Attachment F

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
HOUSTON BRANCH
6608 HORNWOOD DRIVE
HOUSTON, TEXAS 77074

October 12, 1988

MEMORANDUM

SUBJECT: Laboratory results for PPG Industries.

FROM: for R. Ray Clark
M. Kendall Young
Chief
Inorganic Section

TO: Diana G. Ayers
Chief
Houston Branch

Attached are laboratory results for the subject site. Thirteen (13) water samples were received on September 1, 1988. Eight (8) of the samples were to be analyzed for metals, cyanide, phenols and total suspended solids.

The laboratory numbers assigned were 8AFEIE7601 through 8AFEIE7613.

This is a final report.

196

Date: 10/13/88

Appendix 1

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 08/31/88
Sample Number: 1 Time Recvd: 13:30 Time Collected: 11:15

Source: PPG Industries Tag Number:
Site Description: Blank sample
Sample Type: WATER
Sample Retention:

Param- Organic: ABN VOA
Metals: MTL
Inorganic: CN OH-
Biology:

Due Date: 10/06/88
Dat Projected: 10/06/88
Date Completed: / /
Comment:
Your Initials: RLR

SL 023354

Attachment 1

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE76-01 DATE REPORTED: 9/29/88

SAMPLE TYPE: WATER ANALYST: MARVELYN HUMPHREY

HSL ACID BASE/NEUTRAL COMPOUNDS BY METHOD 625

COMPOUND	ug/L	COMPOUND	ug/L
Phenol	nd dl=4	Acenaphthene	nd dl=2
bis(2-Chloroetnyl) Ether	nd dl=2	2,4-Dinitrophenol	nd dl=30
2-Chlorophenol	nd dl=4	4-Nitrophenol	nd dl=8
1,3-Dichlorobenzene	nd dl=2	Dibenzofuran	nd dl=2
1,4-Dichlorobenzene	nd dl=2	2,4-Dinitrotoluene	nd dl=6
Benzyl Alcohol	nd dl=4	2,6-Dinitrotoluene	nd dl=6
1,2-Dichlorobenzene	nd dl=2	Diethylphthalate	nd dl=2
2-Metnylphenol	nd dl=6	4-Chlorophenylphenyl Ether	nd dl=8
bis(2-chloroisopropyl)Ether	nd dl=2	Fluorene	nd dl=2
4-Methylphenol	nd dl=6	4-Nitroaniline	nd dl=8
N-Nitroso-Di-n-Propylamine	nd dl=6	4,6-Dinitro-2-Methylphenol	nd dl=20
Hexachloroethane	nd dl=2	N-Nitrosodiphenylamine	nd dl=4
Nitrobenzene	nd dl=2	4-Bromophenylphenyl Ether	nd dl=8
Isophorone	nd dl=4	Hexachlorobenzene	nd dl=2
2-Nitrophenol	nd dl=10	Pentachlorophenol	nd dl=15
2,4-Dimethylphenol	nd dl=6	Phenanthrene	nd dl=2
Benzoic Acid	nd dl=10	Anthracene	nd dl=2
bis(2-Chloroethoxy)Methane	nd dl=2	Di-n-Butylphthalate	nd dl=2
2,4-Dichlorophenol	nd dl=6	Fluoranthene	nd dl=2
1,2,4-trichlorobenzene	nd dl=2	Benzidine	nd dl=20
Naphthalene	nd dl=2	Pyrene	nd dl=2
4-Chloroaniline	nd dl=4	Butylbenzylphthalate	nd dl=4
Hexachlorobutadiene	nd dl=2	3,3'-Dichlorobenzidine	nd dl=10
4-Chloro-3-Methylphenol	nd dl=8	Benzo(a)Anthracene	nd dl=8
2-Methylnaphthalene	nd dl=2	bis-(2-Ethylhexyl)Phthalate	60
Hexachlorocyclopentadiene	nd dl=10	Chrysene	nd dl=8
2,4,6-Trichlorophenol	nd dl=6	Di-n-Octyl Phthalate	nd dl=4
2,4,5-Trichlorophenol	nd dl=6	Benzo(b)Fluoranthene	nd dl=8
2-Chloronaphthalene	nd dl=2	Benzo(k)Fluoranthene	nd dl=8
2-Nitroaniline	nd dl=8	Benzo(a)Pyrene	nd dl=8
Dim thylPhthalate	nd dl=2	Indeno(1,2,3-cd) Pyrene	nd dl=8
Acenaphthylene	nd dl=2	Dibenzo(a,h)Anthracene	nd dl=8
3-Nitroaniline	nd dl=8	Benzo(g,h,i)Perylene	nd dl=8

