001	PZ025I	3708800	PZ025I	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	1100		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ025I	3708800	PZ025I	10/22/2001	10/17/2001	107-06-2	1,2-Dichloroethane	10		2	UG/L	WATER	2	SW-846 8260B
12/11/2001	PZ025I	3743183	PZ025I	12/15/2001	12/12/2001	75-35-4	1,1-Dichloroethene	14		5	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ025I	3743183	PZ025I	12/15/2001	12/12/2001	75-01-4	Vinyl chloride	7		70	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ025I	3743183	PZ025I	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1100		5	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ025I	3743183	PZ025I	12/15/2001	12/12/2001	107-06-2	1,2-Dichloroethane	7		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ025I	3743183	PZ025I	12/15/2001	12/12/2001	79-01-6	Trichloroethene	85		2	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ025I		PZ025I	3/30/2002	3/27/2002	75-01-4	Vinyl chloride	6		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ025I		PZ025I	3/30/2002	3/27/2002	75-35-4	1,1-Dichloroethene	16		2	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ025I		PZ025I	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1200		70	UG/L	WATER	10	SW-846 8260B
3/25/2002	PZ025I		PZ025I	3/30/2002	3/27/2002	107-06-2	1,2-Dichloroethane	11		5	UG/L	WATER	100	SW-846 8260B
3/25/2002	PZ025I		PZ025I	3/30/2002	3/27/2002	79-01-6	Trichloroethene	110		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ026I	3708797	PZ026I	10/22/2001	10/17/2001	75-01-4	Vinyl chloride	13	J	7	UG/L	WATER	20	SW-846 8260B
10/16/2001	PZ026I	3708797	PZ026I	10/22/2001	10/17/2001	107-06-2	1,2-Dichloroethane	7	J	5	UG/L	WATER	10	SW-846 8260B
10/16/2001	PZ026I	3708797	PZ026I	10/22/2001	10/17/2001	75-35-4	1,1-Dichloroethene	31		70	UG/L	WATER	10	SW-846 8260B
10/16/2001	PZ026I	3708797	PZ026I	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	1100		5	UG/L	WATER	100	SW-846 8260B
10/16/2001	PZ026I	3708797	PZ026I	10/22/2001	10/17/2001	71-55-6	1,1,1-Trichloroethane	220		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ026I	3708797	PZ026I	10/22/2001	10/17/2001	79-01-6	Trichloroethene	3000		2	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ026I	3743180	PZ026I	12/15/2001	12/12/2001	75-01-4	Vinyl chloride	11	J	2	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ026I	3743180	PZ026I	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	890		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ026I	3743180	PZ026I	12/15/2001	12/12/2001	79-01-6	Trichloroethene	2600		70	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ026I	3743180	PZ026I	12/15/2001	12/12/2001	75-35-4	1,1-Dichloroethene	22		5	UG/L	WATER	5	SW-846 8260B
3/25/2002	PZ026I		PZ026I	3/30/2002	3/27/2002	75-35-4	1,1-Dichloroethene	31		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ026I		PZ026I	3/30/2002	3/27/2002	75-01-4	Vinyl chloride	11	J	70	UG/L	WATER	5	SW-846 8260B
3/25/2002	PZ026I		PZ026I	3/30/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1200		5	UG/L	WATER	20	SW-846 8260B
3/25/2002	PZ026I		PZ026I	3/30/2002	3/27/2002	107-06-2	1,2-Dichloroethane	9	J	7	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ026I		PZ026I	3/30/2002	3/27/2002	79-01-6	Trichloroethene	3600		70	UG/L	WATER	20	SW-846 8260B
3/25/2002	PZ026I		PZ026I	3/30/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	250		200	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ027D	3743176	PZ027D	12/14/2001	12/12/2001	79-01-6	Trichloroethene	75		5	UG/L	WATER	20	SW-846 8260B
10/16/2001	PZ028D	3708807	PZ028D	10/22/2001	10/17/2001	79-01-6	Trichloroethene	130		5	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ028D	3743172	PZ028D	12/14/2001	12/12/2001	79-01-6	Trichloroethene	74		5	UG/L	WATER	1	SW-846 8260B

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TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
3/27/2002	PZ028D		PZ028D	4/4/2002	3/28/2002	79-01-6	Trichloroethene	140		5	UG/L	WATER	20	SW-846 8260B
10/16/2001	PZ028I	3708808	PZ028I	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	170		2	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ028I	3708808	PZ028I	10/19/2001	10/17/2001	107-06-2	1,2-Dichloroethane	6		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ028I	3708808	PZ028I	10/22/2001	10/17/2001	79-01-6	Trichloroethene	920		7	UG/L	WATER	20	SW-846 8260B
10/16/2001	PZ028I	3708808	PZ028I	10/19/2001	10/17/2001	75-35-4	1,1-Dichloroethene	8		5	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ028I	3743174	PZ028I	12/14/2001	12/12/2001	107-06-2	1,2-Dichloroethane	6		2	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ028I	3743174	PZ028I	12/14/2001	12/12/2001	75-35-4	1,1-Dichloroethene	9		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ028I	3743174	PZ028I	12/14/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	210		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ028I	3743174	PZ028I	12/14/2001	12/12/2001	79-01-6	Trichloroethene	1000		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	PZ028I		PZ028I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	1200		5	UG/L	WATER	1	SW-846 8260B
3/27/2002	PZ028I		PZ028I	4/9/2002	3/28/2002	107-06-2	1,2-Dichloroethane	6		5	UG/L	WATER	10	SW-846 8260B
3/27/2002	PZ028I		PZ028I	4/9/2002	3/28/2002	75-35-4	1,1-Dichloroethene	10		7	UG/L	WATER	1	SW-846 8260B
3/27/2002	PZ028I		PZ028I	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	240		200	UG/L	WATER	10	SW-846 8260B
10/16/2001	PZ029D	3708821	PZ029D	10/19/2001	10/17/2001	79-01-6	Trichloroethene	6		70	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ029I	3708820	PZ029I	10/19/2001	10/17/2001	79-01-6	Trichloroethene	34		7	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ029I	3708820	PZ029I	10/19/2001	10/17/2001	75-01-4	Vinyl chloride	16		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ029I	3743195	PZ029I	12/15/2001	12/12/2001	75-01-4	Vinyl chloride	18		5	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ029I	3743195	PZ029I	12/15/2001	12/12/2001	79-01-6	Trichloroethene	25		200	UG/L	WATER	20	SW-846 8260B
3/27/2002	PZ029I		PZ029I	4/4/2002	3/28/2002	75-01-4	Vinyl chloride	17		70	UG/L	WATER	5	SW-846 8260B
3/27/2002	PZ029I		PZ029I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	10		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ030D	3708811	PZ030D	10/19/2001	10/17/2001	79-01-6	Trichloroethene	10		70	UG/L	WATER	20	SW-846 8260B
12/12/2001	PZ030D	3744810	PZ030D	12/19/2001	12/14/2001	79-01-6	Trichloroethene	56		5	UG/L	WATER	10	SW-846 8260B
10/16/2001	PZ030I	3708810	PZ030I	10/19/2001	10/17/2001	79-01-6	Trichloroethene	17		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ030I	3744809	PZ030I	12/19/2001	12/14/2001	79-01-6	Trichloroethene	60		5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ030I	3744809	PZ030I	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	18		2	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ031I	3708787	PZ031I	10/19/2001	10/17/2001	79-01-6	Trichloroethene	160		7	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ031I	3743171	PZ031I	12/14/2001	12/12/2001	79-01-6	Trichloroethene	160		70	UG/L	WATER	20	SW-846 8260B
3/27/2002	PZ031I		PZ031I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	180		200	UG/L	WATER	20	SW-846 8260B
10/17/2001	PZ032D	3709913	PZ032D	10/24/2001	10/18/2001	79-01-6	Trichloroethene	280		5	UG/L	WATER	20	SW-846 8260B
12/11/2001	PZ032D	3743201	PZ032D	12/15/2001	12/12/2001	79-01-6	Trichloroethene	230		2	UG/L	WATER	5	SW-846 8260B
3/25/2002	PZ032D		PZ032D	3/29/2002	3/27/2002	79-01-6	Trichloroethene	250		7	UG/L	WATER	5	SW-846 8260B
10/17/2001	PZ032I	3709912	PZ032I	10/24/2001	10/18/2001	79-01-6	Trichloroethene	89		70	UG/L	WATER	5	SW-846 8260B
12/11/2001	PZ032I	3743200	PZ032I	12/15/2001	12/12/2001	79-01-6	Trichloroethene	66		7	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ032I		PZ032I	3/29/2002	3/27/2002	79-01-6	Trichloroethene	37		2	UG/L	WATER	20	SW-846 8260B
10/16/2001	PZ033D	3708813	PZ033D	10/19/2001	10/17/2001	79-01-6	Trichloroethene	11		5	UG/L	WATER	100	SW-846 8260B
12/11/2001	PZ033D	3743199	PZ033D	12/15/2001	12/12/2001	79-01-6	Trichloroethene	160		5	UG/L	WATER	100	SW-846 8260B
10/16/2001	PZ033I	3708814	PZ033I	10/19/2001	10/17/2001	79-01-6	Trichloroethene	97		5	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ033I	3743197	PZ033I	12/15/2001	12/12/2001	79-01-6	Trichloroethene	57		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ033I		PZ033I	3/29/2002	3/27/2002	79-01-6	Trichloroethene	40		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ033IDUP		PZ033IDUP	3/29/2002	3/27/2002	79-01-6	Trichloroethene	42		2	UG/L	WATER	2	SW-846 8260B
10/16/2001	PZ034D	3708817	PZ034D	10/19/2001	10/17/2001	79-01-6	Trichloroethene	12		70	UG/L	WATER	2	SW-846 8260B
12/12/2001	PZ035D	3744813	PZ035D	12/20/2001	12/14/2001	79-01-6	Trichloroethene	47		5	UG/L	WATER	10	SW-846 8260B
10/17/2001	PZ035I	3709915	PZ035I	10/24/2001	10/18/2001	79-01-6	Trichloroethene	290		5	UG/L	WATER	10	SW-846 8260B
12/12/2001	PZ035I	3744814	PZ035I	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	19		2	UG/L	WATER	2	SW-846 8260B
12/12/2001	PZ035I	3744814	PZ035I	12/20/2001	12/14/2001	79-01-6	Trichloroethene	290		7	UG/L	WATER	2	SW-846 8260B
3/25/2002	PZ035I		PZ035I	3/29/2002	3/27/2002	79-01-6	Trichloroethene	190		70	UG/L	WATER	2	SW-846 8260B
10/17/2001	PZ036D	3709910	PZ036D	10/24/2001	10/18/2001	79-01-6	Trichloroethene	16		5	UG/L	WATER	20	SW-846 8260B
12/12/2001	PZ036D	3744822	PZ036D	12/20/2001	12/14/2001	79-01-6	Trichloroethene	32		5	UG/L	WATER	50	SW-846 8260B
12/12/2001	PZ036D	3744822	PZ036D	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	9		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ036D		PZ036D	3/29/2002	3/27/2002	79-01-6	Trichloroethene	50		7	UG/L	WATER	2	SW-846 8260B
12/12/2001	PZ036I	3744824	PZ036I	12/20/2001	12/14/2001	79-01-6	Trichloroethene	14		70	UG/L	WATER	20	SW-846 8260B
12/12/2001	PZ036I	3744824	PZ036I	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	6		200	UG/L	WATER	2	SW-846 8260B
12/12/2001	PZ036IDUP	3744825	PZ036I/DUP	12/20/2001	12/14/2001	79-01-6	Trichloroethene	11		5	UG/L	WATER	20	SW-846 8260B
10/17/2001	PZ037D	3709919	PZ037D	10/23/2001	10/18/2001	79-01-6	Trichloroethene	8		2	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ037D	3744816	PZ037D	12/20/2001	12/14/2001	79-01-6	Trichloroethene	40		7	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ037D		PZ037D	3/29/2002	3/27/2002	79-01-6	Trichloroethene	79		70	UG/L	WATER	50	SW-846 8260B
10/17/2001	PZ037I	3709918	PZ037I	10/23/2001	10/18/2001	79-01-6	Trichloroethene	3300		200	UG/L	WATER	50	SW-846 8260B
12/12/2001	PZ037I	3744817	PZ037I	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	8	J	5	UG/L	WATER	1	SW-846 8260B
12/12/2001	PZ037I	3744817	PZ037I	12/20/2001	12/14/2001	79-01-6	Trichloroethene	4700		5	UG/L	WATER	50	SW-846 8260B
3/25/2002	PZ037I		PZ037I	3/29/2002	3/27/2002	79-01-6	Trichloroethene	3800		2	UG/L	WATER	1	SW-846 8260B

