

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. BOX 2339
JACKSON, MS 39225

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

TRONOX LLC
ATTENTION: MR. KEITH WATSON
P O BOX 268859
OKLAHOMA CITY, OK 73126-8859

INVOICE #: VEP-00003856
DATE: 01-19-2010

FINANCIAL:
AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

CUSTOMER # VEP-40470048
Date Due: 02-18-10

ENGINEER:
TONY RUSSELL - (601) 961-5318

Please Include Customer # on check made payable to MDEQ

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
DECEMBER 2009 / D. A. RUSSELL - DIVISION 4047	19.5	STAFF HOUR(S)	100.00	\$1,950.00
TOTAL AMOUNT DUE				\$1,950.00

Vendor No.: 5263

MISSISSIPPI DEPT ENV

Date: 02-OCT-09

Check No.: 36623

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000370	16-SEP-09	CUST# VEP-40470048	0.00	600.00

WARNING-FACE OF CHECK HAS COLORED BACKGROUND-A TRUE WATERMARK IS IN THE PAPER-HOLD UP TO THE LIGHT-IF NOT VISABLE-DO NOT ACCEPT CHECK

TRONOX

Tronox Worldwide LLC
Debtor-In-Possession, 09-10156
General Account
P. O. Box 268859
Oklahoma City, OK 73126-8859

Citibank, Delaware
A Subsidiary of Citicorp
One Penn's Way
New Castle, DE 19720

62-20
311

CHECK DATE	CHECK NO.	NET AMOUNT
02-OCT-09	36623	\$*****600.00

VOID AFTER 90 DAYS

PAY Six Hundred and NO/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY

PO BOX 2339

JACKSON

MS

39225

⑈00036623⑈

⑈031100209⑈

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. BOX 2339
JACKSON, MS 39225

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

TRONOX LLC
ATTENTION: MR. KEITH WATSON
P O BOX 268859
OKLAHOMA CITY, OK 73126-8859

INVOICE #: VEP-00003701
DATE: 09-16-2009

FINANCIAL:
AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

CUSTOMER # VEP-40470048
Date Due: 10-16-09

ENGINEER:
TONY RUSSELL - (601) 961-5318

Please include Customer # on check made payable to MDEQ

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
AUGUST 2009 / D. A. RUSSELL - DIVISION 4047	6	STAFF HOUR(S)	100.00	\$600.00
TOTAL AMOUNT DUE				\$600.00

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. BOX 2339
JACKSON, MS 39225

**** INVOICE****
**** UNCONTROLLED SITES VOLUNTARY EVALUATION PROGRAM****

TRONOX LLC
ATTENTION: MR. KEITH WATSON
P O BOX 268859
OKLAHOMA CITY, OK 73126-8859

INVOICE #: VEP-00003581
DATE: 06-16-2009

FINANCIAL:
AVELEKA MOORE - (601) 961-5031
ACCOUNTS_RECEIVABLE@DEQ.STATE.MS.US

CUSTOMER # VEP-40470048
Date Due: 07-16-09

ENGINEER:
TONY RUSSELL - (601) 961-5318

Please include Customer # on check made payable to MDEQ

DESCRIPTION	QTY	UNIT	PRICE	EXT-PRICE
MAY 2009 / D. A. RUSSELL	5	STAFF HOUR(S)	100.00	\$500.00
TOTAL AMOUNT DUE				\$500.00

Vendor No.:

5263

MISSISSIPPI DEPT ENV

Date: 01-JUL-09

Check No.: 36065

INVOICE NUMBER	INVOICE DATE	INVOICE DESCRIPTION	DISCOUNT AMOUNT	NET AMOUNT
VEP0000358	16-JUN-09	CUST# VEP-40470048	0.00	500.00

TRONOX
 Tronox Worldwide LLC
 Debtor in Possession 09-10156
 General Account
 P.O. Box 268859
 Atlanta, GA 30326-8859

Citybank, Delaware
 A Subsidiary of Citicorp
 One Penn Plaza
 New York, NY 10119

CHECK DATE	CHECK NO	NET AMOUNT
01-JUL-09	36065	\$*****500.00

VOID AFTER 60 DAYS

PAY Five Hundred and NO/100 Dollars

TO THE
ORDER
OF

MISSISSIPPI DEPT ENVIRONMENTAL QUALITY

PO BOX 2339

JACKSON

MS

39225



RECEIVED

JUL - 7 2009

MS DEPT. OF ENVIRONMENTAL QUALITY
ACCOUNTS RECEIVABLE

**THIS FILE IS
CLOSED**

ENCLOSED DATED MATERIAL

From: _____

To: _____

**MORE RECENT MATERIAL
IN OTHER FILE**

2/2/97



Chain of Custody Record

OFFICE OF POLLUTION
CONTROL LABORATORY
1542 OLD WHITFIELD ROAD
PEARL, MS 39208-9186

PROJECT NAME: <u>GSC - Fill Area</u>						REMARKS: <u>RUSH</u>												Custody Seals Intact at Lab	Seals Not Intact upon Receipt by Lab	LAB USE ONLY	
PROJECT LOCATION: <u>Hattiesburg</u>						DATA TO: <u>T Russell</u>															
ESD SAMPE TYPES 1. SURFACEWAER 2. GROUNDWATER 3. POTABLE WATER 4. WASTEWATER 5. LEACHATE 6. SOIL/SEDIMENT 7. SLUDGE 8. WASTE 9. AIR 10. FISH 11. OTHER _____						SAMPLER A. <u>Tony Russell</u> B. _____ C. _____						ANALYSIS (Circle/Add parameter desired. List no. of containers submitted.)									
SAMPLE ID	Sample Type	2010 Date	Time	Comp	Grab	DESCRIPTION	TOTAL CONTAINERS	VOA	Semivolatiles	Pest/PCB's	Metals	PAH	DRO	GRO	BTEX/MTBE	TAG NO./REMARKS:					
OF1	1	2/12	0750	X		outfall to Gardons Creek	1	1												43454	
WP Ditch	1	2/12	0805	X		West Pine Ditch	1	1												43455	
Temp. 0.5°C TS																					
RELINQUISHED BY: (PRINT) <u>Tony Russell</u>		DATE/TIME <u>2/12/09</u>		RECEIVED BY: (PRINT) <u>Sammy Sawyer</u>		DATE/TIME		RELINQUISHED BY: (PRINT)		DATE/TIME		RECEIVED BY: (PRINT)		RELINQUISHED BY: (PRINT)		DATE/TIME		RECEIVED BY: (PRINT)			
(SIGN) <u>Tony Russell</u>		(SIGN) <u>Sammy Sawyer</u>		(SIGN) <u>Sammy Sawyer</u>		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)			
RELINQUISHED BY: (PRINT)		DATE/TIME		RECEIVED BY: (PRINT)		DATE/TIME		RELINQUISHED BY: (PRINT)		DATE/TIME		RECEIVED BY: (PRINT)		RELINQUISHED BY: (PRINT)		DATE/TIME		RECEIVED BY: (PRINT)			
(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)		(SIGN)			

DISTRIBUTIONS: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory
White copy is returned to samplers; Pink copy retained by samplers.

I. GENERAL INFORMATION: Facility Name

County Code Forest NPDES Permit No. _____
 Discharge No. _____ Date Requested 2/12/80
 Sample Point Identification DF-1
 Requested By Reagan Data To T. P. Smith
 Type of Sample: Grab () Composite (Flow) (Time) Other ()

II. SAMPLE IDENTIFICATION:

Environment Condition _____ Collected By T. Russell
Where Taken offshore in Chesapeake Bay

	Type	Parameters	Preservative	Date	Time
1.	water	water	water	2/12/14	08:51
2.					
3.					
4.					
5.					

III. FIELD:

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()			
D.O.	(000300)	()			
Temperature	(000010)	()			
Residual Chlorine	(050060)	()			
Flow	(074060)	()			

IV. TRANSPORTATION OF SAMPLE:

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other ()

V. LABORATORY: Received By

LABORATORY: Received By Sammy Davis Date 2/1 Time _____
Recorded By _____ Date Sent to State Office _____

[illegible]

Remarks

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA43454

Location code **C0350009**

Location Description **GULF STATE CREOSOTE**

Sample collector **TRUSSELL**

Collection date: **02/17/2010**

Lab submittal date: **02/17/2010**

Due date: **08/16/2010**

PONUMB: _____

Login record file: **100217002**

Collection time: **07:50**

Lab submittal time: **10:00**

Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **OF-1**
SAMPLE_LOCATION **OF-1**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS
SEMIVOL ORG COMPOUNDS SURROGATES
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

04/05/2010
04/05/2010
02/24/2010

Sample I.D. AA43455

Location code **C0350009**

Location Description **GULF STATE CREOSOTE**

Sample collector **TRUSSELL**

Collection date: **02/17/2010**

Lab submittal date: **02/17/2010**

Due date: **08/16/2010**

PONUMB: _____

Login record file: **100217002**

Collection time: **08:05**

Lab submittal time: **10:00**

Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **WP DITCH**
SAMPLE_LOCATION **WP DITCH**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS
SEMIVOL ORG COMPOUNDS SURROGATES
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

04/05/2010
04/05/2010
02/24/2010

Please refer to the indicated sample I.D. numbers when making inquiries.

Received by: _____



Chain of Custody Record

OFFICE OF POLLUTION
CONTROL LABORATORY
1542 OLD WHITFIELD ROAD
PEARL, MS 39208-9186

[illegible]

DISTRIBUTIONS: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory. White copy is returned to samplers; Pink copy retained by samplers.

Lab Bench No.

II. SAMPLE IDENTIFICATION:

	Type	Parameters	Preservative	Date	Time
1.	water	Iron	HNO ₃	2/14/80	1025
2.					
3.					
4.					
5.					

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

W. LABORATORY: Received By James Jones Date 2/10/10 Time 12:5
Recorded By _____ Date Sent to State Office _____

Remarks

***Date of Test Initiation**

3858

43418 ~~43417~~ TS

Lab Bench No.

II. SAMPLE IDENTIFICATION:

	Type	Parameters	Preservative	Date	Time
1.	sediment	Samivato Vilas	None	2/10/60	0842
2.					
3.					
4.					
5.					

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

[illegible]

Remarks Low level analysis

***Date of Test Initiation**

431 43415 TS 42413 TS

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA43410

Location code **C0350009**

Location Description **GULF STATE CREOSOTE**

Sample collector **KWHITTEN**

Collection date: **02/10/2010**

Lab submittal date: **02/11/2010**

Due date: **08/09/2010**

PONUMB: _____

Login record file: **100211005**

Collection time: **07:55**

Lab submittal time: **12:25**

Division Code: **3858**

PERMIT_NO _____

DISCHARGE_NO _____

OTHER_NO **SW-1**

SAMPLE_LOCATION **SW-1**

REQUESTED_BY **TONY RUSSELL**

LATITUDE _____

LONGITUDE _____

DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS

SEMIVOL ORG COMPOUNDS SURROGATES

Extract For Semi-Volatile Analysis

Method

8270

8270

3520

Due Date

03/29/2010

03/29/2010

02/17/2010

Sample I.D. AA43411

Location code **C0350009**

Location Description **GULF STATE CREOSOTE**

Sample collector **KWHITTEN**

Collection date: **02/10/2010**

Lab submittal date: **02/11/2010**

Due date: **08/09/2010**

PONUMB: _____

Login record file: **100211005**

Collection time: **08:03**

Lab submittal time: **12:25**

Division Code: **3858**

PERMIT_NO _____

DISCHARGE_NO _____

OTHER_NO **SW-2**

SAMPLE_LOCATION **SW-2**

REQUESTED_BY **TONY RUSSELL**

LATITUDE _____

LONGITUDE _____

DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS

SEMIVOL ORG COMPOUNDS SURROGATES

Extract For Semi-Volatile Analysis

Method

8270

8270

3520

Due Date

03/29/2010

03/29/2010

02/17/2010

Sample I.D. AA43412Location code **C0350009**Location Description **GULF STATE CREOSOTE**Sample collector **KWHITTEN**Collection date: **02/10/2010**Lab submittal date: **02/11/2010**Due date: **08/09/2010**

PONUMB: _____

Login record file: **100211005**Collection time: **08:10**Lab submittal time: **12:25**Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **SW-3**
SAMPLE_LOCATION **SW-3**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS
SEMIVOL ORG COMPOUNDS SURROGATES
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

03/29/2010
03/29/2010
02/17/2010

Sample I.D. AA43413Location code **C0350009**Location Description **GULF STATE CREOSOTE**Sample collector **KWHITTEN**Collection date: **02/10/2010**Lab submittal date: **02/11/2010**Due date: **08/09/2010**

PONUMB: _____

Login record file: **100211005**Collection time: **08:35**Lab submittal time: **12:25**Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **SD-1**
SAMPLE_LOCATION **SD-1**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOLATILE ORGANICS SOIL/FISH
SEMIVOLATILE ORGANICS SOIL / FISH SURR
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

04/05/2010
04/05/2010
02/24/2010

Sample I.D. AA43414Location code **C0350009**Location Description **GULF STATE CREOSOTE**Sample collector **KWHITTEN**Collection date: **02/10/2010**Lab submittal date: **02/11/2010**Due date: **08/09/2010**

PONUMB: _____

Login record file: **100211005**Collection time: **08:42**Lab submittal time: **12:25**Division Code: **3858**

Sample Receipt Page 3

Sample I.D. AA43414 (continued):

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **SD-2**
SAMPLE_LOCATION **SD-2**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOLATILE ORGANICS SOIL/FISH
SEMIVOLATILE ORGANICS SOIL / FISH SURR
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

04/05/2010
04/05/2010
02/24/2010

Sample I.D. AA43415

Location code **C0350009**
Location Description **GULF STATE CREOSOTE**
Sample collector **KWHITTEN**
Collection date: **02/10/2010**
Lab submittal date: **02/11/2010**
Due date: **08/09/2010**
PONUMB: _____

Login record file: **100211005**

Collection time: **08:52**
Lab submittal time: **12:25**

Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **SD-3**
SAMPLE_LOCATION **SD-3**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOLATILE ORGANICS SOIL/FISH
SEMIVOLATILE ORGANICS SOIL / FISH SURR
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

04/05/2010
04/05/2010
02/24/2010

Sample I.D. AA43416

Location code **C0350009**
Location Description **GULF STATE CREOSOTE**
Sample collector **KWHITTEN**
Collection date: **02/10/2010**
Lab submittal date: **02/11/2010**
Due date: **08/09/2010**
PONUMB: _____

Login record file: **100211005**

Collection time: **10:02**
Lab submittal time: **12:25**

Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **RW-14-05**
SAMPLE_LOCATION **RW-14-05**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____

Sample Receipt Page 4

Sample I.D. AA43416 (continued):

LONGITUDE _____
DELIVERY_MODE SV

Analyses ordered

Iron, Total Method

Method

200.8

Due Date

03/10/2010

Sample I.D. AA43417

Location code C0350009

Location Description GULF STATE CREOSOTE

Sample collector KWHITTEN

Collection date: 02/10/2010

Lab submittal date: 02/11/2010

Due date: 08/09/2010

PONUMB: _____

Login record file: 100211005

Collection time: 10:10

Lab submittal time: 12:25

Division Code: 3858

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO RW-2-05
SAMPLE_LOCATION RW-2-05
REQUESTED_BY TONY RUSSELL
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE SV

Analyses ordered

Iron, Total Method

Method

200.8

Due Date

03/10/2010

Sample I.D. AA43418

Location code C0350009

Location Description GULF STATE CREOSOTE

Sample collector KWHITTEN

Collection date: 02/10/2010

Lab submittal date: 02/11/2010

Due date: 08/09/2010

PONUMB: _____

Login record file: 100211005

Collection time: 10:25

Lab submittal time: 12:25

Division Code: 3858

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO RW-2-IS
SAMPLE_LOCATION RW-2-IS
REQUESTED_BY TONY RUSSELL
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE SV

Analyses ordered

Iron, Total Method

Method

200.8

Due Date

03/10/2010

Sample I.D. AA43419

Location code C0350009

Location Description GULF STATE CREOSOTE

Sample collector KWHITTEN

Collection date: 02/10/2010

Lab submittal date: 02/11/2010

Due date: 08/09/2010

PONUMB: _____

Login record file: 100211005

Collection time: 10:35

Lab submittal time: 12:25

Division Code: 3858

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO RW-14-IS
SAMPLE_LOCATION RW-14-IS
REQUESTED_BY TONY RUSSELL
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE SV

Analyses ordered

Method

Due Date

Iron, Total Method

200.8

03/10/2010

Please refer to the indicated sample I.D. numbers when making inquiries.

Received by: _____



"Dwayne Gilliam"
<dgilliam@usesgroup.com>

01/12/2010 02:35 PM

To <tony_russell@deq.state.ms.us>

cc "Don Warren" <DWarren@usesgroup.com>

bcc

Subject Hattiesburg Site Info

On 12/23/09 USES crew arrived on site and met with Mr. Terry Steed. Mr. Steed showed the USES crew the Monitoring well that the material was coming from. It appeared that Well RW15 had material leaking from around the cover. USES crew removed the top of RW15 and found clear liquid inside and vacuumed out the well casing and the well. USES crew then placed the top back down and proceeded to RW 1; clear liquid was also present USES crew also vacuumed out the well casing and well, USES crew also removed the MW 1 lid and vacuumed out the well casing only. USES crew proceeded to RW 9 and removed the lid and vacuumed out the well casing and the well. USES crew did not have to vacuum out RW 10. USES crew took composite samples from all 4 wells and the liquid that was collected in the vacuum truck. USES crew ran appropriate analytical for disposal of the liquids. On 12/29/09 USES went back and sampled RW14 which contained a brownish liquid, we also collected a soil sample beside the fence which is close to RW 2. USES crew also collected from a crack in the concrete that appeared to be creosote. This area is between two wells and is close to the wooded area.

If you have any question give me a call #601-278-7818

Thanks

Dwayne

ARGUS ANALYTICAL, INC.

235 Highpoint Drive

Ridgeland, Mississippi 39157

Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited

LELAP 04023

To: US Environmental Services
1075 Mendell Davis Drive
Jackson MS 39272

Attn: Dwayne Gilliam

Date Reported: 01/08/10
Date Received: 12/29/09
Date/Time Sampled: 12/29/09 08:30
Sampled by: D. Gilliam

Project ID/Location: 060-09-0439**Project Number:** 0439

Sample Description: RW-14
Sample Matrix: WATER

Sample Number: CC55341**Page Number:** 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
TCL Semivolatile Organics							
Acenaphthene	0.009	0.002	mg/L	8270C	KSA	01/06/10	17:15
Acenaphthylene	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
Anthracene	0.003	0.002	mg/L	8270C	KSA	01/06/10	17:15
Benzo(a)anthracene	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
Benzo(a)pyrene	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
Benzo(b)fluoranthene	ND	0.005	mg/L	8270C	KSA	01/06/10	17:15
Benzo(g,h,i)perylene	ND	0.005	mg/L	8270C	KSA	01/06/10	17:15
Benzo(k)fluoranthene	ND	0.005	mg/L	8270C	KSA	01/06/10	17:15
Chrysene	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
o-Cresol	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
p-Cresol	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
Dibenzo(a,h)anthracene	ND	0.005	mg/L	8270C	KSA	01/06/10	17:15
Fluoranthene	0.003	0.002	mg/L	8270C	KSA	01/06/10	17:15
Fluorene	0.006	0.002	mg/L	8270C	KSA	01/06/10	17:15
Indeno(1,2,3-cd)pyrene	ND	0.005	mg/L	8270C	KSA	01/06/10	17:15
2-Methylnaphthalene	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
Naphthalene	0.006	0.002	mg/L	8270C	KSA	01/06/10	17:15
Phenanthrene	0.005	0.002	mg/L	8270C	KSA	01/06/10	17:15
Phenol	ND	0.002	mg/L	8270C	KSA	01/06/10	17:15
Pyrene	0.003	0.002	mg/L	8270C	KSA	01/06/10	17:15

Note: refer to attached narrative.



QA/QC Technical Director

* See supplementary information, attached.

MP1

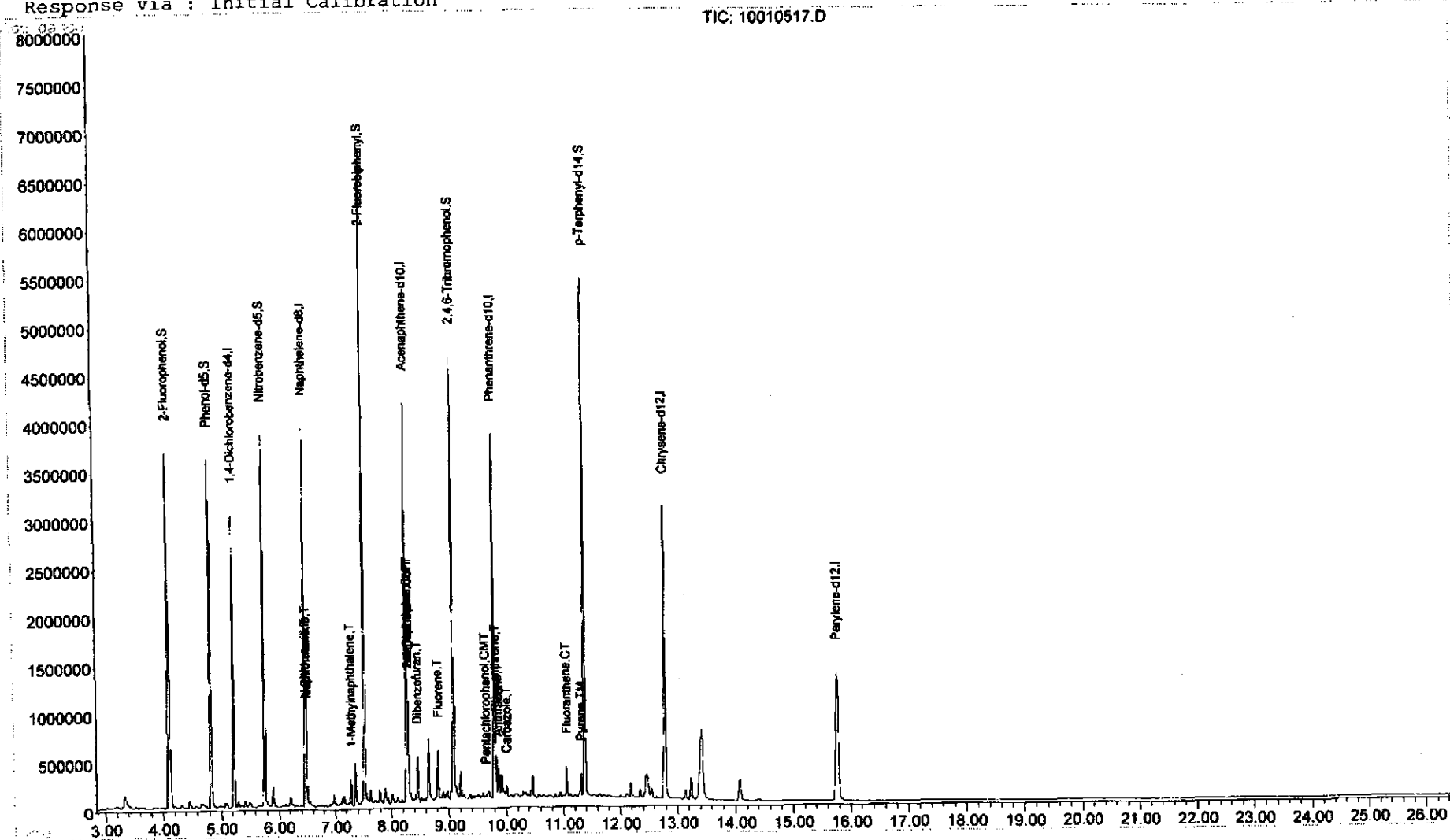
Quantitation Report

Data File : D:\HPCHEM\1\DATA\100105\10010517.D
 Acq On : 6 Jan 2010 5:15 pm
 Sample : CC55341 \$TCABNW
 Misc : Water 980mL/1mL
 MS Integration Params: rteint.p
 Quant Time: Jan 7 14:28 2010

Vial: 17
 Operator: KSA
 Inst : GCMS Semi
 Multiplr: 1.00

Quant Results File: WP8270K3.RES

Method : D:\HPCHEM\1\METHODS\WP8270K4.M (RTE Integrator)
 Title :
 Last Update : Thu Jan 28 13:26:55 2010
 Response via : Initial Calibration



ARGUS ANALYTICAL, INC.

235 Highpoint Drive

Ridgeland, Mississippi 39157

Telephone: 601/957-2676 FAX: 601/957-1887

NELAP Accredited

LELAP 04023

To: US Environmental Services
1075 Mendell Davis Drive
Jackson MS 39272

Attn: Dwayne Gillian

Date Reported: 01/08/10
Date Received: 12/29/09
Date/Time Sampled: 12/25/09 08:15
Sampled by: D. Gilliam


Project ID/Location: 060-09-0439**Project Number:** 0439

Sample Description: RW-2
Sample Matrix: SOIL

Sample Number: CC55342**Page Number:** 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
TCL Semivolatile Organics							
Acenaphthene	4.13	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Acenaphthylene	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Anthracene	1.21	0.850	mg/Kg	8270C	KSA	01/06/10	22:20
Benzo(a)anthracene	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Benzo(a)pyrene	ND	0.700	mg/Kg	8270C	KSA	01/06/10	22:20
Benzo(b)fluoranthene	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Benzo(k)fluoranthene	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Chrysene	ND	0.900	mg/Kg	8270C	KSA	01/06/10	22:20
o-Cresol	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
p-Cresol	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Dibenzo(a,h)anthracene	ND	0.500	mg/Kg	8270C	KSA	01/06/10	22:20
Fluoranthene	1.64	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Fluorene	5.08	0.500	mg/Kg	8270C	KSA	01/06/10	22:20
Indeno(1,2,3-cd)pyrene	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
2-Methylnaphthalene	4.16	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Naphthalene	8.90	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Phenanthrene	10.9	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Phenol	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20
Pyrene	ND	1.000	mg/Kg	8270C	KSA	01/06/10	22:20

Note: refer to attached narrative.


QA/QC Technical Director

* See supplementary information, attached.

MP1

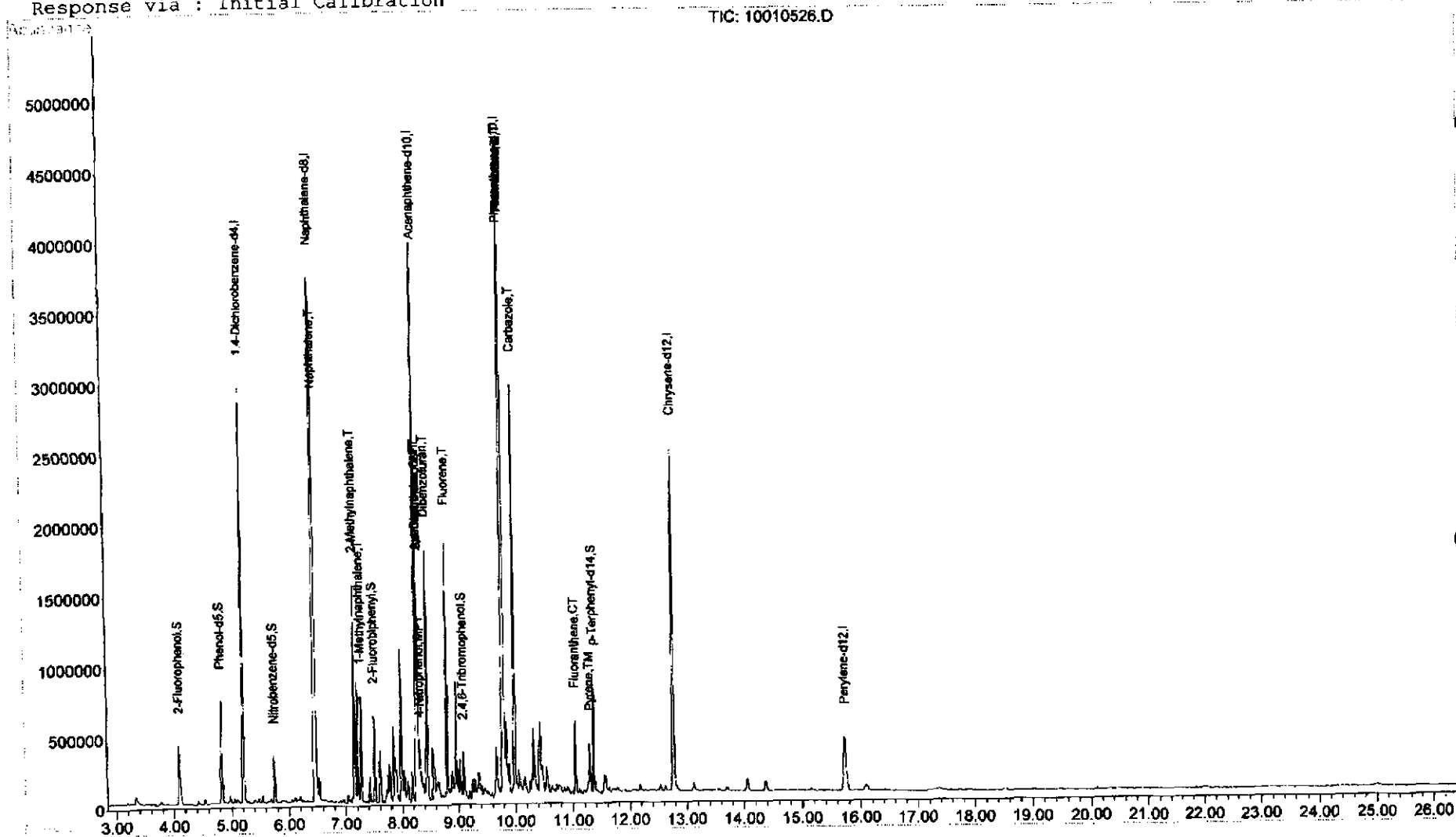
Quantitation Report

Data File : D:\HPCHEM\1\DATA\100105\10010526.D
 Acq On : 6 Jan 2010 10:20 pm
 Sample : CC55342 \$TCABNS
 Misc : Soil 30.16g/1mL 10:1 dil
 MS Integration Params: rteint.p
 Quant Time: Jan 7 9:18 2010

Vial: 25
 Operator: KSA
 Inst : GCMS Semi
 Multiplr: 1.00

Quant Results File: WP8270K3.RES

Method : D:\HPCHEM\1\METHODS\WP8270K4.M (RTE Integrator)
 Title :
 Last Update : Thu Jan 28 13:26:55 2010
 Response via : Initial Calibration



ARGUS ANALYTICAL, INC.

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NELAP Accredited

LELAP 04023

To: US Environmental Services
1075 Mendell Davis Drive
Jackson MS 39272

Attn: Dwayne Gillian

Date Reported: 01/08/10
Date Received: 12/29/09
Date/Time Sampled: 12/22/09 08:20
Sampled by: D. Gilliam

Project ID/Location: 060-09-0439**Project Number:** 0439

Sample Description: Concrete Crack
Sample Matrix: SOIL

Sample Number: CC55343**Page Number:** 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
TCL Semivolatile Organics							
Acenaphthene	349	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Acenaphthylene	43.5	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Anthracene	325	8.500	mg/Kg	8270C	KSA	01/06/10	22:54
Benzo(a)anthracene	271	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Benzo(a)pyrene	105	7.000	mg/Kg	8270C	KSA	01/06/10	22:54
Benzo(b)fluoranthene	145	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Benzo(k)fluoranthene	154	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Chrysene	253	9.000	mg/Kg	8270C	KSA	01/06/10	22:54
o-Cresol	ND	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
p-Cresol	ND	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Dibenzo(a,h)anthracene	8.44	5.000	mg/Kg	8270C	KSA	01/06/10	22:54
Fluoranthene	484	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Fluorene	364	5.000	mg/Kg	8270C	KSA	01/06/10	22:54
Indeno(1,2,3-cd)pyrene	16.3	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
2-Methylnaphthalene	443	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Naphthalene	410	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Phenanthrene	556	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Phenol	ND	10.000	mg/Kg	8270C	KSA	01/06/10	22:54
Pyrene	428	10.000	mg/Kg	8270C	KSA	01/06/10	22:54

Note: refer to attached narrative.



QA/QC Technical Director

* See supplementary information, attached.

MPI

Quantitation Report

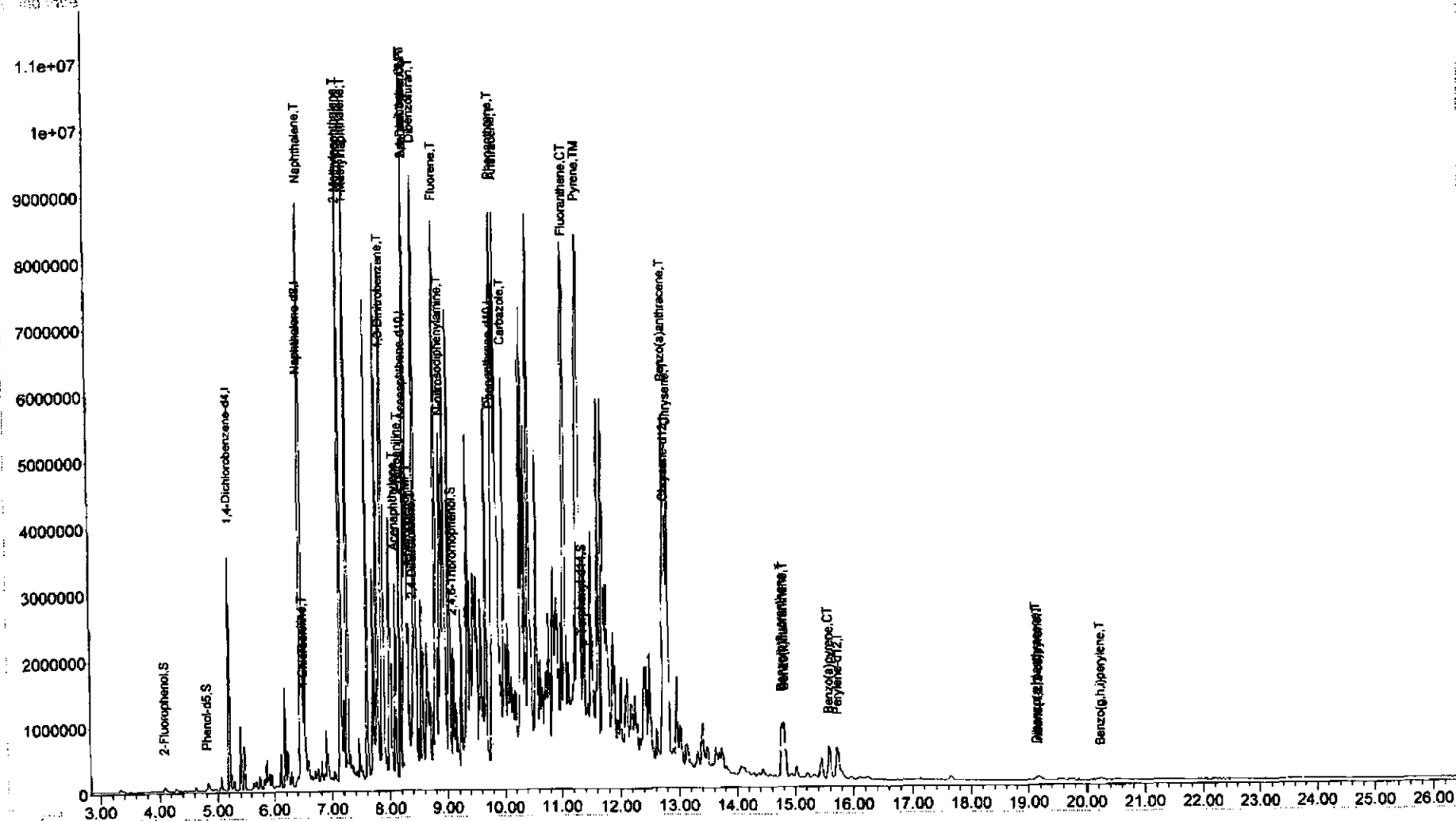
Data File : D:\HPCHEM\1\DATA\100105\10010527.D
 Acq On : 6 Jan 2010 10:54 pm
 Sample : CC55343 \$TCABNS
 Misc : Soil 30.31g/mL 100:1 dil
 MS Integration Params: rteint.p
 Quant Time: Jan 7 13:51 2010

Vial: 26
 Operator: KSA
 Inst : GCMS Semi
 Multiplr: 1.00

Quant Results File: WP8270K3.RES

Method : D:\HPCHEM\1\METHODS\WP8270K4.M (RTE Integrator)
 Title :
 Last Update : Thu Jan 28 13:26:55 2010
 Response via : Initial Calibration

TIC: 10010527.D



ARGUS ANALYTICAL, INC.

235 Highpoint Drive

Ridgeland, Mississippi 39157

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NELAP Accredited

LELAP 04023

To: US Environmental Services
1075 Mendell Davis Drive
Jackson MS 39272

Attn: Dwayne Gilliam

Date Reported: 01/08/10
Date Received: 12/29/09
Date/Time Sampled: 12/28/09 12:00
Sampled by: D. Gilliam

Project ID/Location: 060-09-0439**Project Number:** 0439

Sample Description: VT
Sample Matrix: WATER

Sample Number: CC55344**Page Number:** 1

Parameter	Result	Det Limit	Units	Method	Analysts	Date	Time
TCL Semivolatile Organics							
Acenaphthene	0.756	0.020	mg/L	8270C	KSA	01/06/10	17:49
Acenaphthylene	0.057	0.020	mg/L	8270C	KSA	01/06/10	17:49
Anthracene	0.391	0.020	mg/L	8270C	KSA	01/06/10	17:49
Benzo(a)anthracene	0.259	0.020	mg/L	8270C	KSA	01/06/10	17:49
Benzo(a)pyrene	0.089	0.020	mg/L	8270C	KSA	01/06/10	17:49
Benzo(b)fluoranthene	0.135	0.051	mg/L	8270C	KSA	01/06/10	17:49
Benzo(g,h,i)perylene	ND	0.051	mg/L	8270C	KSA	01/06/10	17:49
Benzo(k)fluoranthene	0.122	0.051	mg/L	8270C	KSA	01/06/10	17:49
Chrysene	0.203	0.020	mg/L	8270C	KSA	01/06/10	17:49
o-Cresol	0.030	0.020	mg/L	8270C	KSA	01/06/10	17:49
p-Cresol	ND	0.020	mg/L	8270C	KSA	01/06/10	17:49
Dibenzo(a,h)anthracene	ND	0.051	mg/L	8270C	KSA	01/06/10	17:49
Fluoranthene	0.891	0.020	mg/L	8270C	KSA	01/06/10	17:49
Fluorene	0.810	0.020	mg/L	8270C	KSA	01/06/10	17:49
Indeno(1,2,3-cd)pyrene	ND	0.051	mg/L	8270C	KSA	01/06/10	17:49
2-Methylnaphthalene	0.961	0.020	mg/L	8270C	KSA	01/06/10	17:49
Naphthalene	1.19	0.020	mg/L	8270C	KSA	01/06/10	17:49
Phenanthrene	1.19	0.020	mg/L	8270C	KSA	01/06/10	17:49
Phenol	ND	0.020	mg/L	8270C	KSA	01/06/10	17:49
Pyrene	0.713	0.020	mg/L	8270C	KSA	01/06/10	17:49

Note: refer to attached narrative.