Attachment 1

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: BAFEIE76-01 DATE REPORTED: 9/29/88

SAMPLE TYPE:WATER

ANALYST: MARVELYN HUMPHREY

TENTATIVE COMPOUNDS BY METHODS 625

SCAN#	CAS #	EST.CONC (ug/l)	COMPOUND NAME
1169		5	UNKNOWN PHTHALATE
1178		5	UNKNOWN PHTHALATE
1181		8	UNKNOWN PHTHALATE
1196		6	UNKNOWN PHTHALATE

* ANALYSTS NOTE ! - THE COMPOUNDS LISTED ARE TENATIVELY IDENTIFIED BY THE BEST MATCH WITH THE NIH/EPA/WILEY MASS SPECTRAL DATA BASE OR BY MANUAL MASS SPECTRA INTERPRETATION. STANDARDS WERE NOT AVAILABLE FOR CONFIRMATION OR QUANTITATION.
** Estimated concentration is based on a RF of 1.0 to internal standard !

Attachment 1

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE7601 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

VOLATILE COMPOUNDS BY METHOD 624

PP#	CAS#		(ug/l)
	67-64-1	acetone	ND DL= 5
(2V)	107-02-8	acrolein	ND DL=100
(3V)	107-13-1	acrylonitrile	ND DL=100
(4V)	71-43-2	benzene	ND DL= 2
	78-93-3	2-butanone	ND DL= 5
	75-15-0	carbon disulfide	ND DL= 5
(6V)	56-23-5	carbon tetrachloride	ND DL= 2
(7V)	108-90-7	chlorobenzene	ND DL= 2
(10V)	107-06-2	1,2-dichloroethane	ND DL= 2
(11V)	71-55-6	1,1,1-trichloroethane	ND DL= 2
(13V)	75-34-3	1,1-dichloroethane	ND DL= 2
(14V)	79-00-5	1,1,2-trichloroethane	ND DL= 2
(15V)	79-34-5	1,1,2,2-tetrachloroethane	ND DL= 2
(16V)	75-00-3	chloroethane	ND DL= 5
(23V)	67-66-3	chloroform	ND DL= 2
(29V)	75-35-4	1,1-dichloroethene	ND DL= 2
(30V)	156-60-5	trans-1,2-dichloroethene	ND DL= 2
(32V)	78-87-5	1,2-dichloropropane	ND DL= 2
(33V)	10061-02-6	trans-1,3-dichloropropene	ND DL= 2
	10061-01-5	cis-1,3-dichloropropene	ND DL= 2
(38V)	100-41-4	ethylbenzene	ND DL= 5
	519-78-6	2-hexanone	ND DL= 5
	108-10-1	4-methyl-2-pentanone	ND DL= 5
(44V)	75-09-2	methylene chloride	ND DL= 5
(45V)	74-87-3	chloromethane	ND DL= 5
(46V)	74-83-9	bromomethane	ND DL= 5
(47V)	75-25-2	bromoform	ND DL= 2
(48V)	75-27-4	bromodichloromethane	ND DL= 2
(51V)	124-48-1	chlorodibromomethane	ND DL= 2
	100-42-5	styrene	ND DL= 5
(85V)	127-18-4	tetrachloroethene	ND DL= 2
(86V)	108-88-3	toluene	ND DL= 5
(87V)	79-01-6	trichloroethene	ND DL= 2
	108-05-4	vinyl acetate	ND DL= 5
(88V)	75-01-4	vinyl chloride	ND DL= 5
	95-47-6	o-xylene	ND DL= 5
	108-38-3	m-xylene and/or	
	106-42-3	p-xylene	ND DL= 5

Attachment 1

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE7601 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

TENTATIVE COMPOUNDS BY METHOD 624

SCAN#	CAS #	EST.CONC (ug/l)	COMPOUND NAME
			No VOA TIC's detected.

* ANALYSTS NOTE ! - THE COMPOUNDS LISTED ARE TENATIVELY IDENTIFIED BY THE BES MATCH WITH THE NIH/EPA/WILEY MASS SPECTRAL DATA BASE OR BY MANUAL MASS SPECTRA INTERPRETATION. STANDARDS WERE NOT AVAILABLE FOR CONFIRMATION OR QUANTITATION
** Estimated concentration is based on a RF of 1.0 to internal standard !