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
10/17/2001	PZ038D	3709906	PZ038D	10/24/2001	10/18/2001	79-01-6	Trichloroethene	980		70	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ038D	3709906	PZ038D	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	78		5	UG/L	WATER	10	SW-846 8260B
12/12/2001	PZ038D	3744819	PZ038D	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	25		2	UG/L	WATER	2	SW-846 8260B
12/12/2001	PZ038D	3744819	PZ038D	12/20/2001	12/14/2001	79-01-6	Trichloroethene	880		5	UG/L	WATER	1	SW-846 8260B
3/25/2002	PZ038D		PZ038D	3/29/2002	3/27/2002	79-01-6	Trichloroethene	800		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ038I	3709907	PZ038I	10/24/2001	10/18/2001	79-01-6	Trichloroethene	2600		5	UG/L	WATER	1	SW-846 8260B
10/17/2001	PZ038I	3709907	PZ038I	10/24/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	160		5	UG/L	WATER	3	SW-846 8260B
12/12/2001	PZ038I	3744820	PZ038I	12/20/2001	12/14/2001	79-01-6	Trichloroethene	3200		5	UG/L	WATER	5	SW-846 8260B
12/12/2001	PZ038I	3744820	PZ038I	12/20/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	170		2	UG/L	WATER	20	SW-846 8260B
3/25/2002	PZ038I		PZ038I	3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	190		70	UG/L	WATER	20	SW-846 8260B
3/25/2002	PZ038I		PZ038I	3/29/2002	3/27/2002	79-01-6	Trichloroethene	3200		5	UG/L	WATER	200	SW-846 8260B
10/16/2001	PZ039D	3708790	PZ039D	10/20/2001	10/17/2001	79-01-6	Trichloroethene	7		2	UG/L	WATER	1	SW-846 8260B
12/11/2001	PZ039D	3743189	PZ039D	12/15/2001	12/12/2001	79-01-6	Trichloroethene	15		5	UG/L	WATER	1	SW-846 8260B
10/16/2001	PZ039I	3708792	PZ039I	10/22/2001	10/17/2001	79-01-6	Trichloroethene	420		7	UG/L	WATER	10	SW-846 8260B
12/11/2001	PZ039I	3743190	PZ039I	12/16/2001	12/12/2001	79-01-6	Trichloroethene	370		70	UG/L	WATER	10	SW-846 8260B
3/27/2002	PZ039I		PZ039I	4/4/2002	3/28/2002	79-01-6	Trichloroethene	570		70	UG/L	WATER	1	SW-846 8260B

TABLE B
EW1 Summary

	Sampling Event			
MW008S	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	15.5	15	12	7
1,1-Dichloroethene	15.5	0.5	0.5	0.5
1,2-Dichloroethane	15.5	0.5	0.5	0.5
Carbon tetrachloride	15.5	0.5	0.5	0.5
cis-1,2-Dichloroethene	22	31	39	30
Tetrachloroethene	1100	1100	1000	1100
Trichloroethene	440	510	430	440
Vinyl chloride	15.5	0.5	0.5	0.5

	Sampling Event			
PZ008I	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	165	42	38	46
1,1-Dichloroethene	165	5	5	5
1,2-Dichloroethane	165	5	5	5
Carbon tetrachloride	165	5	5	5
cis-1,2-Dichloroethene	85	110	210	310
Tetrachloroethene	10000	12000	13000	18000
Trichloroethene	1900	2400	3500	6700
Vinyl chloride	165	5	5	5

	Sampling Event			
PZ008D	August-01	October-01	December-01	March-02
Deep	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	1.6	0.5	0.5	0.5
1,1-Dichloroethene	0.5	0.5	0.5	0.5
1,2-Dichloroethane	0.5	0.5	0.5	0.5
Carbon tetrachloride	0.5	0.5	0.5	0.5
cis-1,2-Dichloroethene	4.6	4	2	2
Tetrachloroethene	0.5	1	0.5	0.5
Trichloroethene	17	4	2	0.5
Vinyl chloride	0.5	0.5	0.5	0.5

	Sampling Event				Maximum
EW-1	August-01	October-01	December-01	March-02	**Value**
Overall Average	UG/L	UG/L	UG/L	UG/L	**UG/L**
1,1,1-Trichloroethane	**60.7**	19.2	16.8	17.8	60.7
1,1-Dichloroethene	**60.3**	2.0	2.0	2.0	60.3
1,2-Dichloroethane	**60.3**	2.0	2.0	2.0	60.3
Carbon tetrachloride	**60.3**	2.0	2.0	2.0	60.3
cis-1,2-Dichloroethene	37.2	48.3	83.7	**114.0**	114.0
Tetrachloroethene	3700.2	4367.0	4666.8	**6366.8**	6366.8
Trichloroethene	785.7	971.3	1310.7	**2380.2**	2380.2
Vinyl chloride	**60.3**	2.0	2.0	2.0	60.3