QA/QC Technical Director

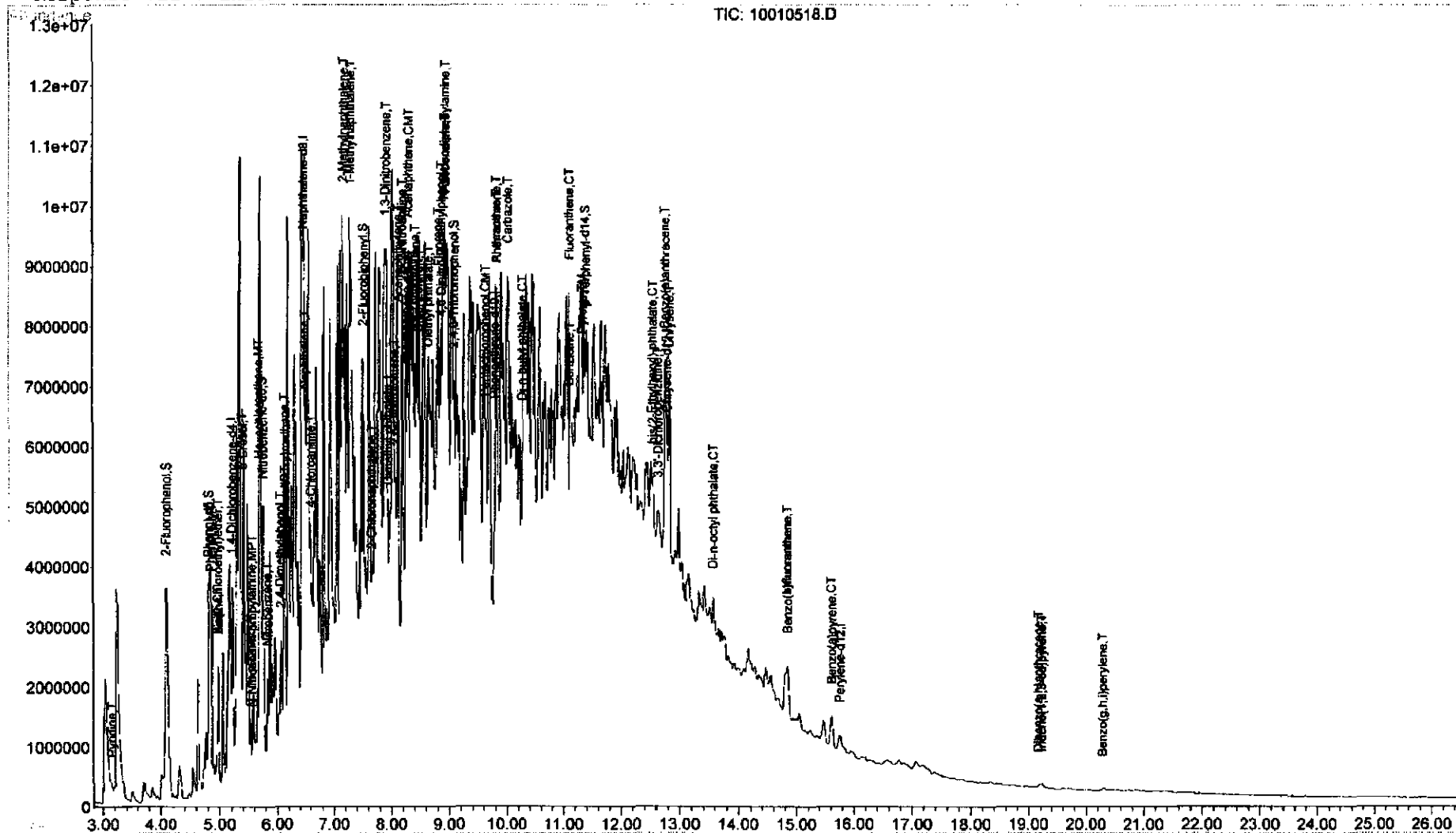
Quantitation Report

Data File : D:\HPCHEM\1\DATA\100105\10010518.D
Acq On : 6 Jan 2010 5:49 pm
Sample : CC55344 \$TCABNW
Misc : Water 980mL/1mL
MS Integration Params: rteint.p
Quant Time: Jan 7 9:17 2010

Vial: 18
Operator: KSA
Inst : GCMS Semi
Multiplr: 1.00

Quant Results File: WP8270K3.RES

```
Method      : D:\HPCHEM\1\METHODS\WP8270K4.M (RTE Integrator)
Title       :
Last Update  : Thu Jan 28 13:26:55 2010
Response via : Initial Calibration
```



Case Narrative

Sample Number(s) CC55341 through CC55344

Samples submitted for Creosote analysis on 12/29/09

Analysis for Cresote

Whenever analysis is requested for creosote or any similar product, Argus analyzes for the TCL Semivolatiles. Cresote is then determined by adding phenol, o-cresol, p-cresol and all the PAHs that are included in this listing.

Background

Creosote is the name used for a variety of products that are mixtures of many chemicals. The products include wood creosote (CAS# 8021-39-4), coal tar creosote (CAS# 8001-58-9), coal tar pitch (CAS# 67996-93-2), and coal tar (CAS# 8007-45-2). These products are not naturally occurring.

Each of these products has numerous synonyms. Some common synonyms are brick oil, coal creosote, cresote, beechwood creosote, liquid pitch oil, wood creosote, and coal tar. There are many other synonyms.

Coal tar creosotes are the most common form of creosote. The major constituents in coal tar creosotes that can cause harm include polycyclic aromatic hydrocarbons (PAHs), phenol and cresols.

Results

The data indicates the presence of PAHs in sample(s) CC55341 through CC55344. Only one sample had any detectable amounts of phenol, o-cresol, and p-cresol (CC55344). The remaining samples did not have any detectable amounts.

Based on the above discussion, the creosote concentrations are being reported as follows:

CC55341	0.035 mg/L
CC55342	36.0 mg/Kg
CC55343	4355 mg/Kg
CC55344	7.80 mg/L

ARGUS ANALYTICAL, INC

235 Highpoint Drive

Ridgeland, MS 39157

Telephone: 601/957-2676 FAX: 601/957-1887

CHAIN-OF-CUSTODY

Argus Cooler #

Report to: <u>USBS</u>	Invoice to: <u>USBS</u>
Address: _____	Address: _____
_____	_____

Comments/priority:

Sampler (print/signature) <u>Dwayne Gilliam</u>
Project Name/Number: <u>060-09-0439 T0434662</u>
Project Manager: <u>D. Gilliam</u>
MGPTF# (if applicable)

Item #	Field Number	Sample Description	Collection						Analysis Required	Lab Number (lab use only)
			Date	Time	Initials	G/C	#	Presv		
1	RW14	Liquid	12/29	830	D	G	2		Concrete	CC55341
2	RW2	Soil	12/29	815	A	C	1		" "	CC55342
3	Concrete Crack Exposure		12/29	820	A	C	1		" "	CC55343

Relinquished by: <u>[Signature]</u>	Date/time: <u>12/29/09 11:17</u>	Accepted by: <u>Karen Denney</u>	Date/time: <u>12-29-09 11:20</u>	Relinquished by:	Date/time:	Accepted by:	Date/time:
Relinquished by:	Date/time:	Accepted by:	Date/time:	Relinquished by:	Date/time:	Accepted by:	Date/time:


CHAIN-OF-CUSTODY

Argus Cooler #	
----------------	--

Sampler (print/signature)
 RYAN GILLIA
 RYAN GILLIA
 Project Name/Number:
 060-09-0439 P# 340
 Project Manager:
 D. Gillia
 MGPTF# (if applicable)

Report to: <u>USGS</u>	Invoice to: <u>USGS</u>
Address: _____	Address: _____
_____	_____
Comments/priority: _____	

[illegible]

Relinquished by: 	Date/time: 12/29/09 11:20	Accepted by: Karen Denney	Date/time: 12-29-09 11:20	Relinquished by:	Date/time:	Accepted by:
Relinquished by:	Date/time:	Accepted by:	Date/time:	Relinquished by:	Date/time:	Accepted by:

Cooler Receipt Check List

Argus Analytical, Inc.

Date Opened: 12-29-09

Sample Number(s): CC55341-44

Opened by: Client

Attach or Record

Client: USES

Shipping Info: N/A

<input type="checkbox"/>	If checked, refer to the "Sample Receipt - Notification of Deviation" (Form F008, attached).
<input checked="" type="checkbox"/>	Per previous discussion with the client, thermal preservation not required, and Deviation Notification <u>not</u> required.

Login Checked by:

2

Measured Temp when opened: <u>Ambient</u> On ice?: <u>Y/N</u>		The sample is always acceptable if hand delivered the day sampled and if there is evidence the chilling process has begun.	
Wrapping material type: <u>None</u> Peanuts Bubblewrap Paper Other			
Cooler custody seals intact?	<u>N/A</u> Y/N	Signed & dated?	Y/N
Container custody seals intact?	<u>N/A</u> Y/N		
COC papers received?	<u>Y/N</u>	Receipt properly noted on COC?	<u>Y/N</u>
COC papers properly filled in (signed in ink)?	<u>Y/N</u>	Container labels correspond to the COC?	<u>Y/N</u>
All containers intact (not broken)?	<u>Y/N</u>	Samples received within holding times?	<u>Y/N</u>
Correct containers/preservatives used?	<u>Y/N</u>	Short HT tests: BOD Br Color Cr6 DissMet DO Fecal	
Container labels filled in?	<u>Y/N</u>	MBAS Nitrate or Nitrite OrP pH SS Sulfite	
Were Trip Blanks rec'd with VOAs?	Y/N	TCB/TPC TRC Turb	
VOA vials - headspace detected?	<u>N/A</u> Y/N	Lab Notified:	
If headspace detected, < 0.25" dia?	Y/N		
VOA soils - 5035 compliance criteria met? <u>N/A</u> Y/N (if met, circle the applicable method, below)			
High concentration jar (48 hr)		Low conc EnCore samplers (48 hr)	
High concentration pre-weighed vial (methanol - 14 d)		Low conc pre-weighed vials (sodium bisulfate - 14 d)	
Lab Notified (date, time, initials): _____			

For further information concerning this project, refer to the following attachments which are considered part of the final report. These attachments provide additional information on topics such as method modifications or NELAP accreditation.

Cooler Receipt Check List (always attached)
Sample Receipt - Notification of Deviation (optional)

Supplementary Report Information (always attached)
Case Narrative (optional)

Comments: _____

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl MS 39208
601-961-5701

Sample Results

<p>To: TONY RUSSELL</p> <hr/> <p>Sample ID: AA42980</p> <p>Location Name: GULF STATE CREOSOTE</p> <p>Location Description: MW- 22</p> <p>Location Code: C0350009</p> <p>Other No.: NW-22</p> <p>Permit No.:</p> <p>Discharge No.:</p> <p>Master AI No.: 0</p> <p>Latitude:</p> <p>Longitude:</p>	<p>Study: GARD</p> <p>County: 035 FORREST</p> <p>Basin:</p> <p>QA Type:</p> <p>Division Code: 3047</p> <p>Requested By: TONY RUSSELL</p> <p>Date Collected: 12/17/2009</p> <p>Time Collected: 1030</p> <p>Sample Collector: BBRALOCK</p> <p>Delivery Mode: SV</p> <p>Received at Lab by: AMY GRAY</p> <p>Date Received at Lab: 12/18/2009</p> <p>Time Received at Lab: 0850</p>
--	---

ANALYTE	METHOD	RESULT	UNITS	MQL	ANALYST
1,2,4-Trichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
1,2-Dichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
1,3-Dichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
1,4-Dichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
2,4,5-Trichlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2,4,6-Trichlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2,4-Dichlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2,4-Dimethylphenol	8270	<MQL	µg/L	10.00	JSHELL
2,4-Dinitrophenol	8270	<MQL	µg/L	50.00	JSHELL
2,4-Dinitrotoluene	8270	<MQL	µg/L	10.00	JSHELL
2,6-Dinitrotoluene	8270	<MQL	µg/L	10.00	JSHELL
2-Chloronaphthalene	8270	<MQL	µg/L	10.00	JSHELL
2-Chlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2-Methylnaphthalene	8270	<MQL	µg/L	10.00	JSHELL
2-Methylphenol	8270	<MQL	µg/L	10.00	JSHELL
2-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
2-Nitrophenol	8270	<MQL	µg/L	20.00	JSHELL
3,3'-Dichlorobenzidine	8270	<MQL	µg/L	50.00	JSHELL

3-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
4,6-Dinitro-2-methylphenol	8270	<MQL	µg/L	50.00	JSHELL
4-Bromophenyl-phenylether	8270	<MQL	µg/L	10.00	JSHELL
4-Chloro-3-methylphenol	8270	<MQL	µg/L	20.00	JSHELL
4-Chloroaniline	8270	<MQL	µg/L	20.00	JSHELL
4-Chlorophenyl-phenylether	8270	<MQL	µg/L	10.00	JSHELL
4-Methylphenol	8270	<MQL	µg/L	10.00	JSHELL
4-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
4-Nitrophenol	8270	<MQL	µg/L	50.00	JSHELL
Acenaphthene	8270	<MQL	µg/L	10.00	JSHELL
Acenaphthylene	8270	<MQL	µg/L	10.00	JSHELL
Anthracene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[a]anthracene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[a]pyrene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[b]fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[g,h,i]perylene	8270	<MQL	µg/L	20.00	JSHELL
Benzo[k]fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Benzoic Acid	8270	<MQL	µg/L	50.00	JSHELL
Benzyl alcohol	8270	<MQL	µg/L	20.00	JSHELL
bis(2-Chloroethoxy)methane	8270	<MQL	µg/L	10.00	JSHELL
bis(2-Chloroethyl)ether	8270	<MQL	µg/L	10.00	JSHELL
bis(2-chloroisopropyl)ether	8270	<MQL	µg/L	10.00	JSHELL
bis(2-Ethylhexyl)phthalate	8270	Trace 1.42	µg/L	10.00	JSHELL
Butylbenzylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Carbazole	8270	<MQL	µg/L	10.00	JSHELL
Chrysene	8270	<MQL	µg/L	10.00	JSHELL
Dibenz[a,h]anthracene	8270	<MQL	µg/L	20.00	JSHELL
Dibenzofuran	8270	<MQL	µg/L	10.00	JSHELL
Diethylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Dimethylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Di-n-butylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Di-n-octylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Fluorene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorobutadiene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorocyclopentadiene	8270	<MQL	µg/L	10.00	JSHELL
Hexachloroethane	8270	<MQL	µg/L	20.00	JSHELL
Indeno[1,2,3-cd]pyrene	8270	<MQL	µg/L	20.00	JSHELL
Isophorone	8270	<MQL	µg/L	10.00	JSHELL
Naphthalene	8270	<MQL	µg/L	10.00	JSHELL
Nitrobenzene	8270	<MQL	µg/L	10.00	JSHELL

N-Nitroso-di-n-propylamine	8270	<MQL	µg/L	20.00	JSHELL
n-Nitrosodiphenylamine	8270	<MQL	µg/L	20.00	JSHELL
Pentachlorophenol	8270	<MQL	µg/L	50.00	JSHELL
Phenanthrene	8270	<MQL	µg/L	10.00	JSHELL
Phenol	8270	<MQL	µg/L	10.00	JSHELL
Pyrene	8270	<MQL	µg/L	10.00	JSHELL
2,4,6-Tribromophenol	8270	85	%	10-123	JSHELL
2-Fluorobiphenyl	8270	83	%	43-116	JSHELL
2-Fluorophenol	8270	60	%	21-100	JSHELL
Nitrobenzene-d5	8270	72	%	35-114	JSHELL
Phenol-d5	8270	73	%	10-194	JSHELL
Terphenyl-d14	8270	73	%	33-141	JSHELL

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg: milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated

>: greater than
z: surrogate
COC Date: Date Chain of Custody Signed
COC TIME: Time Chain of Custody

SAMPLE COMMENTS COLLECTOR: BRAD BRALOCK - FIELD CONSULTANT
REMARKS: LOW LEVEL ANALYSIS

Sample Validation Date 01/20/2010

Validated By

Date Report Printed 01/20/2010

**BUREAU OF POLLUTION CONTROL
SAMPLE REQUEST FORM**

Lab Bench No. _____

I. GENERAL INFORMATION: Facility Name Gulf States Creosote
 County Code Korrest NPDES Permit No. _____
 Discharge No. _____ Date Requested 12/18/09
 Sample Point Identification MW-22
 Requested By Tony Russo Data To T Russo
 Type of Sample: Grab (X) Composite (Flow) (Time) Other ()

II. SAMPLE IDENTIFICATION:
 Environment Condition _____ Collected By _____
 Where Taken Monitor Well 22

Type	Parameters	Preservative	Date	Time
1. <u>groundwater</u>	<u>Semi-VOCs</u>	<u>None</u>	<u>12/17/09</u>	<u>1030</u>
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

III. FIELD:

Analysis	Computer Code	Request	Results	Analyst	Date
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other ()
V. LABORATORY: Received By M. Gray Date 12/18/09 Time 0850
 Recorded By _____ Date Sent to State Office _____

Analysis	Computer Code	Request	Result	Analyst	Date Measured
BOD ₅	(000310)	()	mg/l	_____	*
COD ₅	(000340)	()	mg/l	_____	_____
TOC	(000680)	()	mg/l	_____	_____
Suspended Solids	(099000)	()	mg/l	_____	_____
TKN	(000625)	()	mg/l	_____	_____
Ammonia-N	(000610)	()	mg/l	_____	_____
Fecal Coliform(1)	(074055)	()	colonies/100 ml	_____	*
Fecal Coliform(2)	(074055)	()	colonies/100 ml	_____	*
Total Phosphorus	(000665)	()	mg/l	_____	_____
Oil and Grease(1)	(000550)	()	mg/l	_____	_____
Oil and Grease(2)	(000550)	()	mg/l	_____	_____
Chlorides	(099016)	()	mg/l	_____	_____
Phenol	(032730)	()	mg/l	_____	_____
Total Chromium	(001034)	()	mg/l	_____	_____
Hex. Chromium	(001032)	()	mg/l	_____	_____
Zinc	(001092)	()	mg/l	_____	_____
Copper	(001042)	()	mg/l	_____	_____
Lead	(017501)	()	mg/l	_____	_____
Cyanide	(000722)	()	mg/l	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____
_____	_____	()	_____	_____	_____

Remarks low level analysis

*Date of Test Initiation

3047

42980

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl MS 39208
601-961-5701

Sample Results

<p>To: TONY RUSSELL</p> <p>Sample ID: AA43256</p> <p>Location Name: GULF STATE CREOSOTE</p> <p>Location Description: FA-SW 3</p> <p>Location Code: C0350009</p> <p>Other No.: FA-SW 3</p> <p>Permit No.:</p> <p>Discharge No.:</p> <p>Master AI No.: 0</p> <p>Latitude:</p> <p>Longitude:</p>	<p>Study: GARD</p> <p>County: 035 FORREST</p> <p>Basin:</p> <p>QA Type:</p> <p>Division Code: 3858</p> <p>Requested By: TONY RUSSELL</p> <p>Date Collected: 01/26/2010</p> <p>Time Collected: 715</p> <p>Sample Collector: TRUSSELL</p> <p>Delivery Mode: SV</p> <p>Received at Lab by: TAMMY SAWYER</p> <p>Date Received at Lab: 01/27/2010</p> <p>Time Received at Lab: 1115</p>
--	---

ANALYTE	METHOD	RESULT	UNITS	MLQ	ANALYST
1,2,4-Trichlorobenzene		<MLQ	µg/L	10.00	JSHELL
1,2-Dichlorobenzene		<MLQ	µg/L	10.00	JSHELL
1,3-Dichlorobenzene		<MLQ	µg/L	10.00	JSHELL
1,4-Dichlorobenzene		<MLQ	µg/L	10.00	JSHELL
2,4,5-Trichlorophenol		<MLQ	µg/L	10.00	JSHELL
2,4,6-Trichlorophenol		<MLQ	µg/L	10.00	JSHELL
2,4-Dichlorophenol		<MLQ	µg/L	10.00	JSHELL
2,4-Dimethylphenol		<MLQ	µg/L	10.00	JSHELL
2,4-Dinitrophenol		<MLQ	µg/L	50.00	JSHELL
2,4-Dinitrotoluene		<MLQ	µg/L	10.00	JSHELL
2,6-Dinitrotoluene		<MLQ	µg/L	10.00	JSHELL
2-Chloronaphthalene		<MLQ	µg/L	10.00	JSHELL
2-Chlorophenol		<MLQ	µg/L	10.00	JSHELL
2-Methylnaphthalene		<MLQ	µg/L	10.00	JSHELL
2-Methylphenol		<MLQ	µg/L	10.00	JSHELL
2-Nitroaniline		<MLQ	µg/L	50.00	JSHELL
2-Nitrophenol		<MLQ	µg/L	20.00	JSHELL
3,3'-Dichlorobenzidine		<MLQ	µg/L	50.00	JSHELL

3-Nitroaniline	<MQL	µg/L	50.00	JSHELL
4,6-Dinitro-2-methylphenol	<MQL	µg/L	50.00	JSHELL
4-Bromophenyl-phenylether	<MQL	µg/L	10.00	JSHELL
4-Chloro-3-methylphenol	<MQL	µg/L	20.00	JSHELL
4-Chloroaniline	<MQL	µg/L	20.00	JSHELL
4-Chlorophenyl-phenylether	<MQL	µg/L	10.00	JSHELL
4-Methylphenol	<MQL	µg/L	10.00	JSHELL
4-Nitroaniline	<MQL	µg/L	50.00	JSHELL
4-Nitrophenol	<MQL	µg/L	50.00	JSHELL
Acenaphthene	<MQL	µg/L	10.00	JSHELL
Acenaphthylene	<MQL	µg/L	10.00	JSHELL
Anthracene	<MQL	µg/L	10.00	JSHELL
Benzo[a]anthracene	<MQL	µg/L	10.00	JSHELL
Benzo[a]pyrene	<MQL	µg/L	10.00	JSHELL
Benzo[b]fluoranthene	<MQL	µg/L	10.00	JSHELL
Benzo[g,h,i]perylene	<MQL	µg/L	20.00	JSHELL
Benzo[k]fluoranthene	<MQL	µg/L	10.00	JSHELL
Benzoic Acid	<MQL	µg/L	50.00	JSHELL
Benzyl alcohol	<MQL	µg/L	20.00	JSHELL
bis(2-Chloroethoxy)methane	<MQL	µg/L	10.00	JSHELL
bis(2-Chloroethyl)ether	<MQL	µg/L	10.00	JSHELL
bis(2-chloroisopropyl)ether	<MQL	µg/L	10.00	JSHELL
bis(2-Ethylhexyl)phthalate	2.04 TRACE	µg/L	10.00	JSHELL
Butylbenzylphthalate	<MQL	µg/L	10.00	JSHELL
Carbazole	<MQL	µg/L	10.00	JSHELL
Chrysene	<MQL	µg/L	10.00	JSHELL
Dibenz[a,h]anthracene	<MQL	µg/L	20.00	JSHELL
Dibenzofuran	<MQL	µg/L	10.00	JSHELL
Diethylphthalate	<MQL	µg/L	10.00	JSHELL
Dimethylphthalate	<MQL	µg/L	10.00	JSHELL
Di-n-butylphthalate	<MQL	µg/L	10.00	JSHELL
Di-n-octylphthalate	<MQL	µg/L	10.00	JSHELL
Fluoranthene	<MQL	µg/L	10.00	JSHELL
Fluorene	<MQL	µg/L	10.00	JSHELL
Hexachlorobenzene	<MQL	µg/L	10.00	JSHELL
Hexachlorobutadiene	<MQL	µg/L	10.00	JSHELL
Hexachlorocyclopentadiene	<MQL	µg/L	10.00	JSHELL
Hexachloroethane	<MQL	µg/L	20.00	JSHELL
Indeno[1,2,3-cd]pyrene	<MQL	µg/L	20.00	JSHELL
Isophorone	<MQL	µg/L	10.00	JSHELL
Naphthalene	<MQL	µg/L	10.00	JSHELL
Nitrobenzene	<MQL	µg/L	10.00	JSHELL

N-Nitroso-di-n-propylamine	<MQL	µg/L	20.00	JSHELL
n-Nitrosodiphenylamine	<MQL	µg/L	20.00	JSHELL
Pentachlorophenol	<MQL	µg/L	50.00	JSHELL
Phenanthrene	<MQL	µg/L	10.00	JSHELL
Phenol	<MQL	µg/L	10.00	JSHELL
Pyrene	<MQL	µg/L	10.00	JSHELL
2,4,6-Tribromophenol	91	%	10-123	JSHELL
2-Fluorobiphenyl	89	%	43-116	JSHELL
2-Fluorophenol	74	%	21-100	JSHELL
Nitrobenzene-d5	85	%	35-114	JSHELL
Phenol-d5	81	%	10-194	JSHELL
Terphenyl-d14	76	%	33-141	JSHELL

Extract For Semi-Volatile Analysis

Completed

LJANES

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg: milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated

>: greater than
z: surrogate
COC Date: Date Chain of Custody Signed
COC TIME: Time Chain of Custody

SAMPLE COMMENTS

WHERE TAKEN: GORDONS CREEK UPSTREAM OF WALL
REMARKS: LOW LEVEL

bis(2-Ethylhexyl)phthalate was detected in Laboratory Blank. JES

Sample Validation Date 02/11/2010

Validated By

Date Report Printed 02/11/2010

Lab Bench No.

43254

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl MS 39208
601-961-5701

Sample Results

To: TONY RUSSELL	Study: GARD County: 035 FORREST Basin: QA Type: Division Code: 3858 Requested By: TONY RUSSELL Date Collected: 01/26/2010 Time Collected: 709 Sample Collector: TRUSSELL Delivery Mode: SV Received at Lab by: TAMMY SAWYER Date Received at Lab: 01/27/2010 Time Received at Lab: 1115
Sample ID: AA43255 Location Name: GULF STATE CREOSOTE Location Description: FA-SW 2 Location Code: C0350009 Other No.: FA-SW 2 Permit No.: Discharge No.: Master AI No.: 0 Latitude: Longitude:	

ANALYTE	METHOD	RESULT	UNITS	MLQ	ANALYST
1,2,4-Trichlorobenzene		<MLQ	µg/L	10.00	JSHELL
1,2-Dichlorobenzene		<MLQ	µg/L	10.00	JSHELL
1,3-Dichlorobenzene		<MLQ	µg/L	10.00	JSHELL
1,4-Dichlorobenzene		<MLQ	µg/L	10.00	JSHELL
2,4,5-Trichlorophenol		<MLQ	µg/L	10.00	JSHELL
2,4,6-Trichlorophenol		<MLQ	µg/L	10.00	JSHELL
2,4-Dichlorophenol		<MLQ	µg/L	10.00	JSHELL
2,4-Dimethylphenol		<MLQ	µg/L	10.00	JSHELL
2,4-Dinitrophenol		<MLQ	µg/L	50.00	JSHELL
2,4-Dinitrotoluene		<MLQ	µg/L	10.00	JSHELL
2,6-Dinitrotoluene		<MLQ	µg/L	10.00	JSHELL
2-Chloronaphthalene		<MLQ	µg/L	10.00	JSHELL
2-Chlorophenol		<MLQ	µg/L	10.00	JSHELL
2-Methylnaphthalene		<MLQ	µg/L	10.00	JSHELL
2-Methylphenol		<MLQ	µg/L	10.00	JSHELL
2-Nitroaniline		<MLQ	µg/L	50.00	JSHELL
2-Nitrophenol		<MLQ	µg/L	20.00	JSHELL
3,3'-Dichlorobenzidine		<MLQ	µg/L	50.00	JSHELL

3-Nitroaniline	<MQL	µg/L	50.00	JSHELL
4,6-Dinitro-2-methylphenol	<MQL	µg/L	50.00	JSHELL
4-Bromophenyl-phenylether	<MQL	µg/L	10.00	JSHELL
4-Chloro-3-methylphenol	<MQL	µg/L	20.00	JSHELL
4-Chloroaniline	<MQL	µg/L	20.00	JSHELL
4-Chlorophenyl-phenylether	<MQL	µg/L	10.00	JSHELL
4-Methylphenol	<MQL	µg/L	10.00	JSHELL
4-Nitroaniline	<MQL	µg/L	50.00	JSHELL
4-Nitrophenol	<MQL	µg/L	50.00	JSHELL
Acenaphthene	<MQL	µg/L	10.00	JSHELL
Acenaphthylene	<MQL	µg/L	10.00	JSHELL
Anthracene	<MQL	µg/L	10.00	JSHELL
Benzo[a]anthracene	<MQL	µg/L	10.00	JSHELL
Benzo[a]pyrene	<MQL	µg/L	10.00	JSHELL
Benzo[b]fluoranthene	<MQL	µg/L	10.00	JSHELL
Benzo[g,h,i]perylene	<MQL	µg/L	20.00	JSHELL
Benzo[k]fluoranthene	<MQL	µg/L	10.00	JSHELL
Benzoic Acid	<MQL	µg/L	50.00	JSHELL
Benzyl alcohol	<MQL	µg/L	20.00	JSHELL
bis(2-Chloroethoxy)methane	<MQL	µg/L	10.00	JSHELL
bis(2-Chloroethyl)ether	<MQL	µg/L	10.00	JSHELL
bis(2-chloroisopropyl)ether	<MQL	µg/L	10.00	JSHELL
bis(2-Ethylhexyl)phthalate	Trace 2.47	µg/L	10.00	JSHELL
Butylbenzylphthalate	<MQL	µg/L	10.00	JSHELL
Carbazole	<MQL	µg/L	10.00	JSHELL
Chrysene	<MQL	µg/L	10.00	JSHELL
Dibenz[a,h]anthracene	<MQL	µg/L	20.00	JSHELL
Dibenzofuran	<MQL	µg/L	10.00	JSHELL
Diethylphthalate	<MQL	µg/L	10.00	JSHELL
Dimethylphthalate	<MQL	µg/L	10.00	JSHELL
Di-n-butylphthalate	<MQL	µg/L	10.00	JSHELL
Di-n-octylphthalate	<MQL	µg/L	10.00	JSHELL
Fluoranthene	<MQL	µg/L	10.00	JSHELL
Fluorene	<MQL	µg/L	10.00	JSHELL
Hexachlorobenzene	<MQL	µg/L	10.00	JSHELL
Hexachlorobutadiene	<MQL	µg/L	10.00	JSHELL
Hexachlorocyclopentadiene	<MQL	µg/L	10.00	JSHELL
Hexachloroethane	<MQL	µg/L	20.00	JSHELL
Indeno[1,2,3-cd]pyrene	<MQL	µg/L	20.00	JSHELL
Isophorone	<MQL	µg/L	10.00	JSHELL
Naphthalene	<MQL	µg/L	10.00	JSHELL
Nitrobenzene	<MQL	µg/L	10.00	JSHELL

N-Nitroso-di-n-propylamine	<MQL	µg/L	20.00	JSHELL
m-Nitrosodiphenylamine	<MQL	µg/L	20.00	JSHELL
Pentachlorophenol	<MQL	µg/L	50.00	JSHELL
Phenanthrene	<MQL	µg/L	10.00	JSHELL
Phenol	<MQL	µg/L	10.00	JSHELL
Pyrene	<MQL	µg/L	10.00	JSHELL
2,4,6-Tribromophenol	87	%	10-123	JSHELL
2-Fluorobiphenyl	89	%	43-116	JSHELL
2-Fluorophenol	72	%	21-100	JSHELL
Nitrobenzene-d5	83	%	35-114	JSHELL
Phenol-d5	78	%	10-194	JSHELL
Terphenyl-d14	71	%	33-141	JSHELL

Extract For Semi-Volatile Analysis

PENDING

LJANES

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg: milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated

>: greater than
z: surrogate
COC Date: Date Chain of Custody Signed
COC TIME: Time Chain of Custody

SAMPLE COMMENTS

WHERE TAKEN: GORDONS CREEK AT WALL
REMARKS: LOW LEVEL

bis(2-Ethylhexyl)phthalate was detected in Laboratory Blank. JES

Sample Validation Date 02/05/2010

Validated By

Date Report Printed 02/11/2010

Lab Bench No.

II. SAMPLE IDENTIFICATION:

	Type	Parameters	Preservative	Date	Time
1.	Surface	Sampl - VOC's	None	1/26/00	0700
2.	water				
3.					
4.					
5.					

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()			
D.O.	(000300)	()			
Temperature	(000010)	()			
Residual Chlorine	(050060)	()			
Flow	(074060)	()			

IV. TRANSPORTATION OF SAMPLE: \Bus () \ RO Vehicle () \ Other ()

V. LABORATORY: Received By Amey Dwyer Date 12/10 Time 11:15
Recorded By _____ Date Sent to State Office _____

[illegible]

Remarks Low level

*Date of Test Initiation

43255

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl MS 39208
601-961-5701

Sample Results

To: TONY RUSSELL Sample ID: AA43254 Location Name: GULF STATE CREOSOTE Location Description: FA-SW 1 Location Code: C0350009 Other No.: FA-SW 1 Permit No.: Discharge No.: Master AI No.: 0 Latitude: Longitude:	Study: GARD County: 035 FORREST Basin: QA Type: Division Code: 3858 Requested By: TONY RUSSELL Date Collected: 01/26/2010 Time Collected: 705 Sample Collector: TRUSSELL Delivery Mode: SV Received at Lab by: TAMMY SAWYER Date Received at Lab: 01/27/2010 Time Received at Lab: 1115
---	--

ANALYTE	METHOD	RESULT	UNITS	MLQ	ANALYST
1,2,4-Trichlorobenzene	8270	<MLQ	µg/L	10.00	JSHELL
1,2-Dichlorobenzene	8270	<MLQ	µg/L	10.00	JSHELL
1,3-Dichlorobenzene	8270	<MLQ	µg/L	10.00	JSHELL
1,4-Dichlorobenzene	8270	<MLQ	µg/L	10.00	JSHELL
2,4,5-Trichlorophenol	8270	<MLQ	µg/L	10.00	JSHELL
2,4,6-Trichlorophenol	8270	<MLQ	µg/L	10.00	JSHELL
2,4-Dichlorophenol	8270	<MLQ	µg/L	10.00	JSHELL
2,4-Dimethylphenol	8270	<MLQ	µg/L	10.00	JSHELL
2,4-Dinitrophenol	8270	<MLQ	µg/L	50.00	JSHELL
2,4-Dinitrotoluene	8270	<MLQ	µg/L	10.00	JSHELL
2,6-Dinitrotoluene	8270	<MLQ	µg/L	10.00	JSHELL
2-Chloronaphthalene	8270	<MLQ	µg/L	10.00	JSHELL
2-Chlorophenol	8270	<MLQ	µg/L	10.00	JSHELL
2-Methylnaphthalene	8270	<MLQ	µg/L	10.00	JSHELL
2-Methylphenol	8270	<MLQ	µg/L	10.00	JSHELL
2-Nitroaniline	8270	<MLQ	µg/L	50.00	JSHELL
2-Nitrophenol	8270	<MLQ	µg/L	20.00	JSHELL
3,3'-Dichlorobenzidine	8270	<MLQ	µg/L	50.00	JSHELL

3-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
4,6-Dinitro-2-methylphenol	8270	<MQL	µg/L	50.00	JSHELL
4-Bromophenyl-phenylether	8270	<MQL	µg/L	10.00	JSHELL
4-Chloro-3-methylphenol	8270	<MQL	µg/L	20.00	JSHELL
4-Chloroaniline	8270	<MQL	µg/L	20.00	JSHELL
4-Chlorophenyl-phenylether	8270	<MQL	µg/L	10.00	JSHELL
4-Methylphenol	8270	<MQL	µg/L	10.00	JSHELL
4-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
4-Nitrophenol	8270	<MQL	µg/L	50.00	JSHELL
Acenaphthene	8270	<MQL	µg/L	10.00	JSHELL
Acenaphthylene	8270	<MQL	µg/L	10.00	JSHELL
Anthracene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[a]anthracene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[a]pyrene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[b]fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[g,h,i]perylene	8270	<MQL	µg/L	20.00	JSHELL
Benzo[k]fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Benzoic Acid	8270	<MQL	µg/L	50.00	JSHELL
Benzyl alcohol	8270	<MQL	µg/L	20.00	JSHELL
bis(2-Chloroethoxy)methane	8270	<MQL	µg/L	10.00	JSHELL
bis(2-Chloroethyl)ether	8270	<MQL	µg/L	10.00	JSHELL
bis(2-chloroisopropyl)ether	8270	<MQL	µg/L	10.00	JSHELL
bis(2-Ethylhexyl)phthalate	8270	Trace 1.60	µg/L	10.00	JSHELL
Butylbenzylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Carbazole	8270	<MQL	µg/L	10.00	JSHELL
Chrysene	8270	<MQL	µg/L	10.00	JSHELL
Dibenz[a,h]anthracene	8270	<MQL	µg/L	20.00	JSHELL
Dibenzofuran	8270	<MQL	µg/L	10.00	JSHELL
Diethylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Dimethylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Di-n-butylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Di-n-octylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Fluorene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorobutadiene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorocyclopentadiene	8270	<MQL	µg/L	10.00	JSHELL
Hexachloroethane	8270	<MQL	µg/L	20.00	JSHELL
Indeno[1,2,3-cd]pyrene	8270	<MQL	µg/L	20.00	JSHELL
Isophorone	8270	<MQL	µg/L	10.00	JSHELL
Naphthalene	8270	<MQL	µg/L	10.00	JSHELL
Nitrobenzene	8270	<MQL	µg/L	10.00	JSHELL

N-Nitroso-di-n-propylamine	8270	<MQL	µg/L	20.00	JSHELL
n-Nitrosodiphenylamine	8270	<MQL	µg/L	20.00	JSHELL
Pentachlorophenol	8270	<MQL	µg/L	50.00	JSHELL
Phenanthrene	8270	<MQL	µg/L	10.00	JSHELL
Phenol	8270	<MQL	µg/L	10.00	JSHELL
Pyrene	8270	<MQL	µg/L	10.00	JSHELL
2,4,6-Tribromophenol	8270	91	%	10-123	JSHELL
2-Fluorobiphenyl	8270	91	%	43-116	JSHELL
2-Fluorophenol	8270	73	%	21-100	JSHELL
Nitrobenzene-d5	8270	85	%	35-114	JSHELL
Phenol-d5	8270	80	%	10-194	JSHELL
Terphenyl-d14	8270	75	%	33-141	JSHELL

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg: milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated

>: greater than
z: surrogate
COC Date: Date Chain of Custody Signed
COC TIME: Time Chain of Custody

SAMPLE COMMENTS WHERE TAKEN: GORDONS CREEK DOWNSTREAM OF WALL
REMARKS: LOW LEVEL

bis(2-Ethylhexyl)phthalate was detected in Laboratory Blank. JES

Sample Validation Date 02/05/2010

Validated By 

Date Report Printed 02/11/2010

Lab Bench No.

II. SAMPLE IDENTIFICATION:

III. FIELD:

Remarks low level

*Date of Test Initiation

43254



Chain of Custody Record

OFFICE OF POLLUTION
CONTROL LABORATORY
1542 OLD WHITFIELD ROAD
PEARL, MS 39208-9186

[illegible]

DISTRIBUTIONS: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory
White copy is returned to samplers; Pink copy retained by samplers.

Lab Bench No.

II. SAMPLE IDENTIFICATION:

III. FIELD:

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other ()

Remarks Low Level

***Date of Test Initiation**

#3858

43255

Lab Bench No. _____

II. SAMPLE IDENTIFICATION:

	Type	Parameters	Preservative	Date	Time
1.	Surface	Salinity - WCI	None	1/26/14	0315
2.	Water				
3.					
4.					
5.					

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

IV. TRANSPORTATION OF SAMPLE: Bus () RO Vehicle () Other ()
V. LABORATORY: Received By Sam Sam Date 2/27/10 Time 11:15
Recorded By _____ Date Sent to State Office _____

***Date of Test Initiation**

#3158

43254

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA43254

Location code **C0350009**

Location Description **GULF STATE CREOSOTE**

Sample collector **TRUSSELL**

Collection date: **01/26/2010**

Lab submittal date: **01/27/2010**

Due date: **07/25/2010**

PONUMB: _____

Login record file: **100127005**

Collection time: **07:05**

Lab submittal time: **11:21**

Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **FA-SW 1**
SAMPLE_LOCATION **FA-SW 1**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS
SEMIVOL ORG COMPOUNDS SURROGATES
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

03/14/2010
03/14/2010
02/02/2010

Sample I.D. AA43255

Location code **C0350009**

Location Description **GULF STATE CREOSOTE**

Sample collector **TRUSSELL**

Collection date: **01/26/2010**

Lab submittal date: **01/27/2010**

Due date: **07/25/2010**

PONUMB: _____

Login record file: **100127005**

Collection time: **07:09**

Lab submittal time: **11:21**

Division Code: **3858**

PERMIT_NO _____
DISCHARGE_NO _____
OTHER_NO **FA-SW 2**
SAMPLE_LOCATION **FA-SW 2**
REQUESTED_BY **TONY RUSSELL**
LATITUDE _____
LONGITUDE _____
DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS
SEMIVOL ORG COMPOUNDS SURROGATES
Extract For Semi-Volatile Analysis

Method

8270
8270
3520

Due Date

03/14/2010
03/14/2010
02/02/2010

Sample I.D. AA43256

Location code C0350009

Location Description GULF STATE CREOSOTE

Sample collector TRUSSELL

Collection date: 01/26/2010

Lab submittal date: 01/27/2010

Due date: 07/25/2010

PONUMB: _____

Login record file: 100127005

Collection time: 07:15

Lab submittal time: 11:22

Division Code: 3858

PERMIT_NO _____

DISCHARGE_NO _____

OTHER_NO FA-SW 3

SAMPLE_LOCATION FA-SW 3

REQUESTED_BY TONY RUSSELL

LATITUDE _____

LONGITUDE _____

DELIVERY_MODE SV

Analyses ordered

Method

Due Date

SEMIVOL ORG COMPOUNDS

8270

03/14/2010

SEMIVOL ORG COMPOUNDS SURROGATES

8270

03/14/2010

Extract For Semi-Volatile Analysis

3520

02/02/2010

Please refer to the indicated sample I.D. numbers when making inquiries.

Received by: _____



Chain of Custody Record

OFFICE OF POLLUTION
CONTROL LABORATORY
1542 OLD WHITFIELD ROAD
PEARL, MS 39208-9186

[illegible]

DISTRIBUTIONS: White and Yellow copies accompany sample shipment to laboratory; Yellow copy retained by laboratory
White copy is returned to samplers; Pink copy retained by samplers.