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-01	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
ARSENIC	ND	46	UG/L
SELENIUM	ND	48	UG/L
THALLIUM	ND	38	UG/L
MERCURY	ND	0.2	UG/L
SILVER	ND	10	UG/L
BERYLLIUM	ND	5	UG/L
CADMIUM	ND	5	UG/L
CHROMIUM	ND	10	UG/L
COPPER	ND	20	UG/L
NICKEL	ND	20	UG/L
LEAD	ND	30	UG/L
ZINC	36	5	UG/L
ALUMINUM	ND	100	UG/L
BARIUM	ND	10	UG/L
COBALT	ND	20	UG/L
IRON	ND	25	UG/L
MANGANESE	ND	5	UG/L
VANADIUM	ND	30	UG/L
ANTIMONY	ND	60	UG/L
SODIUM	ND	500	UG/L
POTASSIUM	ND	1000	UG/L
CALCIUM	ND	150	UG/L
MAGNESIUM	ND	150	UG/L
CYANIDE	ND	0.02	MG/L
PHENOLS	ND	5	UG/L

ND: NOT DETECTED

SL 023359

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Date: 10/13/88

Appendix 2

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 08/31/88
Sample Number: 2 Time Recvd: 13:30 Time Collected: 13:45

Source: PPG Industries Tag Number:
Sit Description: Canal @ PH bridge "toxic samp"
Sample Type: WATER
Sample Retention:

Param- Organic: ABN VOA
Metals: MTL
Inorganic: CN OH-
Biology:

Due Date: 10/06/88
Date Projected: 10/06/88
Date Completed: / /
Comment:
Your Initials: RLR

SL 023360

Attachment 2

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE76-02 DATE REPORTED: 9/27/88

SAMPLE TYPE: WATER ANALYST: MARVELYN HUMPHREY

HSL ACID BASE/NEUTRAL COMPOUNDS BY METHOD 625

COMPOUND	ug/L		COMPOUND	ug/L
Phenol	nd	dl=4	Acenaphthene	nd dl=2
bis(2-Chloroethyl) Ether	nd	dl=2	2,4-Dinitrophenol	nd dl=30
2-Chlorophenol	nd	dl=4	4-Nitrophenol	nd dl=8
1,3-Dichlorobenzene	nd	dl=2	Dibenzofuran	nd dl=2
1,4-Dichlorobenzene	nd	dl=2	2,4-Dinitrotoluene	nd dl=6
Benzyl Alcohol	nd	dl=4	2,6-Dinitrotoluene	nd dl=6
1,2-Dichlorobenzene	nd	dl=2	Diethylphthalate	nd dl=2
2-Methylphenol	nd	dl=6	4-Chlorophenylphenyl Ether	nd dl=8
bis(2-chloroisopropyl)Ether	nd	dl=2	Fluorene	nd dl=2
4-Methylphenol	nd	dl=6	4-Nitroaniline	nd dl=8
N-Nitroso-Di-n-Propylamine	nd	dl=6	4,6-Dinitro-2-Methylphenol	nd dl=20
Hexachloroethane	nd	dl=2	N-Nitrosodiphenylamine	nd dl=4
Nitrobenzene	nd	dl=2	4-Bromophenylphenyl Ether	nd dl=8
Isophorone	nd	dl=4	Hexachlorobenzene	nd dl=2
2-Nitrophenol	nd	dl=10	Pentachlorophenol	nd dl=15
2,4-Dimethylphenol	nd	dl=6	Phenanthrene	nd dl=2
Benzoic Acid	nd	dl=10	Anthracene	nd dl=2
bis(2-Chloroethoxy)Methane	nd	dl=2	Di-n-Butylphthalate	2
2,4-Dichlorophenol	nd	dl=6	Fluoranthene	nd dl=2
1,2,4-Trichlorobenzene	nd	dl=2	Benzidine	nd dl=20
Naphthalene	nd	dl=2	Pyrene	nd dl=2
4-Chloroaniline	nd	dl=4	Butylbenzylphthalate	nd dl=4
Hexachlorobutadiene	nd	dl=2	3,3'-Dichlorobenzidine	nd dl=10
4-Chloro-3-Methylphenol	nd	dl=8	Benzo(a)Anthracene	nd dl=8
2-Methylnaphthalene	nd	dl=2	bis-(2-Ethylhexyl)Phthalate	nd dl=4
Hexachlorocyclopentadiene	nd	dl=10	Chrysene	nd dl=8
2,4,6-Trichlorophenol	nd	dl=6	Di-n-Octyl Phthalate	nd dl=4
2,4,5-Trichlorophenol	nd	dl=6	Benzo(b)Fluoranthene	nd dl=8
2-Chloronaphthalene	nd	dl=2	Benzo(k)Fluoranthene	nd dl=8
2-Nitroaniline	nd	dl=8	Benzo(a)Pyrene	nd dl=8
DimethylPhthalate	nd	dl=2	Indeno(1,2,3-cd) Pyrene	nd dl=8
Acenaphthylene	nd	dl=2	Dibenzo(a,h)Anthracene	nd dl=8
3-Nitroaniline	nd	dl=8	Benzo(g,h,i)Perylene	nd dl=8