TABLE B
MW008s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MW008S	8/2/2001	71-55-6	1,1,1-Trichloroethane	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	75-35-4	1,1-Dichloroethene	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	107-06-2	1,2-Dichloroethane	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	56-23-5	Carbon tetrachloride	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	22		UG/L	16	22	UG/L
MW008S	8/2/2001	127-18-4	Tetrachloroethene	1100		UG/L	31	1100	UG/L
MW008S	8/2/2001	79-01-6	Trichloroethene	440		UG/L	31	440	UG/L
MW008S	8/2/2001	75-01-4	Vinyl chloride	31	U	UG/L	31	15.5	UG/L
MW008S	10/17/2001	71-55-6	1,1,1-Trichloroethane	15		UG/L	1	15	UG/L
MW008S	10/17/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MW008S	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW008S	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW008S	10/17/2001	156-59-2	cis-1,2-Dichloroethene	31		UG/L	1	31	UG/L
MW008S	10/17/2001	127-18-4	Tetrachloroethene	1100		UG/L	10	1100	UG/L
MW008S	10/17/2001	79-01-6	Trichloroethene	510		UG/L	10	510	UG/L
MW008S	10/17/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	71-55-6	1,1,1-Trichloroethane	12		UG/L	1	12	UG/L
MW008S	12/12/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	156-59-2	cis-1,2-Dichloroethene	39		UG/L	1	39	UG/L
MW008S	12/12/2001	127-18-4	Tetrachloroethene	1000		UG/L	10	1000	UG/L
MW008S	12/12/2001	79-01-6	Trichloroethene	430		UG/L	10	430	UG/L
MW008S	12/12/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	71-55-6	1,1,1-Trichloroethane	7		UG/L	1	7	UG/L
MW008S	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	156-59-2	cis-1,2-Dichloroethene	30		UG/L	1	30	UG/L
MW008S	3/26/2002	127-18-4	Tetrachloroethene	1100		UG/L	10	1100	UG/L
MW008S	3/26/2002	79-01-6	Trichloroethene	440		UG/L	10	440	UG/L
MW008S	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE B
pz008i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ008I	8/2/2001	71-55-6	1,1,1-Trichloroethane	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	75-35-4	1,1-Dichloroethene	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	107-06-2	1,2-Dichloroethane	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	56-23-5	Carbon tetrachloride	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	170	U	UG/L	170	85	UG/L
PZ008I	8/2/2001	127-18-4	Tetrachloroethene	10000		UG/L	330	10000	UG/L
PZ008I	8/2/2001	79-01-6	Trichloroethene	1900		UG/L	330	1900	UG/L
PZ008I	8/2/2001	75-01-4	Vinyl chloride	330	U	UG/L	330	165	UG/L
PZ008I	10/17/2001	71-55-6	1,1,1-Trichloroethane	42	J	UG/L	10	42	UG/L
PZ008I	10/17/2001	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ008I	10/17/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ008I	10/17/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ008I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	110		UG/L	10	110	UG/L
PZ008I	10/17/2001	127-18-4	Tetrachloroethene	12000		UG/L	100	12000	UG/L
PZ008I	10/17/2001	79-01-6	Trichloroethene	2400		UG/L	10	2400	UG/L
PZ008I	10/17/2001	75-01-4	Vinyl Chloride	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	71-55-6	1,1,1-Trichloroethane	38	J	UG/L	10	38	UG/L
PZ008I	12/12/2001	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	210		UG/L	10	210	UG/L
PZ008I	12/12/2001	127-18-4	Tetrachloroethene	13000		UG/L	100	13000	UG/L
PZ008I	12/12/2001	79-01-6	Trichloroethene	3500		UG/L	100	3500	UG/L
PZ008I	12/12/2001	75-01-4	Vinyl Chloride	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	71-55-6	1,1,1-Trichloroethane	46	J	UG/L	10	46	UG/L
PZ008I	3/26/2002	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	310		UG/L	10	310	UG/L
PZ008I	3/26/2002	127-18-4	Tetrachloroethene	18000		UG/L	100	18000	UG/L
PZ008I	3/26/2002	79-01-6	Trichloroethene	6700		UG/L	100	6700	UG/L
PZ008I	3/26/2002	75-01-4	Vinyl Chloride	10	U	UG/L	10	5	UG/L

TABLE B
pz008d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ008D	8/2/2001	71-55-6	1,1,1-Trichloroethane	1.6		UG/L	1	1.6	UG/L
PZ008D	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	4.6		UG/L	0.5	4.6	UG/L
PZ008D	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	79-01-6	Trichloroethene	17		UG/L	1	17	UG/L
PZ008D	8/2/2001	75-01-4	Vinyl chloride	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	156-59-2	cis-1,2-Dichloroethene	4	J	UG/L	1	4	UG/L
PZ008D	10/15/2001	127-18-4	Tetrachloroethene	1	J	UG/L	1	1	UG/L
PZ008D	10/15/2001	79-01-6	Trichloroethene	4	J	UG/L	1	4	UG/L
PZ008D	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	156-59-2	cis-1,2-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ008D	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	79-01-6	Trichloroethene	2	J	UG/L	1	2	UG/L
PZ008D	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ008D	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE C
EW2 Summary

	Sampling Event			
MWA004	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	500	10	10	10
1,1-Dichloroethene	500	47	21	41
1,2-Dichloroethane	500	10	10	10
Carbon tetrachloride	500	10	10	10
cis-1,2-Dichloroethene	5400	5100	4000	5500
Tetrachloroethene	500	27	10	10
Trichloroethene	25000	26000	27000	24000
Vinyl chloride	500	1100	1100	490

	Sampling Event			
MW010S	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	100	160	180	100
1,1-Dichloroethene	100	23	26	15
1,2-Dichloroethane	100	2.5	2.5	2.5
Carbon tetrachloride	100	2.5	2.5	2.5
cis-1,2-Dichloroethene	1000	930	1000	560
Tetrachloroethene	100	23	56	2.5
Trichloroethene	7200	7600	8300	5700
Vinyl chloride	100	9	2.5	43

	Sampling Event			
Average	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	300	85	95	55
1,1-Dichloroethene	300	35	23.5	28
1,2-Dichloroethane	300	6.25	6.25	6.25
Carbon tetrachloride	300	6.25	6.25	6.25
cis-1,2-Dichloroethene	3200	3015	2500	3030
Tetrachloroethene	300	25	33	6.25
Trichloroethene	16100	16800	17650	14850
Vinyl chloride	300	554.5	551.25	266.5

	Sampling Event			
PZ010I	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	415	12	12	10
1,1-Dichloroethene	415	15	5	10
1,2-Dichloroethane	415	5	5	10
Carbon tetrachloride	415	5	5	10
cis-1,2-Dichloroethene	2600	2900	2800	2700
Tetrachloroethene	415	5	31	10
Trichloroethene	20000	21000	12000	20000
Vinyl chloride	415	230	240	73

	Sampling Event			
PZ009D	August-01	October-01	December-01	March-02
Deep	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	41.5	0.5	1.5	1
1,1-Dichloroethene	41.5	3	1.5	1
1,2-Dichloroethane	41.5	0.5	1.5	1
Carbon tetrachloride	41.5	0.5	1.5	1
cis-1,2-Dichloroethene	150	200	130	130
Tetrachloroethene	41.5	16	1.5	1
Trichloroethene	2000	1700	2000	1900
Vinyl chloride	41.5	18	7	6

EW-2	Sampling Event				**Maximum**
Overall Average	August-01	October-01	December-01	March-02	**Value**
1,1,1-Trichloroethane	**252.2**	32.5	36.2	22.0	252.2
1,1-Dichloroethene	**252.2**	17.7	10.0	13.0	252.2
1,2-Dichloroethane	**252.2**	3.9	4.3	5.8	252.2
Carbon tetrachloride	**252.2**	3.9	4.3	5.8	252.2
cis-1,2-Dichloroethene	1983.3	**2038.3**	1810.0	1953.3	2038.3
Tetrachloroethene	**252.2**	15.3	21.8	5.8	252.2
Trichloroethene	12700.0	**13166.7**	10550.0	12250.0	13166.7
Vinyl chloride	252.2	**267.5**	266.1	115.2	267.5

TABLE C
mwa004

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWA004	8/2/2001	71-55-6	1,1,1-Trichloroethane	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	75-35-4	1,1-Dichloroethene	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	107-06-2	1,2-Dichloroethane	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	56-23-5	Carbon tetrachloride	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	156-59-2	cis-1,2-Dichloroethene	5400		UG/L	500	5400	UG/L
MWA004	8/2/2001	127-18-4	Tetrachloroethene	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	79-01-6	Trichloroethene	25000		UG/L	1000	25000	UG/L
MWA004	8/2/2001	75-01-4	Vinyl chloride	1000	U	UG/L	1000	500	UG/L
MWA004	10/17/2001	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
MWA004	10/17/2001	75-35-4	1,1-Dichloroethene	47	J	UG/L	20	47	UG/L
MWA004	10/17/2001	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
MWA004	10/17/2001	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
MWA004	10/17/2001	156-59-2	cis-1,2-Dichloroethene	5100		UG/L	20	5100	UG/L
MWA004	10/17/2001	127-18-4	Tetrachloroethene	27	J	UG/L	20	27	UG/L
MWA004	10/17/2001	79-01-6	Trichloroethene	26000		UG/L	100	26000	UG/L
MWA004	10/17/2001	75-01-4	Vinyl Chloride	1100		UG/L	20	1100	UG/L
MWA004	12/12/2001	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	75-35-4	1,1-Dichloroethene	21	J	UG/L	20	21	UG/L
MWA004	12/12/2001	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	156-59-2	cis-1,2-Dichloroethene	4000		UG/L	20	4000	UG/L
MWA004	12/12/2001	127-18-4	Tetrachloroethene	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	79-01-6	Trichloroethene	27000		UG/L	250	27000	UG/L
MWA004	12/12/2001	75-01-4	Vinyl Chloride	1100		UG/L	20	1100	UG/L
MWA004	3/26/2002	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	75-35-4	1,1-Dichloroethene	41	J	UG/L	20	41	UG/L
MWA004	3/26/2002	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	156-59-2	cis-1,2-Dichloroethene	5500		UG/L	20	5500	UG/L
MWA004	3/26/2002	127-18-4	Tetrachloroethene	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	79-01-6	Trichloroethene	24000		UG/L	200	24000	UG/L
MWA004	3/26/2002	75-01-4	Vinyl Chloride	490		UG/L	20	490	UG/L