PAGE OF

09/07

Sample Receipt

Mississippi DEQ/OPC Laboratory

Sample I.D. AA42979

Location code **C0350009**

Location Description **GULF STATE CREASOTE**

Sample collector **BRAD BRALOCK**

Collection date: **12/16/2009**

Lab submittal date: **12/18/2009**

Due date: **06/14/2010**

PONUMB: _____

Login record file: **091218001**

Collection time: **08:50**

Lab submittal time: **08:58**

Division Code: **3047**

PERMIT_NO _____

DISCHARGE_NO _____

OTHER_NO _____

SAMPLE_LOCATION **MONITOR WELL 18**

REQUESTED_BY **TONY RUSSELL**

LATITUDE _____

LONGITUDE _____

DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS

SEMIVOL ORG COMPOUNDS SURROGATES

Extract For Semi-Volatile Analysis

Method

8270

8270

3520

Due Date

02/01/2010

02/01/2010

12/23/2009

Sample I.D. AA42980

Location code **C0350009**

Location Description **GULF STATE CREASOTE**

Sample collector **BRAD BRALOCK**

Collection date: **12/17/2009**

Lab submittal date: **12/18/2009**

Due date: **06/15/2010**

PONUMB: _____

Login record file: **091218001**

Collection time: **10:30**

Lab submittal time: **08:58**

Division Code: **3047**

PERMIT_NO _____

DISCHARGE_NO _____

OTHER_NO _____

SAMPLE_LOCATION **MONITOR WELL 22**

REQUESTED_BY **TONY RUSSELL**

LATITUDE _____

LONGITUDE _____

DELIVERY_MODE **SV**

Analyses ordered

SEMIVOL ORG COMPOUNDS

SEMIVOL ORG COMPOUNDS SURROGATES

Extract For Semi-Volatile Analysis

Method

8270

8270

3520

Due Date

02/02/2010

02/02/2010

12/24/2009

Please refer to the indicated sample I.D. numbers when making inquiries.

Received by: _____

Lab Bench No.

II. SAMPLE IDENTIFICATION:

	Type	Parameters	Preservative	Date	Time
1.	groundwater	Salinity - VUC	None	12/17/09	10:30
2.					
3.					
4.					
5.					

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

V. LABORATORY: Received By _____ Date 12/17 Time 0830
Recorded By _____ Date Sent to State Office _____

Remarks	Low	CVT	2000	S/S
----------------	-----	-----	------	-----

*Date of Test Initiation

3047

4/2780

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl MS 39208
601-961-5701

Sample Results

To: TONY RUSSELL Sample ID: AA42979 Location Name: GULF STATE CREOSOTE Location Description: MW-18 Location Code: C0350009 Other No.: MW-18 Permit No.: Discharge No.: Master AI No.: 0 Latitude: Longitude:	Study: GARD County: 035 FORREST Basin: QA Type: Division Code: 3047 Requested By: TONY RUSSELL Date Collected: 12/16/2009 Time Collected: 850 Sample Collector: BBRALOCK Delivery Mode: SV Received at Lab by: AMY GRAY Date Received at Lab: 12/18/2009 Time Received at Lab: 0850
---	--

ANALYTE	METHOD	RESULT	UNITS	MQL	ANALYST
1,2,4-Trichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
1,2-Dichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
1,3-Dichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
1,4-Dichlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
2,4,5-Trichlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2,4,6-Trichlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2,4-Dichlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2,4-Dimethylphenol	8270	<MQL	µg/L	10.00	JSHELL
2,4-Dinitrophenol	8270	<MQL	µg/L	50.00	JSHELL
2,4-Dinitrotoluene	8270	<MQL	µg/L	10.00	JSHELL
2,6-Dinitrotoluene	8270	<MQL	µg/L	10.00	JSHELL
2-Chloronaphthalene	8270	<MQL	µg/L	10.00	JSHELL
2-Chlorophenol	8270	<MQL	µg/L	10.00	JSHELL
2-Methylnaphthalene	8270	<MQL	µg/L	10.00	JSHELL
2-Methylphenol	8270	<MQL	µg/L	10.00	JSHELL
2-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
2-Nitrophenol	8270	<MQL	µg/L	20.00	JSHELL
3,3'-Dichlorobenzidine	8270	<MQL	µg/L	50.00	JSHELL

3-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
4,6-Dinitro-2-methylphenol	8270	<MQL	µg/L	50.00	JSHELL
4-Bromophenyl-phenylether	8270	<MQL	µg/L	10.00	JSHELL
4-Chloro-3-methylphenol	8270	<MQL	µg/L	20.00	JSHELL
4-Chloroaniline	8270	<MQL	µg/L	20.00	JSHELL
4-Chlorophenyl-phenylether	8270	<MQL	µg/L	10.00	JSHELL
4-Methylphenol	8270	<MQL	µg/L	10.00	JSHELL
4-Nitroaniline	8270	<MQL	µg/L	50.00	JSHELL
4-Nitrophenol	8270	<MQL	µg/L	50.00	JSHELL
Acenaphthene	8270	Trace 2.81	µg/L	10.00	JSHELL
Acenaphthylene	8270	<MQL	µg/L	10.00	JSHELL
Anthracene	8270	Trace 5.14	µg/L	10.00	JSHELL
Benzo[a]anthracene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[a]pyrene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[b]fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Benzo[g,h,i]perylene	8270	<MQL	µg/L	20.00	JSHELL
Benzo[k]fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Benzoic Acid	8270	<MQL	µg/L	50.00	JSHELL
Benzyl alcohol	8270	<MQL	µg/L	20.00	JSHELL
bis(2-Chloroethoxy)methane	8270	<MQL	µg/L	10.00	JSHELL
bis(2-Chloroethyl)ether	8270	<MQL	µg/L	10.00	JSHELL
bis(2-chloroisopropyl)ether	8270	<MQL	µg/L	10.00	JSHELL
bis(2-Ethylhexyl)phthalate	8270	Trace 2.76	µg/L	10.00	JSHELL
Butylbenzylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Carbazole	8270	<MQL	µg/L	10.00	JSHELL
Chrysene	8270	<MQL	µg/L	10.00	JSHELL
Dibenz[a,h]anthracene	8270	<MQL	µg/L	20.00	JSHELL
Dibenzofuran	8270	13.6	µg/L	10.00	JSHELL
Diethylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Dimethylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Di-n-butylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Di-n-octylphthalate	8270	<MQL	µg/L	10.00	JSHELL
Fluoranthene	8270	<MQL	µg/L	10.00	JSHELL
Fluorene	8270	Trace 9.23	µg/L	10.00	JSHELL
Hexachlorobenzene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorobutadiene	8270	<MQL	µg/L	10.00	JSHELL
Hexachlorocyclopentadiene	8270	<MQL	µg/L	10.00	JSHELL
Hexachloroethane	8270	<MQL	µg/L	20.00	JSHELL
Indeno[1,2,3-cd]pyrene	8270	<MQL	µg/L	20.00	JSHELL
Isophorone	8270	<MQL	µg/L	10.00	JSHELL
Naphthalene	8270	<MQL	µg/L	10.00	JSHELL
Nitrobenzene	8270	<MQL	µg/L	10.00	JSHELL

N-Nitroso-di-n-propylamine	8270	<MQL	µg/L	20.00	JSHELL
n-Nitrosodiphenylamine	8270	<MQL	µg/L	20.00	JSHELL
Pentachlorophenol	8270	<MQL	µg/L	50.00	JSHELL
Phenanthrene	8270	Trace 5.36	µg/L	10.00	JSHELL
Phenol	8270	<MQL	µg/L	10.00	JSHELL
Pyrene	8270	<MQL	µg/L	10.00	JSHELL
2,4,6-Tribromophenol	8270	86	%	10-123	JSHELL
2-Fluorobiphenyl	8270	84	%	43-116	JSHELL
2-Fluorophenol	8270	63	%	21-100	JSHELL
Nitrobenzene-d5	8270	74	%	35-114	JSHELL
Phenol-d5	8270	74	%	10-194	JSHELL
Terphenyl-d14	8270	87	%	33-141	JSHELL

ABBREVIATIONS / DEFINITIONS

ug/L: micrograms/Liter
mg/L: milligrams/Liter
mg/kg: milligrams/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion

<: less than
MCL: Maximum Contaminant Level
MDL: Method Detection Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated

>: greater than
z: surrogate
COC Date: Date Chain of Custody Signed
COC TIME: Time Chain of Custody

SAMPLE COMMENTS COLLECTOR: BRAD BRALOCK - FIELD CONSULTANT
REMARKS: LOW LEVEL ANALYSIS

Sample Validation Date 01/20/2010

Validated By

Date Report Printed 01/20/2010

Lab Bench No.

II. SAMPLE IDENTIFICATION:

	Type	Parameters	Preservative	Date	Time
1.	groundwater	Semi-VOCs	None	12/16/09	0850
2.					
3.					
4.					
5.					

<u>Analysis</u>	<u>Computer Code</u>	<u>Request</u>	<u>Results</u>	<u>Analyst</u>	<u>Date</u>
pH	(000400)	()	_____	_____	_____
D.O.	(000300)	()	_____	_____	_____
Temperature	(000010)	()	_____	_____	_____
Residual Chlorine	(050060)	()	_____	_____	_____
Flow	(074060)	()	_____	_____	_____

V. LABORATORY: Received By John G. Gandy Date 12/18/09 Time 08:56
Recorded By _____ Date Sent to State Office _____

Remarks	Low level analysis
---------	--------------------

*Date of Test Initiation

#3047

47979



No threat discovered, EPA says

Terry L. Jones

American Staff Writer tjones@hattiesburgamerican.com

Representatives from the Environmental Protection Agency said Thursday that the South Hattiesburg neighborhood residents are convinced poses an environmental hazard doesn't actually harbor a threat at all.

That news didn't sit well with the swarms of residents - who formed a grassroots organization called the Forrest County Environmental Support Team - who believe further testing would prove otherwise.

FCEST met with officials from the EPA and Mississippi Department of Environmental Quality Thursday night at the request of Mayor Johnny DuPree.

DuPree asked the environmental officials to meet with the group due to recent concerns that have surfaced at the former site of the creosote plant, along West Pine Street, that closed in 1962.

FCEST also wanted answers about conflicting claims that have been brought to light concerning an environmental study performed by a firm the city hired to assess the neighborhood.

"At the end of the day, what everyone in the room is concerned about is protectiveness - whether or not it's a (safe) environment," EPA representative Franklin Hill told the crowd during the meeting. "The main goal is to make it protective and close out all exposure, and MDEQ has done that."

About 13,000 tons of contaminated soil was removed from the affected areas by MDEQ in 2003 as part of the settlement in a multi-million dollar lawsuit.

But questions surrounding whether a monitoring well, along Gordon's Creek, that was identified last month as a potential threat because of a rust-colored residue seen leaking from its lid still went unanswered Thursday.

Hill said the EPA would have to analyze the data from samples it collected earlier that day before he could give residents a confident answer on what the residue was.

Group members became agitated with Hill's responses because they were under the impression data had already been collected at the well.

"We're paying MDEQ these millions of dollars and its pitiful we can't do the right thing about this community and these poisons," FCEST member Ivory Walman said. "Get somebody here that's going to be sensitive to the citizens that are paying them."

EPA officials did say Thursday that the environmental testing performed by Apex Environmental Consultants did raise concerns for them because there had not been enough planning involved in the data collection - among other things.

But officials said they didn't find any shortcomings in the report's lab results or sampling protocol.

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County requests investigation of Hattiesburg's possible creosote problem

Posted: Aug 31, 2009 4:25 PM CDT

Updated: Aug 31, 2009 4:38 PM CDT

By Mike McDaniel - [bio](#) | [email](#) | [Twitter](#)

HATTIESBURG, MS (WDAM) - The Forrest County Board of Supervisors is asking the Attorney General's office to look in to Hattiesburg's east side and a possible creosote contamination.

The board approved a measure last week to send a letter to the AG's office after the Forrest County Environment Support Team requested it be done.

Members of the group say the land near the former Gulf States Creosote facility is contaminated and are asking for proper remediation and an inquiry into previous settlements which allegedly excluded residents in the area.

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Iron staining
TR
9/2/09

Sampling Plan for Gulf States Creosote

Concerns

- Potential creosote contamination in Gordon's Creek
- Sheen on Gordon's Creek and in the vicinity of the wells.
- Staining and discoloration around well covers.

Creosote

There is a concern that creosote may be escaping from the wells and contaminating nearby Gordon's Creek. MDEQ proposes to look for the presence of dissolved phase creosote compounds by analyzing surface water samples from Gordon's Creek. Samples will be collected from at least 50 yards upstream of the well area, from the stream in the vicinity of the containment wall, and within 50 yards downstream of the containment wall. All samples will be analyzed for semivolatile compounds.

In addition, MDEQ proposes to collect three sediment samples from the stream, one from each of the surface water monitoring sites. These sites will be located as closely as possible to similar sites sampled in 1998 to provide a temporal comparison. Sediment samples will be collected from within the top 6" of the stream bed.

Sheen

There are two general types of sheens that we commonly see on surface waters in Mississippi. One is caused by decaying organic matter and is often seen in swamps or standing water, the other is caused by petroleum based compounds and is often seen around parking lots or industrial areas. While the two look similar at first glance, they can be easily differentiated in the field. The sheen caused by decaying vegetation or other organic matter breaks up into discrete pieces or flakes when disturbed, while the petroleum base sheen disperses further, but remains a continuous and iridescent sheen when disturbed. This is a technique that MDEQ has used for several years while investigating complaints. A researcher at the University of South Alabama has confirmed this method using a microscopic analysis which shows that the sheen due to the breakdown of organic matter is actually more of a film comprised of many decay bacteria. We propose to examine any sheens present in the vicinity of the wells and in the creek and to take photographs of the material before and after disturbing it by stirring with a stick. We will attempt to find sheens of both types in a control location, either up-gradient or in an adjacent watershed for comparison purposes.

Staining

The staining around the well covers appears to be caused by iron oxide deposits. This iron may be coming from the well water itself, and it may be exacerbated when the water comes into contact with the well cover as it seeps out of the well. We propose to collect water samples from inside and outside of two wells and to analyze these samples for total iron. The samples from the seepage outside the wells will be collected with a syringe. The wells to be sampled will be selected based on the amount of staining, and whether there is a sufficient amount of water to collect the needed sample volume (150 ml) with a

syringe. We plan to locate seepage areas in a control location and to sample areas with and without staining for comparison with site data.

Samples will be collected by GARD staff, and samples will be analyzed by the MDEQ Laboratory. Sample collection is planned for the first week of February 2010, depending on the rainfall and stream flow. The stream needs to be near seasonal normal flow to facilitate sediment sampling and to collect representative surface water samples.

Update February 11, 2010

On Wednesday morning February 10, MDEQ staff from the Groundwater, Assessment and Remediation Division and Emergency Services visited the containment area at the Gulf States Creosote site in Hattiesburg. They met with Hattiesburg City Councilman Mr. Dave Ware and two members of FCEST and collected the following samples:

1. Sediment and surface water samples for semivolatiles (creosote and PAHs) from Gordon's Creek. These samples were collected from three locations: upstream of the containment area, at the containment wall below the sewer line, and downstream of the containment area.
2. Water samples from seepage around Recovery Wells 2 and 14 to be analyzed for iron.
3. Water from within Recovery Wells 2 and 14 to be analyzed for iron.

On Wednesday afternoon, staff from the MDEQ Laboratory visited the site and took pictures of the sheen or film on the surface of the concrete in seepage areas near the wells. While at the site, MDEQ lab staff noticed an odor in the vicinity of the storm drain that flows into Gordon's Creek from the east. MDEQ plans to visit the site again next week to collect samples from the storm drain at the confluence with Gordon's Creek and from the catch basin at Pine Street.

MDEQ staff compared the photos of the sheen near the wells in the containment area, to photos taken from similar sheens on waters located in Petal and near Jackson (control sites). The photos show that when disturbed, this material breaks up into flakes rather than maintaining a continuous sheen. This indicates that the sheens at both the Gulf States sites and the control sites were actually a bacterial film, caused by the breakdown of vegetation or other organic matter, rather than a petroleum based sheen. This is a common phenomenon, often seen on stagnant water or in seepage areas. This method of evaluating the origin of a sheen is pretty widely used by environmental agencies (MDEQ, AL Dept of Env. Management, South Carolina Dept. of Health and Environmental Control, Minnesota, City of Lawrenceville, GA) and has been confirmed by researchers at the University of South Alabama.

Analytical results from the February 10 sampling should be available by February 25, 2010.

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS

FROM: Tony Russell *JR 2/18/10*

DATE: February 18, 2010

SUBJECT: Fill Area – Sampling Event Conducted Feb. 17, 2010

I collected two surface water (SW) samples at the site on the morning of February 17, 2010. One SW sample (OF-1) was collected at the confluence of the drain pipe with Gordon's Creek. The other SW sample (WP Ditch) was collected on the south side of West Pine Street as it entered the concrete culvert that extends beneath West Pine St.

The samples were delivered to the OPC lab in Pearl for semivolatiles analysis. No photos were taken during this site sampling event.



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

February 5, 2010

FILE COPY

Mr. Keith Watson
Tronox LLC
P. O. Box 268859
Oklahoma City, OK 73126-8859

Re: Gulf States Creosote Site
Summary of 2009 DNAPL Recovery Activities – Gordon's Creek Fill Area
Report dated January 26, 2010
Hattiesburg, Mississippi

Dear Mr. Watson:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed the above referenced report and finds the report to be satisfactory documentation for its intended purpose. MDEQ concurs with report.

MDEQ has responded by email and this letter will serve as formal documentation for work that will be required at the Fill Area. MDEQ requests the following work be performed:

1. Replace well covers with either stainless steel or aluminum,
2. Wash and/or sand blast vaults and then seal with epoxy or similar sealer so the vaults will not rust,
3. Remove iron staining from the concrete around the wells that are stained, and
4. Create a better seal for the recovery wells so that they don't leak.

Please call me with any questions you may have concerning this matter at 601-961-5318.

Sincerely,

Tony Russell, Chief
Assessment Remediation Branch

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS
FROM: Tony Russell *DA 2/18/10*
DATE: February 16, 2010
SUBJECT: Fill Area - Sampling Event Conducted Feb. 10, 2010

Ken Whitten and I conducted a sampling event at the Gulf States Creosote Fill Area on Wednesday, February 10, 2010. We arrived onsite around 0745 am.

We collected surface water and sediment samples from three (3) sampling locations along Gordon's Creek near the containment area. We collected the down stream sample first and then proceeded to work our way up stream collecting the other samples. The surface water samples were collected by lowering the mouth of the jar below surface until container filled. Upon collection of the surface water samples, the sediment samples were then collected.

SW-1 & SD-1 were collected from the same location just down stream of the containment wall along the containment wall side of the creek. SW-1 was collected at 0755 hrs. SD-1 was collected at 0835 hrs. The sediment sample was collected using an auger and then transferred to sample container using a pre-cleaned stainless steel spoon.

SW-2 and SD-2 were collected just below where the sewer line crosses Gordon's Creek near the containment wall. SW-2 was collected at 0803 hrs. SD-2 was collected at 0842 hrs. The sediment sample was collected directly from the creek bed using a pre-cleaned stainless steel spoon.

SW-3 and SD-3 were collected just up gradient of the containment wall on the containment wall side of the creek. SW-3 was collected at 0810 hrs. SD-3 was collected at 0852 hrs. The sediment sample was collected using an auger and then transferred to sample container using a pre-cleaned stainless steel spoon.

At 0850 hrs, the FCEST group showed up at the site. We departed the site to purchase wrenches to open the well covers. Upon our return at 0945, Alderman Dave Ware had joined with the FCEST group. We proceeded to sample the two flowing wells (RW-2 & RW-14) with the most staining. We collected samples outside the wells using syringes to collect the water sample and then transferred the sample into containers preserved with HNO₃. We then collected samples from inside the well vault by removing the well cover. These samples were collected by lowering the pre-preserved sample containers into the water within the vault. Once the samples were collected, the containers were placed on ice.

RW-2 OS (outside vault) was collected at 1010 hrs. RW-2 IS (inside vault) was collected at 1025 hrs. RW-14 OS was collected at 1002 hrs. RW-14 IS was collected at 1035 hrs.

We departed the site at approximately 1140 hrs. I exchanged business cards with Alderman Dave Ware. No photos were taken during this sampling event.

The samples will be delivered to OPC lab in Pearl, MS for analysis. The surface water and sediment samples will be analyzed for semi-volatiles. The water samples collected from RW-2 and RW-14 will be analyzed for iron.



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS

FROM: Tony Russell *TR Russell*

DATE: January 29, 2009

SUBJECT: Fill Area – Surface Water Samples Collected

I collected surface water samples from Gordon's Creek on January 26, 2010. The surface water samples were collected by lowering the mouth of the sample container into the creek until it filled up. The surface water samples were collected from the following three locations near the containment wall area: the first sample was collected down gradient of the containment wall, the second sample was collected just below where the sewer line crosses the creek, and the third sample was collected up gradient of the containment wall.

The samples were delivered to the OPC lab in Pearl for analysis. The samples will be analyzed for semi-volatile compounds.

No photos were taken during this site visit.

OFFICE OF POLLUTION CONTROL

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JAN 29 2010

Ms. Tennie White
Troubleshooters, Inc.
500 East Woodrow Wilson Ave.
Jackson, Mississippi 39216

Dear Ms. White:

Thank you for your December 24, 2009, letter to Ms. Lisa Jackson, Administrator of the U.S. Environmental Protection Agency (EPA), concerning the cleanup project completed under the direction of the Mississippi Department of Environmental Quality (MDEQ) at the former Kerr-McGee facility site in Hattiesburg, Mississippi. Your letter was forwarded to the EPA Region 4 office in Atlanta, Georgia for response.

In your letter you ask that EPA send a representative to evaluate the situation at the site, and that EPA hold a community meeting to update citizens on the status of the remediation effort. You also state that on December 23, 2009, creosote was being released from recovery wells at the Gordon's Creek remediation area of the site, and ask for an investigation into why creosote is being released into the environment within the community.

Based on past correspondence between EPA and Mr. Sherri Jones of the Forrest County Environmental Support Team (FCEST), with whom Troubleshooters has been working, we believe you are familiar with the long history of the former Gulf States Creosoting site (GSC). Between 1997 and 2001, Kerr-McGee Chemical Corporation performed a series of investigations on and around the former GSC site under the oversight of MDEQ. This led to Kerr-McGee's submittal of proposed cleanup plans in 2001. MDEQ consulted with EPA in 2002 concerning the cleanup criteria and standards to be used in the proposed cleanup actions. In 2003, MDEQ entered into a consent order with Tronox, Incorporated (Tronox, formerly Kerr-McGee) to conduct a cleanup of the GSC site as proposed in the approved work plans. All of the remedial action (cleanup) work was completed between 2003 and 2007 under the oversight of MDEQ.

EPA does not oversee states' voluntary cleanup programs. We do sometimes provide technical assistance to a state program upon request, and this was done for the work at GSC. During their oversight of Tronox's work, MDEQ coordinated extensively with EPA concerning the risk assessment and other portions of the investigation and remediation, including determining appropriate cleanup goals. The goals recommended by EPA were the ones used for the cleanup. EPA believes that remediation at the site was conducted properly and in a manner similar to what EPA would have required in its conduct of Federal-lead remediation work.

At this site, EPA has additional reasons to be confident that the remediated areas associated with the former GSC site do not pose a threat to human health or the environment. Between March and November 2009, at the request of Mayor Johnny Dupree of Hattiesburg,

EPA completed a review of a May 2008 report prepared by an environmental contractor working for the City. The report, by APEX Environmental Consultants, Inc. (APEX), presented the results of a large groundwater and soil sampling event addressing the remediated areas. The Mayor requested that EPA evaluate the extent to which the APEX assessment was conducted using EPA protocols and standards. EPA was also requested to consider concerns you raised in written comments provided to the City concerning the results presented in the APEX report. EPA forwarded our findings to the Mayor on November 6, 2009. EPA provided comments on several items regarding the following: descriptions of how the sampling procedures were carried out; minor differences with how EPA would have performed sampling tasks; differences with the comparison criteria for interpreting results than those EPA would have used; and minor presentation errors in the report. When considered together, however, none of the comments are related to the laboratory APEX used, and do not invalidate the laboratory data. Nor did EPA's review indicate any significant problem with the study design or the number of samples applied. Soil samples were taken from 32 borings, and groundwater samples from 21 of the borings. This is a sufficient and appropriate number of sample results to support the report's conclusions. For groundwater, as long as there are no drinking water wells in the shallow aquifer, there is no significant risk to human health. In shallow soil, the report does not indicate significant creosote contamination. In summary, while it is possible there was misunderstanding of EPA's conclusions about the APEX report earlier, we wish to be clear that the conclusions described immediately above represent our conclusions about the report.

EPA investigated a citizen-reported release of creosote at Gordon's Creek in September 2009. On September 2, 2009, EPA Region 4's emergency Duty Officer received a National Response Center report (NRC #916730) and a call from a local citizen reporting a creosote release and the presence of drums abandoned at the site. Photographs were sent to EPA and MDEQ that showed gray, fine-grained muddy-looking materials said to be creosote. Upon investigation by MDEQ, the drums were found to be investigation-derived soil and water generated by the ongoing groundwater monitoring operations. These operations are conducted by an environmental services contractor working for Tronox, and are routinely inspected quarterly by MDEQ. Upon notification, Tronox's contractor arranged for the removal of the drums. MDEQ personnel visited the site and did not see evidence or signs of creosote. Based on discussion with MDEQ and then-available information, EPA determined that this NRC report did not constitute an emergency, and an On-Scene Coordinator (OSC) was not sent under an emergency action.

EPA did however arrange for an inspection of the Gordon's Creek remediation site by an experienced On-Scene Coordinator (OSC), operating out of EPA Region 4's outpost in Mobile, Alabama. The OSC, Mr. Dean Ullock, has overseen cleanup activities at creosote sites and is familiar with the signs of creosote releases. On Tuesday, September 8, 2009, OSC Ullock traveled to Hattiesburg, Mississippi, to the Gordon Creek remediation site. OSC Ullock walked the entire length (approx. 300 yards) of the cement berm, sheet piling, and sidewalk, then continued approximately 40 more yards in a northeasterly direction along a densely vegetated creek bank looking for signs of creosote. OSC Ullock did not observe a sheen, notice odors or find any evidence of a recent or ongoing release of creosote upon or near Gordon Creek. The OSC did not see any evidence of creosote "weeping" or emanating from the sidewalls of the sheet piling or from the numerous monitoring wells located within and along the length of the concrete berm. At the time of his visit the reported drums had been removed. In summary, EPA

did not find evidence that a release of creosote had occurred. From this, EPA determined that no further action was needed in response to the NRC report.

In October 2009, EPA received correspondence from Mr. Sherri Jones of FCEST, which included a number of photographs that again showed gray, fine-grained muddy-looking materials said to be creosote. On November 14, 2009, MDEQ's Site manager, Mr. Tony Russell, undertook a close inspection of the creek and barrier wall and identified the exact location of one of the gray-colored "balls" of material shown in one photograph. After careful examination he determined that the material is grout left over from the injection of grout behind the barrier-wall, from when it was installed in the summer of 2003. Mud and debris from high-water flow of the creek had become stuck in and onto the grout material, giving it an unusual appearance. From his oversight and inspection activities during the 2003-2004 field work at Gordon's Creek, Mr. Russell is very familiar with the appearance and composition of the grout used and recognizes it as such.

A second report to the NRC was called in on December 23, 2009. In addition to rust-colored stains around the iron lids of the recovery wells and monitoring wells, which appear to be caused by rust, a dark-gray to black stain was reported to be visible at one lid, extending toward the creek. Photographs were again emailed to EPA. EPA Region 4's emergency Duty Officer contacted the Emergency Response office of MDEQ, who dispatched a response contractor technician to investigate and respond as necessary. MDEQ has advised EPA that the response contractor opened and examined the well vaults, and collected a number of samples. At this time, EPA has not yet received a report from MDEQ on the extent of sampling that was performed or the results of the analyses. MDEQ has indicated however, that neither the black-colored material nor any creosote was observed inside the well vault. You mentioned in your letter that EPA Region 4 OSC Karen Buerki verified that creosote was released; however, this appears to be a misunderstanding, as OSC Buerki could not have known before any response was made by MDEQ whether creosote was known to be present. She advised MDEQ only that creosote was the substance reported to have been released.

Finally, your letter mentions the October 27, 2009, meeting in Atlanta at the EPA Region 4 office where several community representatives met with EPA Region 4 officials. At the meeting and in correspondence from FCEST, EPA was asked to have the appropriate personnel travel to Hattiesburg and attend a community meeting to discuss the past cleanup actions performed at GSC by Tronox under MDEQ oversight, and community concerns about whether public health risks remain in the area. EPA Region 4 staff fulfilled this request in January 2010. On January 14, 2010, EPA staff and the Mayor's Aide, Mr. Franklyn Tate, accompanied by you and Mr. Sherri Jones, walked Gordon's Creek, the former process area, and the drainage-ditch area at Down Home Cooking and adjoining property to the east. That evening, two public meetings were hosted by the City of Hattiesburg at 5:00 PM and 7:00 PM. The first of the meetings was devoted exclusively to the former GSC site. Approximately 75 citizens, the Mayor and Mr. Tate, MDEQ officials, and EPA Region 4 Superfund Division personnel familiar with the site and the cleanup, attended this meeting.

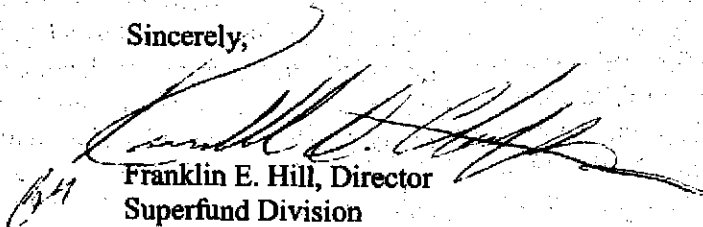
At the meeting, we presented an overview of EPA's response to this point to community concerns, and responded to a wide range of questions and concerns, including in detail the issues and findings from EPA's review of the APEX report. As stated clearly at the meeting, based

upon all of EPA's involvement and activities at this site, EPA is satisfied that the cleanup performed under MDEQ oversight was appropriate, sufficient, and successful in accomplishing its objectives. As we also stated in response to the Mayor, we do not believe that any further investigation or cleanup actions are needed.

Ongoing monitoring of the remedy at Gordon's Creek continues, according to MDEQ, consisting of an ongoing response capability and routine quarterly monitoring by Tronox's environmental response contractor which will continue for the long-term. EPA or MDEQ will provide certain information as requested by the community during the January 14, 2010 meeting, and MDEQ took note of the request to update and publicize the location of the "information repository" of documents about the site and the cleanup. In summary, based upon EPA's own file review of the documentation of the GSC site cleanup, review of the APEX report, response and investigation of two reported incidents of creosote release, and site walks and inspections by MDEQ and EPA scientists and engineers trained in recognition and response to hazardous substances, EPA believes that the remedy completed in 2007 for the site achieved the goal of ensuring protectiveness for community residents, and that the current situation in the remediated areas is protective of human health and the environment.

We appreciate your desire to protect and preserve the environment and hope you find this information helpful. If we may be of further assistance, please contact Dawn Taylor at (404) 562-8575.

Sincerely,


Franklin E. Hill, Director
Superfund Division

1/22/10
DCT for RH
HOWARD

1/22/10
DCT
TAYLOR

1/25/10
RML
MILLIGAN

1/25/10
RPN
RIGGER

1/25/10
GUILLEARD

1/25/10
CHAFFINS

1/28/10
HILL

1/29/10
OCIR

Note: Changed signature
Unlock to Div. Dir. SFD



Correspondence Management System

Control Number: AX-09-001-9776

Printing Date: January 04, 2010 09:52:17



Citizen Information

Citizen/Originator: White, Tennie

Organization: Troubleshooters Inc.

Address: 500 East Woodrow Wilson Ave., Jackson, MS 39216

Constituent: N/A

Committee: N/A

Sub-Committee: N/A

Control Information

Control Number: AX-09-001-9776

Status: Pending

Due Date: Jan 15, 2010

Letter Date: Dec 24, 2009

Addressee: AD-Administrator

Contact Type: LTR (Letter)

Signature: Division Director, R4-SFD

File Code: 404-141-02-01 141b Controlled and Major Correspondence Record copy of controlled and major correspondence of the offices of Division Directors and other personnel

Subject: Creosote Remediation of the Kerr McGee site in Hattiesburg, MS

Instructions: DX-Respond directly to this citizen's questions, statements, or concerns

Instruction Note: N/A

General Notes: ASSIGNED TO SUPERFUND DIV.

CC: Brigid Lowery - OSWER-CPA

Kecia Thornton - OSWER

Michelle Crews - OSWER

OSWER - OSWER - Immediate Office

Alternate Number: N/A

Closed Date: N/A

of Extensions: 0

Received Date: Dec 31, 2009

Addressee Org: EPA

Priority Code: Normal

Signature Date: N/A

Lead Information

Lead Author: N/A

Lead Assignments:

Assigner	Office	Assignee	Assigned Date	Due Date	Complete Date
Jacqueline Leavy	OEX	R4	Dec 31, 2009	Jan 15, 2010	N/A
Instruction: DX-Respond directly to this citizen's questions, statements, or concerns					
Julia Mooney	R4	R4-SFD	Jan 4, 2010	Jan 15, 2010	N/A
Instruction: Please prepare a response for Division Director's signature. When signed, please hand-carry a copy of response to Julia Mooney, OCIR. If any questions, contact Julia at X28302. THANKS.					

Supporting Information

Supporting Author: N/A

Supporting Assignments:

Assigner	Office	Assignee	Assigned Date
No Record Found.			



Correspondence Management System

Control Number: AX-09-001-9776

Printing Date: January 04, 2010 09:52:17



History

Action By	Office	Action	Date
Jacqueline Leavy	OEX	Assign R4 as lead office	Dec 31, 2009
Julia Mooney	R4	Changed Signature DX-Direct Reply Division Director, R4-SFD	Jan 4, 2010
Julia Mooney	R4	Accepted the group assignment	Jan 4, 2010
Julia Mooney	R4	Assign R4-SFD as lead office	Jan 4, 2010

Comments

Commentator	Comment	Date
No Record Found.		

AX-09-001-9774

THE HONORABLE LISA JACKSON
USEPA HEADQUARTERS
ARIEL RIOS BUILDING
1200 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, D.C. 20460

THOMAS HODGINS, INC.

100 East Washington Avenue
Building 1, Room 100
Greenville, SC 29615-1200

Phone: 803-762-1200
Fax: 803-762-1200

DATE: December 24, 2009
TO: The Honorable Lisa Jackson
FROM: Jennie White
SUBJECT: Creosote Remediation of the Kerr McGee site in Hattiesburg, MS.

December 24, 2009

The Honorable Lisa Jackson
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code 4401A
Washington, DC 20460

Dear Administrator Jackson,

On behalf of the impacted Residents of Hattiesburg Eastside we respectfully request that you send a representative to assess the condition of the Creosote Remediation of the Kerr McGee site in Hattiesburg, MS. On Wednesday, December 23, 2009 Creosote began pumping out of recovery wells at Gordon's Creek in Hattiesburg, MS. The Field TRPH Data indicated that the material was 2028ppm. MDEQ did respond and Emergency Services were onsite within one hour. Currently no one from EPA Region 4 will come to Hattiesburg to ensure that this site is being handled properly.

Recently this Community was in Atlanta and Meeting with Region 4 Officials. This meeting only resulted in more lies. At this time we respectfully request an investigation into why Creosote is being released into the Community and why efforts to prevent this from happening are not ongoing. We also request a Community Meeting to inform the Community of the Status of the Remediation.

Ms. Dawn Taylor of EPA Region 4 recently reviewed data presented to her by the City of Hattiesburg, Ms. Taylor assessment was the report was not adequate. Ms. Karen Buerki of EPA Region 4 stated that Emergency Services confirmed that the release was identified as Creosote. Respectfully, if MDEQ is unable to perform their mission perhaps intervention is necessary from you personally. After more than a decade we believe in order to protect the Citizens and the Environment it is necessary that EPA take over the administration of Gulf States Creosote Site in Hattiesburg, MS.

Respectfully,

Jennie White
Tennie White,
President



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The Honorable Lisa Jackson
USEPA Headquarters, Ariel Rios Building
Mail Code: 1101a
1200 Pennsylvania Ave NW
Washington DC 20460-0001
[[[Horizontal postal barcode]]]



Re: Request ext on CMS AX-09-001-9776
Julia Mooney to: Dawn Taylor
Cc: Jennifer Guillard, Joyce Milligan

01/07/2010 12:18 PM

Dawn

Joyce just went into CMS as your proxy and requested the extension. You will receive an email notification from the CMS system when the extension is granted (or denied). Usually there is no problem with adequate justification. FYI - thanks.

Julia Mooney
Office of External Affairs
EPA, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
404/562-8302

extension granted to 1/22

Dawn Taylor

Julia- Is there any possibility of getting an extens...

01/07/2010 11:52:40 AM

From: Dawn Taylor/R4/USEPA/US
To: Julia Mooney/R4/USEPA/US@EPA
Cc: Joyce Milligan/R4/USEPA/US@EPA, Jennifer Guillard/R4/USEPA/US@EPA
Date: 01/07/2010 11:52 AM
Subject: Request ext on CMS AX-09-001-9776

Julia-

Is there any possibility of getting an extension on the subject control? Franklin Hill, and several others from EPA Superfund are scheduled to meet with the Mayor and community of Hattiesburg regarding this particular site next Thursday Jan 14. We are also waiting on MDEQ's sampling results (hope to have by the 14th for the meeting). It would make more sense to allow this event to occur and get the sampling results back so we can respond in a substantial and meaningful way. I would like a one week extension until 1/22, if at all possible.

Thanks
dawn

Ralph-
Please take the lead on drafting response. I would mention the mtg next week and the outcome of the meeting. Need to put something in about the adequacy of the APEX report. Also should include something about MDEQ's latest sampling of the alleged creosote coming from the monitoring wells.
Thanks,
Dawn

TRONOX

Name: A. Keith Watson
Title: Project Manager

Phone: (405) 775-5475
Fax: (405) 775-6562
e-mail: Keith.Watson@Tronox.com

January 26, 2010

FILE COPY

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 2261
Jackson, MS 39225

Re: Gulf States Creosote Site
Hattiesburg, Mississippi
Report Submittal: Summary of 2009 DNAPL Recovery Activities – Gordon's
Creek Fill Area

Dear Mr. Russell:

Please find enclosed two copies of a report entitled, *Summary of 2009 DNAPL Recovery Activities – Gordon's Creek Fill Area, Former Gulf States Creosoting Site, Hattiesburg, Mississippi*. This report details the creosote product recovery activity behind the Waterloo Barrier at the western edge of the Gordon's Creek fill area.

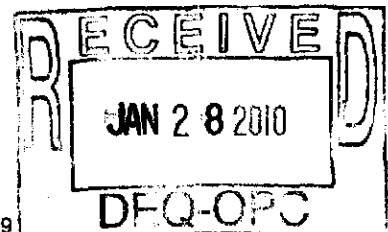
If you have any questions or comments, please call me at (405) 775-5475.

Sincerely,



A. Keith Watson
Project Manager

Copy: T. Reed - Tronox



**Summary of 2009 DNAPL Recovery Activities
Gordon's Creek Fill Area
January 26, 2010**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

FILE COPY

DNAPL Monitoring and Recovery System

In late 2003, Kerr-McGee Chemical LLC (now Tronox LLC) installed a system of 17 recovery wells (FARW-01 through FARW-17) behind the Waterloo Barrier at the western edge of the Gordon's Creek Fill Area containment area. As a result of remediation conducted at the Fill Area, the barrier now forms the eastern bank of the creek adjacent to the containment area. Recovery wells were installed at 25-foot intervals to allow for the collection and removal of dense non-aqueous phase liquids (DNAPLs) accumulating behind the barrier, where present. Tronox also installed 12 monitoring wells (FAMW-01 through FAMW-12) at 50-foot intervals to monitor for the presence of DNAPLs at the contact between the Fill Area sands and the underlying Hattiesburg clay.

The locations of Fill Area monitoring and recovery wells are shown on attached Figure 1. Well completion information is summarized in Table 1.

DNAPL Gauging and Recovery Operations

In May 2004, Tronox began to gauge and recover DNAPL from the system on a monthly basis. In early 2005, MDEQ approved a decrease in gauging and recovery frequency from monthly to quarterly.

Regular procedures for DNAPL gauging and recovery are as follows:

- Remove manhole covers and well caps.
- Measure the depth to water level from top of casing in each recovery and monitoring well using an electronic water level indicator.
- Check for the presence of DNAPL in each recovery and monitoring well using weighted cotton string.
- If wells contain measurable free product (i.e., 0.1 foot or more), install copper drop tubes extending from the base of each recovery well to land surface. Drop tubes are connected directly to silicon tubing to allow recovery of DNAPL using a peristaltic pump.
- Pump all recovery wells containing measurable amounts of free DNAPL into sealable containers. Wells are pumped until only a sheen is present.
- Transport product/water mixture to Tronox's Columbus, Mississippi recovery system for recycle/reuse.