SL 023361

Attachment 2

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE76-02 DATE REPORTED: 9/29/88

SAMPLE TYPE:WATER

ANALYST: MARVELYN HUMPHREY

TENTATIVE COMPOUNDS BY METHODS 625

SCAN#	CAS #	EST.CONC (ug/l)	COMPOUND NAME
305		8	UNKNOWN BROMINATED COMPOUND
528		100	UNKNOWN
400		6	UNKNOWN
405		20	UNKNOWN
548		12	UNKNOWN BROMINATED COMPOUND
590		45	UNKNOWN

* ANALYSTS NOTE ! - THE COMPOUNDS LISTED ARE TENATIVELY IDENTIFIED BY THE BES MATCH WITH THE NIH/EPA/WILEY MASS SPECTRAL DATA BASE OR BY MANUAL MASS SPECTR INTERPRETATION. STANDARDS WERE NOT AVAILABLE FOR CONFIRMATION OR QUANTITATION
** Estimated concentration is based on a RF of 1.0 to internal standard !

Attachment 2

ORGANIC ANALYSIS DATA

GES-RL SAMPLE NO.: 8AFLIE7602 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

VOLATILE COMPOUNDS BY METHOD 624

PP#	CAS#		(ug/l)
	67-64-1	acetone	ND DL= 5
(2V)	107-02-8	acrolein	ND DL=100
(3V)	107-13-1	acrylonitrile	ND DL=100
(4V)	71-43-2	benzene	ND DL= 2
	78-93-3	2-butanone	ND DL= 5
	75-15-0	carbon disulfide	ND DL= 5
(6V)	56-23-5	carbon tetrachloride	ND DL= 2
(7V)	108-90-7	chlorobenzene	ND DL= 2
(10V)	107-06-2	1,2-dichloroethane	96.4
(11V)	71-55-6	1,1,1-trichloroethane	ND DL= 2
(13V)	75-34-3	1,1-dichloroethane	ND DL= 2
(14V)	79-00-5	1,1,2-trichloroethane	10.3
(15V)	79-34-5	1,1,2,2-tetrachloroethane	ND DL= 2
(16V)	75-00-3	chloroethane	ND DL= 5
(23V)	67-66-3	chloroform	80.0
(29V)	75-35-4	1,1-dichloroethene	ND DL= 2
(30V)	156-60-5	trans-1,2-dichloroethene	ND DL= 2
(32V)	78-87-5	1,2-dichloropropane	ND DL= 2
(33V)	10061-02-6	trans-1,3-dichloropropene	ND DL= 2
	10061-01-5	cis-1,3-dichloropropene	ND DL= 2
(38V)	100-41-4	ethylbenzene	ND DL= 5
	519-78-6	2-hexanone	ND DL= 5
	108-10-1	4-methyl-2-pentanone	ND DL= 5
(44V)	75-09-2	methylene chloride	ND DL= 5
(45V)	74-87-3	chloromethane	ND DL= 5
(46V)	74-83-9	bromomethane	ND DL= 5
(47V)	75-25-2	bromoform	937
(48V)	75-27-4	bromodichloromethane	22.3
(51V)	124-48-1	chlorodibromomethane	87.3
	100-42-5	styrene	ND DL= 5
(85V)	127-18-4	tetrachloroethene	ND DL= 2
(86V)	108-88-3	toluene	ND DL= 5
(87V)	79-01-6	trichloroethene	6.7
	108-05-4	vinyl acetate	ND DL= 5
(88V)	75-01-4	vinyl chloride	ND DL= 5
	95-47-6	o-xylene	ND DL= 5
	108-38-3	m-xylene and/or	
	106-42-3	p-xylene	ND DL= 5

SL 023363

Attachment 2

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE7602 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

TENTATIVE COMPOUNDS BY METHOD 624

SCAN#	CAS #	EST.CONC (ug/l)	COMPOUND NAME
			No VOA TIC's detected.