TABLE C
mw010s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MW010S	8/2/2001	71-55-6	1,1,1-Trichloroethane	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	75-35-4	1,1-Dichloroethene	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	107-06-2	1,2-Dichloroethane	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	56-23-5	Carbon tetrachloride	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	1000		UG/L	100	1000	UG/L
MW010S	8/2/2001	127-18-4	Tetrachloroethene	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	79-01-6	Trichloroethene	7200		UG/L	200	7200	UG/L
MW010S	8/2/2001	75-01-4	Vinyl chloride	200	U	UG/L	200	100	UG/L
MW010S	10/17/2001	71-55-6	1,1,1-Trichloroethane	160		UG/L	5	160	UG/L
MW010S	10/17/2001	75-35-4	1,1-Dichloroethene	23	J	UG/L	5	23	UG/L
MW010S	10/17/2001	107-06-2	1,2-Dichloroethane	5	U	UG/L	5	2.5	UG/L
MW010S	10/17/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MW010S	10/17/2001	156-59-2	cis-1,2-Dichloroethene	930		UG/L	5	930	UG/L
MW010S	10/17/2001	127-18-4	Tetrachloroethene	23	J	UG/L	5	23	UG/L
MW010S	10/17/2001	79-01-6	Trichloroethene	7600		UG/L	50	7600	UG/L
MW010S	10/17/2001	75-01-4	Vinyl Chloride	9	J	UG/L	5	9	UG/L
MW010S	12/12/2001	71-55-6	1,1,1-Trichloroethane	180		UG/L	5	180	UG/L
MW010S	12/12/2001	75-35-4	1,1-Dichloroethene	26		UG/L	5	26	UG/L
MW010S	12/12/2001	107-06-2	1,2-Dichloroethane	5	U	UG/L	5	2.5	UG/L
MW010S	12/12/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MW010S	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1000		UG/L	5	1000	UG/L
MW010S	12/12/2001	127-18-4	Tetrachloroethene	56		UG/L	5	56	UG/L
MW010S	12/12/2001	79-01-6	Trichloroethene	8300		UG/L	50	8300	UG/L
MW010S	12/12/2001	75-01-4	Vinyl Chloride	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	71-55-6	1,1,1-Trichloroethane	100		UG/L	5	100	UG/L
MW010S	3/27/2002	75-35-4	1,1-Dichloroethene	15	J	UG/L	5	15	UG/L
MW010S	3/27/2002	107-06-2	1,2-Dichloroethane	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	156-59-2	cis-1,2-Dichloroethene	560		UG/L	5	560	UG/L
MW010S	3/27/2002	127-18-4	Tetrachloroethene	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	79-01-6	Trichloroethene	5700		UG/L	50	5700	UG/L
MW010S	3/27/2002	75-01-4	Vinyl Chloride	43		UG/L	5	43	UG/L

TABLE C
pz010i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ010I	8/2/2001	71-55-6	1,1,1-Trichloroethane	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	75-35-4	1,1-Dichloroethene	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	107-06-2	1,2-Dichloroethane	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	56-23-5	Carbon tetrachloride	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	2600		UG/L	420	2600	UG/L
PZ010I	8/2/2001	127-18-4	Tetrachloroethene	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	79-01-6	Trichloroethene	20000		UG/L	830	20000	UG/L
PZ010I	8/2/2001	75-01-4	Vinyl chloride	830	U	UG/L	830	415	UG/L
PZ010I	10/17/2001	71-55-6	1,1,1-Trichloroethane	12	J	UG/L	10	12	UG/L
PZ010I	10/17/2001	75-35-4	1,1-Dichloroethene	15	J	UG/L	10	15	UG/L
PZ010I	10/17/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ010I	10/17/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ010I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	2900		UG/L	10	2900	UG/L
PZ010I	10/17/2001	127-18-4	Tetrachloroethene	10	U	UG/L	10	5	UG/L
PZ010I	10/17/2001	79-01-6	Trichloroethene	21000		UG/L	100	21000	UG/L
PZ010I	10/17/2001	75-01-4	Vinyl Chloride	230		UG/L	10	230	UG/L
PZ010I	12/12/2001	71-55-6	1,1,1-Trichloroethane	12	J	UG/L	10	12	UG/L
PZ010I	12/12/2001	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ010I	12/12/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ010I	12/12/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ010I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	2800		UG/L	10	2800	UG/L
PZ010I	12/12/2001	127-18-4	Tetrachloroethene	31	J	UG/L	10	31	UG/L
PZ010I	12/12/2001	79-01-6	Trichloroethene	12000		UG/L	100	12000	UG/L
PZ010I	12/12/2001	75-01-4	Vinyl Chloride	240		UG/L	10	240	UG/L
PZ010I	3/27/2002	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	75-35-4	1,1-Dichloroethene	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	156-59-2	cis-1,2-Dichloroethene	2700		UG/L	20	2700	UG/L
PZ010I	3/27/2002	127-18-4	Tetrachloroethene	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	79-01-6	Trichloroethene	20000		UG/L	100	20000	UG/L
PZ010I	3/27/2002	75-01-4	Vinyl Chloride	73	J	UG/L	20	73	UG/L

TABLE C
pz009d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ009D	8/2/2001	71-55-6	1,1,1-Trichloroethane	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	75-35-4	1,1-Dichloroethene	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	107-06-2	1,2-Dichloroethane	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	56-23-5	Carbon tetrachloride	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	150		UG/L	42	150	UG/L
PZ009D	8/2/2001	127-18-4	Tetrachloroethene	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	79-01-6	Trichloroethene	2000		UG/L	83	2000	UG/L
PZ009D	8/2/2001	75-01-4	Vinyl chloride	83	U	UG/L	83	41.5	UG/L
PZ009D	10/17/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ009D	10/17/2001	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
PZ009D	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ009D	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ009D	10/17/2001	156-59-2	cis-1,2-Dichloroethene	200		UG/L	1	200	UG/L
PZ009D	10/17/2001	127-18-4	Tetrachloroethene	16		UG/L	1	16	UG/L
PZ009D	10/17/2001	79-01-6	Trichloroethene	1700		UG/L	20	1700	UG/L
PZ009D	10/17/2001	75-01-4	Vinyl Chloride	18		UG/L	1	18	UG/L
PZ009D	12/12/2001	71-55-6	1,1,1-Trichloroethane	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	75-35-4	1,1-Dichloroethene	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	107-06-2	1,2-Dichloroethane	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	56-23-5	Carbon Tetrachloride	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	156-59-2	cis-1,2-Dichloroethene	130		UG/L	3	130	UG/L
PZ009D	12/12/2001	127-18-4	Tetrachloroethene	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	79-01-6	Trichloroethene	2000		UG/L	20	2000	UG/L
PZ009D	12/12/2001	75-01-4	Vinyl Chloride	7	J	UG/L	3	7	UG/L
PZ009D	3/26/2002	71-55-6	1,1,1-Trichloroethane	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	75-35-4	1,1-Dichloroethene	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	130		UG/L	2	130	UG/L
PZ009D	3/26/2002	127-18-4	Tetrachloroethene	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	79-01-6	Trichloroethene	1900		UG/L	20	1900	UG/L
PZ009D	3/26/2002	75-01-4	Vinyl Chloride	6	J	UG/L	2	6	UG/L

TABLE D
EW3 Summary

	Sampling Event			
MW011S	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	33.5	57	59	42
1,1-Dichloroethene	33.5	6	7	3
1,2-Dichloroethane	33.5	0.5	0.5	0.5
Carbon tetrachloride	33.5	0.5	0.5	0.5
cis-1,2-Dichloroethene	270	180	210	150
Tetrachloroethene	33.5	25	4	1
Trichloroethene	2500	1800	2200	1200
Vinyl chloride	33.5	4	11	13

	Sampling Event			
MWB003	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	290	300	280	380
1,1-Dichloroethene	100	69	67	110
1,2-Dichloroethane	100	50	37	74
Carbon tetrachloride	100	2.5	2.5	0.5
cis-1,2-Dichloroethene	2100	2000	1600	2100
Tetrachloroethene	100	60	2.5	0.5
Trichloroethene	7200	6800	6800	5800
Vinyl chloride	100	25	18	23

	Sampling Event			
MWC003	August-01	October-01	December-01	March-02
Deep	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	0.5	0.5	0.5	0.5
1,1-Dichloroethene	0.5	0.5	0.5	0.5
1,2-Dichloroethane	0.5	0.5	0.5	0.5
Carbon tetrachloride	0.5	0.5	0.5	0.5
cis-1,2-Dichloroethene	2.6	0.5	0.5	0.5
Tetrachloroethene	0.5	0.5	0.5	0.5
Trichloroethene	25	1	0.5	0.5
Vinyl chloride	0.5	0.5	0.5	0.5

	Sampling Event				Maximum
EW-3	August-01	October-01	December-01	March-02	**Value**
Overall Average	UG/L	UG/L	UG/L	UG/L	**UG/L**
1,1,1-Trichloroethane	108.0	119.2	113.2	**140.8**	140.8
1,1-Dichloroethene	**44.7**	25.2	24.8	37.8	44.7
1,2-Dichloroethane	**44.7**	17.0	12.7	25.0	44.7
Carbon tetrachloride	**44.7**	1.2	1.2	0.5	44.7
cis-1,2-Dichloroethene	**790.9**	726.8	603.5	750.2	790.9
Tetrachloroethene	**44.7**	28.5	2.3	0.7	44.7
Trichloroethene	**3241.7**	2867.0	3000.2	2333.5	3241.7
Vinyl chloride	**44.7**	9.8	9.8	12.2	44.7