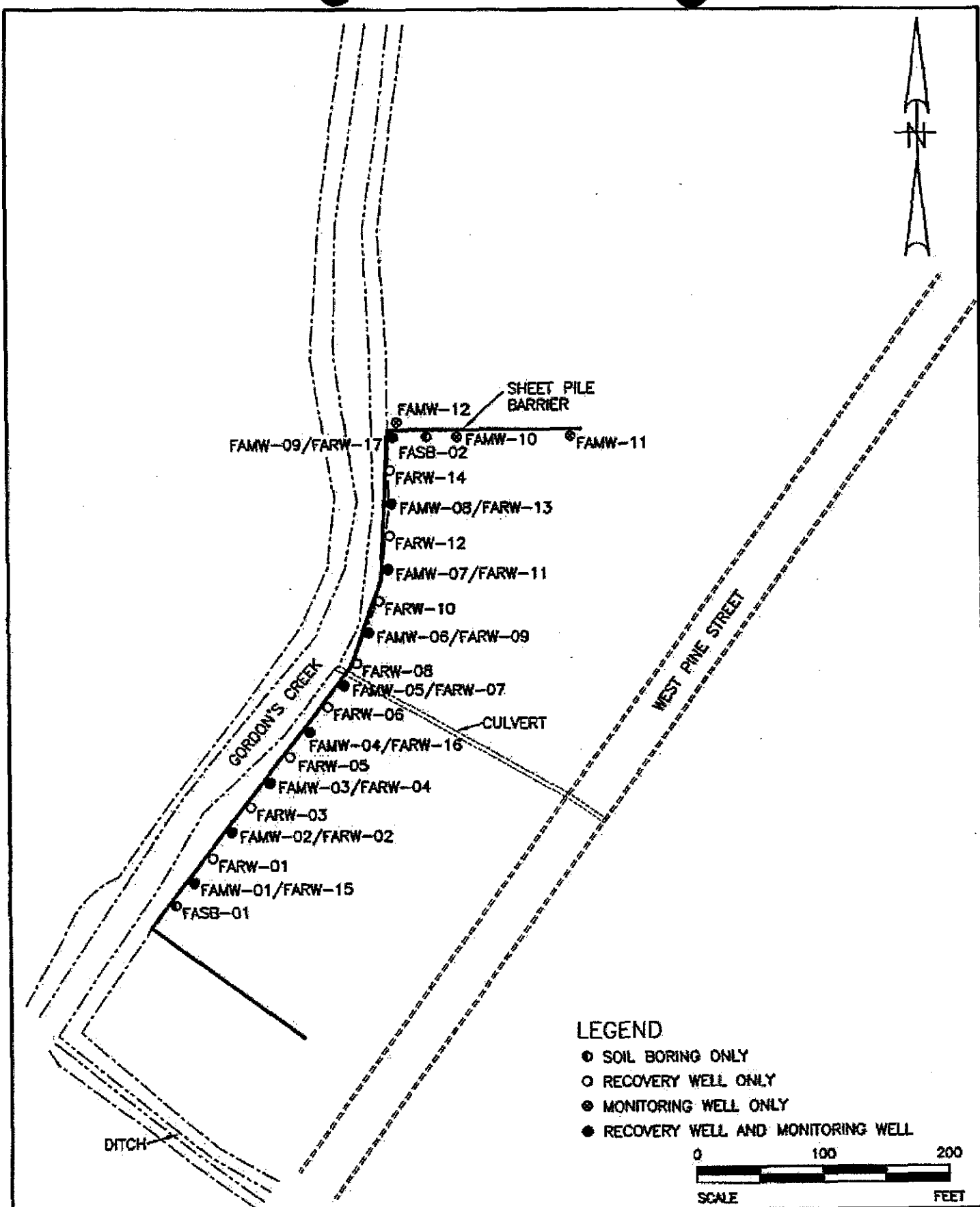
Summary of Gauging and Recovery Activities to Date

Tronox conducted quarterly well gauging and DNAPL recovery at the Gordon's Creek Fill Area (the Fill Area) in 2009. Measurable product was encountered in only one well in all four quarterly measurements, FAMW-6.

The results of well gauging and recovery are summarized in Tables 2 through 4. To date, measurable DNAPL (i.e., 0.1 foot or more) has been encountered in six recovery wells (FARW-04, FARW-05, FARW-06, FARW -07, FARW-08 and FARW-10) and two monitoring wells (FAMW-06 and FAMW-07). As shown on Table 4, a total of 1.25 gallons of DNAPL was removed from the system in 2009. Since beginning gauging and recovery activities in 2004, a total of 11.50 gallons has been recovered from the system.

Future Gauging and Recovery

Tronox will continue to gauge and recover DNAPLs in monitoring and recovery wells on a quarterly basis during 2010. The tentative 2010 quarterly monitoring schedule is February 22nd, May 17th, August 23rd, and November 15th.



MICHAEL PISANI & ASSOCIATES
 Environmental Management and Engineering Services
 New Orleans, Louisiana Houston, Texas

SCALE: 1"=100'

DWG. NO.: 21-04/322A

FIGURE 1
 RECOVERY WELL AND MONITORING WELL LOCATIONS
 FILL AREA

FORMER GULF STATES CREOSOTING SITE
 HATTIESBURG, MISSISSIPPI

Table 1

**Well Completion Data
Fill Area Gauging and Recovery Project**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

Well #	Installation Date	Construction Materials	Distance from Upstream Wingwall (ft.)	Boring Depth	Screened Interval	Depth to Top of Filter Pack	Depth to Top of Bentonite Seal
FAMW-01	11/3/2003	2" PVC	50	28.0	21.3-26.3	19.0	17.0
FAMW-02	11/4/2003	2" PVC	100	26.0	19.0-24.0	17.0	15.0
FAMW-03	11/4/2003	2" PVC	150	24.0	17.0-22.0	15.0	13.0
FAMW-04	11/4/2003	2" PVC	200	24.0	17.0-22.0	15.0	13.0
FAMW-05	11/6/2003	2" PVC	250	24.0	18.0-23.0	16.0	14.0
FAMW-06	11/4/2003	2" PVC	300	22.0	16.0-21.0	14.0	12.0
FAMW-07	11/6/2003	2" PVC	350	24.0	18.0-23.0	16.0	14.0
FAMW-08	11/6/2003	2" PVC	400	22.0	16.0-21.0	14.0	12.0
FAMW-09	11/5/2003	2" PVC	450	22.0	16.0-21.0	14.0	12.0
FAMW-10	11/5/2003	2" PVC	Wing Wall	24.0	18.0-23.0	16.0	14.0
FAMW-11	11/5/2003	2" PVC	Wing Wall	28.0	22.5-27.5	20.5	18.5
FAMW-12	11/5/2003	2" PVC	Outside WW	22.0	16.0-21.0	14.0	12.0
FARW-01	11/7/2003	4" SS	75	10.0	5.0-10.0	4.0	3.5
FARW-02	11/7/2003	4" SS	100	12.0	5.0-10.0	4.0	3.5
FARW-03	11/7/2003	4" SS	125	12.0	6.5-11.5	5.5	4.5
FARW-04	11/10/2003	4" SS	150	12.0	6.5-11.5	5.5	4.5
FARW-05	11/10/2003	4" SS	175	12.0	6.5-11.5	5.5	4.5
FARW-06	11/10/2003	4" SS	225	12.0	6.0-11.0	5.0	4.0
FARW-07	11/10/2003	4" SS	250	13.5	8.5-13.5	6.5	4.5
FARW-08	11/10/2003	4" SS	275	12.0	6.0-11.0	5.0	4.0
FARW-09	11/11/2003	4" SS	300	10.5	5.5-10.5	4.5	3.5
FARW-10	11/11/2003	4" SS	325	24.0	6.0-21.0	5.0	4.0
FARW-11	11/12/2003	4" SS	350	22.0	7.0-22.0	5.0	4.0
FARW-12	11/11/2003	4" SS	375	14.0	3.0-8.0	2.5	2.0
FARW-13	11/12/2003	4" SS	400	10.5	5.5-10.5	4.5	3.5
FARW-14	11/12/2003	4" SS	425	10.0	5.0-10.0	4.0	3.5
FARW-15	11/20/2003	4" SS	50	9.0	4.0-9.0	3.0	2.0
FARW-16	11/20/2003	4" SS	200	8.5	3.5-8.5	3.0	2.0
FARW-17	11/20/2003	4" SS	450	8.5	3.5-8.5	3.0	2.0

Note:

All depths are reported in feet below land surface.

Table 2
Water Levels
Fill Area Gauging and Recovery Project
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well #	Date										
	5/13/04	6/15/04	7/27/04	8/23/04	9/20/04	10/18/04	12/1/04	3/31/05	6/7/05	10/24/05	12/13/05
FAMW-01	5.17	4.41	2.88	3.24	3.40	3.29	3.00	3.52	4.18	NM	NM
FAMW-02	3.93	3.32	2.90	3.30	3.34	3.37	3.01	3.05	2.98	3.90	4.01
FAMW-03	3.97	3.25	2.34	2.74	2.95	3.00	2.50	2.90	2.99	NM	NM
FAMW-04	3.42	2.96	1.89	1.75	2.20	2.33	1.67	1.83	1.93	NM	NM
FAMW-05	2.79	2.46	2.02	2.03	2.43	2.95	2.12	2.05	1.01	NM	NM
FAMW-06	2.75	2.10	2.00	2.38	2.69	2.99	2.48	2.35	1.23	2.45	2.84
FAMW-07	2.37	2.30	2.17	2.37	2.72	3.02	2.54	2.69	1.53	3.28	3.40
FAMW-08	2.88	2.42	2.46	2.58	2.87	3.25	2.94	3.03	1.69	3.27	3.52
FAMW-09	3.53	3.12	4.83	5.42	5.86	6.20	5.88	4.92	1.95	3.59	3.97
FAMW-10	6.18	5.31	9.90	7.55	8.00	8.34	8.13	7.64	5.88	NM	NM
FAMW-11	8.25	7.30	9.06	8.29	8.79	8.90	6.60	8.40	9.94	8.68	9.14
FAMW-12	6.24	6.14	4.05	4.40	4.62	4.61	4.20	6.43	9.15	7.09	10.22
FARW-01	3.16	2.50	2.04	2.52	2.67	2.74	1.25	1.41	1.16	3.21	2.89
FARW-02	2.03	1.49	1.87	1.52	1.70	1.72	0.04	0.32	0.18	2.40	1.92
FARW-03	2.63	1.38	0.75	1.40	1.40	1.42	1.10	0.89	0.49	2.15	2.01
FARW-04	2.60	1.80	1.99	1.53	1.47	1.50	1.46	1.39	0.30	1.68	2.78
FARW-05	2.29	1.45	0.99	1.67	1.69	1.96	0.81	0.93	0.21	0.70	2.72
FARW-06	1.78	0.98	0.80	1.10	1.35	1.40	0.75	0.71	0.00	1.95	1.72
FARW-07	2.15	1.34	0.10	1.29	1.63	1.68	0.88	0.89	0.49	2.27	2.10
FARW-08	2.34	1.81	1.68	1.80	2.15	2.03	1.41	1.52	1.00	2.67	2.48
FARW-09	2.69	2.31	2.19	2.00	2.12	2.58	2.00	1.93	1.33	2.65	2.60
FARW-10	2.42	1.87	1.68	1.79	2.26	2.44	1.72	1.54	1.12	2.86	2.85
FARW-11	2.37	1.78	1.38	1.84	2.04	2.39	1.87	1.90	1.10	2.70	2.87
FARW-12	3.07	0.04	0.20	0.03	0.77	0.85	0.89	0.76	0.00	1.60	0.67
FARW-13	0.10	0.01	0.05	0.01	1.12	1.35	0.71	0.21	0.00	1.54	1.45
FARW-14	1.35	0.95	0.56	0.70	0.89	1.10	0.03	0.34	0.00	1.33	1.03
FARW-15	3.38	2.64	2.04	2.51	2.65	2.62	1.35	2.43	1.15	3.20	2.91
FARW-16	1.50	1.19	1.22	1.50	1.60	1.63	0.05	0.33	0.41	3.00	2.00
FARW-17	0.98	0.90	0.74	0.50	0.83	0.90	0.31	0.77	0.00	1.49	1.00

Note:

Water levels are reported in feet below top of casing.
NM - water level not measured during this event.

Table 2 (continued)

Water Levels
Fill Area Gauging and Recovery Project

Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well #	Date											
	2/21/06	5/15/06	8/21/06	11/9/06	2/27/07	5/22/07	8/28/07	10/23/07	2/25/08	5/19/08	8/6/08	11/24/08
FAMW-01	NM	NM	NM	4.43	0.65	4.42	4.15	4.21	3.38	3.40	3.64	3.96
FAMW-02	3.43	0.63	3.33	3.34	2.73	3.19	2.99	3.01	2.18	2.41	3.60	3.83
FAMW-03	NM	NM	NM	3.31	2.30	3.24	2.98	2.97	2.27	3.02	2.62	2.94
FAMW-04	NM	NM	NM	2.77	1.54	2.30	2.30	2.29	1.89	2.01	2.87	3.07
FAMW-05	NM	NM	NM	1.96	0.63	1.22	1.49	1.31	0.70	1.15	1.99	2.09
FAMW-06	2.05	2.01	2.60	2.60	1.24	1.67	1.81	1.74	2.20	0.40	2.45	2.84
FAMW-07	2.42	2.01	2.87	2.97	1.28	1.87	1.98	2.01	0.80	1.39	2.81	3.11
FAMW-08	2.54	2.21	2.98	3.00	1.87	1.92	2.00	1.99	1.25	1.62	2.88	3.01
FAMW-09	2.85	2.40	3.26	3.48	1.62	2.21	2.01	2.15	0.98	1.71	3.04	3.21
FAMW-10	NM	NM	NM	9.44	4.40	5.02	5.01	5.01	4.04	4.74	6.01	6.37
FAMW-11	8.00	7.58	8.60	8.80	6.75	7.17	7.23	7.20	5.99	6.87	8.38	8.72
FAMW-12	6.60	6.59	6.97	6.80	5.98	5.99	5.98	5.99	5.53	6.15	6.82	6.89
FARW-01	1.32	1.70	2.19	1.93	4.02	1.96	1.64	1.84	0.00	0.21	2.53	2.28
FARW-02	0.41	3.27	1.20	0.90	0.00	0.97	0.51	0.89	0.00	0.00	1.54	1.81
FARW-03	0.87	0.78	1.22	1.82	1.11	1.29	0.50	0.50	0.02	0.20	1.67	1.89
FARW-04	2.47	1.98	1.50	1.47	1.27	0.94	1.25	1.90	0.98	1.10	1.40	1.98
FARW-05	1.47	1.16	1.28	1.59	1.67	1.68	1.64	1.72	1.38	0.35	0.65	1.44
FARW-06	0.54	0.47	0.80	0.87	0.24	0.51	0.60	1.02	0.00	0.10	1.02	1.69
FARW-07	0.57	0.68	1.19	1.34	0.23	0.69	0.85	0.84	0.00	0.31	1.30	1.90
FARW-08	1.30	1.44	1.80	1.77	0.08	1.22	1.47	1.74	0.01	0.85	1.79	2.31
FARW-09	1.92	2.04	2.21	2.01	2.00	1.52	1.57	1.55	1.96	1.37	2.29	2.53
FARW-10	1.68	1.67	2.23	2.19	0.60	1.36	1.66	1.67	0.36	1.03	2.03	2.17
FARW-11	1.81	1.47	2.27	2.40	0.68	1.33	1.49	1.50	0.41	0.97	2.22	2.40
FARW-12	0.10	0.08	0.93	0.30	0.18	0.13	0.01	0.00	0.00	0.00	0.86	0.94
FARW-13	0.10	0.39	1.01	0.20	0.15	0.28	0.60	0.54	0.01	0.00	1.01	1.14
FARW-14	0.31	0.18	0.86	0.70	0.09	0.02	0.54	0.59	0.00	0.00	0.66	0.71
FARW-15	1.27	1.62	2.26	1.95	0.68	1.92	1.60	1.84	0.00	0.17	1.78	2.06
FARW-16	0.65	0.90	1.39	0.97	0.30	1.13	0.99	0.98	0.00	0.93	1.54	1.79
FARW-17	0.30	0.18	0.91	0.40	0.13	0.03	0.02	0.00	0.34	0.00	0.83	0.97

Note:

Water levels are reported in feet below top of casing.

NM - water level not measured during this event.

Table 2 (continued)
 Water Levels
 Fill Area Gauging and Recovery Project
 Former Gulf States Creosoting Site
 Hattiesburg, Mississippi

Well #	Date									
	2/23/09	5/18/09	8/17/09	11/17/09						
FAMW-01	3.60	3.04	4.87	4.47						
FAMW-02	2.64	2.41	3.92	3.28						
FAMW-03	2.79	2.28	3.96	3.34						
FAMW-04	1.65	1.50	3.13	2.54						
FAMW-05	1.90	0.23	2.27	2.28						
FAMW-06	2.23	1.83	2.71	2.84						
FAMW-07	1.20	0.35	2.68	2.70						
FAMW-08	2.28	0.50	2.85	2.85						
FAMW-09	1.18	0.55	3.79	3.00						
FAMW-10	4.27	3.45	6.30	6.63						
FAMW-11	9.21	5.47	8.55	8.43						
FAMW-12	4.76	5.09	7.27	6.84						
FARW-01	0.63	2.89	3.19	1.80						
FARW-02	0.40	1.72	2.35	0.80						
FARW-03	0.60	flow to top	1.68	1.70						
FARW-04	2.43	1.50	0.89	1.05						
FARW-05	1.03	1.14	1.34	1.51						
FARW-06	0.40	flow to top	1.49	0.75						
FARW-07	0.30	flow to top	1.62	1.08						
FARW-08	1.34	0.25	2.01	1.37						
FARW-09	0.30	0.62	2.32	2.15						
FARW-10	0.50	flow to top	2.40	1.89						
FARW-11	0.30	flow to top	2.37	2.02						
FARW-12	0.40	flow to top	1.13	0.42						
FARW-13	0.00	flow to top	1.36	0.89						
FARW-14	flow to top	flow to top	1.10	0.51						
FARW-15	0.60	2.01	3.34	1.71						
FARW-16	0.30	0.20	2.14	0.95						
FARW-17	flow to top	flow to top	1.11	0.45						

Note:

Water levels are reported in feet below top of casing.
 NM - water level not measured during this event.

Table 3
Ground Water Elevations
Fill Area Gauging and Recovery Project
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well #	TOC Elev.	Date										
		5/13/04	6/15/04	7/27/04	8/23/04	9/20/04	10/18/04	12/1/04	3/31/05	6/7/05	10/24/05	12/13/05
FAMW-01	183.90	178.73	179.49	181.02	180.66	180.50	180.61	180.90	180.38	179.72	NM	NM
FAMW-02	182.72	178.79	179.40	179.82	179.42	179.38	179.35	179.71	179.67	179.74	178.82	178.71
FAMW-03	182.78	178.81	179.53	180.44	180.04	179.83	179.78	180.28	179.88	179.79	NM	NM
FAMW-04	182.72	179.30	179.76	180.83	180.97	180.52	180.39	181.05	180.89	180.79	NM	NM
FAMW-05	181.99	179.20	179.53	179.97	179.96	179.56	179.04	179.87	179.94	180.98	NM	NM
FAMW-06	181.64	178.89	179.54	179.64	179.26	178.95	178.65	179.16	179.29	180.41	179.19	178.80
FAMW-07	181.75	179.38	179.45	179.58	179.38	179.03	178.73	179.21	179.06	180.22	178.47	178.35
FAMW-08	181.74	178.86	179.32	179.28	179.16	178.87	178.49	178.80	178.71	180.05	178.47	178.22
FAMW-09	181.93	178.40	178.81	177.10	176.51	176.07	175.73	176.05	177.01	179.98	178.34	177.96
FAMW-10	184.43	178.25	179.12	174.53	176.88	176.43	176.09	176.30	176.79	178.55	NM	NM
FAMW-11	186.11	177.86	178.81	177.05	179.82	179.32	179.21	179.51	177.71	176.17	177.43	176.97
FAMW-12	182.96	176.72	176.82	178.91	178.56	178.34	178.35	178.76	176.53	173.81	175.87	172.74
FARW-01	183.74	180.58	181.24	181.70	181.22	181.07	181.00	182.49	182.33	182.58	180.53	180.85
FARW-02	182.77	180.74	181.28	180.90	181.25	181.07	181.05	182.73	182.45	182.59	180.37	180.85
FARW-03	182.30	179.67	180.92	181.55	180.90	180.90	180.88	181.20	181.41	181.81	180.15	180.29
FARW-04	182.35	179.75	180.55	180.36	180.82	180.88	180.85	180.89	180.96	182.05	180.67	179.57
FARW-05	182.36	180.07	180.91	181.37	180.69	180.67	180.40	181.55	181.43	182.15	181.66	179.64
FARW-06	181.51	179.73	180.53	180.91	180.41	180.16	180.11	180.76	180.80	181.51	179.56	179.79
FARW-07	181.53	179.38	180.19	181.43	180.24	179.90	179.85	180.65	180.84	181.04	179.26	179.43
FARW-08	181.33	178.99	179.52	179.65	179.53	179.18	179.30	179.92	179.81	180.33	178.66	178.85
FARW-09	181.23	178.54	178.92	179.04	179.23	179.11	178.65	179.23	179.30	179.90	178.58	178.63
FARW-10	181.40	178.98	179.53	179.72	179.61	179.14	178.96	179.68	179.86	180.28	178.54	178.55
FARW-11	181.14	178.77	179.36	179.76	179.30	179.10	178.75	179.27	179.24	180.04	178.44	178.27
FARW-12	181.22	178.15	181.18	181.02	181.19	180.45	180.37	180.33	180.46	181.22	179.62	180.55
FARW-13	181.29	181.19	181.28	181.24	181.28	180.17	179.94	180.58	181.08	181.29	179.75	179.84
FARW-14	181.30	179.95	180.35	180.74	180.60	180.41	180.20	181.27	180.96	181.30	179.97	180.27
FARW-15	183.78	180.40	181.14	181.74	181.27	181.13	181.16	182.43	181.35	182.83	180.58	180.87
FARW-16	182.58	181.08	181.39	181.36	181.08	180.98	180.95	182.53	182.25	182.17	179.58	180.58
FARW-17	181.33	180.35	180.43	180.59	180.83	180.50	180.43	181.02	180.56	181.33	179.84	180.33

Note:

Ground water elevations are reported in feet above mean sea level.
NM - water level not measured during this event.

Table 3 (continued)
Ground Water Elevations
Fill Area Gauging and Recovery Project
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well #	TOC Elev.	Date											
		2/21/06	5/16/06	8/21/06	11/9/06	2/27/07	5/22/07	8/28/07	10/23/07	2/25/08	5/19/08	8/6/08	11/24/08
FAMW-01	183.90	NM	NM	NM	179.47	183.25	179.48	179.75	179.69	180.52	180.50	180.26	179.94
FAMW-02	182.72	179.29	182.09	179.39	179.38	179.99	179.53	179.73	179.71	180.54	180.31	179.12	178.89
FAMW-03	182.78	NM	NM	NM	179.47	180.48	179.54	179.80	179.81	180.51	179.76	180.16	179.84
FAMW-04	182.72	NM	NM	NM	179.95	181.18	180.42	180.42	180.43	180.83	180.71	179.85	179.65
FAMW-05	181.99	NM	NM	NM	180.03	181.36	180.77	180.50	180.68	181.29	180.84	180.00	179.90
FAMW-06	181.64	179.59	179.63	179.04	179.04	180.40	179.97	179.83	179.90	179.44	181.24	179.19	178.80
FAMW-07	181.75	179.33	179.74	178.88	178.78	180.47	179.88	179.77	179.74	180.95	180.36	178.94	178.64
FAMW-08	181.74	179.20	179.53	178.76	178.74	179.87	179.82	179.74	179.75	180.49	180.12	178.86	178.73
FAMW-09	181.93	179.08	179.53	178.67	178.45	180.31	179.72	179.92	179.78	180.95	180.22	178.89	178.72
FAMW-10	184.43	NM	NM	NM	174.99	180.03	179.41	179.42	179.42	180.39	179.69	178.42	178.06
FAMW-11	186.11	178.11	178.53	177.51	177.31	179.36	178.94	178.88	178.91	180.12	179.24	177.73	177.39
FAMW-12	182.96	176.36	176.37	175.99	176.16	176.98	176.97	176.98	176.97	177.43	176.81	176.14	176.07
FARW-01	183.74	182.42	182.04	181.55	181.81	179.72	181.78	182.10	181.90	183.74	183.53	181.21	181.46
FARW-02	182.77	182.36	179.50	181.57	181.87	182.77	181.80	182.26	181.88	182.77	182.77	181.23	180.96
FARW-03	182.30	181.43	181.52	181.08	180.48	181.19	181.01	181.80	181.80	182.28	182.10	180.63	180.41
FARW-04	182.35	179.88	180.37	180.85	180.88	181.08	181.41	181.10	180.45	181.37	181.25	180.95	180.37
FARW-05	182.36	180.89	181.20	181.08	180.77	180.69	180.68	180.72	180.64	180.98	182.01	181.71	180.92
FARW-06	181.51	180.97	181.04	180.71	180.64	181.27	181.00	180.91	180.49	181.51	181.41	180.49	179.82
FARW-07	181.53	180.96	180.85	180.34	180.19	181.30	180.84	180.68	180.69	181.53	181.22	180.23	179.63
FARW-08	181.33	180.03	179.89	179.53	179.56	181.25	180.11	179.86	179.59	181.32	180.48	179.54	179.02
FARW-09	181.23	179.31	179.19	179.02	179.22	179.23	179.71	179.66	179.68	179.27	179.86	178.94	178.70
FARW-10	181.40	179.72	179.73	179.17	179.21	180.80	180.04	179.74	179.73	181.04	180.37	179.37	179.23
FARW-11	181.14	179.33	179.67	178.87	178.74	180.46	179.81	179.65	179.64	180.73	180.17	178.92	178.74
FARW-12	181.22	181.12	181.14	180.29	180.92	181.04	181.09	181.21	181.22	181.22	181.22	180.36	180.28
FARW-13	181.29	181.19	180.90	180.28	181.09	181.14	181.01	180.69	180.75	181.28	181.29	180.28	180.15
FARW-14	181.30	180.99	181.12	180.44	180.60	181.21	181.28	180.76	180.71	181.30	181.30	180.64	180.59
FARW-15	183.78	182.51	182.16	181.52	181.83	183.10	181.86	182.18	181.94	183.78	183.61	182.00	181.72
FARW-16	182.58	181.93	181.88	181.19	181.61	182.28	181.45	181.59	181.60	182.58	181.65	181.04	180.79
FARW-17	181.33	181.03	181.15	180.42	180.93	181.20	181.30	181.31	181.33	180.99	181.33	180.50	180.36

Note:

Ground water elevations are reported in feet above mean sea level.
NM - water level not measured during this event.

Table 3 (continued)
Ground Water Elevations
Fill Area Gauging and Recovery Project
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well #	TOC Elev.	Date									
		2/23/09	5/18/09	8/17/09	11/17/09						
FAMW-01	183.90	180.30	180.86	179.03	179.43						
FAMW-02	182.72	180.08	180.31	178.80	179.44						
FAMW-03	182.78	179.99	180.50	178.82	179.44						
FAMW-04	182.72	181.07	181.22	179.59	180.18						
FAMW-05	181.99	180.09	181.76	179.72	179.71						
FAMW-06	181.64	179.41	179.81	178.93	178.80						
FAMW-07	181.75	180.55	181.40	179.07	179.05						
FAMW-08	181.74	179.46	181.24	178.89	178.89						
FAMW-09	181.93	180.75	181.38	178.14	178.93						
FAMW-10	184.43	180.16	180.98	178.13	177.80						
FAMW-11	186.11	176.90	180.64	177.56	177.68						
FAMW-12	182.96	178.20	177.87	175.69	176.12						
FARW-01	183.74	183.11	180.85	180.55	181.94						
FARW-02	182.77	182.37	181.05	180.42	181.97						
FARW-03	182.30	181.70	182.30	180.62	180.60						
FARW-04	182.35	179.92	180.85	181.46	181.30						
FARW-05	182.36	181.33	181.22	181.02	180.85						
FARW-06	181.51	181.11	181.51	180.02	180.76						
FARW-07	181.53	181.23	181.53	179.91	180.45						
FARW-08	181.33	179.99	181.08	179.32	179.96						
FARW-09	181.23	180.93	180.61	178.91	179.08						
FARW-10	181.40	180.90	181.40	179.00	179.51						
FARW-11	181.14	180.84	181.14	178.77	179.12						
FARW-12	181.22	180.82	181.22	180.09	180.80						
FARW-13	181.29	181.29	181.29	179.93	180.40						
FARW-14	181.30	181.30	181.30	180.20	180.79						
FARW-15	183.78	183.18	181.77	180.44	182.07						
FARW-16	182.58	182.28	182.38	180.44	181.63						
FARW-17	181.33	181.33	181.33	180.22	180.88						

Note:

Ground water elevations are reported in feet above mean sea level.
NM - water level not measured during this event.

Table 4

**Product Measurements
Fill Area Gauging and Recovery Project**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

Well #	Date										
	5/13/04	6/16/04	7/27/04	8/23/04	9/20/04	10/18/04	12/1/04	3/31/05	6/7/05	10/24/05	12/13/05
FAMW-01	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	NM	NM
FAMW-02	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-03	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	NM	NM
FAMW-04	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	NM	NM
FAMW-05	Clean	Clean	Clean	Clean	Clean	Trace	Trace	Trace	Clean	NM	NM
FAMW-06	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Trace	Trace	Trace
FAMW-07	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-08	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-09	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-10	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	NM	NM
FAMW-11	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-12	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-01	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-02	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-03	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-04	Trace	0.1	Trace	Trace	Trace	Trace	Trace	Trace	Trace	0.16	Trace
FARW-05	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-06	0.01	0.27	Clean	Trace	0.05	0.1	Trace	Trace	Trace	0.15	Trace
FARW-07	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Trace
FARW-08	0.05	Trace	Trace	Trace	Trace	0.2	0.1	0.3	0.4	0.45	Trace
FARW-09	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-10	0.5	0.38	Trace	Clean	0.5	Trace	0.7	0.2	0.4	Trace	Trace
FARW-11	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-12	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-13	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-14	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-15	Clean	Clean (a)	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-16	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-17	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
Product Recovered (gallons)	1.25	0.25	0.25	1.25	0.5	0.25	0.25	0.5	0.5	1	0.25

Note:

Product thickness is reported in feet, where present.

(a) Sheen reported

NM - product thickness not measured during this event.

Table 4 (continued)

**Product Measurements
Fill Area Gauging and Recovery Project**

**Former Gulf States Creosoting Site
Hattiesburg, Mississippi**

Well #	Date											
	2/21/06	5/15/06	8/21/06	11/9/06	2/27/07	5/22/07	8/28/07	10/23/07	2/25/08	5/19/08	8/6/08	11/24/08
FAMW-01	NM	NM	NM	Trace	Trace	Clean	Clean	Clean	Trace	Clean	Trace	Clean
FAMW-02	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-03	NM	NM	NM	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-04	NM	NM	NM	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-05	NM	NM	NM	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-06	0.4	0.57	0.47	1.05	0.75	0.33	0.75	0.59	Trace	0.5	0.46	0.59
FAMW-07	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	0.35	Clean	0.25	Clean
FAMW-08	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-09	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-10	NM	NM	NM	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-11	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FAMW-12	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-01	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-02	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-03	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-04	Trace	0.21	Trace	Trace	0.12	0.13	0.33	0.05	Trace	Trace	0.2	0.11
FARW-05	Clean	Clean	Clean	Clean	Clean	Clean	0.31	0.4	Trace	Clean	Trace	0.15
FARW-06	Trace	Trace	Trace	Trace	Trace	Trace	0.31	Trace	Clean	Trace	0.25	0.1
FARW-07	0.31	0.28	Trace	Trace	Clean	Trace	0.32	Trace	0.37	0.3	0.21	0.16
FARW-08	0.27	0.25	0.25	Trace	Trace	Trace	0.3	Trace	0.2	0.15	0.2	0.15
FARW-09	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-10	Clean	Clean	Trace	Clean	Trace	Clean	Trace	Trace	Trace	0.1	Clean	Clean
FARW-11	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-12	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-13	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-14	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-15	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-16	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
FARW-17	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean	Clean
Product Recovered (gallons)	0.5	0.5	0.25	0.5	0.25	0.125	0.25	0.125	0.25	0.25	0.5	0.5

Note:

Product thickness is reported in feet, where present.

(a) Sheen reported

NM - product thickness not measured during this event.

Table 4 (continued)
Product Measurements
Fill Area Gauging and Recovery Project
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Well #	Date			
	2/23/09	5/18/09	8/17/09	11/17/09
FAMW-01	Trace	Clean	Clean	Clean
FAMW-02	Clean	Clean	Clean	Clean
FAMW-03	Clean	Clean	Clean	Clean
FAMW-04	Clean	Clean	Clean	Clean
FAMW-05	Clean	Clean	Clean	Clean
FAMW-06	0.8	0.58	0.63	1.04
FAMW-07	Clean	Clean	Clean	Clean
FAMW-08	Clean	Clean	Clean	Clean
FAMW-09	Clean	Clean	Clean	Clean
FAMW-10	Clean	Clean	Clean	Clean
FAMW-11	Clean	Clean	Clean	Clean
FAMW-12	Clean	Clean	Clean	Clean
FARW-01	Clean	Clean	Clean	Clean
FARW-02	Clean	Clean	Clean	Trace
FARW-03	Clean	Clean	Clean	Trace
FARW-04	0.24	0.16	Clean	0.15
FARW-05	Trace	Trace	Trace	0.17
FARW-06	Clean	Trace	0.27	Trace
FARW-07	Trace	0.35	0.28	0.17
FARW-08	Trace	0.2	0.2	Trace
FARW-09	Clean	Clean	Clean	Clean
FARW-10	Clean	Clean	Clean	Clean
FARW-11	Clean	Clean	Clean	Clean
FARW-12	Clean	Clean	Clean	Clean
FARW-13	Clean	Clean	Clean	Clean
FARW-14	Clean	Clean	Clean	Clean
FARW-15	Clean	Clean	Clean	Clean
FARW-16	Clean	Clean	Clean	Clean
FARW-17	Clean	Clean	Clean	Clean
Product Recovered				
(gallons)	0.25	0.25	0.25	0.5

Note:

Product thickness is reported in feet, where present.

(a) Sheen reported

NM - product thickness not measured during this event.



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

January 20, 2010

FILE COPY

Mr. Keith Watson
Tronox LLC
P. O. Box 268859
Oklahoma City, OK 73126-8859

Re: Gulf States Creosote Site
Fill Area Quarterly Monitoring
Hattiesburg, Mississippi

Dear Mr. Watson:

This letter will serve to officially document the Mississippi Department of Environmental Quality (MDEQ) requirements for collection of surface water samples from Gordon's Creek. MDEQ requires that a minimum of two surface water samples be collected from Gordon's Creek during the quarterly product monitoring events being conducted in the Fill Area. One surface water sample shall be collected below where the sewer line crosses the creek and the other surface water sample shall be collected down stream of the containment wall near monitoring well 12. You may wish to collect an additional sample upstream of the containment wall at your discretion.

MDEQ also requires that sample containers be provided for MDEQ to split one sample during each sampling event. Please call me with any questions you may have concerning this matter at 601-961-5318.

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Russell".

Tony Russell, Chief
Assessment Remediation Branch

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us

AN EQUAL OPPORTUNITY EMPLOYER



"Dwayne Gilliam"
<dgilliam@usesgroup.com>
01/12/2010 02:35 PM

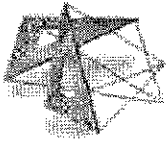
To <tony_russell@deq.state.ms.us>
cc "Don Warren" <DWarren@usesgroup.com>
bcc

Subject Hattiesburg Site Info

History: This message has been replied to and forwarded.

On 12/23/09 USES crew arrived on site and met with Mr. Terry Steed. Mr. Steed showed the USES crew the Monitoring well that the material was coming from. It appeared that Well RW15 had material leaking from around the cover. USES crew removed the top of RW15 and found clear liquid inside and vacuumed out the well casing and the well. USES crew then placed the top back down and proceeded to RW 1; clear liquid was also present USES crew also vacuumed out the well casing and well, USES crew also removed the MW 1 lid and vacuumed out the well casing only. USES crew proceeded to RW 9 and removed the lid and vacuumed out the well casing and the well. USES crew did not have to vacuum out RW 10. USES crew took composite samples from all 4 wells and the liquid that was collected in the vacuum truck. USES crew ran appropriate analytical for disposal of the liquids. On 12/29/09 USES went back and sampled RW14 which contained a brownish liquid, we also collected a soil sample beside the fence which is close to RW 2. USES crew also collected from a crack in the concrete that appeared to be creosote. This area is between two wells and is close to the wooded area.