* ANALYSTS NOTE ! - THE COMPOUNDS LISTED ARE TENATIVELY IDENTIFIED BY THE BEST MATCH WITH THE NIH/EPA/WILEY MASS SPECTRAL DATA BASE OR BY MANUAL MASS SPECTRA INTERPRETATION. STANDARDS WERE NOT AVAILABLE FOR CONFIRMATION OR QUANTITATION.
** Estimated concentration is based on a RF of 1.0 to internal standard !

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-02	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
ARSENIC	ND	46	UG/L
SELENIUM	ND	48	UG/L
THALLIUM	ND	38	UG/L
MERCURY	0.35	0.2	UG/L
SILVER	ND	10	UG/L
BERYLLIUM	ND	5	UG/L
CADMIUM	ND	5	UG/L
CHROMIUM	28	10	UG/L
COPPER	518	20	UG/L
NICKEL	50	20	UG/L
LEAD	ND	30	UG/L
ZINC	ND	5	UG/L
ALUMINUM	364	100	UG/L
BARIUM	101	10	UG/L
COBALT	ND	20	UG/L
IRON	1690	25	UG/L
MANGANESE	168	5	UG/L
VANADIUM	ND	30	UG/L
ANTIMONY	ND	60	UG/L
SODIUM	4980000	500	UG/L
POTASSIUM	115000	1000	UG/L
CALCIUM	157000	150	UG/L
MAGNESIUM	358000	150	UG/L
CYANIDE	ND	0.02	MG/L
PHENOLS	ND	5	UG/L

ND: NOT DETECTED

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Date: 10/13/88

Appendix 3

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 08/31/88
Sample Number: 3 Time Recvd: 13:30 Time Collected: 11:15

Source: PPG Industries Tag Number:
Site Description: Outfall # 401
Sample Type: WATER
Sample Retention:

Param- Organic: VOA
Metals:
Inorganic:
Biology:

Due Date: 10/06/88
Date Projected: 10/06/88
Date Completed: / /
Comment:
Your Initials: RLR

SL 023366

Attachment 3

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: 8AFEIE7603 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

VOLATILE COMPOUNDS BY METHOD 624

PP#	CAS#		(ug/l)
	67-64-1	acetone	ND DL= 5
(2V)	107-02-8	acrolein	ND DL=100
(3V)	107-13-1	acrylonitrile	ND DL=100
(4V)	71-43-2	benzene	ND DL= 2
	78-93-3	2-butanone	ND DL= 5
	75-15-0	carbon disulfide	ND DL= 5
(6V)	56-23-5	carbon tetrachloride	ND DL= 2
(7V)	108-90-7	chlorobenzene	ND DL= 2
(10V)	107-06-2	1,2-dichloroethane	4.0
(11V)	71-55-6	1,1,1-trichloroethane	ND DL= 2
(13V)	75-34-3	1,1-dichloroethane	ND DL= 2
(14V)	79-00-5	1,1,2-trichloroethane	ND DL= 2
(15V)	79-34-5	1,1,2,2-tetrachloroethane	ND DL= 2
(16V)	75-00-3	chloroethane	ND DL= 5
(23V)	67-66-3	chloroform	9.5
(29V)	75-35-4	1,1-dichloroethene	ND DL= 2
(30V)	156-60-5	trans-1,2-dichloroethene	ND DL= 2
(32V)	78-87-5	1,2-dichloropropane	ND DL= 2
(33V)	10061-02-6	trans-1,3-dichloropropene	ND DL= 2
	10061-01-5	cis-1,3-dichloropropene	ND DL= 2
(38V)	100-41-4	ethylbenzene	ND DL= 5
	519-78-6	2-hexanone	ND DL= 5
	108-10-1	4-methyl-2-pentanone	ND DL= 5
(44V)	75-09-2	methylene chloride	ND DL= 5
(45V)	74-87-3	chloromethane	ND DL= 5
(46V)	74-83-9	bromomethane	ND DL= 5
(47V)	75-25-2	bromoform	ND DL= 2
(48V)	75-27-4	bromodichloromethane	ND DL= 2
(51V)	124-48-1	chlorodibromomethane	ND DL= 2
	100-42-5	styrene	ND DL= 5
(85V)	127-18-4	tetrachloroethene	ND DL= 2
(86V)	108-88-3	toluene	ND DL= 5
(87V)	79-01-6	trichloroethene	ND DL= 2
	108-05-4	vinyl acetate	ND DL= 5
(88V)	75-01-4	vinyl chloride	ND DL= 5
	95-47-6	o-xylene	ND DL= 5
	108-38-3	m-xylene and/or	
	106-42-3	p-xylene	ND DL= 5