TABLE D
mw011s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MW011S	8/2/2001	71-55-6	1,1,1-Trichloroethane	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	75-35-4	1,1-Dichloroethene	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	107-06-2	1,2-Dichloroethane	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	56-23-5	Carbon tetrachloride	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	270		UG/L	33	270	UG/L
MW011S	8/2/2001	127-18-4	Tetrachloroethene	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	79-01-6	Trichloroethene	2500		UG/L	67	2500	UG/L
MW011S	8/2/2001	75-01-4	Vinyl chloride	67	U	UG/L	67	33.5	UG/L
MW011S	10/17/2001	71-55-6	1,1,1-Trichloroethane	57		UG/L	1	57	UG/L
MW011S	10/17/2001	75-35-4	1,1-Dichloroethene	6		UG/L	1	6	UG/L
MW011S	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW011S	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW011S	10/17/2001	156-59-2	cis-1,2-Dichloroethene	180		UG/L	1	180	UG/L
MW011S	10/17/2001	127-18-4	Tetrachloroethene	25		UG/L	1	25	UG/L
MW011S	10/17/2001	79-01-6	Trichloroethene	1800		UG/L	20	1800	UG/L
MW011S	10/17/2001	75-01-4	Vinyl Chloride	4	J	UG/L	1	4	UG/L
MW011S	12/12/2001	71-55-6	1,1,1-Trichloroethane	59		UG/L	1	59	UG/L
MW011S	12/12/2001	75-35-4	1,1-Dichloroethene	7		UG/L	1	7	UG/L
MW011S	12/12/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW011S	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW011S	12/12/2001	156-59-2	cis-1,2-Dichloroethene	210		UG/L	20	210	UG/L
MW011S	12/12/2001	127-18-4	Tetrachloroethene	4	J	UG/L	1	4	UG/L
MW011S	12/12/2001	79-01-6	Trichloroethene	2200		UG/L	20	2200	UG/L
MW011S	12/12/2001	75-01-4	Vinyl Chloride	11		UG/L	1	11	UG/L
MW011S	3/27/2002	71-55-6	1,1,1-Trichloroethane	42		UG/L	1	42	UG/L
MW011S	3/27/2002	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
MW011S	3/27/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW011S	3/27/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW011S	3/27/2002	156-59-2	cis-1,2-Dichloroethene	150		UG/L	1	150	UG/L
MW011S	3/27/2002	127-18-4	Tetrachloroethene	1	J	UG/L	1	1	UG/L
MW011S	3/27/2002	79-01-6	Trichloroethene	1200		UG/L	10	1200	UG/L
MW011S	3/27/2002	75-01-4	Vinyl Chloride	13		UG/L	1	13	UG/L

I

TABLE D
mwb003

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWB003	8/2/2001	71-55-6	1,1,1-Trichloroethane	290		UG/L	200	290	UG/L
MWB003	8/2/2001	75-35-4	1,1-Dichloroethene	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	107-06-2	1,2-Dichloroethane	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	56-23-5	Carbon tetrachloride	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	156-59-2	cis-1,2-Dichloroethene	2100		UG/L	100	2100	UG/L
MWB003	8/2/2001	127-18-4	Tetrachloroethene	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	79-01-6	Trichloroethene	7200		UG/L	200	7200	UG/L
MWB003	8/2/2001	75-01-4	Vinyl chloride	200	U	UG/L	200	100	UG/L
MWB003	10/17/2001	71-55-6	1,1,1-Trichloroethane	300		UG/L	5	300	UG/L
MWB003	10/17/2001	75-35-4	1,1-Dichloroethene	69		UG/L	5	69	UG/L
MWB003	10/17/2001	107-06-2	1,2-Dichloroethane	50		UG/L	5	50	UG/L
MWB003	10/17/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MWB003	10/17/2001	156-59-2	cis-1,2-Dichloroethene	2000		UG/L	50	2000	UG/L
MWB003	10/17/2001	127-18-4	Tetrachloroethene	60		UG/L	5	60	UG/L
MWB003	10/17/2001	79-01-6	Trichloroethene	6800		UG/L	50	6800	UG/L
MWB003	10/17/2001	75-01-4	Vinyl Chloride	25		UG/L	5	25	UG/L
MWB003	12/12/2001	71-55-6	1,1,1-Trichloroethane	280		UG/L	5	280	UG/L
MWB003	12/12/2001	75-35-4	1,1-Dichloroethene	67		UG/L	5	67	UG/L
MWB003	12/12/2001	107-06-2	1,2-Dichloroethane	37		UG/L	5	37	UG/L
MWB003	12/12/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MWB003	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1600		UG/L	50	1600	UG/L
MWB003	12/12/2001	127-18-4	Tetrachloroethene	5	U	UG/L	5	2.5	UG/L
MWB003	12/12/2001	79-01-6	Trichloroethene	6800		UG/L	50	6800	UG/L
MWB003	12/12/2001	75-01-4	Vinyl Chloride	18	J	UG/L	5	18	UG/L
MWB003	3/27/2002	71-55-6	1,1,1-Trichloroethane	380		UG/L	50	380	UG/L
MWB003	3/27/2002	75-35-4	1,1-Dichloroethene	110		UG/L	1	110	UG/L
MWB003	3/27/2002	107-06-2	1,2-Dichloroethane	74		UG/L	1	74	UG/L
MWB003	3/27/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB003	3/27/2002	156-59-2	cis-1,2-Dichloroethene	2100		UG/L	50	2100	UG/L
MWB003	3/27/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB003	3/27/2002	79-01-6	Trichloroethene	5800		UG/L	50	5800	UG/L
MWB003	3/27/2002	75-01-4	Vinyl Chloride	23		UG/L	1	23	UG/L

TABLE D
mwc003

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWC003	8/2/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	156-59-2	cis-1,2-Dichloroethene	2.6		UG/L	0.5	2.6	UG/L
MWC003	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	79-01-6	Trichloroethene	25		UG/L	1	25	UG/L
MWC003	8/2/2001	75-01-4	Vinyl chloride	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	79-01-6	Trichloroethene	1	J	UG/L	1	1	UG/L
MWC003	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE E
EW4 Summary

	Sampling Event			
MWA006	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	540	580	540	340
1,1-Dichloroethene	110	130	140	120
1,2-Dichloroethane	50	1	1	3
Carbon tetrachloride	50	1	1	1
cis-1,2-Dichloroethene	700	950	480	1600
Tetrachloroethene	50	6	1	1
Trichloroethene	3000	2700	2300	1800
Vinyl chloride	50	10	8	5

	Sampling Event			
PZ012I	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	9	0.5	0.5	0.5
1,1-Dichloroethene	9	2	2	2
1,2-Dichloroethane	9	0.5	0.5	0.5
Carbon tetrachloride	9	0.5	0.5	0.5
cis-1,2-Dichloroethene	370	420	500	450
Tetrachloroethene	9	0.5	1	0.5
Trichloroethene	61	91	110	110
Vinyl chloride	9	2	3	2

	Sampling Event			
PZ012D	August-01	October-01	December-01	March-02
Deep	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	4.1	0.5	0.5	0.5
1,1-Dichloroethene	0.5	0.5	0.5	0.5
1,2-Dichloroethane	0.5	0.5	0.5	0.5
Carbon tetrachloride	0.5	0.5	0.5	0.5
cis-1,2-Dichloroethene	5.8	0.5	0.5	0.5
Tetrachloroethene	0.5	0.5	0.5	0.5
Trichloroethene	39	2	2	1
Vinyl chloride	0.5	0.5	0.5	0.5

	Sampling Event				Maximum
EW-4	August-01	October-01	December-01	March-02	**Value**
Overall Average	UG/L	UG/L	UG/L	UG/L	**UG/L**
1,1,1-Trichloroethane	184.4	**193.7**	180.3	113.7	193.7
1,1-Dichloroethene	39.8	44.2	**47.5**	40.8	47.5
1,2-Dichloroethane	**19.8**	0.7	0.7	1.3	19.8
Carbon tetrachloride	**19.8**	0.7	0.7	0.7	19.8
cis-1,2-Dichloroethene	358.6	456.8	326.8	**683.5**	683.5
Tetrachloroethene	**19.8**	2.3	0.8	0.7	19.8
Trichloroethene	**1033.3**	931.0	804.0	637.0	1033.3
Vinyl chloride	**19.8**	4.2	3.8	2.5	19.8

TABLE E
mwa006

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWA006	8/2/2001	71-55-6	1,1,1-Trichloroethane	540		UG/L	100	540	UG/L
MWA006	8/2/2001	75-35-4	1,1-Dichloroethene	110		UG/L	100	110	UG/L
MWA006	8/2/2001	107-06-2	1,2-Dichloroethane	100	U	UG/L	100	50	UG/L
MWA006	8/2/2001	56-23-5	Carbon tetrachloride	100	U	UG/L	100	50	UG/L
MWA006	8/2/2001	156-59-2	cis-1,2-Dichloroethene	700		UG/L	50	700	UG/L
MWA006	8/2/2001	127-18-4	Tetrachloroethene	100	U	UG/L	100	50	UG/L
MWA006	8/2/2001	79-01-6	Trichloroethene	3000		UG/L	100	3000	UG/L
MWA006	8/2/2001	75-01-4	Vinyl chloride	100	U	UG/L	100	50	UG/L
MWA006	10/17/2001	71-55-6	1,1,1-Trichloroethane	580		UG/L	2	580	UG/L
MWA006	10/17/2001	75-35-4	1,1-Dichloroethene	130		UG/L	2	130	UG/L
MWA006	10/17/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
MWA006	10/17/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA006	10/17/2001	156-59-2	cis-1,2-Dichloroethene	950		UG/L	25	950	UG/L
MWA006	10/17/2001	127-18-4	Tetrachloroethene	6	J	UG/L	2	6	UG/L
MWA006	10/17/2001	79-01-6	Trichloroethene	2700		UG/L	25	2700	UG/L
MWA006	10/17/2001	75-01-4	Vinyl Chloride	10	J	UG/L	2	10	UG/L
MWA006	12/12/2001	71-55-6	1,1,1-Trichloroethane	540		UG/L	2	540	UG/L
MWA006	12/12/2001	75-35-4	1,1-Dichloroethene	140		UG/L	2	140	UG/L
MWA006	12/12/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
MWA006	12/12/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA006	12/12/2001	156-59-2	cis-1,2-Dichloroethene	480		UG/L	25	480	UG/L
MWA006	12/12/2001	127-18-4	Tetrachloroethene	2	U	UG/L	2	1	UG/L
MWA006	12/12/2001	79-01-6	Trichloroethene	2300		UG/L	25	2300	UG/L
MWA006	12/12/2001	75-01-4	Vinyl Chloride	8	J	UG/L	2	8	UG/L
MWA006	3/27/2002	71-55-6	1,1,1-Trichloroethane	340		UG/L	2	340	UG/L
MWA006	3/27/2002	75-35-4	1,1-Dichloroethene	120		UG/L	2	120	UG/L
MWA006	3/27/2002	107-06-2	1,2-Dichloroethane	3	J	UG/L	2	3	UG/L
MWA006	3/27/2002	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA006	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1600		UG/L	20	1600	UG/L
MWA006	3/27/2002	127-18-4	Tetrachloroethene	2	U	UG/L	2	1	UG/L
MWA006	3/27/2002	79-01-6	Trichloroethene	1800		UG/L	20	1800	UG/L
MWA006	3/27/2002	75-01-4	Vinyl Chloride	5	J	UG/L	2	5	UG/L