If you have any question give me a call #601-278-7818
Thanks
Dwayne



Jerry Cain/EPD/OPC/DEQ

01/06/2010 10:31 AM

To Sherri Jones <sjfcest48@yahoo.com>@INETDEQ

cc

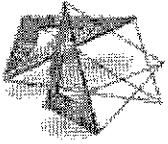
bcc Tony Russell/HW/OPC/DEQ

Subject Re: Gulf States Creosote Site 

Thank you for interest in the above referenced site. As per our conversation earlier today, this email acknowledges that the Department is conducting an investigation into your December 23, 2009 complaint. That investigation is ongoing. We will prepare a report based on the facts of the investigation after all of the information is collected and carefully evaluated. Thank you again for your interest. Jerry Cain

Jerry W. Cain, P.E. , DEE
Director, Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, Mississippi 39225-2261

Phone (601)961-5100
Cell Phone (601)260-8973
FAX (601)961-5617



Jerry Cain/EPD/OPC/DEQ

01/06/2010 10:34 AM

To Tony Russell/HW/OPC/DEQ@DEQ

cc

bcc

Subject Please print and place these in the file. I am deleting them
from my computer

Jerry W. Cain, P.E. , DEE
Director, Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, Mississippi 39225-2261

Phone (601)961-5100
Cell Phone (601)260-8973
FAX (601)961-5617

----- Forwarded by Jerry Cain/EPD/OPC/DEQ on 01/06/2010 10:21 AM -----



Sherri Jones
<sjfcest48@yahoo.com>
01/06/2010 10:09 AM

To Jerry_Cain@deq.state.ms.us, trudy_fisher@deq.state.ms.us
cc

Subject Fw:

----- Forwarded Message -----

From: Sherri Jones <sjfcest48@yahoo.com>
To: Hill.Teresa@epamail.epa.gov
Sent: Tue, January 5, 2010 3:58:11 PM
Subject: Fw:

----- Forwarded Message -----

From: Sherri Jones <sjfcest48@yahoo.com>
To: aasthanislaus@epa.gov; stanislaus.mathy@epa.gov; jackson.lisa@epa.gov;
Irene (CBC) Schwoeffermann <ibs@mail.house.gov>; chorton@mail.house.gov; Bill
Felder <Bill.Felder@mail.house.gov>; Kim (Cochran) Coalter
<Kim_Coalter@cochran.senate.gov>; mblake@who.eop.gov
Sent: Sun, January 3, 2010 8:50:19 PM
Subject: Fw:



DSC03492.JPG DSC03499.JPG DSC03496.JPG

----- Forwarded by Jerry Cain/EPD/OPC/DEQ on 01/06/2010 10:21 AM -----



Sherri Jones
<sjfcest48@yahoo.com>
01/06/2010 10:13 AM

To Jerry_Cain@deq.state.ms.us
cc trudy_fisher@deq.state.ms.us

Subject Fw:



The wall. 001.jpg

----- Forwarded by Jerry Cain/EPD/OPC/DEQ on 01/06/2010 10:21 AM -----



Sherri Jones
<sjfcest48@yahoo.com>

01/06/2010 10:15 AM

To Jerry_Cain@deq.state.ms.us

cc trudy_fisher@deq.state.ms.us

Subject Fw: The wall



The wall. 008.jpg The wall. 010.jpg The wall. 011.jpg

Phone (601)961-5100
Cell Phone (601)260-8973
FAX (601)961-5617

----- Forwarded by Jerry Cain/EPD/OPC/DEQ on 01/06/2010 10:21 AM -----



Sherri Jones
<sjfcest48@yahoo.com>
01/06/2010 09:53 AM

To: Jerry_Cain@deq.state.ms.us
cc

Subject: Re: Gulf States Creosote Site

thanks

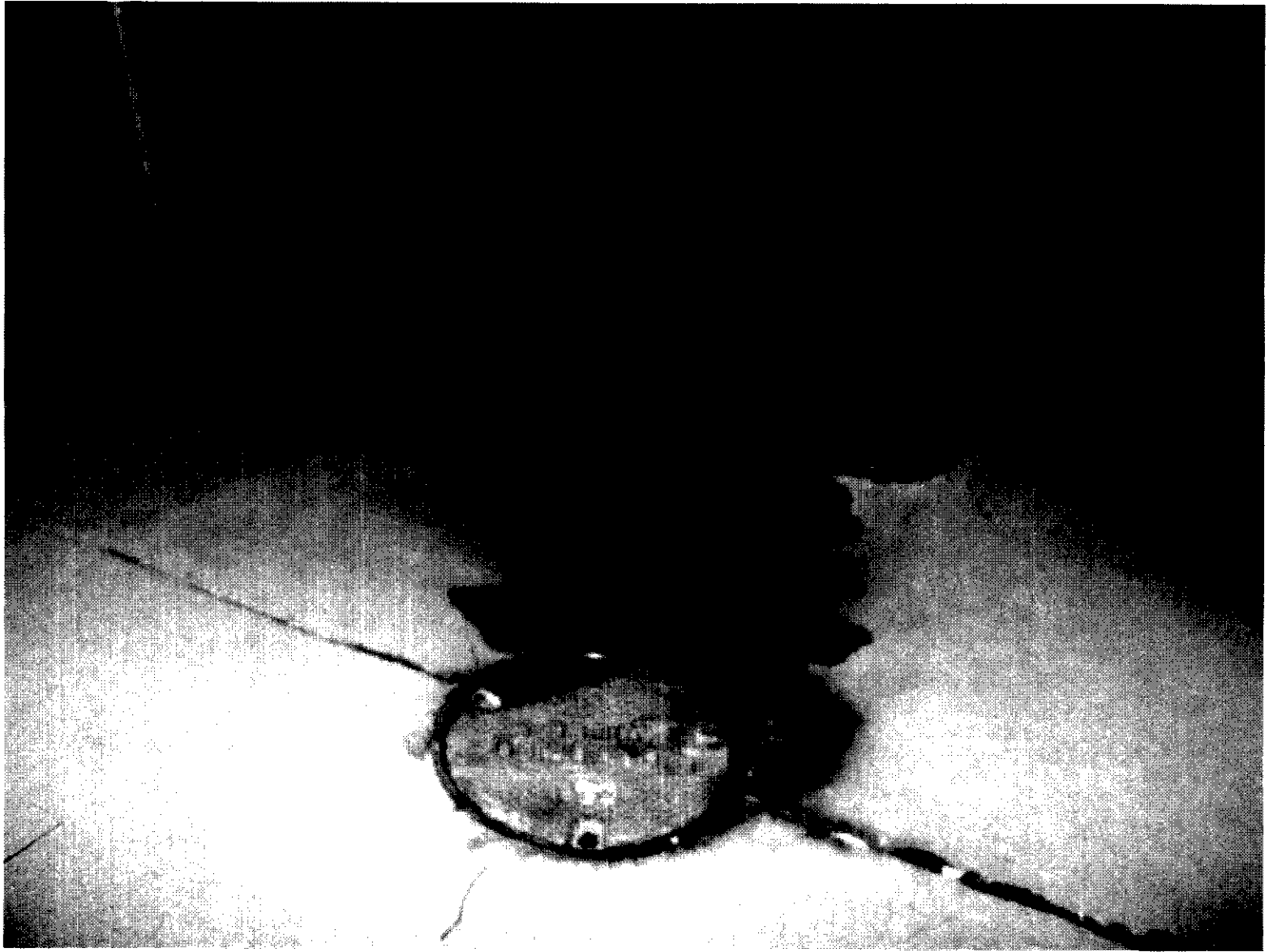
From: "Jerry_Cain@deq.state.ms.us" <Jerry_Cain@deq.state.ms.us>
To: sjfcest48@yahoo.com
Cc: Alice_Perry@deq.state.ms.us
Sent: Fri, November 6, 2009 2:02:42 PM
Subject: Gulf States Creosote Site

Please find attached our response to your inquiry. A hard copy version will follow. If you have any questions please contact me. Thx Jerry Cain

Jerry W. Cain, P.E. , DEE
Director, Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, Mississippi 39225-2261



FCEST Photo
1/2010
GSC- The Hiesburg



FCEST Photo
Q5C- WestHiesburg
1-2010



FCEST Photo
GSC- Hiesburg
1-2010



FCEST Photo
GSC - Zlatibor
1-2010



FCEST Photo
GSC - Nottiesburg
1-2010



FCEST Photo
GSC- Hattiesburg
1-2010



Taylor.Dawn@epamail.epa.gov
12/29/2009 12:55 PM

To Tony_Russell@deq.state.ms.us
cc Jerry_Banks@deq.state.ms.us,
Phillip_Weathersby@deq.state.ms.us,
Taylor.Matt@epamail.epa.gov,
bcc

Subject Fw: hattiesburg

History: This message has been replied to.

Just received these pictures from Sherri Jones. I believe this is his response to our recent letter that said we (EPA nor MDEQ) saw anything indicating that creosote was weeping in to Gordon's creek. Can someone go out there and check this out and follow up with Mr. Jones?

Thanks
Dawn

here is the response we sent out, just so everyone knows where we stand
- this is the last communication we had with Mr. Jones
(See attached file: Jones_ MS Hattiesburg _CMS-6649_11-24-09.doc)
Dawn C. Taylor, Chief
Superfund Site Evaluation Section
Superfund Remedial and Site Evaluation Branch
Superfund Division
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8575 work
404-909-0829 cell
taylor.dawn@epa.gov

----- Forwarded by Dawn Taylor/R4/USEPA/US on 12/29/2009 01:46 PM -----

From: Sherri Jones <sjfcest48@yahoo.com>
To: Dawn Taylor/R4/USEPA/US@EPA
Cc: Franklin Hill/R4/USEPA/US@EPA
Date: 12/29/2009 01:30 PM
Subject: Fw: hattiesburg

----- Forwarded Message -----

From: Sherri Jones <sjfcest48@yahoo.com>
To: Terry Jones <tjones5@hattiesb.gannett.com>
Sent: Tue, December 29, 2009 12:19:47 PM
Subject: Fw: hattiesburg

(See attached file: the wall 12-26-09. 001.jpg) (See attached file:
the wall 12-26-09. 002.jpg) (See attached file: the wall 12-26-09.



003.jpg) Jones_MS Hattiesburg_CMS-6649_11-24-09.doc the wall 12-26-09. 001.jpg the wall 12-26-09. 002.jpg



the wall 12-26-09. 003.jpg



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JAN 11 2010

Mr. Sherri Jones
Forrest County Environmental Support Team
P.O. Box 374
Hattiesburg, Mississippi 39403-0374

Dear Mr. Jones:

This letter follows up on concerns raised at the meeting held at the U.S. Environmental Protection Agency (EPA) Region 4 office on October 27, 2009, in Atlanta, Georgia. Thank you for attending the meeting and submitting a written statement. Region 4 appreciates your raising these environmental justice concerns to us. Administrator Lisa Jackson has embraced environmental justice as a priority for EPA, and as one of the ways to expand the conversation about protecting public health and the environment.

Gulf States Creosoting (GSC) Company and then American Creosoting Corporation operated a creosote wood preservation facility in Hattiesburg, Mississippi, on land held in trust by the state for the Hattiesburg Public School District and leased to various businesses (referred to as 16th Section Land, Ward 5). American Creosote ceased wood-treating operations around 1960. In 1964, Kerr-McGee Chemical Corporation purchased the assets and liabilities of the American Creosoting Corporation.

In 2003, the Mississippi Department of Environmental Quality (MDEQ) entered into a consent order with Tronox, Incorporated (Tronox) for a voluntary cleanup of the former Gulf States Creosoting site in Hattiesburg. Tronox is the successor to Kerr-McGee Chemical Corporation. The risk assessment established cleanup levels that are protective of human health and the environment for the different exposure scenarios. For the former process area, where contamination was left in place, MDEQ required that Tronox place restrictions on the use of the property--specifically, restrictions on well installation and digging, to ensure that users of the property are not inadvertently exposed to any contaminants left in place. The remediation also included areas in a residential neighborhood (Ward 5) along the northeast drainage ditch. According to Tony Russell, Chief of Assessment and Remediation Section I, Groundwater Assessment and Remediation Division, MDEQ, the final portion of the remedial work in the residential neighborhood was completed in April 2007, and confirmation samples were taken to ensure that no further remedial work was necessary in the residential neighborhood and that the community was adequately protected. MDEQ completed its oversight of the remediation of the contaminated areas in July 2007, except for annual monitoring of the groundwater in the area to ensure biodegradation continues.

Although EPA does not oversee states' voluntary cleanup programs, it sometimes provides technical assistance to a state upon request. In its oversight of the work at Kerr-McGee, MDEQ coordinated extensively with EPA concerning the risk assessment and other portions of the investigation and remediation, including determining appropriate cleanup goals. Since 2003, MDEQ has not requested further assistance. EPA believes, based on previously available

information, that remediation at the site was conducted in such a manner as to be protective of human health and the environment, and the formerly contaminated areas do not pose a threat to human health or the environment.

In March 2009, the Mayor of Hattiesburg, Johnny L. DuPree, requested that EPA review the city-sanctioned May 2008 independent review conducted by APEX Environmental Consultants, Inc. (APEX). The Mayor specifically requested that EPA evaluate the extent to which the APEX assessment was conducted using EPA protocols and standards. In addition, EPA was requested to consider concerns raised by Ms. Tennie White (TroubleShooters, Inc.) regarding results of the APEX report. EPA completed the review at the end of October 2009, and provided the Mayor with the findings on November 6, 2009. As detailed in EPA's letter to the Mayor (copy enclosed), EPA found 11 deficiencies in the APEX report. The deficiencies represent inadequate descriptions of how the sampling procedures were carried out; minor differences with how EPA would have performed sampling tasks; differences with the comparison criteria for interpreting results than those EPA would have used; and minor presentation errors in the report. When considered together, however, the deficiencies do not involve the laboratory APEX used, and do not invalidate the laboratory data. Soil samples were taken from 32 borings, and groundwater samples from 21 of the borings. This is a sufficient number of sample results to support the report's conclusions. For groundwater, as long as there are no drinking water wells in the shallow aquifer, there is no significant risk to human health. In shallow soil, the report does not indicate significant creosote contamination.

EPA is aware, by way of letters from Hattiesburg Mayor Dupree, that there are environmental justice concerns related to the compensation that some local residents and businesses received during the cleanup work. This compensation resulted from multiple lawsuits against Tronox. The concern is that residents living on one side of the main drainage ditch where remediation was conducted seem to have been compensated differently than those on the other side. Our goal is for all Americans, regardless of race, color, national origin or income, to benefit from clean, healthy, livable communities. It is hard work and we want to move forward with you to achieve these results. For Region 4, this means integrating environmental justice into our regional programs, policies, and activities and achieving measurable benefits to the environment and public health for our citizens. EPA Region 4 recognizes the burden that pollution places on vulnerable populations, including children, the elderly, the poor, and communities of color. Regarding the community's lawsuits against Tronox, EPA has no involvement in litigation between responsible parties and the impacted community and cannot address the adequacy or fairness of the settlements and equity of compensation.

On September 2, 2009, the ERRB Telephone Duty Officer received a National Response Center report (NRC #916730) and a call from a local citizen reporting a creosote release from the GSC site in Hattiesburg and drums abandoned at the site. The ERRB Telephone Duty Officer spoke with Mr. Tony Russell of MDEQ, and was informed that the drums did not have hazardous material and contained investigation derived waste (soil and water produced from ground water monitoring operations). Mr. Russell contacted the company that performed the ground water monitoring work and arranged for the removal of these drums. Mr. Russell informed the ERRB Telephone Duty Officer that MDEQ personnel visited and inspected the site (including Gordon's Creek) on a quarterly basis. Mr. Russell had visited the site in late August 2009 (less than two weeks before the NRC report) and did not see any evidence of a creosote

release in the creek. Based on the conversation with MDEQ, the ERRB Telephone Duty Officer determined that this report did not constitute an emergency, and an On-Scene Coordinator (OSC) was not sent under an emergency action.

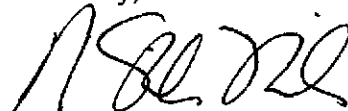
EPA Region 4 maintains an OSC outpost in Mobile, Alabama, to more effectively respond to oil discharges and releases of hazardous substances in the surrounding area. The out-posted OSC, Mr. Dean Ullock, has overseen cleanup activities at creosote sites and is familiar with the signs of creosote releases. The ERRB Telephone Duty Officer contacted OSC Ullock to schedule a visit to the site. On Tuesday, September 8, 2009 (less than one week after the NRC report), OSC Ullock traveled to Hattiesburg, Mississippi, and arrived at the "Gordon Creek Remediation Site" directly across the street from Craft Auto, at approximately 2:45 p.m. OSC Ullock walked the entire length (approx. 300 yards) of the cement berm, sheet piling, and sidewalk, then continued approximately 40 more yards in a northeasterly direction along a densely vegetated creek bank looking for signs of creosote. OSC Ullock did not observe a sheen, notice odors or find any evidence of a recent or ongoing release of creosote upon or near Gordon Creek. The OSC did not see any evidence of creosote "weeping" or emanating from the sidewalls of the sheet piling or from the numerous monitoring wells located within and along the length of the concrete berm. The OSC also did not witness the three reported abandoned drums. In summary, EPA was unable to verify the alleged release of creosote contamination. Thus, the OSC determined that no further action was needed in response to the NRC report.

MDEQ has advised EPA that the Responsible Party, Kerr-McGee, is required under the legal order in place to remedy any releases or failures that occur, as necessary, and in a timely manner. MDEQ's periodic inspections are intended to detect and require appropriate response to any such problems.

For further information on the GSC site, please do not hesitate to contact Ralph Howard, Region 4 Regional Project Manager, at (404) 562-8829, or via email at Howard.Ralph@epa.gov. To explore other thoughts and ideas on how we can enhance our environmental justice efforts, please contact Cynthia Peurifoy, our Region 4 Environmental Justice Coordinator, at (404) 562-9649, or via email at Peurifoy.Cynthia@epa.gov.

I appreciate your desire to protect and preserve the environment and hope you find this information helpful.

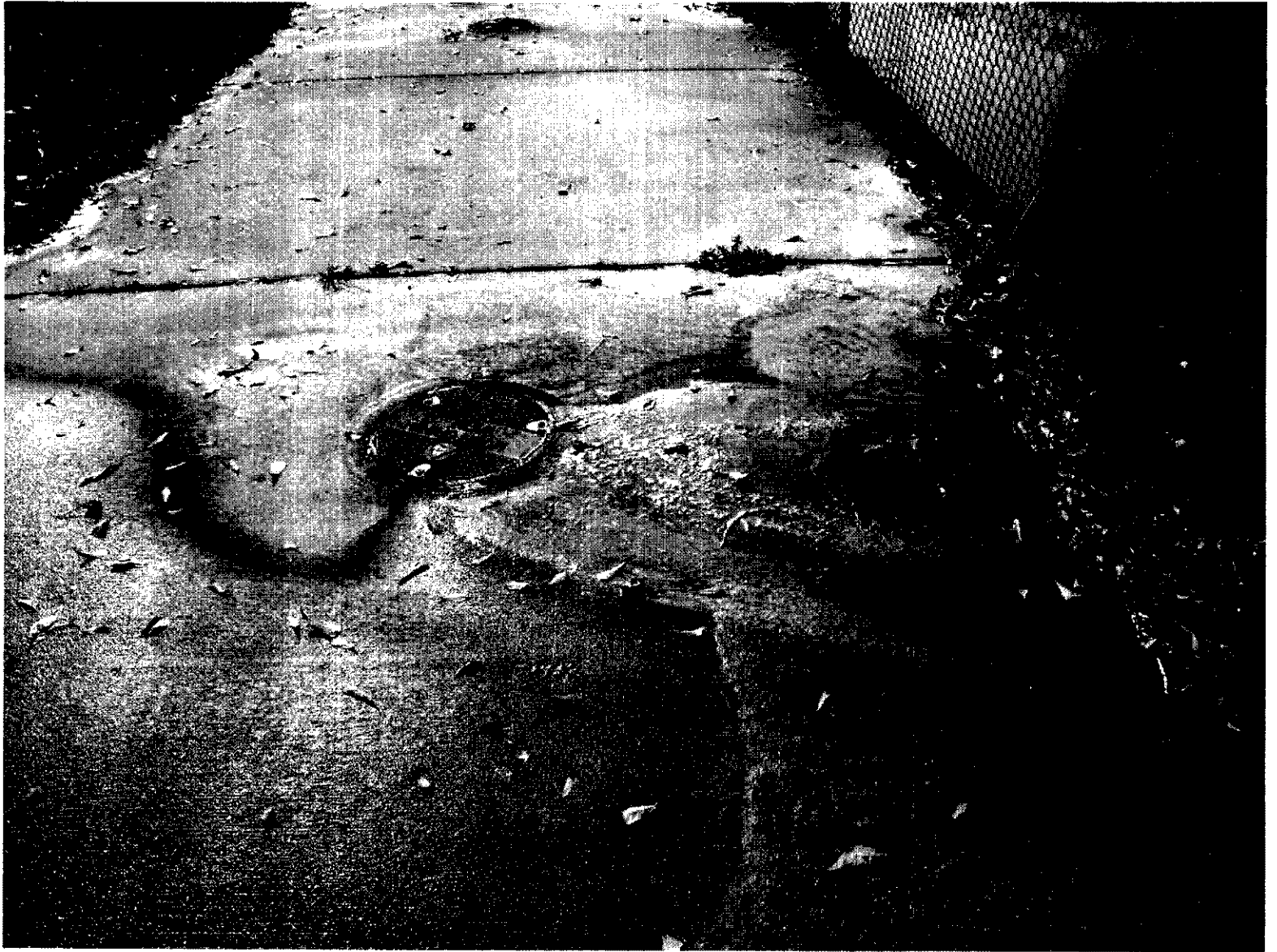
Sincerely,



A. Stanley Meiburg
Acting Regional Administrator

Enclosure

cc: Trudy Fisher, Executive Director, MDEQ









STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS

FROM: Tony Russell *TAR 12/18/09*

DATE: December 18, 2009

SUBJECT: Annual GW Sampling Event

I met Brad Blalock (Michael Pisanti & Associates) on Wednesday December 16, 2009 at the site to observe and collect splits during this annual sampling event. Franklyn Tate (City) and Mr. Brazale were both notified that the event was being conducted.

Wednesday – Brad collected samples from monitoring wells in the residential area. The wells were purged with peristaltic pump using the low purge method. Once the well was purged for a minimum of 30 minutes and the stabilization parameters had stabilized, the groundwater samples were collected using the peristaltic pump. I collected splits on MW-18 for semi-volatile analysis. Brad also collected geochemical parameters at each sample location.

These monitoring wells were sampled on Wednesday: MW-18, MW-19, MW-16, MW-6, MW-8, MW-17 and MW-21.

Thursday – GW sampling event continued for the residential area. I collected a split from MW-22. The purge and sample procedures were the same as for previous wells. These monitoring wells were sampled on Thursday: MW-9R, MW-20, MW-22, MW-14 and MW-11. The sampling was discontinued after MW-11 due to rain. Brad would return on Monday to sample the remaining wells (MW-12, MW-15, MW-1R, MW-2R, MW-4).

The split samples will be delivered to the OPC lab in Pearl, MS for semi-volatile analysis.

TRONOX

Name: A. Keith Watson
Title: Project Manager

Phone: (405) 775-5475
Fax: (405) 775-8562
e-mail: Keith.Watson@Tronox.com

December 2, 2009

Tony Russell, Chief
Mississippi Department of Environmental Quality
Assessment Remediation Branch
Office of Pollution Control
P.O. Box 10385
Jackson, MS 39289-0385

FILE COPY

RECEIVED
DEC 21 2009
Dept of Environmental Quality
Office of Pollution Control

Re: Gulf States Creosote Site
Hattiesburg, Mississippi
Report Submittal: Monitored Natural Attenuation Results and Recommendations

Dear Mr. Russell:

Please find enclosed two copies of a report entitled, *Monitored Natural Attenuation Results and Recommendations, Former Gulf States Creosoting Site, Hattiesburg, Mississippi*. This report documents the natural attenuation activity in the site groundwater system documented over the last nine years, and includes recommendations for ongoing monitoring of the remaining groundwater impact. If you have any questions or comments, please call me at (405) 775-5475.

Sincerely,



A. Keith Watson
Project Manager

Copy: D. Upthegrove - Pisani
T. Reed - Tronox

**MONITORED NATURAL ATTENUATION RESULTS AND
RECOMMENDATIONS**

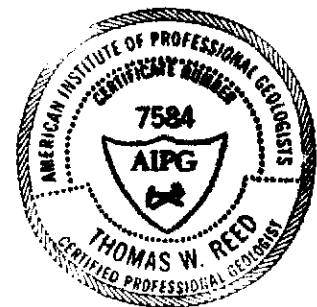
**FORMER GULF STATES CREOSOTING SITE
HATTIESBURG, MISSISSIPPI**

FILE COPY

Project No. 21-04

Prepared By:

**Thomas W. Reed, CPG
Safety and Environmental Affairs
Tronox LLC**



December 2, 2009

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1. February 2, 2009 Potentiometric Surface Map
2. Approximate Extent of Affected Groundwater (February 2009)

APPENDICES

- A. Naphthalene Table and Graphs
- B. Chemical Constituent Tables and Graphs

MONITORED NATURAL ATTENUATION RESULTS AND RECOMMENDATIONS

FORMER GULF STATES CREOSOTING SITE HATTIESBURG, MISSISSIPPI

EXECUTIVE SUMMARY

A Remedial Investigation (RI) was conducted and completed at the former Gulf States Creosoting site in Hattiesburg, Mississippi during the time frame of 1996 to 2001. During that time, site groundwater quality conditions were characterized through multiple phases of investigation, monitor well installation, and sampling. Sources of groundwater impact were controlled and remediated. The lateral extent of affected groundwater was delineated and was also confirmed through quarterly sampling beginning in 2001. In 2004, the Mississippi Department of Environmental Quality (MDEQ) approved annual groundwater sampling frequency for the site.

Beginning in 2001, both laboratory and field analytical parameters were collected to determine if natural attenuation from in situ biodegradation of the impacted groundwater was occurring. Time versus concentration graphs were prepared for selected biodegradation constituents, along with time versus concentration graphs for naphthalene. The results from the biodegradation and naphthalene trend data indicate that the creosote – impacted groundwater is stable, chemical concentrations are declining, and natural, in situ biodegradation of the plume is occurring.

Based on these favorable results, Tronox LLC recommends that further groundwater sampling and analysis to determine if natural attenuation processes are occurring is not necessary, and further sampling for creosote constituents in select wells outside the groundwater plume is no longer warranted.

INTRODUCTION

Tronox LLC and its predecessor, Kerr-McGee Chemical, LLC (KMCLLC) have conducted investigation and remediation activities at the former Gulf States Creosoting site in Hattiesburg, Mississippi since 1996. During that time, site groundwater quality has been characterized through multiple phases of investigation, including the installation and sampling of numerous monitor wells and temporary well points. The lateral extent of groundwater impact was delineated through eight initial quarterly groundwater monitoring events from late 2001 through 2003. MDEQ approved a request to decrease groundwater monitoring to an annual frequency for the Hattiesburg site.

Two separate and distinct areas of groundwater impact have been identified: the former Process Area / northeast drainage ditch area, and the Fill Area. The subsurface lithology and water bearing units are significantly different between the areas and are not connected hydraulically. Figure 1 is a potentiometric map from February 2009 which shows the hydraulic setting and direction of groundwater flow at the two impacted areas.

In 2003, Tronox LLC implemented remedial measures that included the removal and offsite disposal of creosote source material potentially contributing to the groundwater impact. In addition, remedial measures included containment and control elements designed to either reduce the potential migration of constituents in the groundwater or preclude the potential for infiltration / percolation of water through affected soils left in place.

MONITORED NATURAL ATTENUATION REQUIREMENTS

Monitored natural attenuation is one method of applying in situ bioremediation. It is essentially the advantageous use of indigenous microorganisms to degrade contaminants of concern, coupled with the observation of changes in the groundwater chemistry associated with this activity. Two common lines of evidence normally required to document natural attenuation are as follows:

- Historical trends indicating a decrease in contaminant concentrations over time and a plume that is stable or retreating,

- Chemical indicators of contaminant biodegradation such as, 1) biological consumption of natural levels of oxygen and oxygen consumption from nitrate and sulfate, and 2) the creation of soluble byproducts such as iron, manganese, and methane.

NATURAL ATTENUATION MONITORING RESULTS

PAH compounds at the Hattiesburg site are highest in wells within areas where creosote and creosote residuals were handled (i.e., the former Process Area / northeast drainage ditch and the Fill Area). The approximate extent of impacted groundwater is shown on Figure 2.

Historical Naphthalene Trends

Naphthalene is the most prevalent and the most soluble PAH compound detected in site groundwater and is the only constituent reported at levels exceeding the MDEQ Tier 1 Target Remediation Goals (TRGs) in wells located outside the historic source areas. Using naphthalene as a representative indicator of PAH presence in groundwater, the results of the initial eight quarterly groundwater monitoring periods beginning in December 2001, along with the subsequent annual monitoring through February 2009 indicate that naphthalene constituent concentrations in both affected areas (monitor wells MW-1R, -2R, -4, -06, -09R, -12, -17, and -19) have declined and continue to decline or stabilize over time. In addition, the naphthalene in monitor well MW-22, downgradient along the northeast drainage ditch, has remained stable and not increased, indicating that the plume is stable or retreating in size. It should be noted that the significant decline in naphthalene in wells located along the edge of the impacted areas, specifically MW-1R, MW-4, MW-12 and MW-18 demonstrates not only the reduction in the concentration of the constituent plume, but also the lateral reduction in size of the plume. The table containing naphthalene analytical results along with naphthalene concentration versus time graphs for these wells are contained in Appendix A. For convenience, the graphs are grouped in three groups: select wells outside the main plumes with non-detect concentrations, wells on the edge of the plume with rapidly declining

concentrations, and wells within the main part of the plume with high concentrations.

Chemical Indicators of Biodegradation

Several different chemical parameters are analyzed at the Hattiesburg site to determine if constituent biodegradation is occurring. These parameters include chloride, total iron, dissolved iron, methane, nitrate nitrogen, sulfate, and field parameters including dissolved oxygen, ferrous iron, and redox potential.

Chemical variations in groundwater that commonly indicate natural attenuation activity include the following:

- Dissolved oxygen concentrations below background,
- Nitrate concentrations below background,
- Iron concentrations above background,
- Sulfate concentrations below background,
- Methane concentrations above background.

For a determination of natural attenuation activity at the Hattiesburg site, total iron, sulfate and methane constituent concentrations were selected for time versus concentration graph comparisons. Of all the parameters collected at the Hattiesburg site for analysis, these constituents characteristically yield the most reliable analytical results. The graphs are grouped in three categories for discussion: 1) select wells outside the plume with non-detect concentrations of PAHs (MW-16, -22), 2) wells on the edge of the plume with rapidly declining concentrations of PAHs (MW-1R, -4, -12, and -18), and 3) wells within the main part of the plume with high concentrations of PAHs (MW-2R, -06, -09R, -17, and -19). The graphs along with analytical tables for total iron, methane, and sulfate are included in Appendix B.

Select Wells Outside the Plume – Well MW-16 is a good example of groundwater constituents relatively unaffected by in situ biodegradation. With the absence of creosote constituents, no biodegradation is taking place and therefore no oxygen demand is placed on the system. As such, iron is not

reduced and remains relatively insoluble, methane is not produced as a by-product, and sulfate is not reduced and remains in the groundwater system.

Wells on the Edge of the Plume - These once were or are currently on the edge of the contaminant plume. They initially contained significant concentrations of naphthalene but over time have shown significant declines in naphthalene impact (see Appendix A). Wells MW-1R, MW-4, and MW-18 are associated with the Process Area / Northeast Drainage Ditch plume, while well MW-12 is an edge well at the Fill Area plume (see figure 1). A review of the iron and methane graphs for these wells (Appendix B) shows a rough parallel between the decrease in naphthalene over time and an associated decline in total iron and methane. As the naphthalene is biodegraded, less and less "food" is available for the indigenous microorganisms, hence less oxygen is required so iron is not reduced and methane is not produced as a by-product.

Increase in sulfate concentration also occur with the decline in available naphthalene but not as apparent as the decrease that is seen in iron. Again, the sulfate graphs for the wells on the edge of the plume are located in Appendix B.

Wells Within the Main Part of the Plume - These wells are all associated with the Process Area / Northeast Drainage Ditch plume and contain significant but declining concentrations of naphthalene. This is the area of current, active bioremediation of the creosote constituent impact at the Hattiesburg site. Associated with these declining concentrations of naphthalene are high concentrations of soluble iron and high concentrations of methane. In general, the sulfate concentrations tend to be low in concentration as the indigenous microorganisms also reduce the sulfate in solution.

One well that doesn't fit this pattern is MW-2R. MW-2R has the highest concentration of naphthalene of the wells within the main plume. Based on the total iron, methane, and sulfate graphs, no significant in situ biodegradation is occurring at this well. Even though the naphthalene concentration is declining over time, the concentration has apparently not reached a low enough concentration for the microorganisms to efficiently feed and multiply in this area. A review of the biodegradation components at well MW-06 indicated that more prominent activity (soluble iron and methane production) began to occur as

naphthalene concentrations dropped below around 4,000 ug/L. The current decline rate in naphthalene concentrations in well MW-2R should reach the 4,000 ug/L range or below within the next year.

One other well of interest located outside the main naphthalene plume is MW-22. MW-22 is the farthest well downgradient along the Northeast Drainage Ditch area. It has historically shown minimal to non-detect concentrations of naphthalene (Appendix A). However, based on the natural attenuation constituent graphs in Appendix B, MW-22 has increased in iron over the last four years, has some measureable methane concentrations, and has low sulfate compared to other wells outside the plume (MW-16). The high iron, measureable methane, and low sulfate would be more representative of a well with higher naphthalene concentrations. This apparent anomaly may be due to biodegradation products in the groundwater flowing downgradient to MW-22 from the main portion of the plume. The naphthalene is either retarded in its movement or is being biodegraded as it moves slowly downgradient, or more likely a combination of both.

CONCLUSIONS AND RECOMMENDATIONS

Groundwater information for naphthalene collected over the last 9 years at the Hattiesburg site indicates that the creosote contaminant concentrations are declining and that the contaminant plumes associated with both the Fill Area and the Process Area / Northeast Drainage Ditch are stable in movement and retreating in size.

In addition, analytical information for chemical indicators of biodegradation collected over this same time period shows that in situ biodegradation, i.e. natural attenuation, of the creosote impact is actively occurring in the interior and edges of the main plume and should continue until constituent concentrations are depleted.

Tronox LLC recommends that groundwater analytical sampling for creosote constituents be continued on an annual basis at the site to monitor the retreating size of the creosote constituent plume. Monitor wells recommended for annual

sampling include only MW-1R, -2R, -4, -06, -9R, -17, -18, -19, and -22 in the Process Area plume and only MW-12 in the Fill Area plume.

In addition, Tronox LLC recommends that future sampling for field and laboratory analysis of monitored natural attenuation chemical indicators be discontinued. Data over the past 9 years has confirmed that biodegradation is occurring and that the creosote constituent plume is being bioremediated.

2007 digital orthophoto from USDA (http://datagateway.mcs.usda.gov)

Legend



Approximate Site Boundary



Wells



Potentiometric Surface Contours in feet above mean sea level (Feb 2, 2009)
General direction of ground water flow

0 150 300 600

Feet



FIGURE 1

February 2, 2009 Potentiometric Surface Map

(Process Area & Offsite)

Former Gulf States Creosoting Site

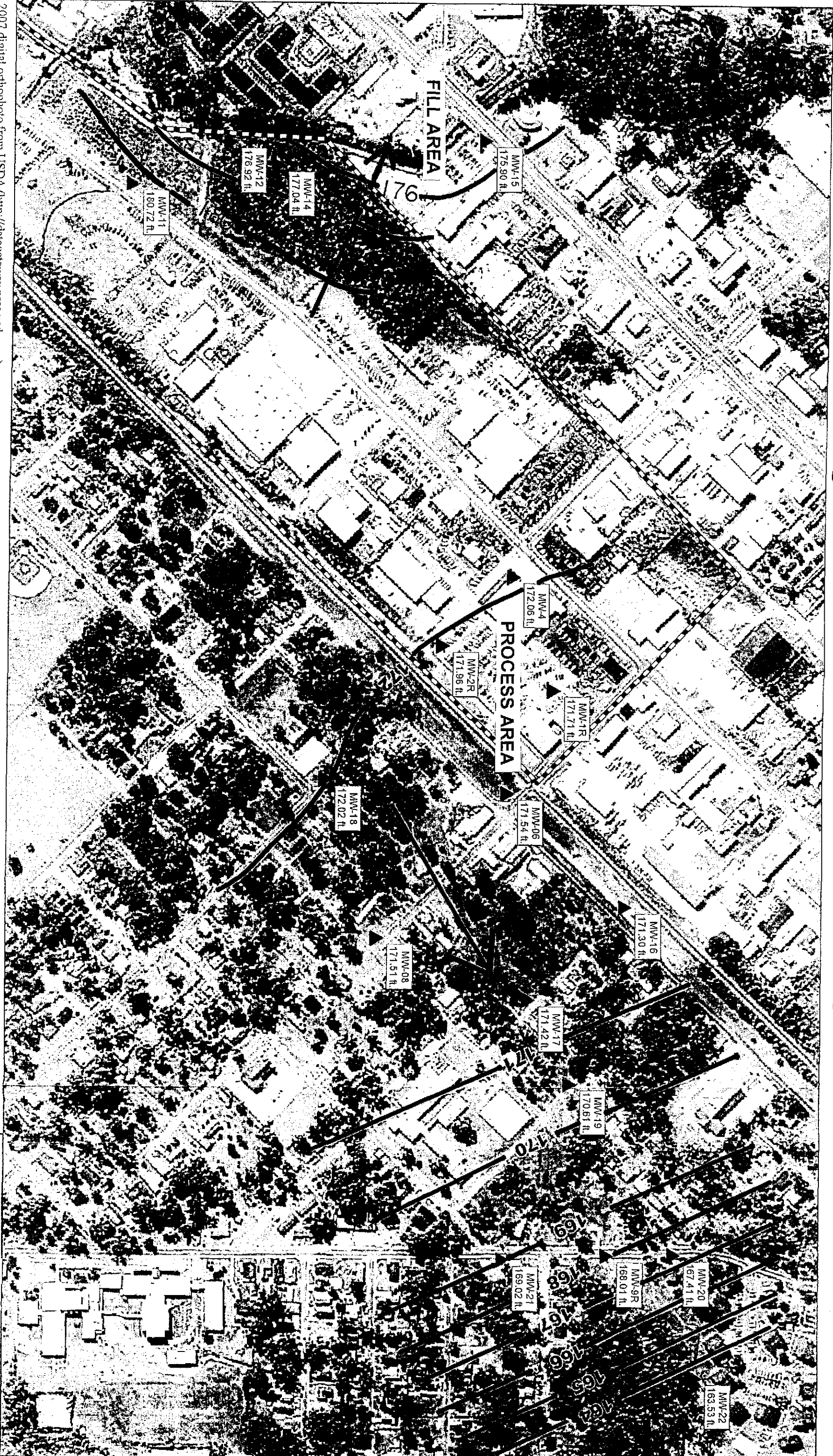
Hattiesburg, Mississippi

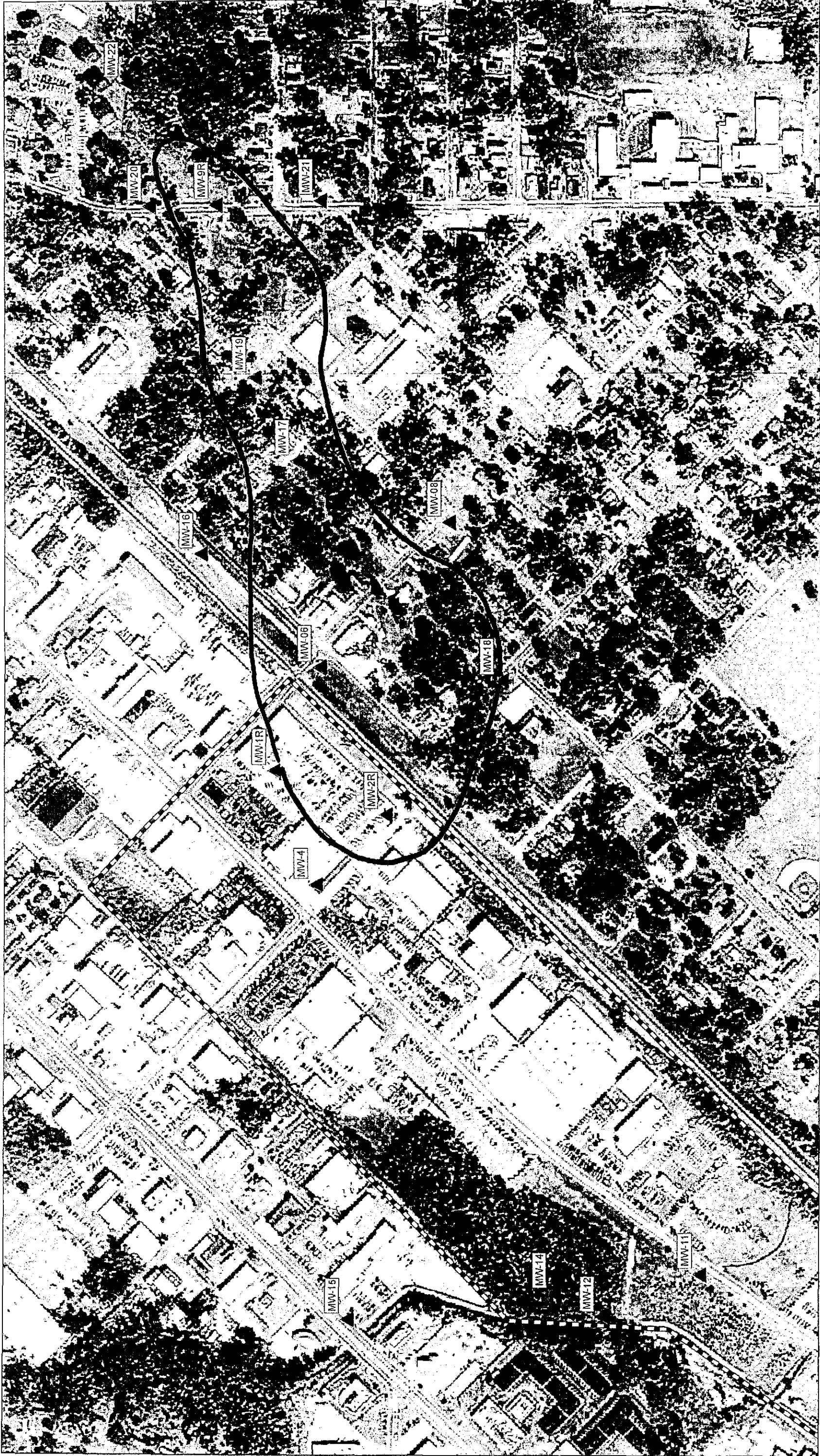
MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management & Engineering Services

Houston, Texas New Orleans, Louisiana Baton Rouge, Louisiana

Designed: JRB Drawn: JRB Checked: DCU Date: 5/27/2009 Project: 21-04





2007 digital orthophoto from USDA (<http://datagateway.nrcs.usda.gov>).