Attachment 3

ORGANIC ANALYSIS DATA

6ES-RL SAMPLE NO.: BAFEIL7603 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

TENTATIVE COMPOUNDS BY METHOD 624

SCAN#	CAS #	TEST.CONC (ug/l)	COMPOUND NAME
			No VOA TIC's detected.

* ANALYSTS NOTE ! - THE COMPOUNDS LISTED ARE TENATIVELY IDENTIFIED BY THE BES MATCH WITH THE NIH/EPA/WILEY MASS SPECTRAL DATA BASE OR BY MANUAL MASS SPECTRA INTERPRETATION. STANDARDS WERE NOT AVAILABLE FOR CONFIRMATION OR QUANTITATION
** Estimated concentration is based on a RF of 1.0 to internal standard !

Date: 10/13/88

Appendix 4

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 08/31/88
Sample Number: 4 Time Recvd: 13:30 Time Collected: 14:00

Source: PPG Industries Tag Number:
Site Description: Outfall # 018 (201)
Sample Type: WATER
Sample Retention:

Param- Organic: VOA
Metals:
Inorganic:
Biology:

Due Date: 10/16/88
Date Projected: 10/16/88
Date Completed: / /
Comment:
Your Initials: RLR

Attachment 4

ORGANIC ANALYSIS DATA

6ES-HL SAMPLE NO.: BAFEIC7604 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

VOLATILE COMPOUNDS BY METHOD 624

PP#	CAS#		(ug/l)
	67-64-1	acetone	202
(2V)	107-02-8	acrolein	ND DL=100
(3V)	107-13-1	acrylonitrile	ND DL=100
(4V)	71-43-2	benzene	ND DL= 2
	78-93-3	2-butanone	ND DL= 5
	75-15-0	carbon disulfide	ND DL= 5
(6V)	56-23-5	carbon tetrachloride	ND DL= 2
(7V)	108-90-7	chlorobenzene	ND DL= 2
(10V)	107-06-2	1,2-dichloroethane	144
(11V)	71-55-6	1,1,1-trichloroethane	ND DL= 2
(13V)	75-34-3	1,1-dichloroethane	ND DL= 2
(14V)	79-00-5	1,1,2-trichloroethane	14.8
(15V)	79-34-5	1,1,2,2-tetrachloroethane	ND DL= 2
(16V)	75-00-3	chloroethane	ND DL= 5
(23V)	67-66-3	chloroform	321
(29V)	75-35-4	1,1-dichloroethene	ND DL= 2
(30V)	156-60-5	trans-1,2-dichloroethene	ND DL= 2
(32V)	78-87-5	1,2-dichloropropane	ND DL= 2
(33V)	10061-02-6	trans-1,3-dichloropropene	ND DL= 2
	10061-01-5	cis-1,3-dichloropropene	ND DL= 2
(38V)	100-41-4	ethylbenzene	ND DL= 5
	519-78-6	2-hexanone	ND DL= 5
	108-10-1	4-methyl-2-pentanone	ND DL= 5
(44V)	75-09-2	methylene chloride	ND DL= 5
(45V)	74-87-3	chloromethane	ND DL= 5
(46V)	74-83-9	bromomethane	ND DL= 5
(47V)	75-25-2	bromoform	7.5
(48V)	75-27-4	bromodichloromethane	27.5
(51V)	124-48-1	chlorodibromomethane	14.4
	100-42-5	styrene	ND DL= 5
(85V)	127-18-4	tetrachloroethene	2.5
(86V)	108-88-3	toluene	ND DL= 5
(87V)	79-01-6	trichloroethene	3.6
	108-05-4	vinyl acetate	ND DL= 5
(88V)	75-01-4	vinyl chloride	ND DL= 5
	95-47-6	o-xylene	ND DL= 5
	108-38-3	m-xylene and/or	
	106-42-3	p-xylene	ND DL= 5

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Attachment 4

ORGANIC ANALYSIS DATA

6ES-IL SAMPLE NO.: 8AFEIE7604 DATE REPORTED: 09/30/88

SAMPLE TYPE: Water

ANALYST: R. McMillin / E. O'Neill

TENTATIVE COMPOUNDS BY METHOD 624

SCAN#	CAS #	TEST. CONC (ug/l)	COMPOUND NAME
			No VOA TIC's detected.