TABLE E
pz0012i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ012I	8/2/2001	71-55-6	1,1,1-Trichloroethane	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	75-35-4	1,1-Dichloroethene	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	107-06-2	1,2-Dichloroethane	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	56-23-5	Carbon tetrachloride	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	370		UG/L	9.1	370	UG/L
PZ012I	8/2/2001	127-18-4	Tetrachloroethene	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	79-01-6	Trichloroethene	61		UG/L	18	61	UG/L
PZ012I	8/2/2001	75-01-4	Vinyl chloride	18	U	UG/L	18	9	UG/L
PZ012I	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	75-35-4	1,1-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ012I	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	156-59-2	cis-1,2-Dichloroethene	420		UG/L	5	420	UG/L
PZ012I	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	79-01-6	Trichloroethene	91		UG/L	1	91	UG/L
PZ012I	10/15/2001	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L
PZ012I	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	12/10/2001	75-35-4	1,1-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ012I	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012I	12/10/2001	156-59-2	cis-1,2-Dichloroethene	500		UG/L	5	500	UG/L
PZ012I	12/10/2001	127-18-4	Tetrachloroethene	1	J	UG/L	1	1	UG/L
PZ012I	12/10/2001	79-01-6	Trichloroethene	110		UG/L	1	110	UG/L
PZ012I	12/10/2001	75-01-4	Vinyl Chloride	3	J	UG/L	1	3	UG/L
PZ012I	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	75-35-4	1,1-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ012I	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	450		UG/L	5	450	UG/L
PZ012I	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	79-01-6	Trichloroethene	110		UG/L	1	110	UG/L
PZ012I	3/26/2002	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L

TABLE E
pz0012d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ012D	8/2/2001	71-55-6	1,1,1-Trichloroethane	4.1		UG/L	1	4.1	UG/L
PZ012D	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	5.8		UG/L	0.5	5.8	UG/L
PZ012D	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	79-01-6	Trichloroethene	39		UG/L	1	39	UG/L
PZ012D	8/2/2001	75-01-4	Vinyl chloride	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	79-01-6	Trichloroethene	2	J	UG/L	1	2	UG/L
PZ012D	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	79-01-6	Trichloroethene	2	J	UG/L	1	2	UG/L
PZ012D	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	79-01-6	Trichloroethene	1	J	UG/L	1	1	UG/L
PZ012D	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
EW5 Summary

	Sampling Event			
MWA005	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	2600	1900	2000	1900
1,1-Dichloroethene	340	300	340	330
1,2-Dichloroethane	50	6	5	4
Carbon tetrachloride	50	0.5	0.5	0.5
cis-1,2-Dichloroethene	150	170	160	150
Tetrachloroethene	50	85	68	83
Trichloroethene	1700	1500	1600	1500
Vinyl chloride	50	0.5	0.5	0.5

	Sampling Event			
PZ013I	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	740	600	470	450
1,1-Dichloroethene	88	56	39	39
1,2-Dichloroethane	15.5	1	0.5	0.5
Carbon tetrachloride	15.5	130	0.5	0.5
cis-1,2-Dichloroethene	93	79	74	78
Tetrachloroethene	560	550	690	890
Trichloroethene	1100	750	480	390
Vinyl chloride	15.5	6	4	2

	Sampling Event				Maximum
EW-5	August-01	October-01	December-01	March-02	**Value**
Overall Average	UG/L	UG/L	UG/L	UG/L	**UG/L**
1,1,1-Trichloroethane	**1670.0**	1250.0	1235.0	1175.0	1670.0
1,1-Dichloroethene	**214.0**	178.0	189.5	184.5	214.0
1,2-Dichloroethane	**32.8**	3.5	2.8	2.3	32.8
Carbon tetrachloride	32.8	**65.3**	0.5	0.5	65.3
cis-1,2-Dichloroethene	121.5	**124.5**	117.0	114.0	124.5
Tetrachloroethene	305.0	317.5	379.0	**486.5**	486.5
Trichloroethene	**1400.0**	1125.0	1040.0	945.0	1400.0
Vinyl chloride	**32.8**	3.3	2.3	1.3	32.8

TABLE F
mwa005

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWA005	8/2/2001	71-55-6	1,1,1-Trichloroethane	2600		UG/L	100	2600	UG/L
MWA005	8/2/2001	75-35-4	1,1-Dichloroethene	340		UG/L	100	340	UG/L
MWA005	8/2/2001	107-06-2	1,2-Dichloroethane	100	U	UG/L	100	50	UG/L
MWA005	8/2/2001	56-23-5	Carbon tetrachloride	100	U	UG/L	100	50	UG/L
MWA005	8/2/2001	156-59-2	cis-1,2-Dichloroethene	150		UG/L	50	150	UG/L
MWA005	8/2/2001	127-18-4	Tetrachloroethene	100	U	UG/L	100	50	UG/L
MWA005	8/2/2001	79-01-6	Trichloroethene	1700		UG/L	100	1700	UG/L
MWA005	8/2/2001	75-01-4	Vinyl chloride	100	U	UG/L	100	50	UG/L
MWA005	10/17/2001	71-55-6	1,1,1-Trichloroethane	1900		UG/L	20	1900	UG/L
MWA005	10/17/2001	75-35-4	1,1-Dichloroethene	300		UG/L	20	300	UG/L
MWA005	10/17/2001	107-06-2	1,2-Dichloroethane	6		UG/L	1	6	UG/L
MWA005	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA005	10/17/2001	156-59-2	cis-1,2-Dichloroethene	170		UG/L	1	170	UG/L
MWA005	10/17/2001	127-18-4	Tetrachloroethene	85		UG/L	1	85	UG/L
MWA005	10/17/2001	79-01-6	Trichloroethene	1500		UG/L	20	1500	UG/L
MWA005	10/17/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWA005	12/12/2001	71-55-6	1,1,1-Trichloroethane	2000		UG/L	10	2000	UG/L
MWA005	12/12/2001	75-35-4	1,1-Dichloroethene	340		UG/L	10	340	UG/L
MWA005	12/12/2001	107-06-2	1,2-Dichloroethane	5	J	UG/L	1	5	UG/L
MWA005	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA005	12/12/2001	156-59-2	cis-1,2-Dichloroethene	160		UG/L	1	160	UG/L
MWA005	12/12/2001	127-18-4	Tetrachloroethene	68		UG/L	1	68	UG/L
MWA005	12/12/2001	79-01-6	Trichloroethene	1600		UG/L	10	1600	UG/L
MWA005	12/12/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWA005	3/26/2002	71-55-6	1,1,1-Trichloroethane	1900		UG/L	20	1900	UG/L
MWA005	3/26/2002	75-35-4	1,1-Dichloroethene	330		UG/L	20	330	UG/L
MWA005	3/26/2002	107-06-2	1,2-Dichloroethane	4	J	UG/L	1	4	UG/L
MWA005	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA005	3/26/2002	156-59-2	cis-1,2-Dichloroethene	150		UG/L	1	150	UG/L
MWA005	3/26/2002	127-18-4	Tetrachloroethene	83		UG/L	1	83	UG/L
MWA005	3/26/2002	79-01-6	Trichloroethene	1500		UG/L	20	1500	UG/L
MWA005	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
pz013i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ013I	8/2/2001	71-55-6	1,1,1-Trichloroethane	740		UG/L	31	740	UG/L
PZ013I	8/2/2001	75-35-4	1,1-Dichloroethene	88		UG/L	31	88	UG/L
PZ013I	8/2/2001	107-06-2	1,2-Dichloroethane	31	U	UG/L	31	15.5	UG/L
PZ013I	8/2/2001	56-23-5	Carbon tetrachloride	31	U	UG/L	31	15.5	UG/L
PZ013I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	93		UG/L	16	93	UG/L
PZ013I	8/2/2001	127-18-4	Tetrachloroethene	560		UG/L	31	560	UG/L
PZ013I	8/2/2001	79-01-6	Trichloroethene	1100		UG/L	31	1100	UG/L
PZ013I	8/2/2001	75-01-4	Vinyl chloride	31	U	UG/L	31	15.5	UG/L
PZ013I	10/17/2001	71-55-6	1,1,1-Trichloroethane	600		UG/L	10	600	UG/L
PZ013I	10/17/2001	75-35-4	1,1-Dichloroethene	56		UG/L	1	56	UG/L
PZ013I	10/17/2001	107-06-2	1,2-Dichloroethane	1	J	UG/L	1	1	UG/L
PZ013I	10/17/2001	56-23-5	Carbon Tetrachloride	130		UG/L	1	130	UG/L
PZ013I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	79		UG/L	1	79	UG/L
PZ013I	10/17/2001	127-18-4	Tetrachloroethene	550		UG/L	10	550	UG/L
PZ013I	10/17/2001	79-01-6	Trichloroethene	750		UG/L	10	750	UG/L
PZ013I	10/17/2001	75-01-4	Vinyl Chloride	6		UG/L	1	6	UG/L
PZ013I	12/12/2001	71-55-6	1,1,1-Trichloroethane	470		UG/L	5	470	UG/L
PZ013I	12/12/2001	75-35-4	1,1-Dichloroethene	39		UG/L	1	39	UG/L
PZ013I	12/12/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ013I	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ013I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	74		UG/L	1	74	UG/L
PZ013I	12/12/2001	127-18-4	Tetrachloroethene	690		UG/L	5	690	UG/L
PZ013I	12/12/2001	79-01-6	Trichloroethene	480		UG/L	5	480	UG/L
PZ013I	12/12/2001	75-01-4	Vinyl Chloride	4	J	UG/L	1	4	UG/L
PZ013I	3/26/2002	71-55-6	1,1,1-Trichloroethane	450		UG/L	10	450	UG/L
PZ013I	3/26/2002	75-35-4	1,1-Dichloroethene	39		UG/L	1	39	UG/L
PZ013I	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ013I	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ013I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	78		UG/L	1	78	UG/L
PZ013I	3/26/2002	127-18-4	Tetrachloroethene	890		UG/L	10	890	UG/L
PZ013I	3/26/2002	79-01-6	Trichloroethene	390		UG/L	10	390	UG/L
PZ013I	3/26/2002	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L