FIGURE 2
Approximate Extent of Affected Ground Water
(February 2009)
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

MICHAEL PISANI & ASSOCIATES, INC.
Environmental Management & Engineering Services
Houston, Texas New Orleans, Louisiana Baton Rouge, Louisiana

Designed: JRB Drawn: JRB Checked: DCU Date: 5/27/2009 Project: 21-04

- Legend**
- Approximate Site Boundary
 - Extent of Affected Ground Water
 - Wells

APPENDIX A

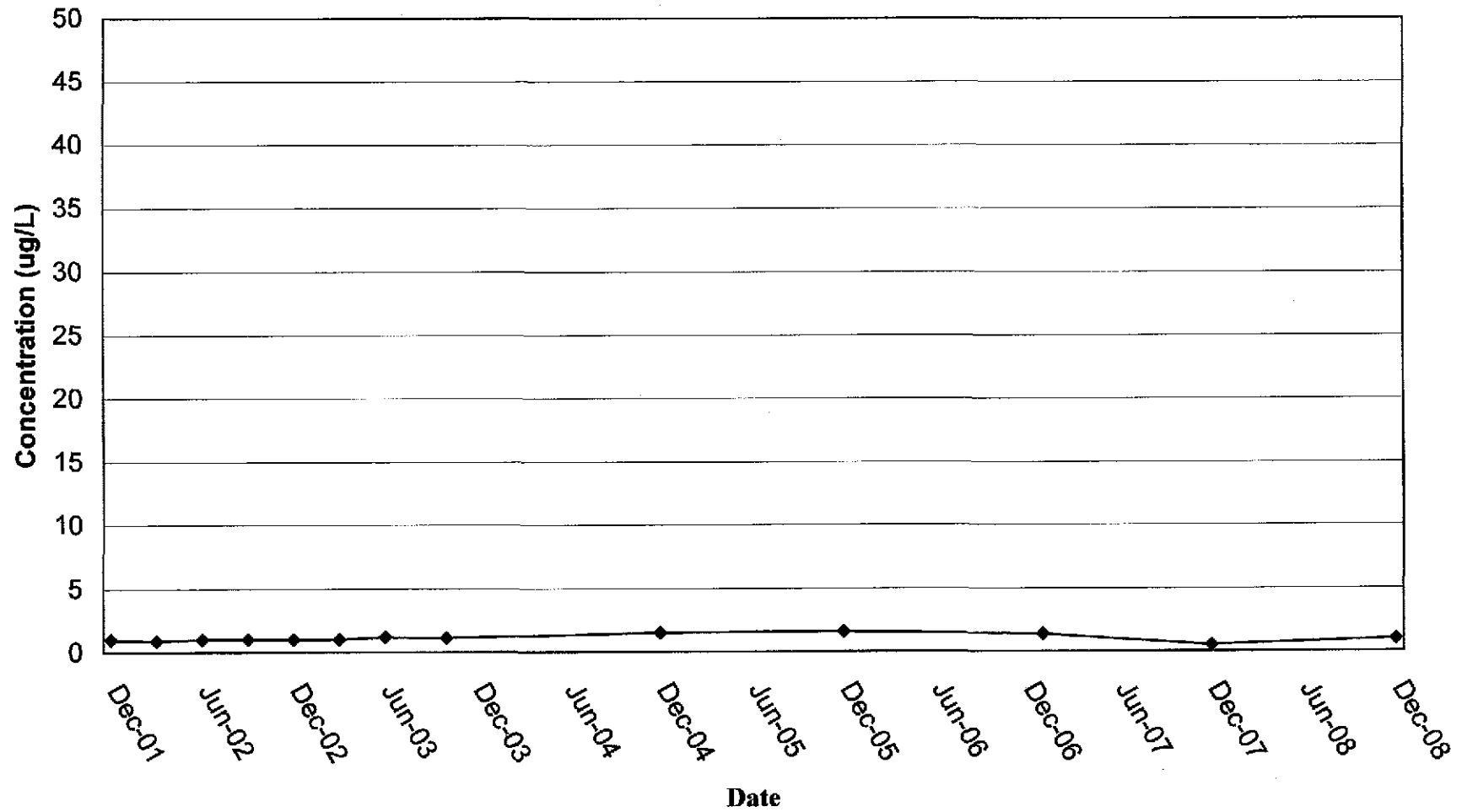
NAPHTHALENE TABLE AND GRAPHS

Naphthalene Concentrations in Monitoring Wells (in ug/L)

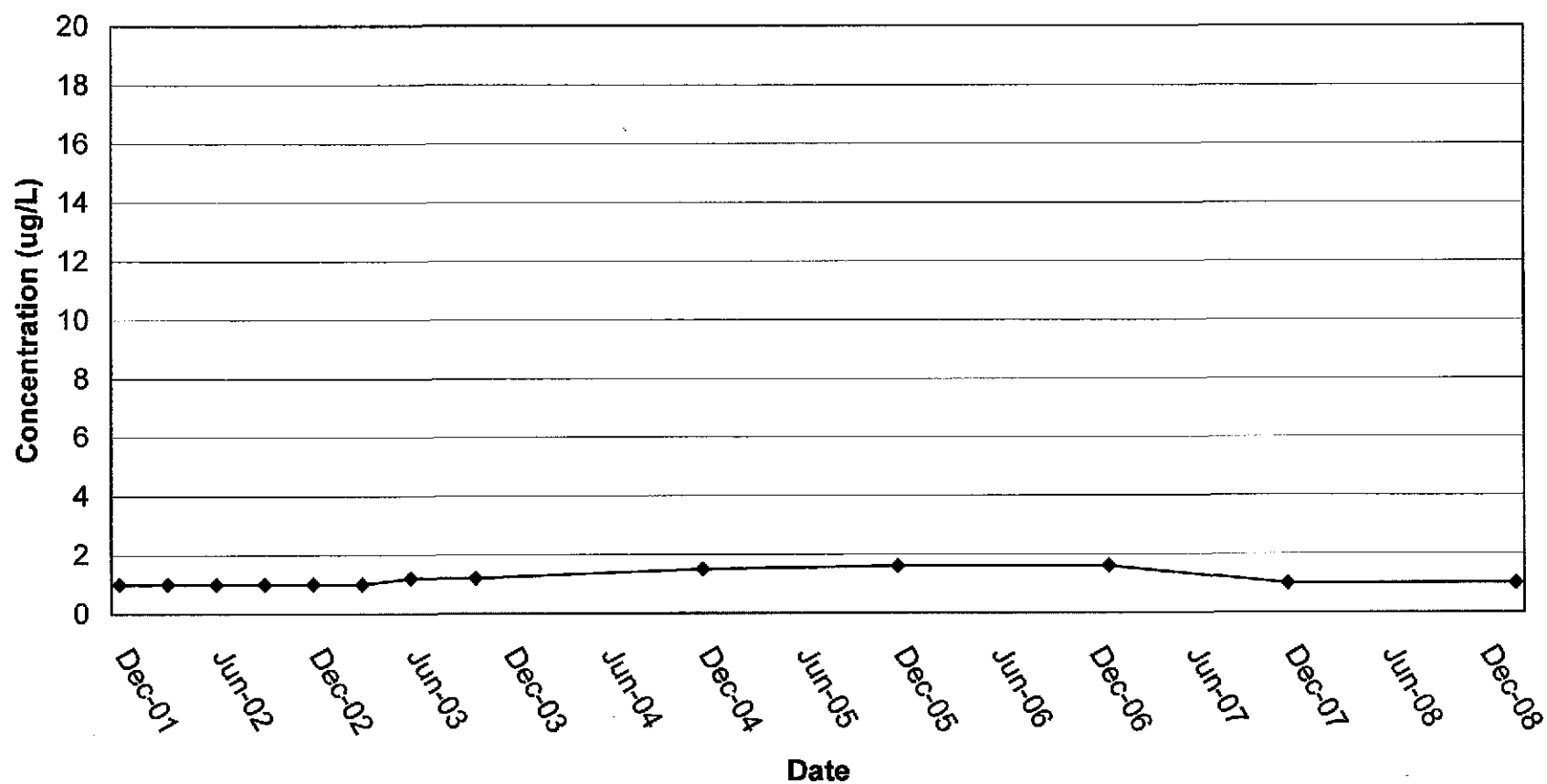
Gulf States Creosoting Site Hattiesburg, Mississippi

	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-1R	4700	250	110	36	22	2.2	65	46	21	12	14	0.59	2
MW-2R	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	12000	8700	9000	9300	8900	11000	9700	8100	7300	6000	5800	7500	6900
MW-4	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	110	8	8	59	4.5	12	12	35	34	12	38	13	2
MW-06	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	9100	7300	6800	8200	8600	7600	8500	6400	7100	4100	6500	5200	2200
MW-09R	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	2600	1000	1600	2400	1000	1100	1700	1400	1300			760	1300
MW-12	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	5600	2900	2800	4800	360	210	2.2	12	11	7.8	3.7	79	160
MW-16	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	1.0	0.9	1.0	1.0	1.0	1.0	1.2	1.1	1.5	1.6	1.4	0.5	1.0
MW-17	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	720	750	560	590	480	140	12	13	330	94	9.6	14	110
MW-18	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	470	830	170	27	310	22	12	10	500	180	290	25	1.9
MW-19	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	290	980	890	500	1100	1000	970	1000	830	640	270	37	38
MW-22	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
	1	1	1	1	1	1	1.2	1.2	1.5	1.6	1.6	1	1

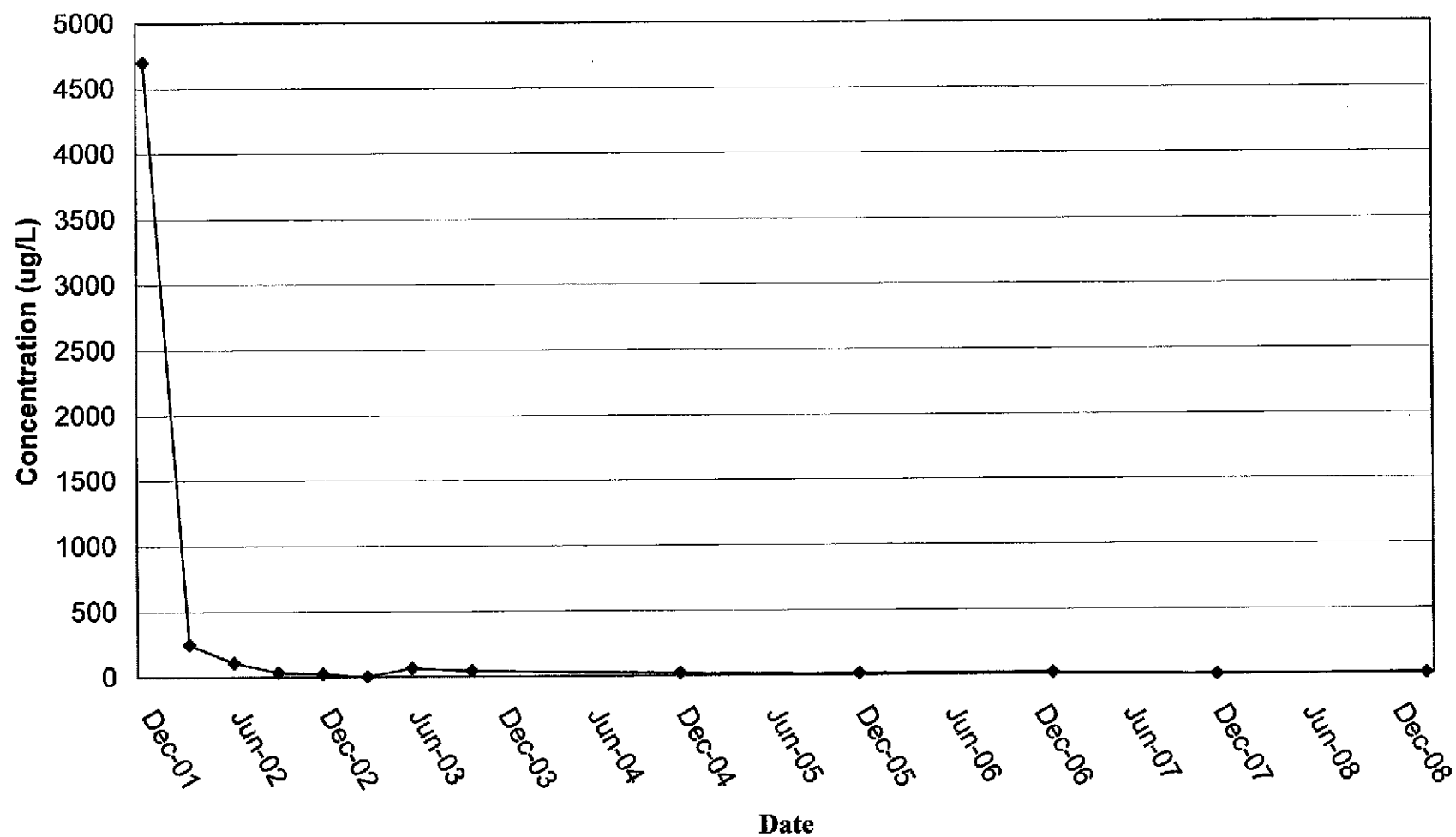
Naphthalene Concentrations in MW-16 Hattiesburg, MS



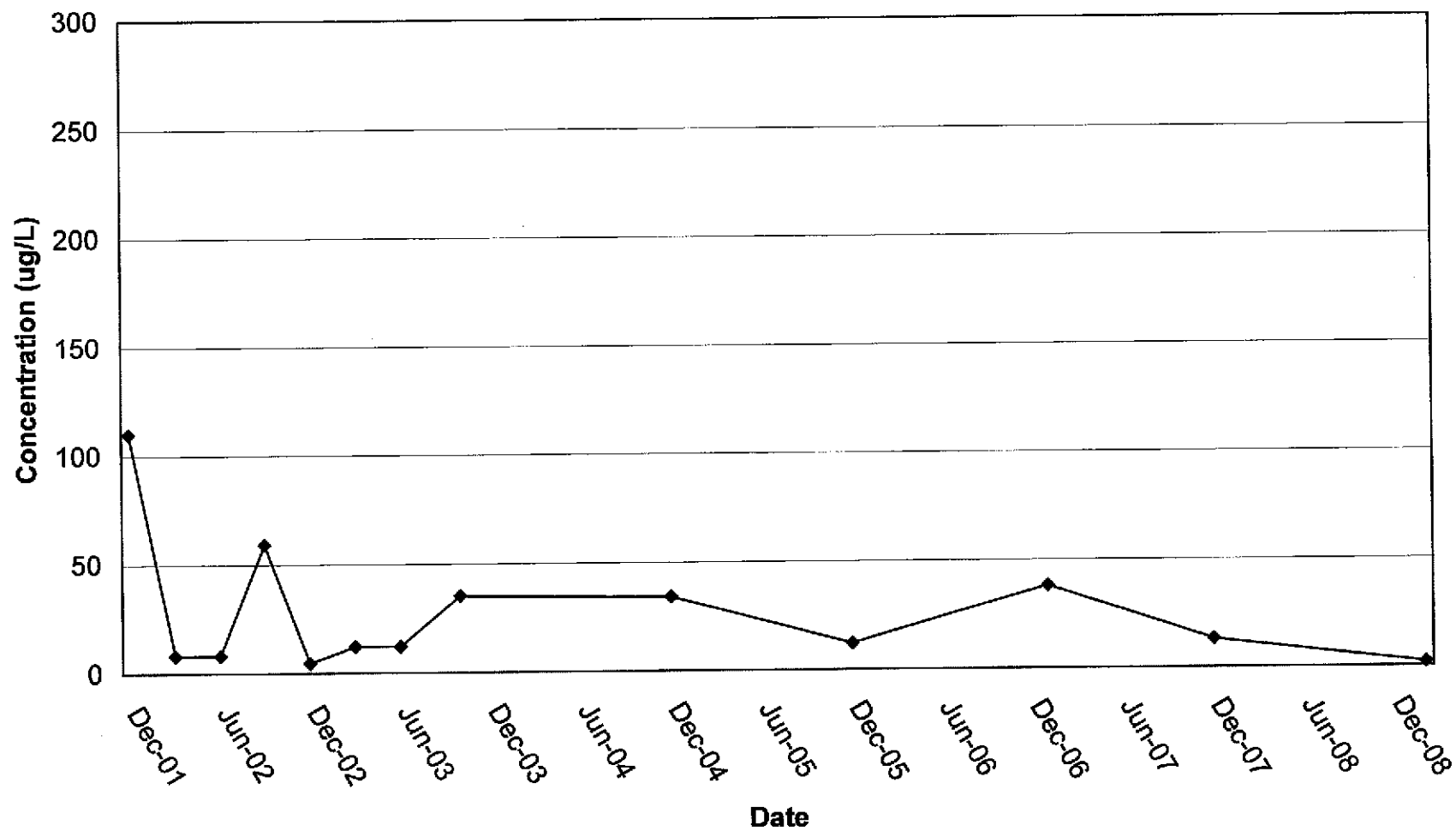
Naphthalene Concentrations in MW-22 Hattiesburg, MS



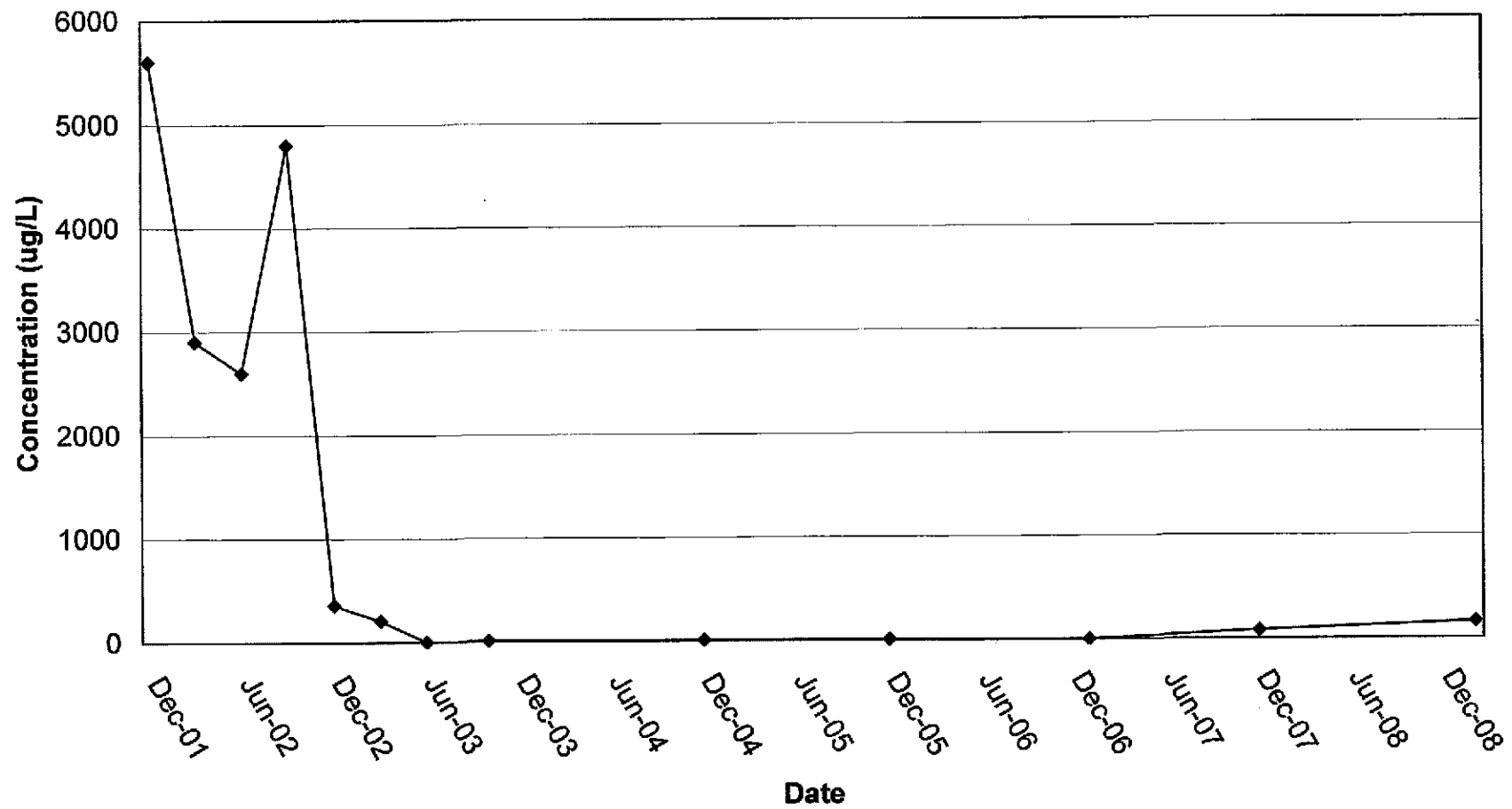
Naphthalene Concentrations in MW-1R Hattiesburg, MS



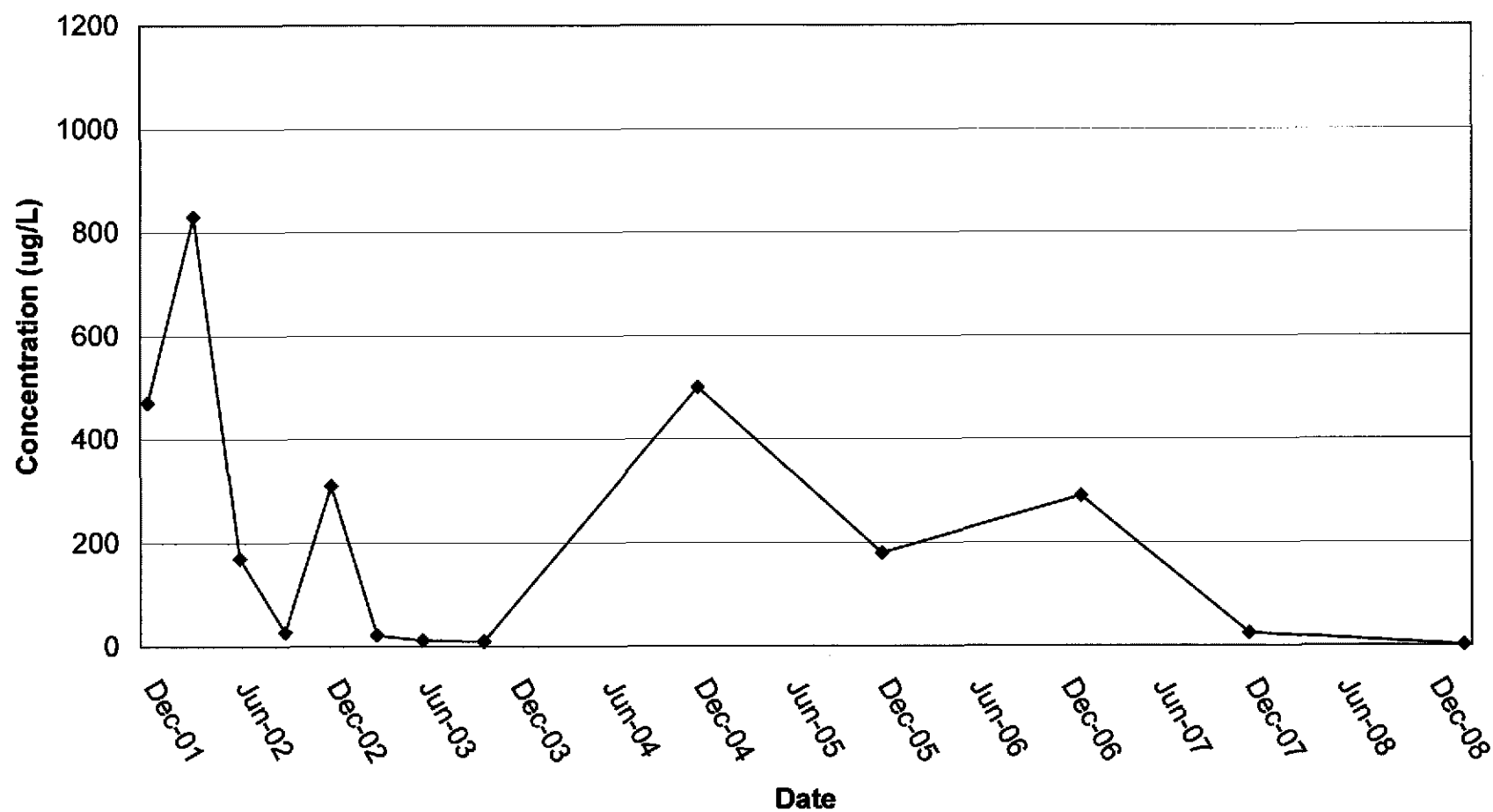
Naphthalene Concentrations in MW-4 Hattiesburg, MS



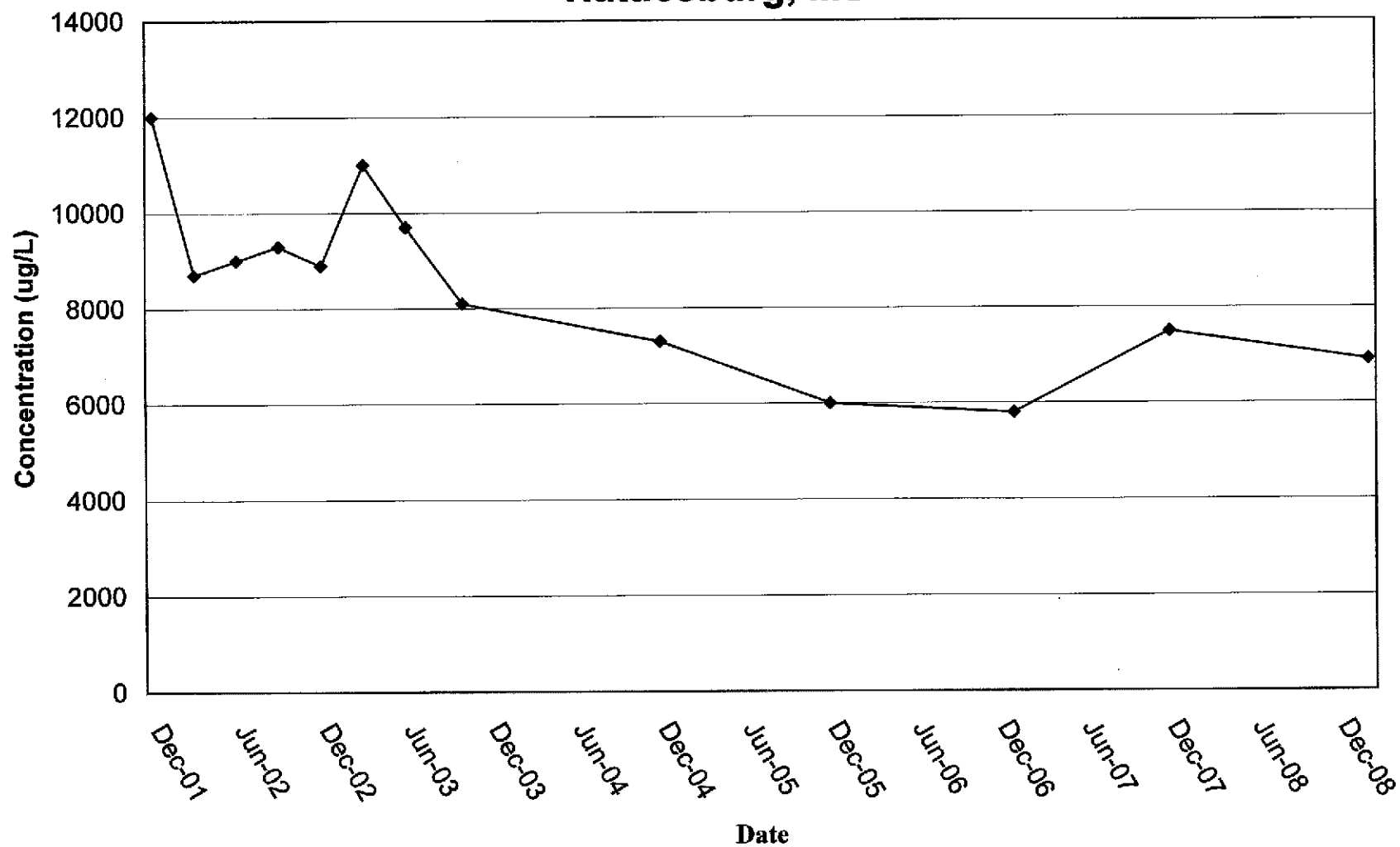
Naphthalene Concentrations in MW-12 Hattiesburg, MS.



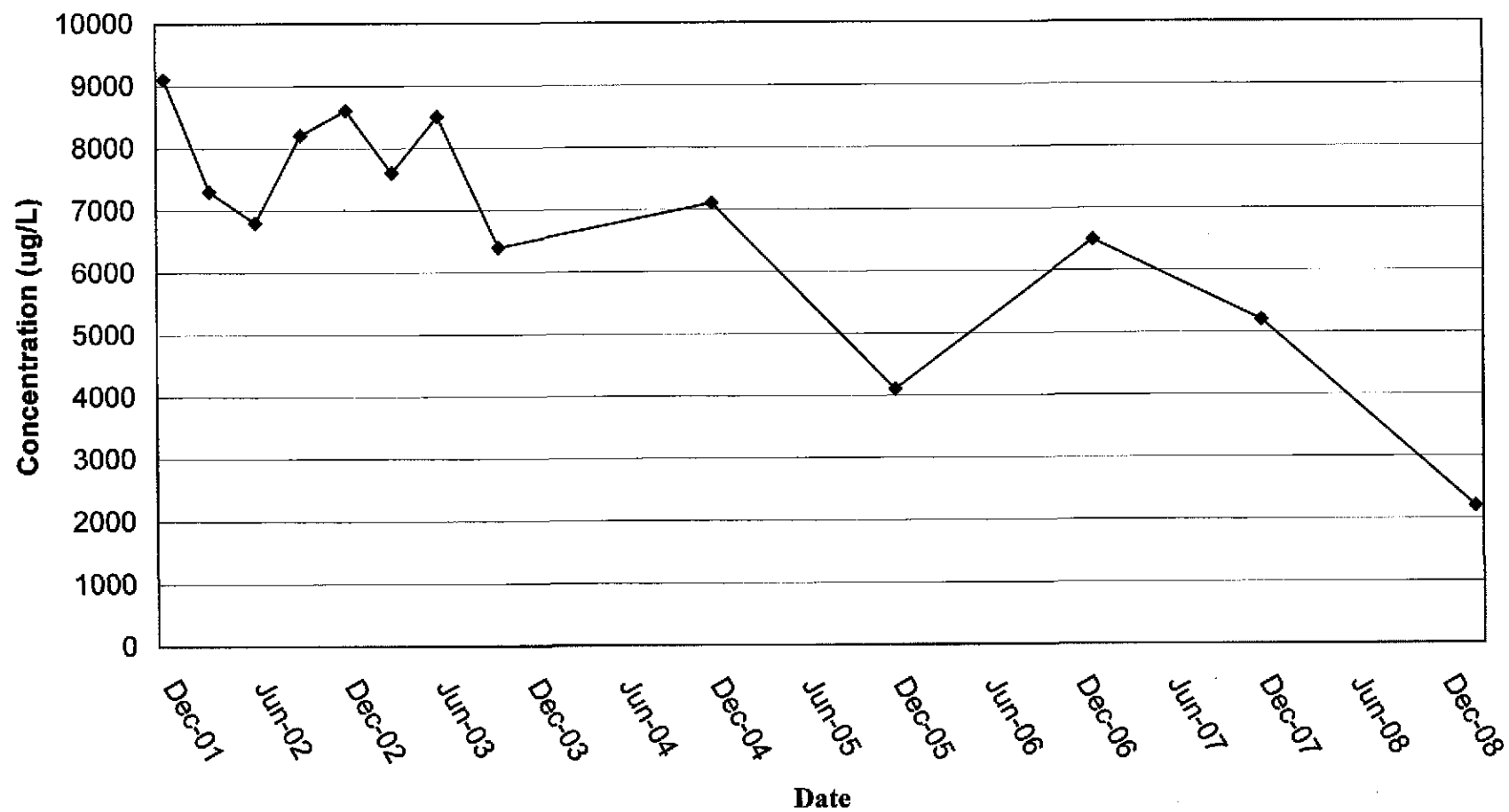
Naphthalene Concentrations in MW-18 Hattiesburg, MS



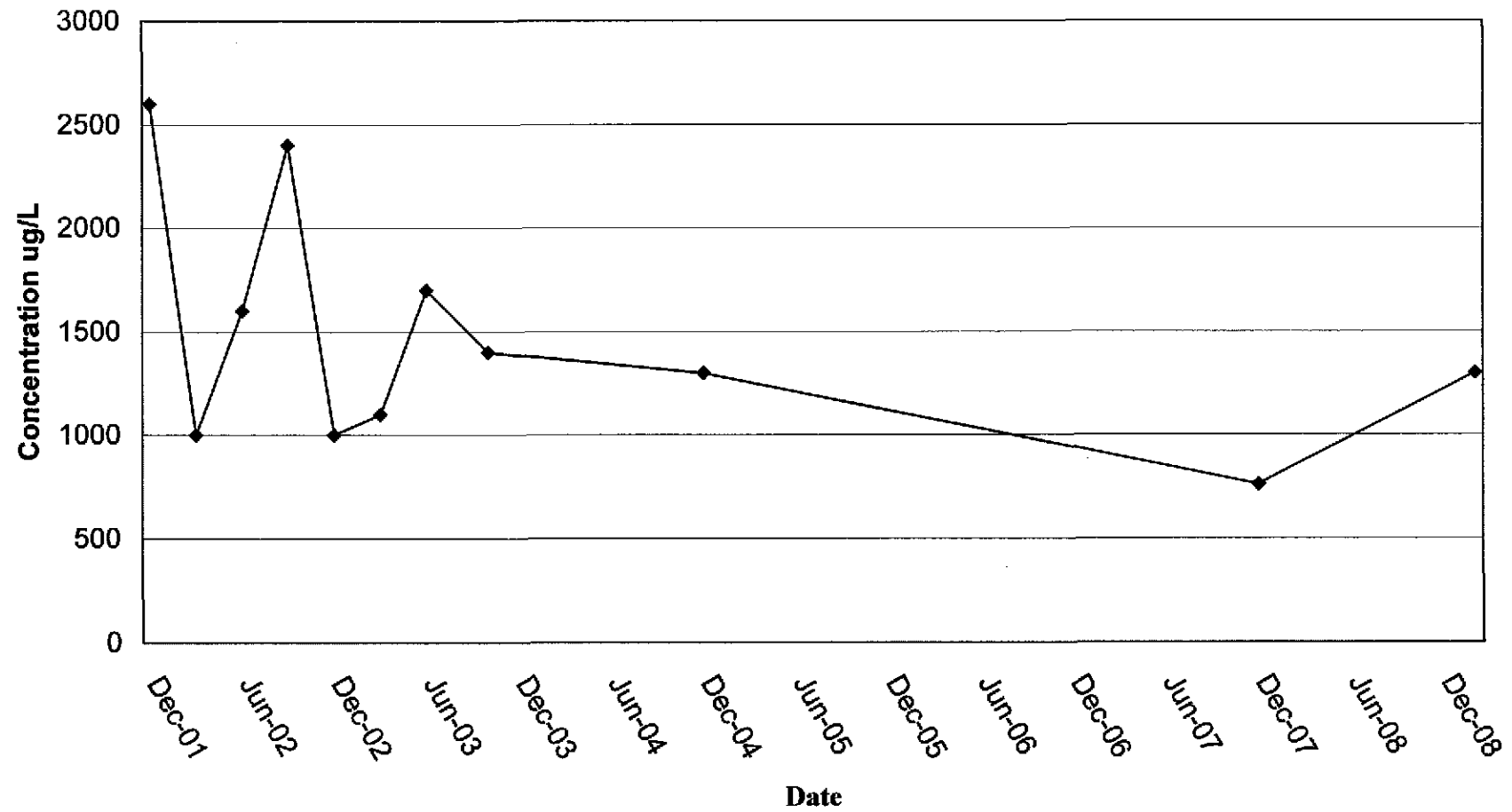
Naphthalene Concentrations in MW-2R Hattiesburg, MS



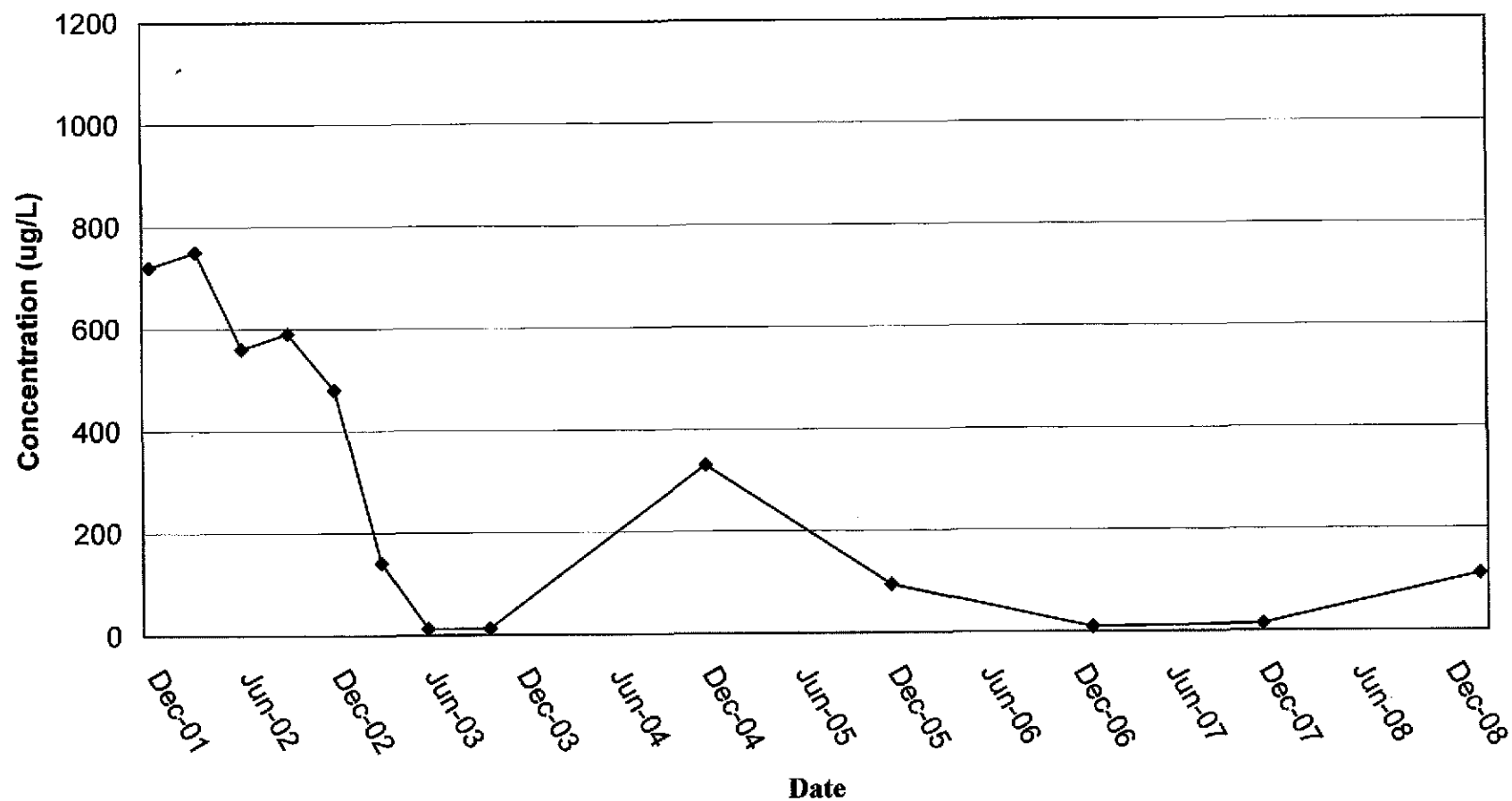
Naphthalene Concentrations in MW-06 Hattiesburg, MS



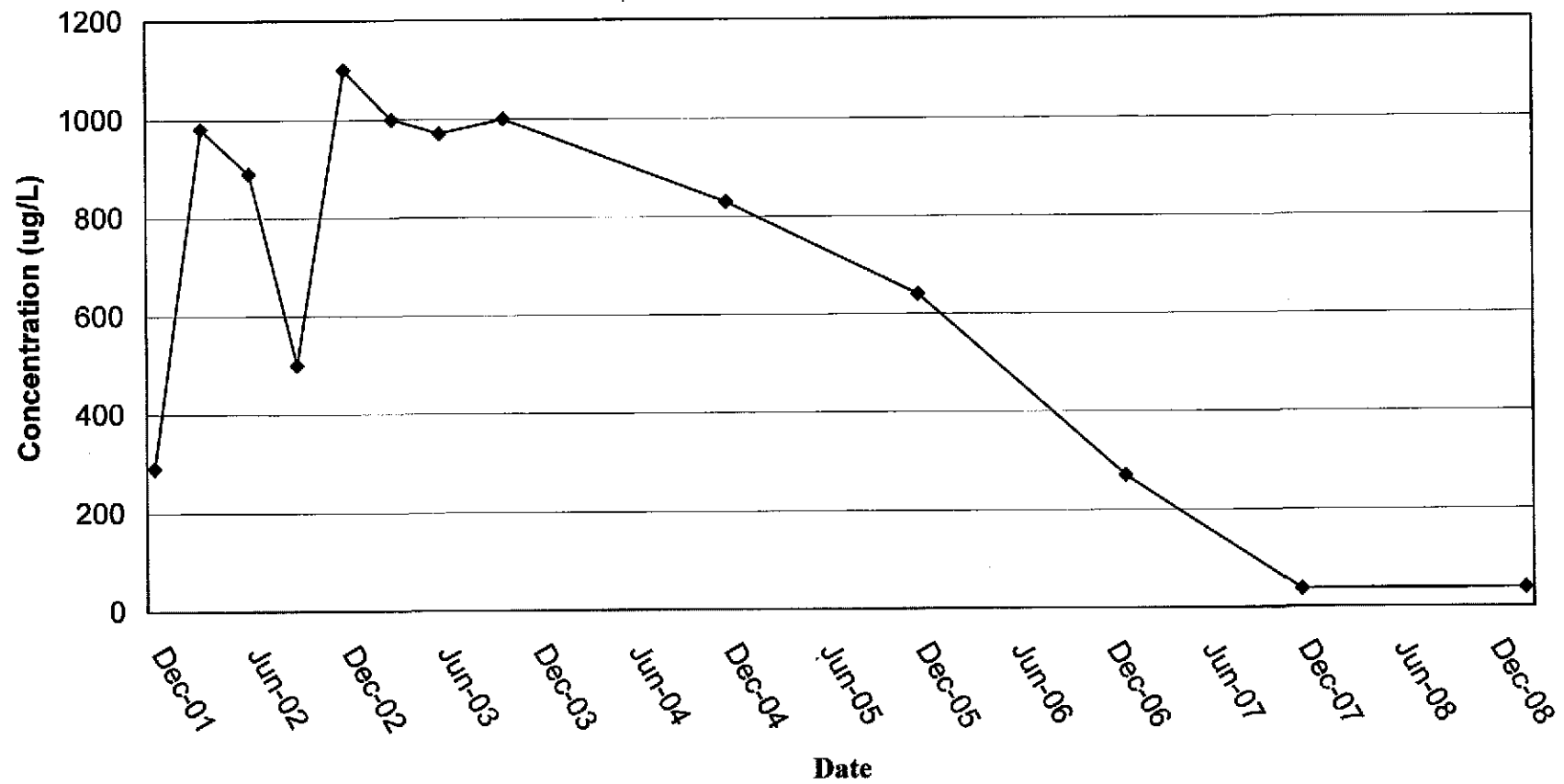
Naphthalene Concentrations in MW-09R Hattiesburg, MS