* ANALYSTS NOTE ! - THE COMPOUNDS LISTED ARE TENATIVELY IDENTIFIED BY THE BEST MATCH WITH THE NIH/EPA/WILEY MASS SPECTRAL DATA BASE OR BY MANUAL MASS SPECTRA INTERPRETATION. STANDARDS WERE NOT AVAILABLE FOR CONFIRMATION OR QUANTITATION.
** Estimated concentration is based on a RF of 1.0 to internal standard !

.1,$

Date: 10/13/88

Appendix 5

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 09/01/88
Sample Number: 5 Time Recvd: 13:30 Time Collected: 06:00

Source: PPG Industries Tag Number:
Site Description: Outfall # 118 (201)
Sample Type: WATER
Sample Retention:

Param- Organic:
Metals: MTL
Inorganic: TSS
Biology:

Due Date: 10/16/88
Date Projected: 10/16/88
Date Completed: / /
Comment:
Your Initials: RLR

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-05	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
ARSENIC	ND	46	UG/L
SELENIUM	ND	240	UG/L
THALLIUM	ND	38	UG/L
MERCURY	1.16	0.2	UG/L
SILVER	ND	10	UG/L
BERYLLIUM	ND	5	UG/L
CADMIUM	ND	5	UG/L
CHROMIUM	320	10	UG/L
COPPER	40000	20	UG/L
NICKEL	1510	20	UG/L
LEAD	63	30	UG/L
ZINC	231	5	UG/L
ALUMINUM	9450	100	UG/L
BARIUM	59	10	UG/L
COBALT	ND	20	UG/L
IRON	9930	25	UG/L
MANGANESE	113	5	UG/L
VANADIUM	ND	30	UG/L
ANTIMONY	ND	60	UG/L
SODIUM	28800000	500	UG/L
POTASSIUM	27400	1000	UG/L
CALCIUM	8720	150	UG/L
MAGNESIUM	10800	150	UG/L
TSS	510	2	MG/L

ND: NOT DETECTED

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Date: 10/13/88

Appendix 6

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 09/01/88
Sample Number: 6 Time Recvd: 13:30 Time Collected: 05:40

Source: PPG Industries Tag Number:
Site Description: Outfall # 018 (201)
Sampl Type: WATER
Sample Retention:

Param- Organic:
Metals: MTL
Inorganic: BOD TSS
Biology:

Due Date: 10/16/88
Date Projected: 10/16/88
Date Completed: / /
Comment:
Your Initials: RLR

SL 023374

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-06	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
ARSENIC	ND	46	UG/L
SELENIUM	ND	48	UG/L
THALLIUM	ND	38	UG/L
MERCURY	0.36	0.2	UG/L
SILVER	ND	10	UG/L
BERYLLIUM	ND	5	UG/L
CADMIUM	ND	5	UG/L
CHROMIUM	69	10	UG/L
COPPER	1000	20	UG/L
NICKEL	170	20	UG/L
LEAD	ND	30	UG/L
ZINC	87	5	UG/L
ALUMINUM	411	100	UG/L
BARIUM	133	10	UG/L
COBALT	ND	20	UG/L
IRON	6790	25	UG/L
MANGANESE	122	5	UG/L
VANADIUM	ND	30	UG/L
ANTIMONY	ND	60	UG/L
SODIUM	6120000	500	UG/L
POTASSIUM	15300	1000	UG/L
CALCIUM	142000	150	UG/L
MAGNESIUM	4360	150	UG/L
TSS	15	2	MG/L
BOD	ND	3	MG/L

ND: NOT DETECTED

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Date: 10/13/88

Appendix 7

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 09/01/88
Sample Number: 7 Time Recvd: 13:30 Time Collected: 05:30

Sourc : PPG Industries Tag Number:
Site Description: Outfall # 014 (101)
Sample Type: WATER
Sample Retention:

Param- Organic:
Metals: MTL
Inorganic: TSS
Biology:

Due Date: 10/16/88
Date Projected: 10/16/88
Date Completed: / /
Comm nt:
Your Initials: RLR

SL 023376

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-07	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK, FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
ARSENIC	ND	46	UG/L
SELENIUM	ND	48	UG/L
THALLIUM	ND	38	UG/L
MERCURY	1.34	0.2	UG/L
SILVER	ND	10	UG/L
BERYLLIUM	ND	5	UG/L
CADMIUM	ND	5	UG/L
CHROMIUM	11	10	UG/L
COPPER	57	20	UG/L
NICKEL	25	20	UG/L
LEAD	ND	30	UG/L
ZINC	154	5	UG/L
ALUMINUM	314	100	UG/L
BARIUM	183	10	UG/L
COBALT	ND	20	UG/L
IRON	1630	25	UG/L
MANGANESE	248	5	UG/L
VANADIUM	ND	30	UG/L
ANTIMONY	ND	60	UG/L
SODIUM	3130000	500	UG/L
POTASSIUM	17800	1000	UG/L
CALCIUM	46200	150	UG/L
MAGNESIUM	60700	150	UG/L
TSS	ND	2	MG/L

ND: NOT DETECTED

Date: 10/13/88

Appendix 8

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 09/01/88
Sample Number: 8 Time Recvd: 13:30 Time Collected: 05:30

Source: PPG Industries Tag Number:
Site Description: Outfall # 019 (101)
Sample Type: WATER
Sample Retention:

Param- Organic:
Metals: MTL
Inorganic: TSS
Biology:

Due Date: 10/19/88
Date Projected: 10/19/88
Date Completed: / /
Comment:
Your Initials: RLR

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-08	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
ARSENIC	ND	230	UG/L
SELENIUM	ND	480	UG/L
THALLIUM	ND	190	UG/L
MERCURY	0.28	0.2	UG/L
SILVER	ND	10	UG/L
BERYLLIUM	ND	5	UG/L
CADMIUM	ND	5	UG/L
CHROMIUM	19	10	UG/L
COPPER	49	20	UG/L
NICKEL	752	20	UG/L
LEAD	105	30	UG/L
ZINC	574	5	UG/L
ALUMINUM	1370	100	UG/L
BARIUM	3240	10	UG/L
COBALT	ND	20	UG/L
IRON	15100	25	UG/L
MANGANESE	2440	5	UG/L
VANADIUM	ND	30	UG/L
ANTIMONY	ND	60	UG/L
SODIUM	80000000	500	UG/L
POTASSIUM	ND	1000	UG/L
CALCIUM	7300000	150	UG/L
MAGNESIUM	96000	150	UG/L
TSS	91	2	MG/L

ND: NOT DETECTED

SL 023379

162

Date: 10/13/88

Appendix 9

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 09/01/88
Sample Number: 9 Time Recvd: 13:30 Time Collected: 05:30

Source: PPG Industries Tag Number:
Site Description: Outfall # 011 (101)
Sample Type: WATER
Sample Retention:

Param- Organic:
Metals: M##
Inorganic:
Biology:

Due Date: 10/19/88
Date Projected: 10/19/88
Date Completed: / /
Comment:
Your Initials: RLR

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-09	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
MERCURY	6.2	0.2	UG/L

SL 023381

Date: 10/13/88

Appendix 10

US ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SERVICE DIVISION
HOUSTON LABORATORY SECTION

LAB SAMPLE REPORT

Activity Number: 8AFEIE76 Date Recvd: 09/01/88 Date Collected: 09/01/88
Sample Number: 10 Time Recvd: 13:30 Time Collected: 06:00

Source: PPG Industries Tag Number:
Site Description: Outfall # 111 (101)
Sample Type: WATER
Sample Retention:

Param- Organic:
Metals: M##
Inorganic:
Biology:

Due Date: 10/19/88
Date Projected: 10/19/88
Date Completed: / /
Comment:
Your Initials: RLR

US EPA HOUSTON BRANCH

SAMPLE #:	8AFEIE76-10	DATE	
SOURCE:	PPG INDUSTRIES	RECEIVED:	01-Sep-88
TYPE:	AQUEOUS	DATE	
ANALYSTS:	CLARK,FELDMAN	REPORTED:	11-Oct-88

PARAMETER	CONCENTRATION	DETECTION LIMIT <=	UNITS
MERCURY	*	0.2	UG/L

*: UNABLE TO ANALYZE DUE TO ORGANIC INTERFERENCE

SL 023383