TABLE G
EW6 Summary

	Sampling Event			
MW018S	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	81	45	51	
1,1-Dichloroethene	8.5	3	4	
1,2-Dichloroethane	8.5	0.5	0 5	
Carbon tetrachloride	8.5	0.5	0.5	
cis-1,2-Dichloroethene	180	65	150	
Tetrachloroethene	440	510	530	
Trichloroethene	46	45	54	
Vinyl chloride	8.5	0.5	0.5	

	Sampling Event			
MWA001	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	2300	1800	1000	1000
1,1-Dichloroethene	70	69	32	42
1,2-Dichloroethane	70	0.5	1	0.5
Carbon tetrachloride	70	0.5	1	0.5
cis-1,2-Dichloroethene	3600	2400	2700	2200
Tetrachloroethene	920	920	720	760
Trichloroethene	670	580	480	390
Vinyl chloride	70	0.5	1	0.5

	Sampling Event			
Average	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	1190.5	922.5	525.5	1000
1,1-Dichloroethene	39.25	36	18	42
1,2-Dichloroethane	39.25	0.5	0.75	0.5
Carbon tetrachloride	39.25	0.5	0.75	0.5
cis-1,2-Dichloroethene	1890	1232.5	1425	2200
Tetrachloroethene	680	715	625	760
Trichloroethene	358	312.5	267	390
Vinyl chloride	39.25	0.5	0.75	0.5

	Sampling Event			
PZ017I	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	21	50	35	47
1,1-Dichloroethene	21	3	1	0.5
1,2-Dichloroethane	21	0.5	1	0.5
Carbon tetrachloride	21	0.5	1	0.5
cis-1,2-Dichloroethene	47	47	39	44
Tetrachloroethene	1700	1600	1500	1500
Trichloroethene	94	130	82	110
Vinyl chloride	21	1	1	1

	Sampling Event			
MWB002	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	0.5	0.5	0.5	
1,1-Dichloroethene	0.5	0.5	0.5	
1,2-Dichloroethane	0.5	0.5	0.5	
Carbon tetrachloride	0.5	0.5	0.5	
cis-1,2-Dichloroethene	0.25	0 5	0.5	
Tetrachloroethene	0.5	0.5	0.5	
Trichloroethene	1.2	0.5	0.5	
Vinyl chloride	2	2	2	

	Sampling Event			
Average	UG/L	UG/L	UG/L	UG/L
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	10 75	25.25	17.75	47
1,1-Dichloroethene	10.75	1.75	0.75	0.5
1,2-Dichloroethane	10.75	0.5	0.75	0.5
Carbon tetrachloride	10.75	0.5	0.75	0.5
cis-1,2-Dichloroethene	23.625	23.75	19.75	44
Tetrachloroethene	850.25	800.25	750.25	1500
Trichloroethene	47.6	65.25	41.25	110
Vinyl chloride	11.5	1.5	1.5	1

	Sampling Event			
PZ017D	August-01	October-01	December-01	March-02
Deep	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	0.5	0.5	0.5	0.5
1,1-Dichloroethene	0.5	0 5	0.5	0.5
1,2-Dichloroethane	0.5	0.5	0.5	0.5
Carbon tetrachloride	0.5	0.5	0.5	0.5
cis-1,2-Dichloroethene	5.3	3	5	4
Tetrachloroethene	0.5	0.5	2	0.5
Trichloroethene	0.5	0.5	0.5	0.5
Vinyl chloride	9.6	15	15	16

EW-6	Sampling Event				Maximum
Overall Average	August-01	October-01	December-01	March-02	**Value**
1,1,1-Trichloroethane	**400.6**	316.1	181.3	349.2	400.6
1,1-Dichloroethene	**16.8**	12.8	6.4	14.3	16.8
1,2-Dichloroethane	**16.8**	0 5	0 7	0.5	16 8
Carbon tetrachloride	**16.8**	0.5	0.7	0.5	16.8
cis-1,2-Dichloroethene	639.6	419.8	483 3	**749.3**	749 3
Tetrachloroethene	510.3	505.3	459.1	**753.5**	753 5
Trichloroethene	135.4	126.1	102.9	**166.8**	166.8
Vinyl chloride	**20.1**	5.7	5.8	5.8	20.1

Table F
mw018s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MW018S	8/2/2001	71-55-6	1,1,1-Trichloroethane	81		UG/L	17	81	UG/L
MW018S	8/2/2001	75-35-4	1,1-Dichloroethene	17	U	UG/L	17	8.5	UG/L
MW018S	8/2/2001	107-06-2	1,2-Dichloroethane	17	U	UG/L	17	8.5	UG/L
MW018S	8/2/2001	56-23-5	Carbon tetrachloride	17	U	UG/L	17	8.5	UG/L
MW018S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	180		UG/L	8.3	180	UG/L
MW018S	8/2/2001	127-18-4	Tetrachloroethene	440		UG/L	17	440	UG/L
MW018S	8/2/2001	79-01-6	Trichloroethene	46		UG/L	17	46	UG/L
MW018S	8/2/2001	75-01-4	Vinyl chloride	17	U	UG/L	17	8.5	UG/L
MW018S	10/15/2001	71-55-6	1,1,1-Trichloroethane	45		UG/L	1	45	UG/L
MW018S	10/15/2001	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
MW018S	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW018S	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW018S	10/15/2001	156-59-2	cis-1,2-Dichloroethene	65		UG/L	1	65	UG/L
MW018S	10/15/2001	127-18-4	Tetrachloroethene	510		UG/L	5	510	UG/L
MW018S	10/15/2001	79-01-6	Trichloroethene	45		UG/L	1	45	UG/L
MW018S	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MW018S	12/10/2001	71-55-6	1,1,1-Trichloroethane	51		UG/L	1	51	UG/L
MW018S	12/10/2001	75-35-4	1,1-Dichloroethene	4	J	UG/L	1	4	UG/L
MW018S	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW018S	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW018S	12/10/2001	156-59-2	cis-1,2-Dichloroethene	150		UG/L	1	150	UG/L
MW018S	12/10/2001	127-18-4	Tetrachloroethene	530		UG/L	5	530	UG/L
MW018S	12/10/2001	79-01-6	Trichloroethene	54		UG/L	1	54	UG/L
MW018S	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
mwa001

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWA001	8/1/2001	71-55-6	1,1,1-Trichloroethane	2300		UG/L	140	2300	UG/L
MWA001	8/1/2001	75-35-4	1,1-Dichloroethene	140	U	UG/L	140	70	UG/L
MWA001	8/1/2001	107-06-2	1,2-Dichloroethane	140	U	UG/L	140	70	UG/L
MWA001	8/1/2001	56-23-5	Carbon tetrachloride	140	U	UG/L	140	70	UG/L
MWA001	8/1/2001	156-59-2	cis-1,2-Dichloroethene	3600		UG/L	71	3600	UG/L
MWA001	8/1/2001	127-18-4	Tetrachloroethene	920		UG/L	140	920	UG/L
MWA001	8/1/2001	79-01-6	Trichloroethene	670		UG/L	140	670	UG/L
MWA001	8/1/2001	75-01-4	Vinyl chloride	140	U	UG/L	140	70	UG/L
MWA001	10/17/2001	71-55-6	1,1,1-Trichloroethane	1800		UG/L	20	1800	UG/L
MWA001	10/17/2001	75-35-4	1,1-Dichloroethene	69		UG/L	1	69	UG/L
MWA001	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWA001	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	2400		UG/L	20	2400	UG/L
MWA001	10/17/2001	127-18-4	Tetrachloroethene	920		UG/L	20	920	UG/L
MWA001	10/17/2001	79-01-6	Trichloroethene	580		UG/L	20	580	UG/L
MWA001	10/17/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWA001	12/12/2001	71-55-6	1,1,1-Trichloroethane	1000		UG/L	25	1000	UG/L
MWA001	12/12/2001	75-35-4	1,1-Dichloroethene	32		UG/L	2	32	UG/L
MWA001	12/12/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
MWA001	12/12/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	2700		UG/L	25	2700	UG/L
MWA001	12/12/2001	127-18-4	Tetrachloroethene	720		UG/L	25	720	UG/L
MWA001	12/12/2001	79-01-6	Trichloroethene	480		UG/L	2	480	UG/L
MWA001	12/12/2001	75-01-4	Vinyl Chloride	2	U	UG/L	2	1	UG/L
MWA001	3/26/2002	71-55-6	1,1,1-Trichloroethane	1000		UG/L	20	1000	UG/L
MWA001	3/26/2002	75-35-4	1,1-Dichloroethene	42		UG/L	1	42	UG/L
MWA001	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWA001	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA001	3/26/2002	156-59-2	cis-1,2-Dichloroethene	2200		UG/L	20	2200	UG/L
MWA001	3/26/2002	127-18-4	Tetrachloroethene	760		UG/L	20	760	UG/L
MWA001	3/26/2002	79-01-6	Trichloroethene	390		UG/L	20	390	UG/L
MWA001	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