Naphthalene Concentrations in MW-17 Hattiesburg, MS



Naphthalene Concentrations in MW-19 Hattiesburg, MS



APPENDIX B

CHEMICAL CONSTITUENT TABLES AND GRAPHS

MNA Concentrations in Monitoring Wells

Gulf States Creosoting Site Hattiesburg, Mississippi

Total Iron (mg/L)

	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-1R	18.1	8.9	4.1	2	1.4	0.1	1.4	0.2	0.1	0.2	0.1	0.1	0.1
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-2R	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-4	0.1	0.1	0.3	0.5	0.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-06	20.6	23	21.7	19.8	21.4	15.3	16.8	18.8	22	26.9	26.1	26.3	23.5
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-09R	15.8	15.3	15.2	16	14.8	17.3	15.8	18	26.8			24.9	27.6
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-12	1.8	1.9	1.7	1.8	1.6	1.7	1.4	1.3	1.1	1.3	0.9	0.9	0.8
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-16	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-17	4.1	4.5	4.7	8.4	5.1	2.3	1.4	4.6	7.9	8.5	3.5	3.3	2.4
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-18	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-19	4.7	5.7	5.8	5.5	6.8	5.6	6	5.6	6.1	7.3	8	6.6	7.8
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-22	2.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9	1.2	14.2	6.6	12.8

MNA Concentrations in Monitoring Wells

Gulf States Creosoting Site Hattiesburg, Mississippi

Methane (ug/L)

	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-1R	2400	350	71	43	48	2	35	3.7	2.2	2	10	2	2
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-2R	2.8	2.2	2	2	2	2	2	2	2.1	2	2.3	2	5
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-4	3.1	2	2	2	2	2	2	2	2	2	2	2	5
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-06	1200	1400	1400	1900	1900	1200	1900	1400	2500	1400	2300	1400	780
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-09R	590	380	480	340	230	750	580	450	1500			2000	1500
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-12	400	360	370	400	240	210	170	140	64	50	50	140	230
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-16	17.0	2.0	3.3	3.3	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	5.0
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-17	850	1400	910	930	640	470	300	390	550	300	140	230	310
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-18	4.4	4.6	2	2	2	2	2	2	3.9	2	2	2	5
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-19	590	1400	1200	1000	1400	1400	1200	1300	1300	780	700	450	580
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-22	100.0	71.0	41.0	19.0	33.0	46.0	55.0	38.0	16.0	11.0	9.7	19.0	16.0

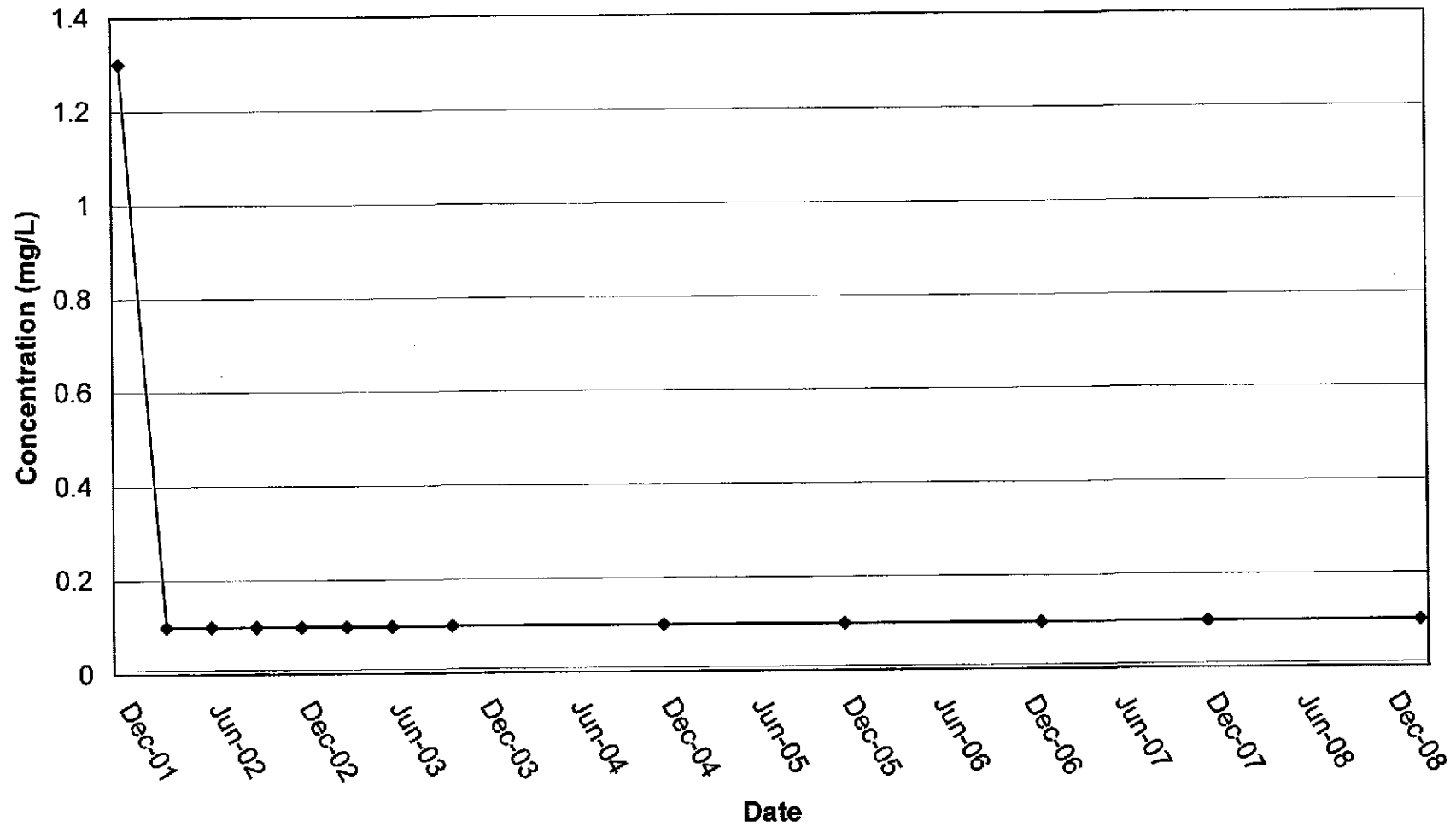
MNA Concentrations in Monitoring Wells

Gulf States Creosoting Site Hattiesburg, Mississippi

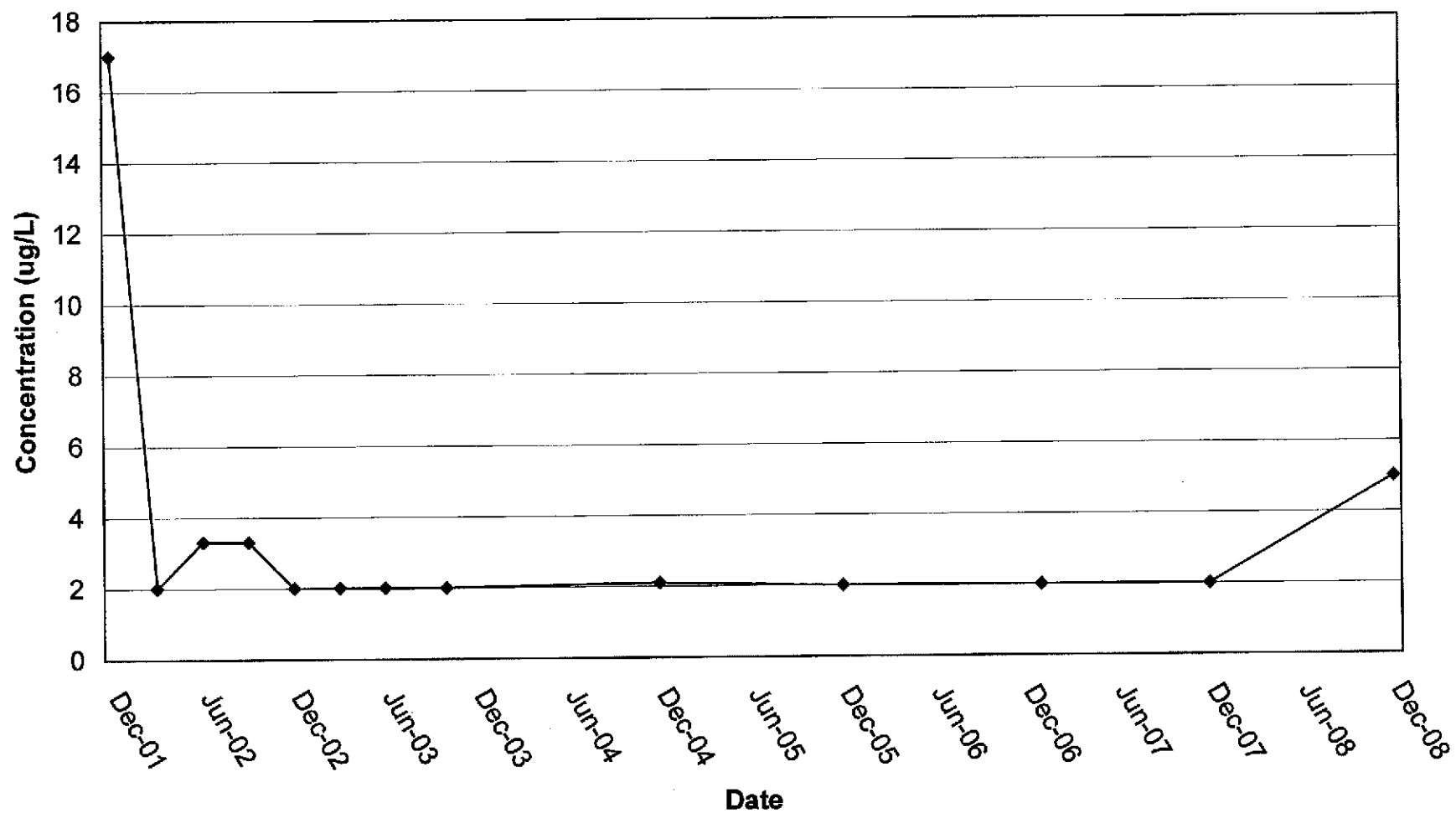
Sulfate (mg/L)

	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-1R	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.9	4.7	4.8
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-2R	19.9	18.8	20.9	21.2	19.3	20.9	21.8	19.9	17.9	18.8	19	16.8	14.7
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.9	1.5	1.5	1.5	1.5	1.5
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-06	3	4.9	3.7	4.1	6	4.8	2.7	5.2	3.4	3.6	1.9	2.8	4.9
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-09R	3.4	6.6	4	1.5	5.3	9.8	6.4	13.8	1.5			1.5	1.5
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-12	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.1	1.5	2.2
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-16	3.1	2.7	3.1	15.3	5.9	8.1	12.6	26.6	9.1	18.8	6.2	6.5	13.4
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-17	5.6	6.3	9.8	6.7	11.1	17.5	10.3	9.2	9.1	7.9	9.8	8	5.6
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-18	6.9	9.7	9.8	9.7	5.5	7.1	6.7	4.3	4.3	1.5	3.3	4.1	4.7
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-19	6.7	4.3	4.3	1.5	1.5	1.5	1.5	2.8	2.1	2.3	2.1	2.9	2.8
	Dec-01	Mar-02	Jun-02	Sep-02	Dec-02	Mar-03	Jun-03	Oct-03	Dec-04	Dec-05	Jan-07	Dec-07	Feb-09
MW-22	6.3	5.0	4.9	4.3	5.4	5.0	4.8	4.1	4.6	5.2	5.2	4.8	4.1

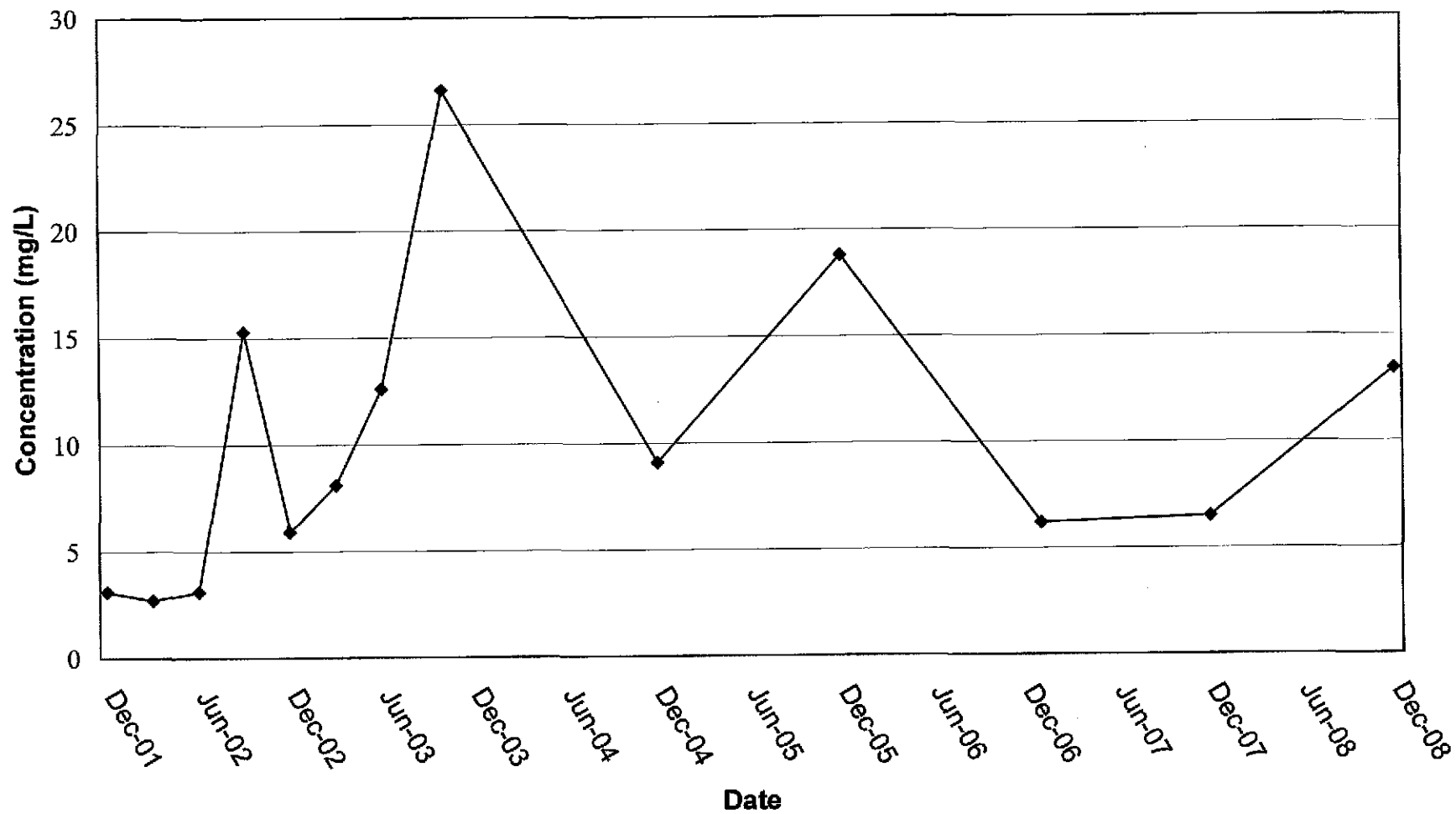
Total Iron Concentrations in MW-16 Hattiesburg, MS



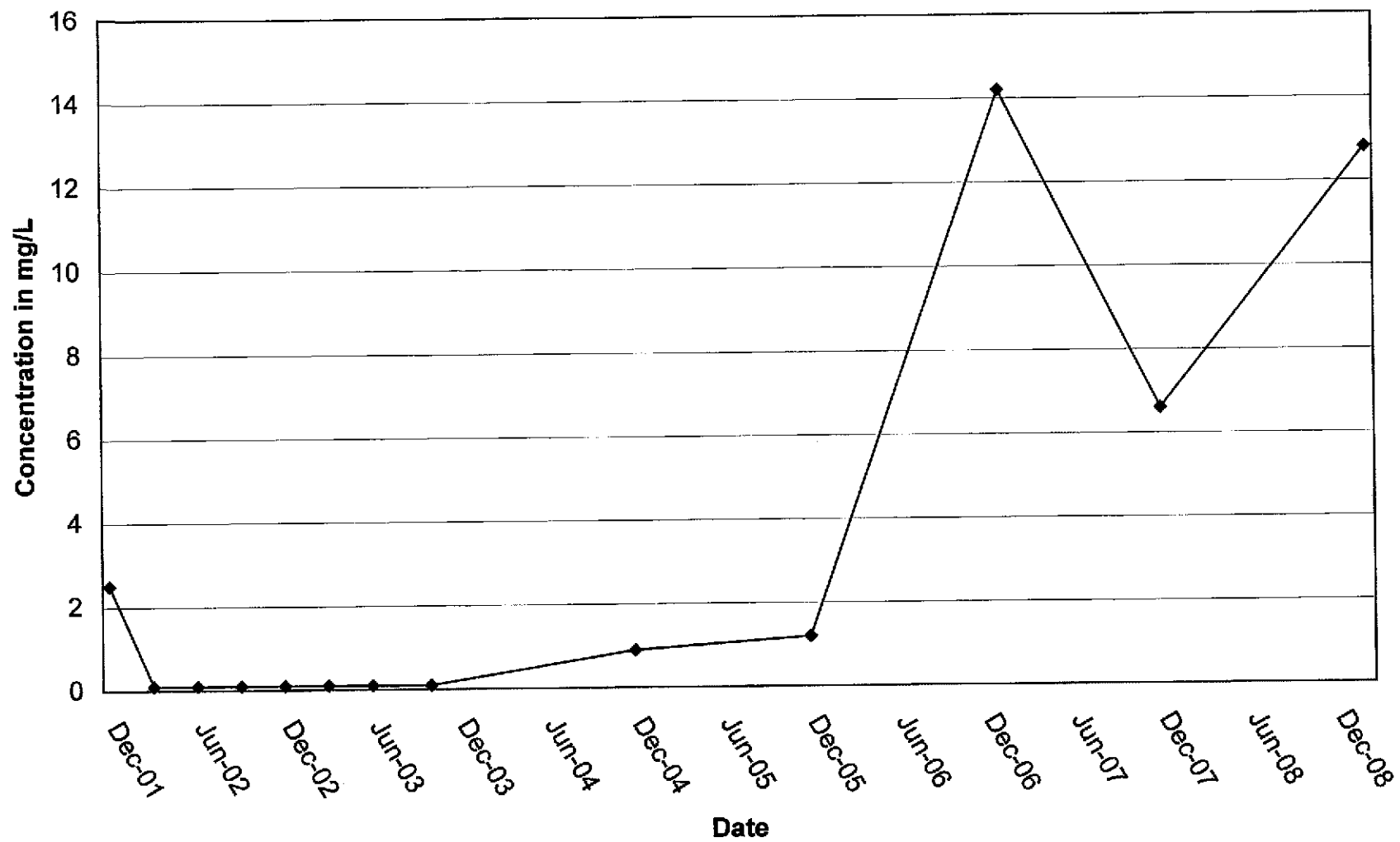
Methane Concentrations in MW-16 Hattiesburg, MS



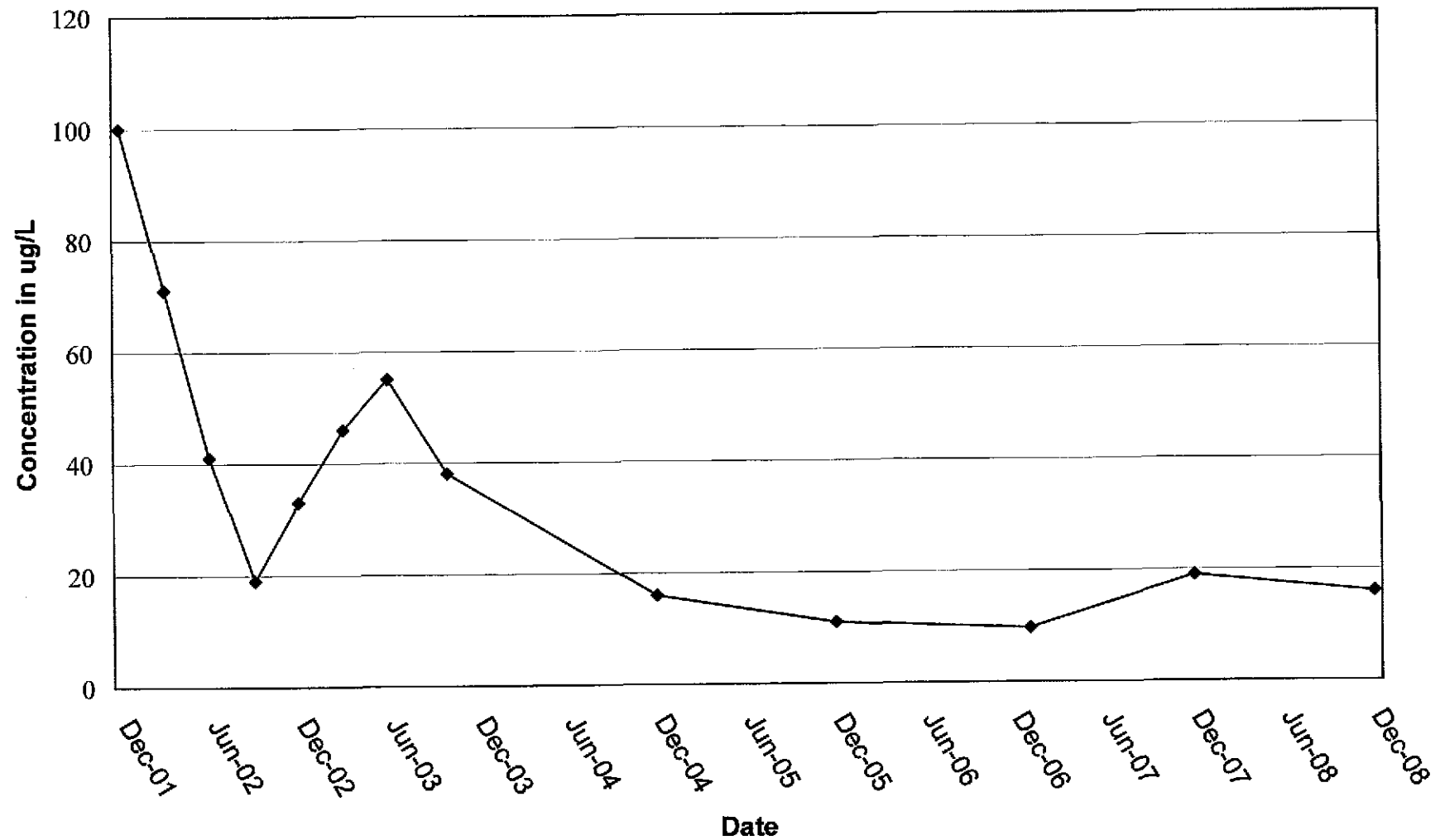
Sulfate Concentrations in MW-16 Hattiesburg, MS



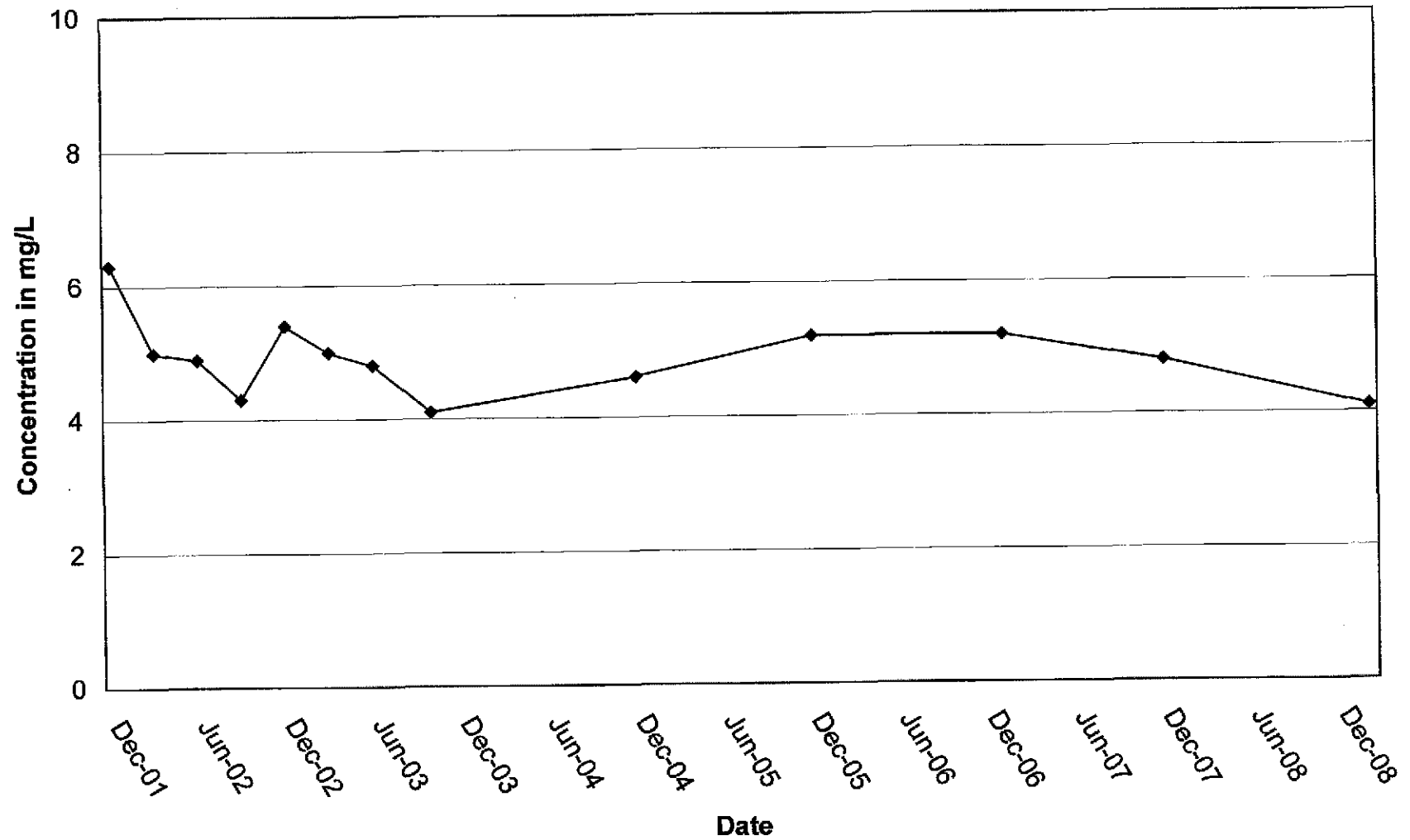
Total Iron Concentrations in MW- 22 Hattiesburg, MS



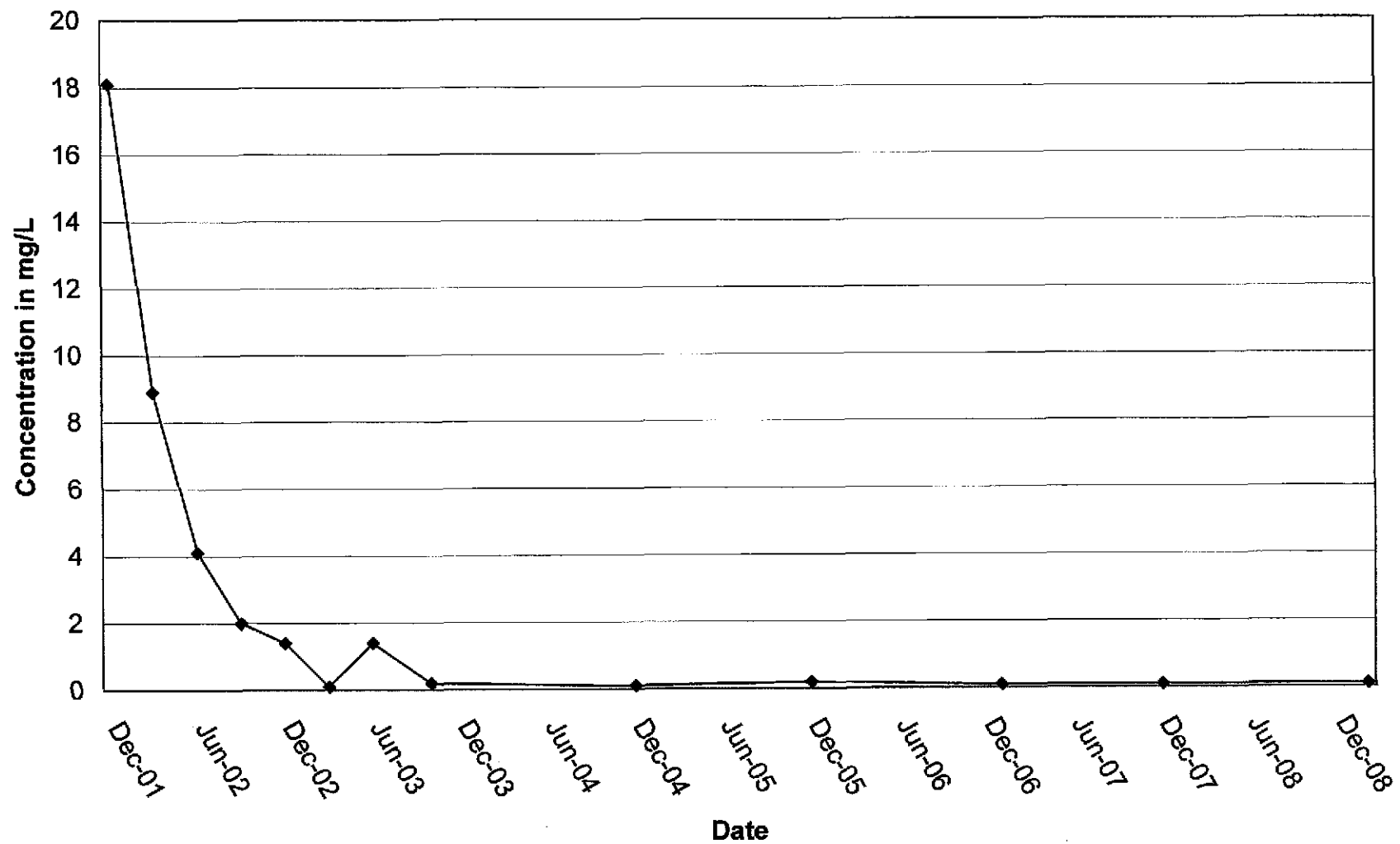
Methane Concentrations in MW- 22 Hattiesburg, MS



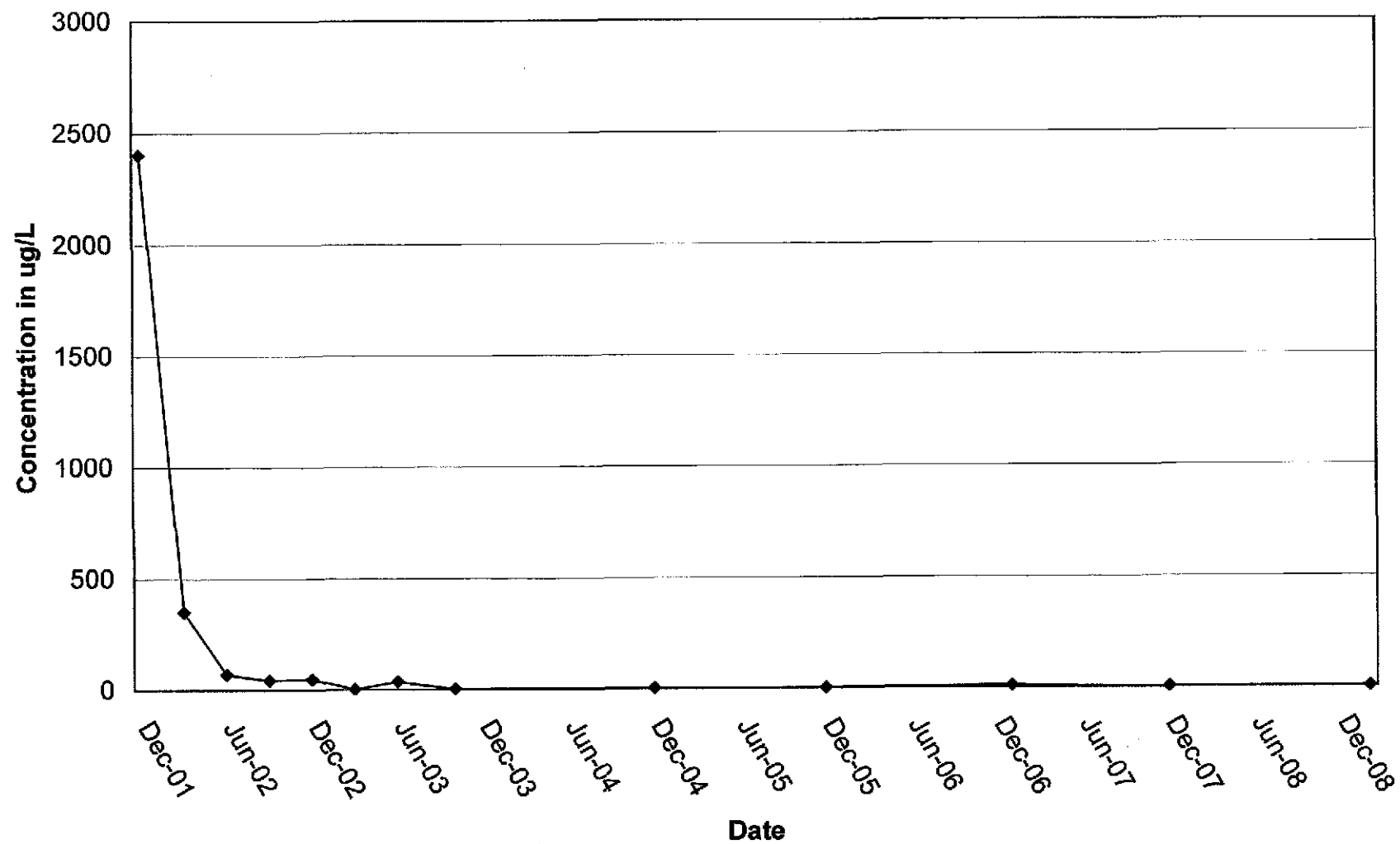
Sulfate Concentrations in MW- 22 Hattiesburg, MS



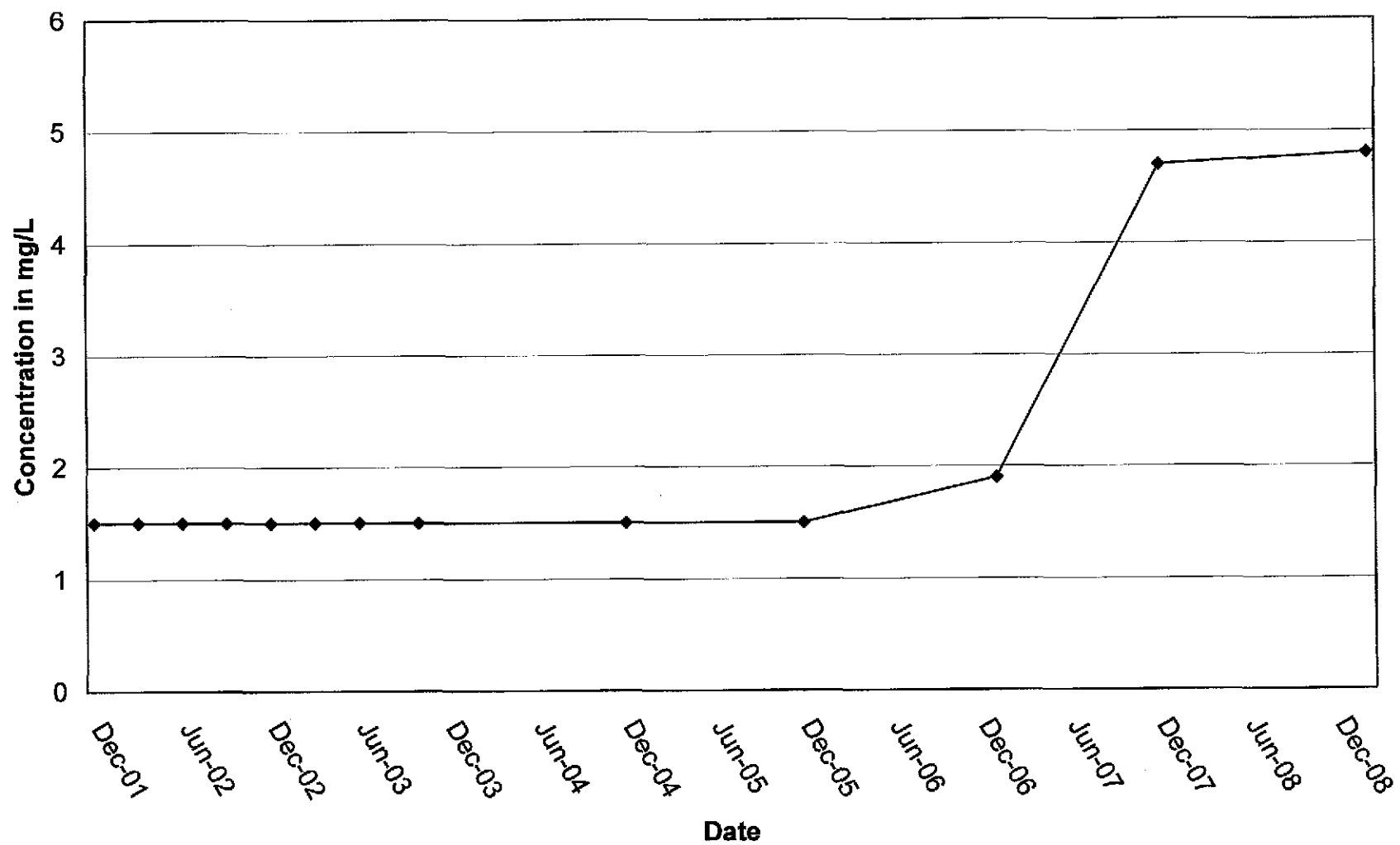
Total Iron Concentrations in MW-1R Hattiesburg, MS