I

TABLE F
pz017i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ017I	8/2/2001	71-55-6	1,1,1-Trichloroethane	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	75-35-4	1,1-Dichloroethene	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	107-06-2	1,2-Dichloroethane	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	56-23-5	Carbon tetrachloride	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	47		UG/L	21	47	UG/L
PZ017I	8/2/2001	127-18-4	Tetrachloroethene	1700		UG/L	42	1700	UG/L
PZ017I	8/2/2001	79-01-6	Trichloroethene	94		UG/L	42	94	UG/L
PZ017I	8/2/2001	75-01-4	Vinyl chloride	42	U	UG/L	42	21	UG/L
PZ017I	10/17/2001	71-55-6	1,1,1-Trichloroethane	50		UG/L	1	50	UG/L
PZ017I	10/17/2001	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
PZ017I	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017I	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	47		UG/L	1	47	UG/L
PZ017I	10/17/2001	127-18-4	Tetrachloroethene	1600		UG/L	20	1600	UG/L
PZ017I	10/17/2001	79-01-6	Trichloroethene	130		UG/L	1	130	UG/L
PZ017I	10/17/2001	75-01-4	Vinyl Chloride	1	J	UG/L	1	1	UG/L
PZ017I	12/12/2001	71-55-6	1,1,1-Trichloroethane	35		UG/L	2	35	UG/L
PZ017I	12/12/2001	75-35-4	1,1-Dichloroethene	2	U	UG/L	2	1	UG/L
PZ017I	12/12/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
PZ017I	12/12/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
PZ017I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	39		UG/L	2	39	UG/L
PZ017I	12/12/2001	127-18-4	Tetrachloroethene	1500		UG/L	20	1500	UG/L
PZ017I	12/12/2001	79-01-6	Trichloroethene	82		UG/L	2	82	UG/L
PZ017I	12/12/2001	75-01-4	Vinyl Chloride	2	U	UG/L	2	1	UG/L
PZ017I	3/26/2002	71-55-6	1,1,1-Trichloroethane	47		UG/L	1	47	UG/L
PZ017I	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017I	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017I	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	44		UG/L	1	44	UG/L
PZ017I	3/26/2002	127-18-4	Tetrachloroethene	1500		UG/L	20	1500	UG/L
PZ017I	3/26/2002	79-01-6	Trichloroethene	110		UG/L	1	110	UG/L
PZ017I	3/26/2002	75-01-4	Vinyl Chloride	1	J	UG/L	1	1	UG/L

TABLE F
mwb002

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWB002	8/2/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	156-59-2	cis-1,2-Dichloroethene	0.5	U	UG/L	0.5	0.25	UG/L
MWB002	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	79-01-6	Trichloroethene	1.2		UG/L	1	1.2	UG/L
MWB002	8/2/2001	75-01-4	Vinyl chloride	2		UG/L	1	2	UG/L
MWB002	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L
MWB002	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L

TABLE F
pz017d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ017D	8/2/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	5.3		UG/L	0.5	5.3	UG/L
PZ017D	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	75-01-4	Vinyl chloride	9.6		UG/L	1	9.6	UG/L
PZ017D	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	156-59-2	cis-1,2-Dichloroethene	3	J	UG/L	1	3	UG/L
PZ017D	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	75-01-4	Vinyl Chloride	15		UG/L	1	15	UG/L
PZ017D	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	156-59-2	cis-1,2-Dichloroethene	5	J	UG/L	1	5	UG/L
PZ017D	12/10/2001	127-18-4	Tetrachloroethene	2	J	UG/L	1	2	UG/L
PZ017D	12/10/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	75-01-4	Vinyl Chloride	15		UG/L	1	15	UG/L
PZ017D	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	4	J	UG/L	1	4	UG/L
PZ017D	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	75-01-4	Vinyl Chloride	16		UG/L	1	16	UG/L

TABLE G
Summary Of All EWs

EW-1	Sampling Event				Maximum
Overall Average	August-01 UG/L	October-01 UG/L	December-01 UG/L	March-02 UG/L	Value UG/L
1,1,1-Trichloroethane	**60.7**	19.2	16.8	17.8	60.7
1,1-Dichloroethene	**60.3**	2.0	2.0	2.0	60.3
1,2-Dichloroethane	**60.3**	2.0	2.0	2.0	60.3
Carbon tetrachloride	**60.3**	2.0	2.0	2.0	60.3
cis-1,2-Dichloroethene	37.2	48.3	83.7	**114.0**	114.0
Tetrachloroethene	3700.2	4367.0	4666.8	**6366.8**	6366.8
Trichloroethene	785.7	971.3	1310.7	**2380.2**	2380.2
Vinyl chloride	**60.3**	2.0	2.0	2.0	60.3

EW-2	Sampling Event				Maximum
Overall Average	August-01	October-01	December-01	March-02	Value
1,1,1-Trichloroethane	**252.2**	32.5	36.2	22.0	252.2
1,1-Dichloroethene	**252.2**	17.7	10.0	13.0	252.2
1,2-Dichloroethane	**252.2**	3.9	4.3	5.8	252.2
Carbon tetrachloride	**252.2**	3.9	4.3	5.8	252.2
cis-1,2-Dichloroethene	1983.3	**2038.3**	1810.0	1953.3	2038.3
Tetrachloroethene	**252.2**	15.3	21.8	5.8	252.2
Trichloroethene	12700.0	**13166.7**	10550.0	12250.0	13166.7
Vinyl chloride	252.2	**267.5**	266.1	115.2	267.5

EW-3	Sampling Event				Maximum
Overall Average	August-01 UG/L	October-01 UG/L	December-01 UG/L	March-02 UG/L	Value UG/L
1,1,1-Trichloroethane	108.0	119.2	113.2	**140.8**	140.8
1,1-Dichloroethene	**44.7**	25.2	24.8	37.8	44.7
1,2-Dichloroethane	**44.7**	17.0	12.7	25.0	44.7
Carbon tetrachloride	**44.7**	1.2	1.2	0.5	44.7
cis-1,2-Dichloroethene	**790.9**	726.8	603.5	750.2	790.9
Tetrachloroethene	**44.7**	28.5	2.3	0.7	44.7
Trichloroethene	**3241.7**	2867.0	3000.2	2333.5	3241.7
Vinyl chloride	**44.7**	9.8	9.8	12.2	44.7

EW-4	Sampling Event				Maximum
Overall Average	August-01 UG/L	October-01 UG/L	December-01 UG/L	March-02 UG/L	Value UG/L
1,1,1-Trichloroethane	184.4	**193.7**	180.3	113.7	193.7
1,1-Dichloroethene	39.8	44.2	**47.5**	40.8	47.5
1,2-Dichloroethane	**19.8**	0.7	0.7	1.3	19.8
Carbon tetrachloride	**19.8**	0.7	0.7	0.7	19.8
cis-1,2-Dichloroethene	358.6	456.8	326.8	**683.5**	683.5
Tetrachloroethene	**19.8**	2.3	0.8	0.7	19.8
Trichloroethene	**1033.3**	931.0	804.0	637.0	1033.3
Vinyl chloride	**19.8**	4.2	3.8	2.5	19.8

EW-5	Sampling Event				Maximum
Overall Average	August-01 UG/L	October-01 UG/L	December-01 UG/L	March-02 UG/L	Value UG/L
1,1,1-Trichloroethane	**1670.0**	1250.0	1235.0	1175.0	1670.0
1,1-Dichloroethene	**214.0**	178.0	189.5	184.5	214.0
1,2-Dichloroethane	**32.8**	3.5	2.8	2.3	32.8
Carbon tetrachloride	32.8	**65.3**	0.5	0.5	65.3
cis-1,2-Dichloroethene	121.5	**124.5**	117.0	114.0	124.5
Tetrachloroethene	305.0	317.5	379.0	**486.5**	486.5
Trichloroethene	**1400.0**	1125.0	1040.0	945.0	1400.0
Vinyl chloride	**32.8**	3.3	2.3	1.3	32.8

EW-6	Sampling Event				Maximum
Overall Average	August-01	October-01	December-01	March-02	Value
1,1,1-Trichloroethane	**400.6**	316.1	181.3	349.2	400.6
1,1-Dichloroethene	**16.8**	12.8	6.4	14.3	16.8
1,2-Dichloroethane	**16.8**	0.5	0.7	0.5	16.8
Carbon tetrachloride	**16.8**	0.5	0.7	0.5	16.8
cis-1,2-Dichloroethene	639.6	419.8	483.3	**749.3**	749.3
Tetrachloroethene	510.3	505.3	459.1	**753.5**	753.5
Trichloroethene	135.4	126.1	102.9	**166.8**	166.8
Vinyl chloride	**20.1**	5.7	5.8	5.8	20.1