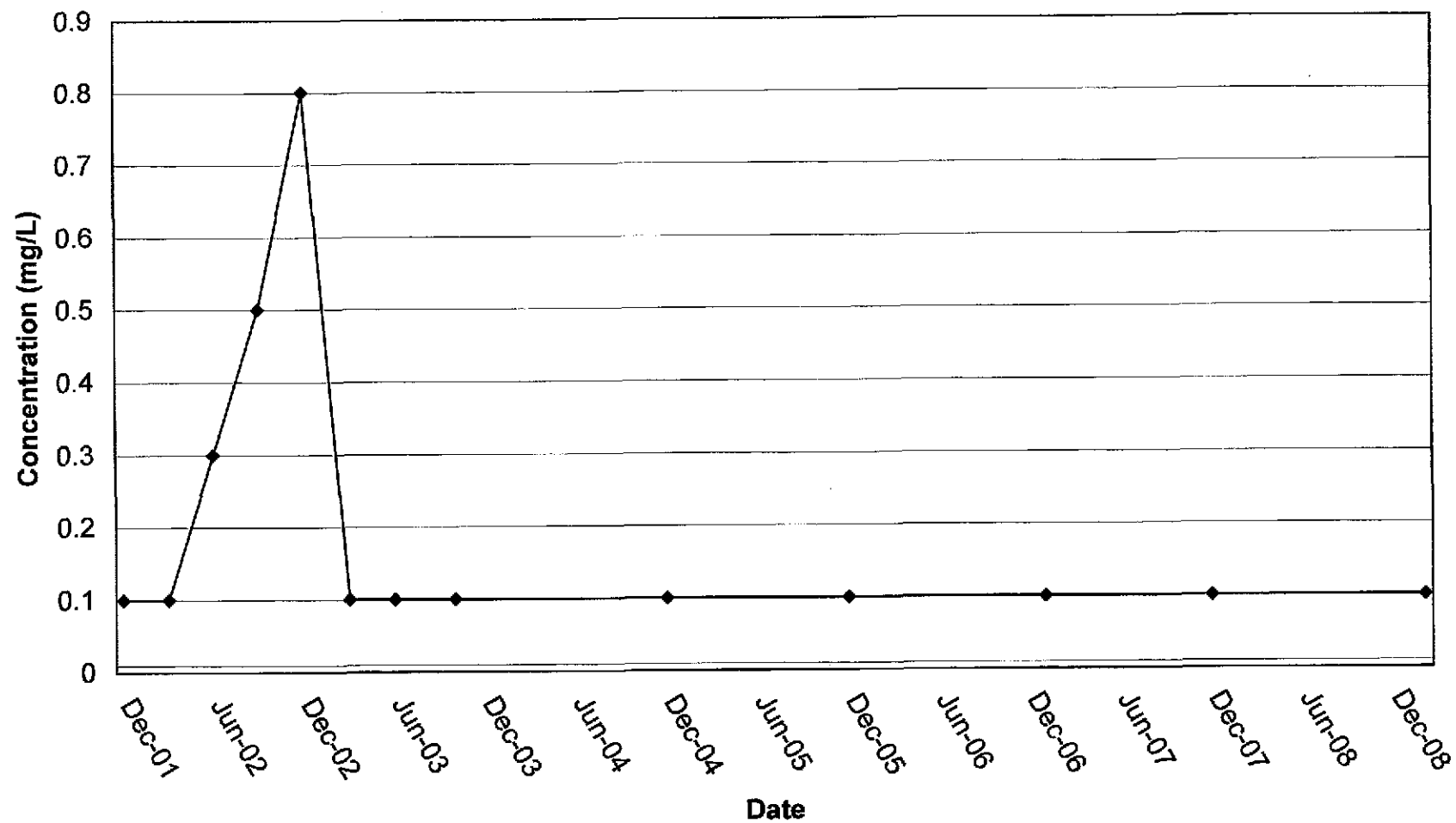
Methane Concentrations in MW-1R Hattiesburg, MS



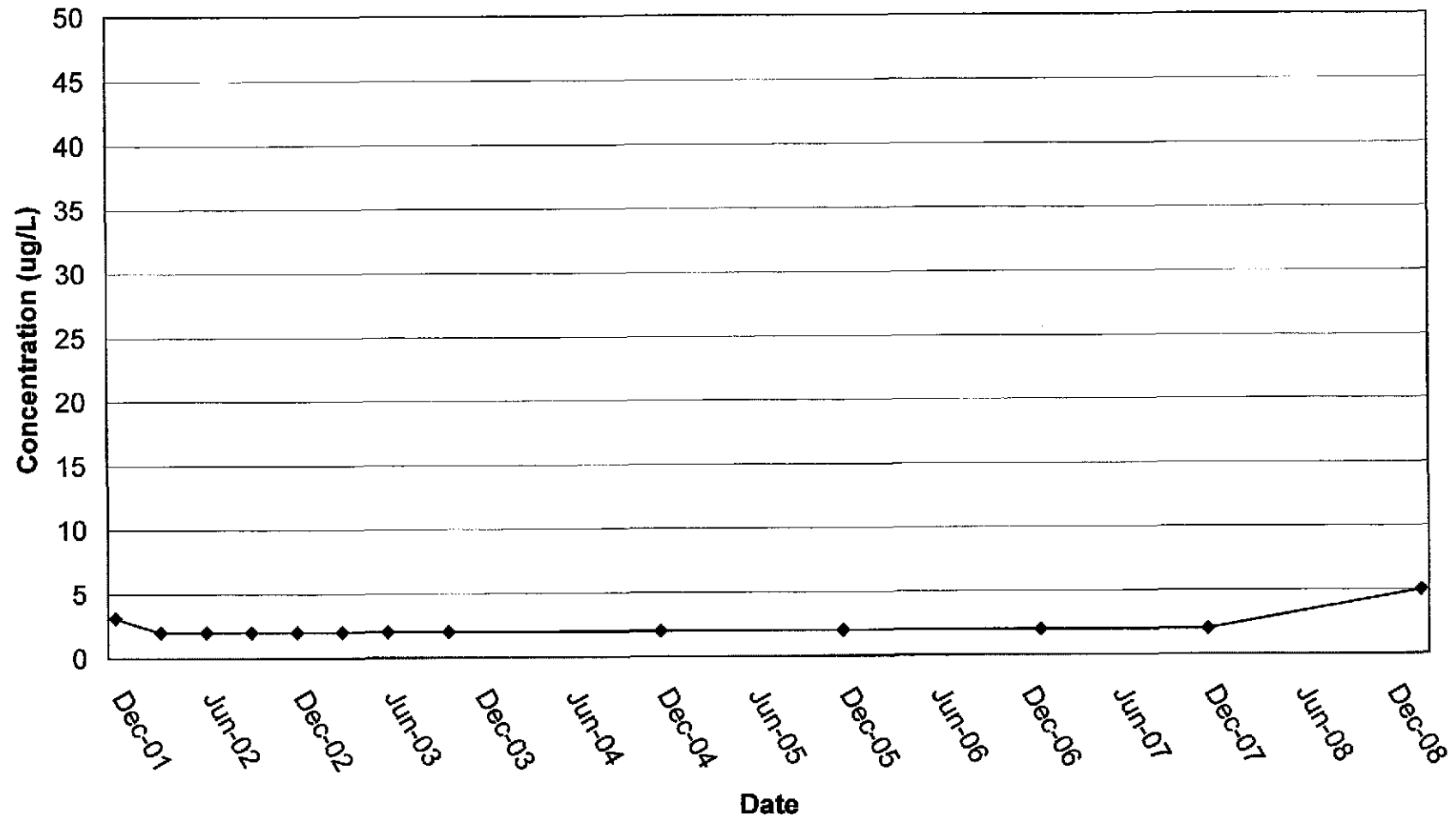
Sulfate Concentrations in MW-1R Hattiesburg, MS



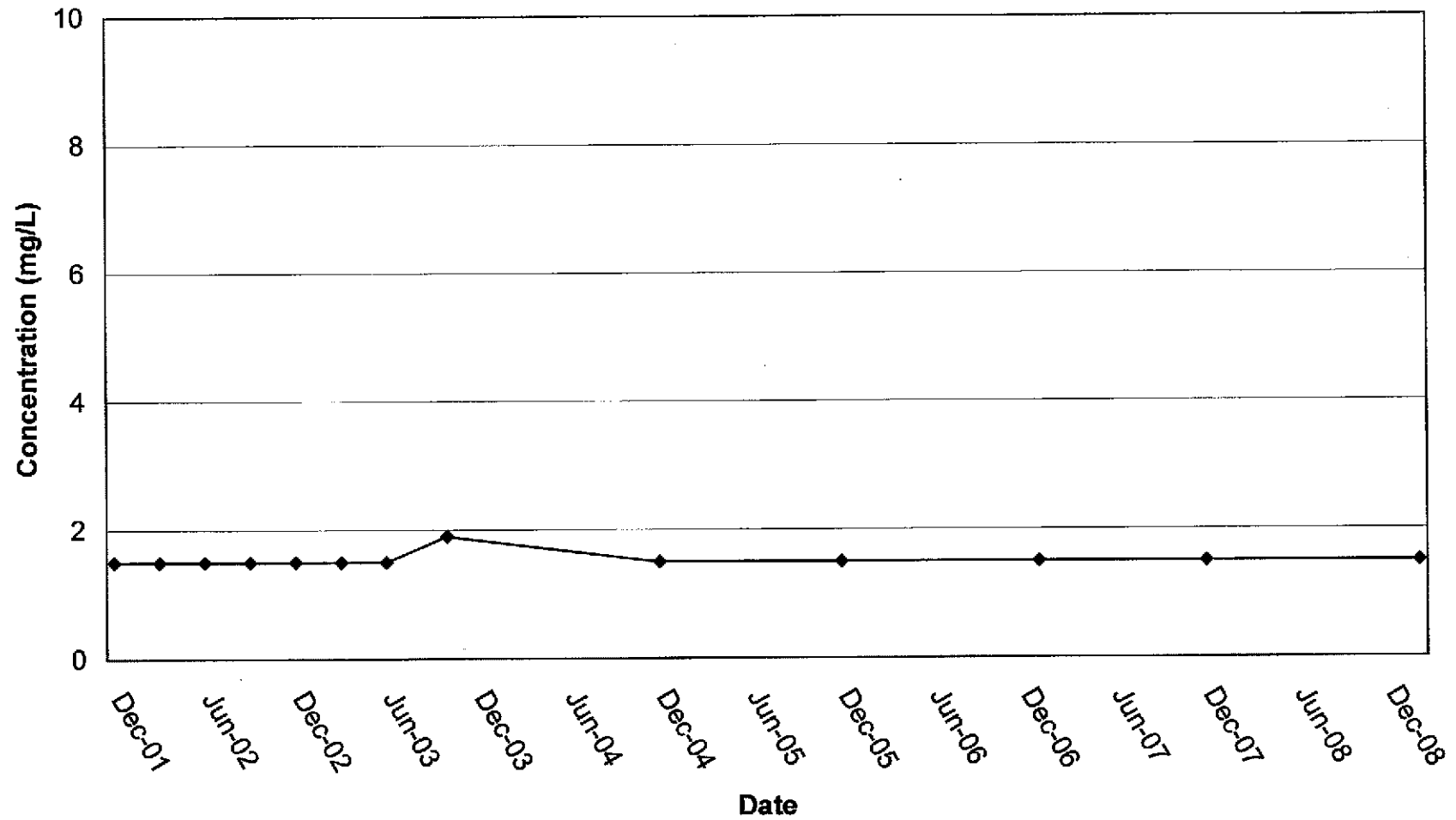
Total Iron Concentrations in MW-4 Hattiesburg, MS



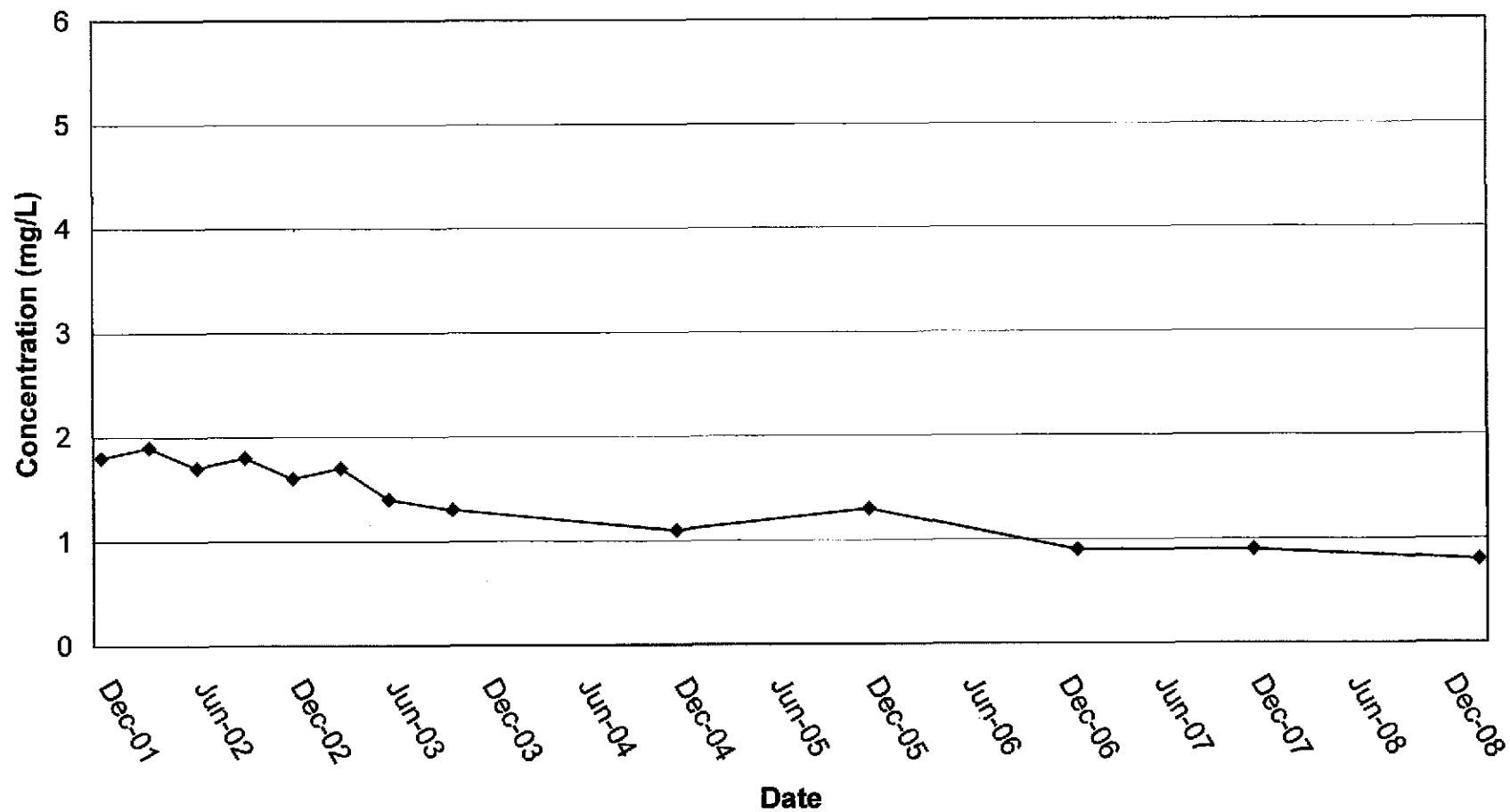
Methane Concentrations in MW-4 Hattiesburg, MS



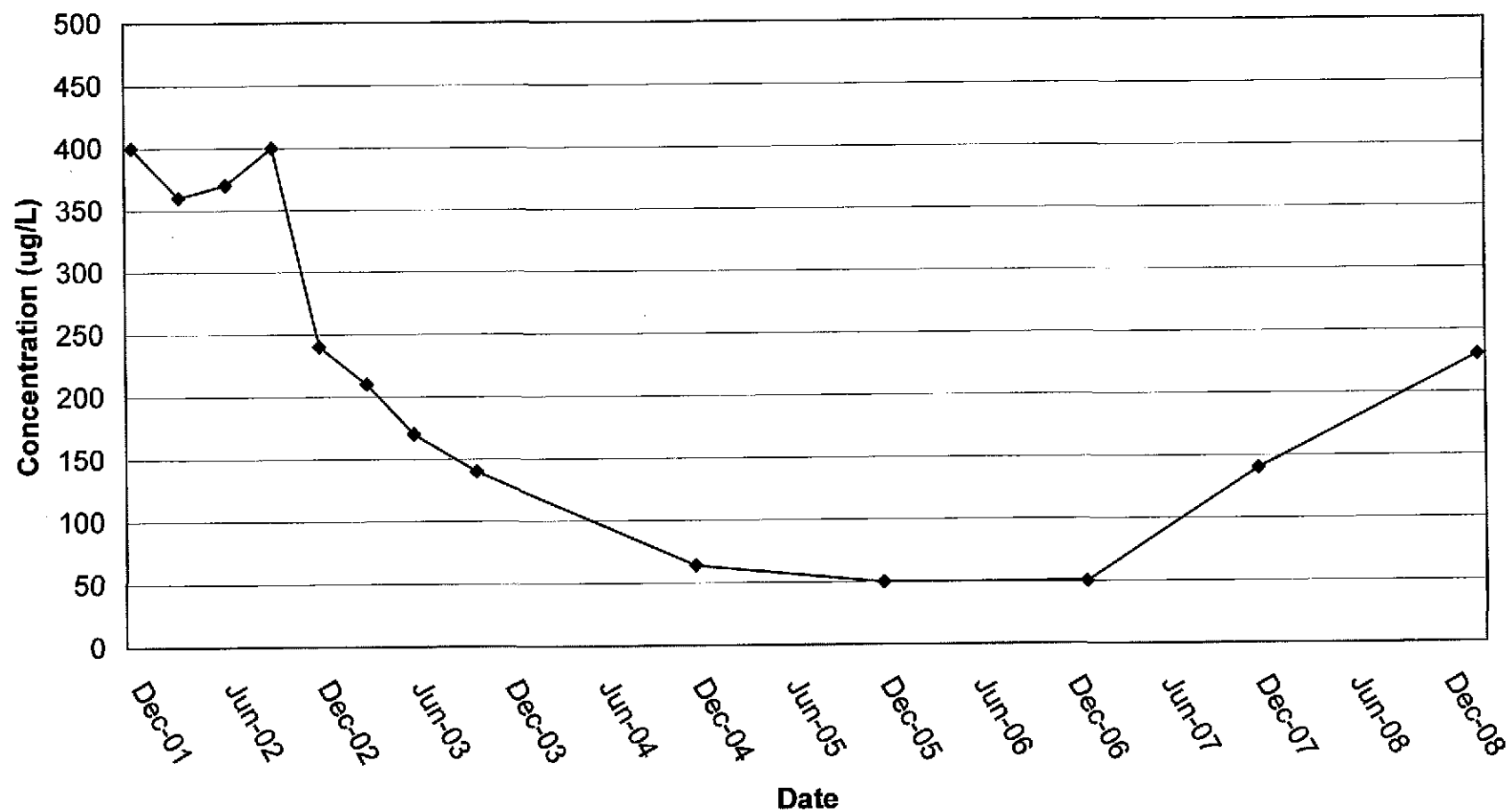
Sulfate Concentrations in MW-4 Hattiesburg, MS



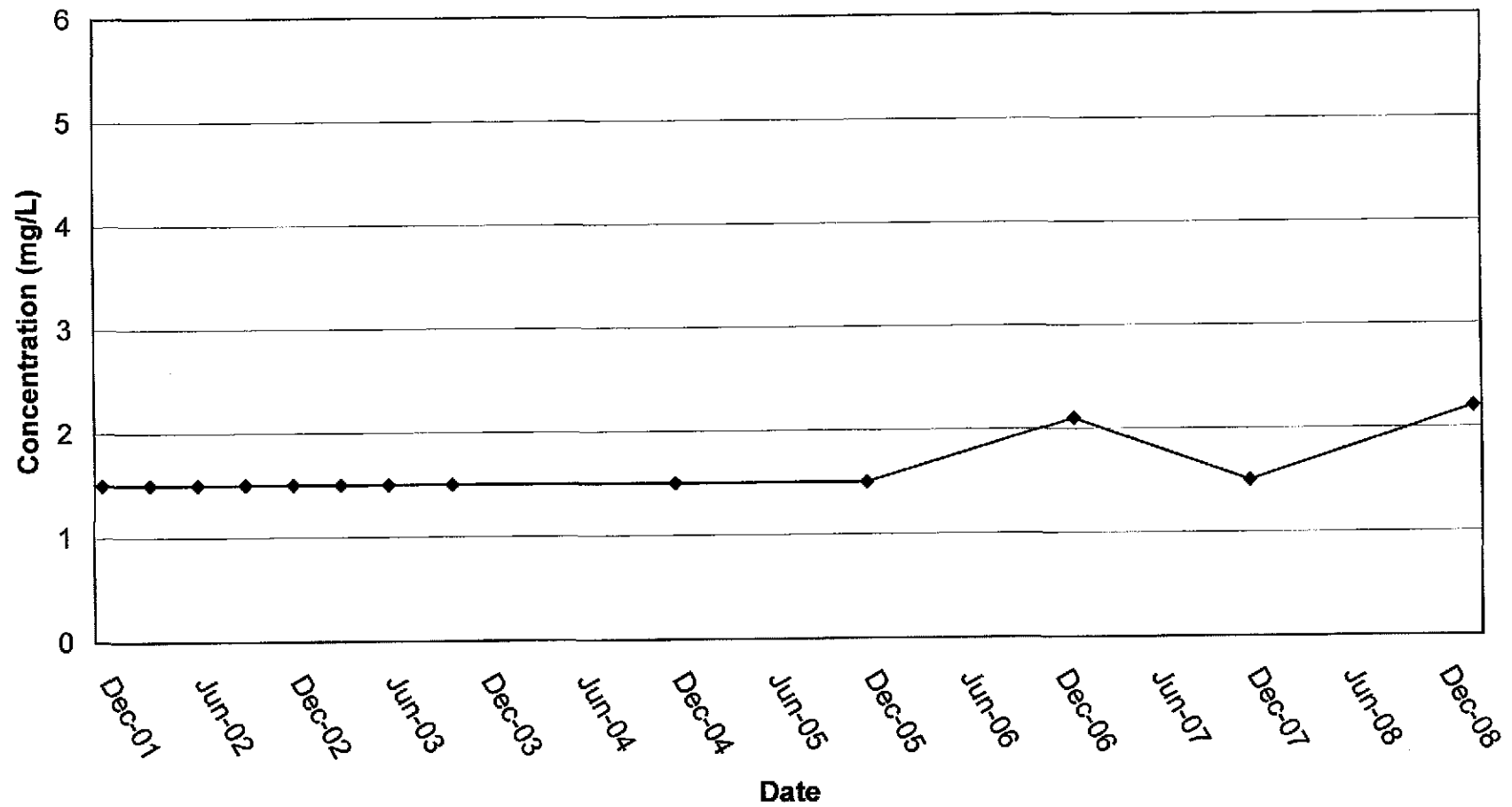
Total Iron Concentrations in MW-12 Hattiesburg, MS



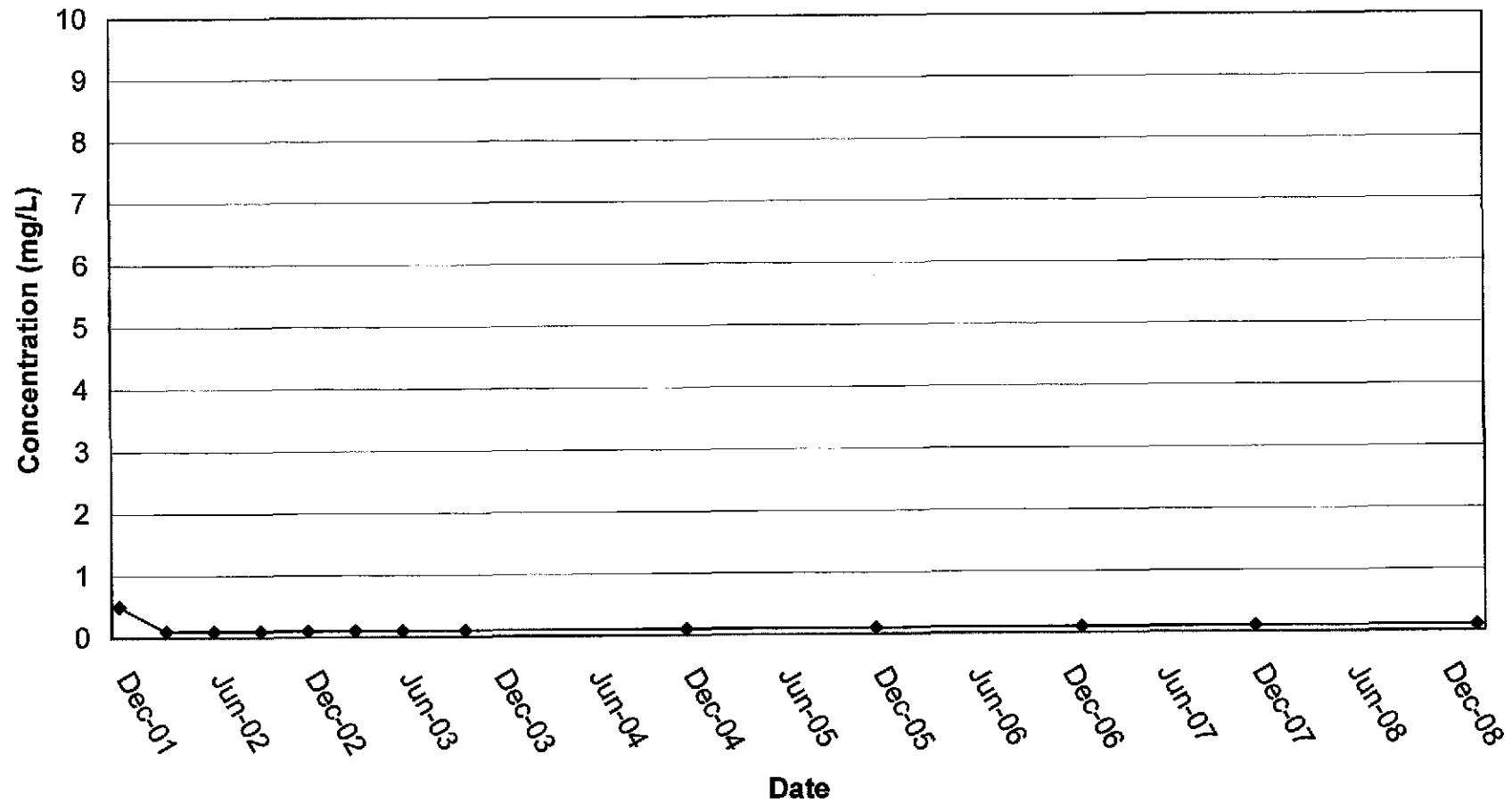
Methane Concentrations in MW-12 Hattiesburg, MS



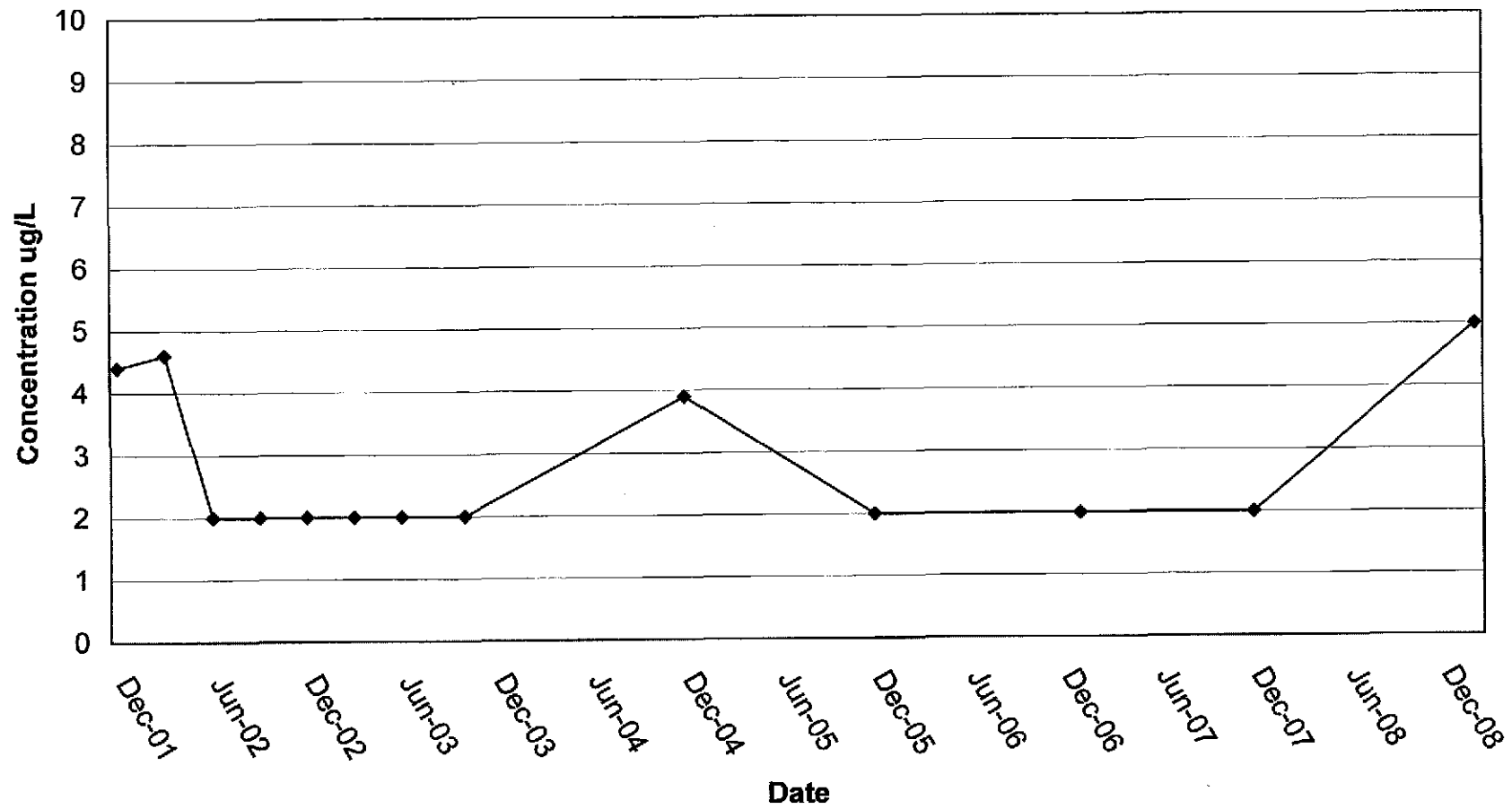
Sulfate Concentrations in MW-12 Hattiesburg, MS



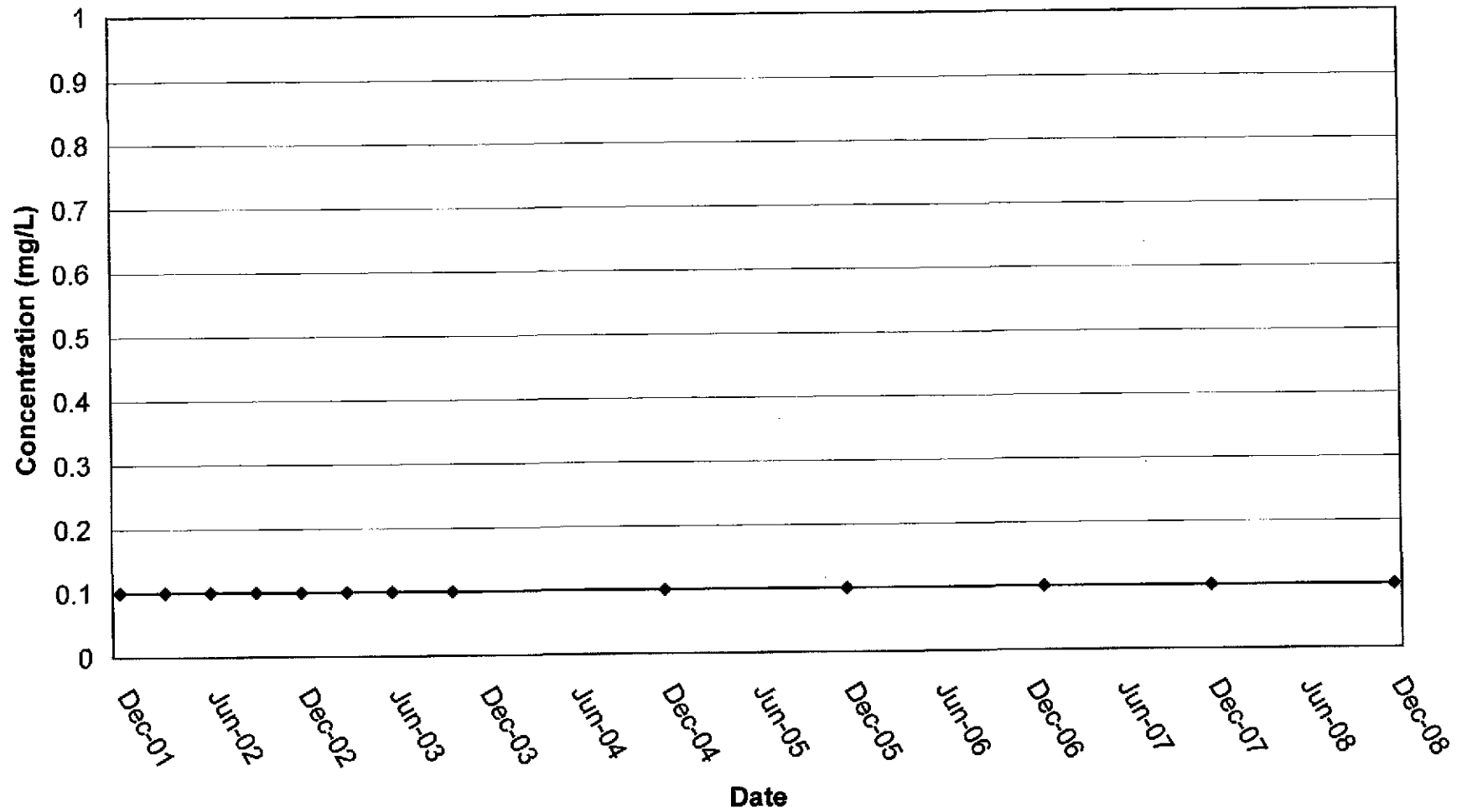
Total Iron Concentrations in MW-18 Hattiesburg, MS



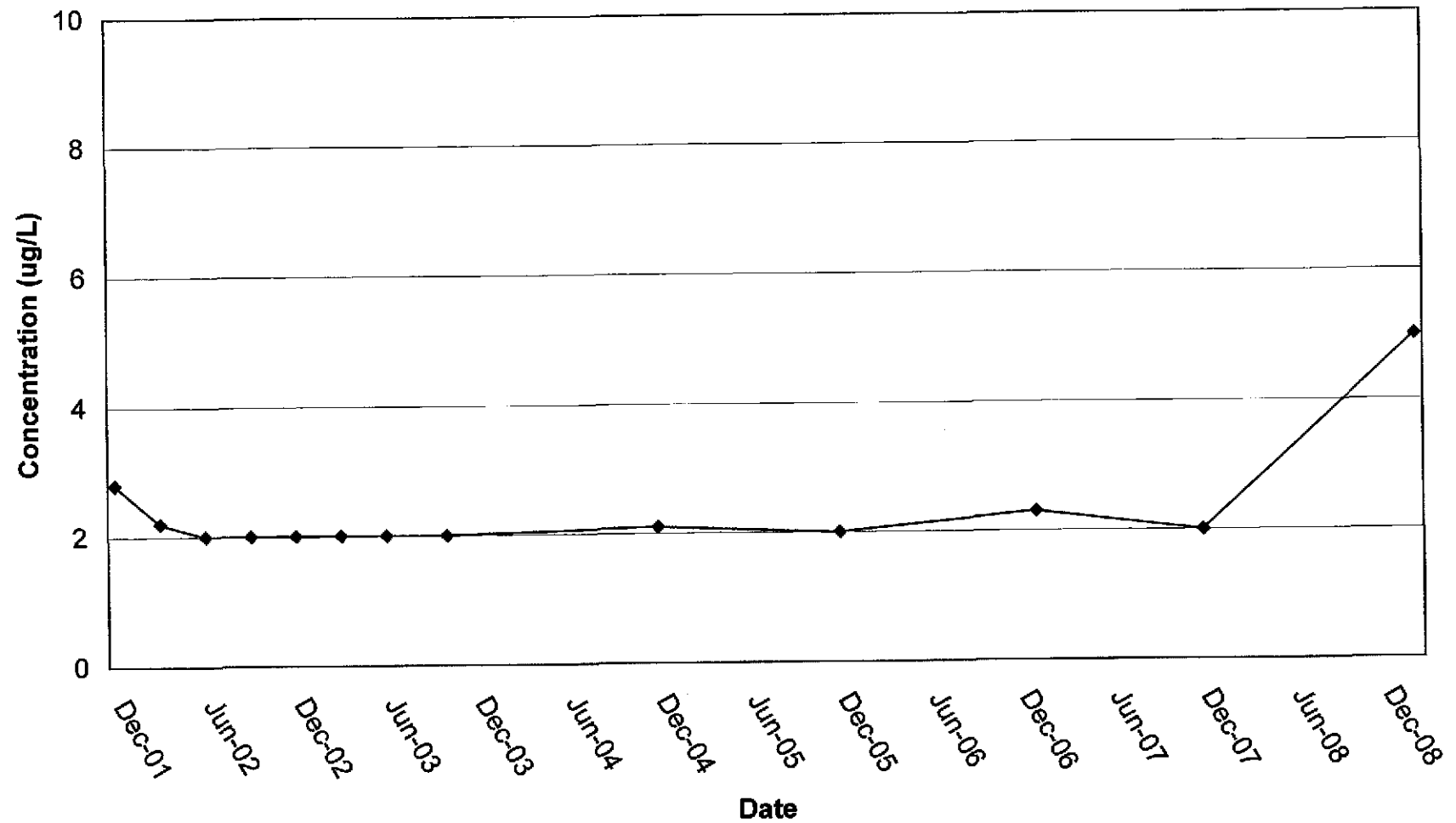
Methane Concentrations in MW-18 Hattiesburg, MS



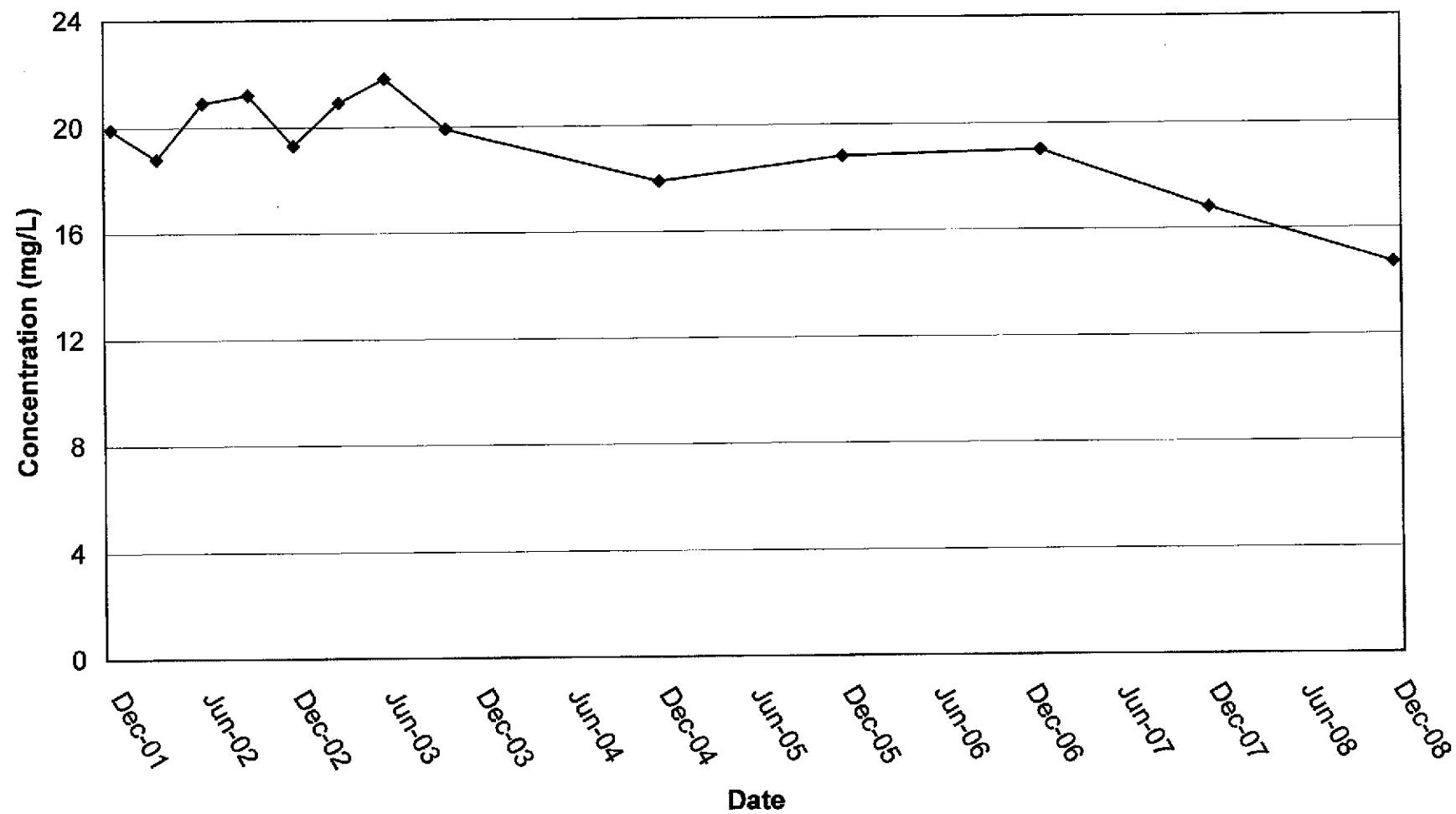
Total Iron Concentrations in MW-2R Hattiesburg, MS



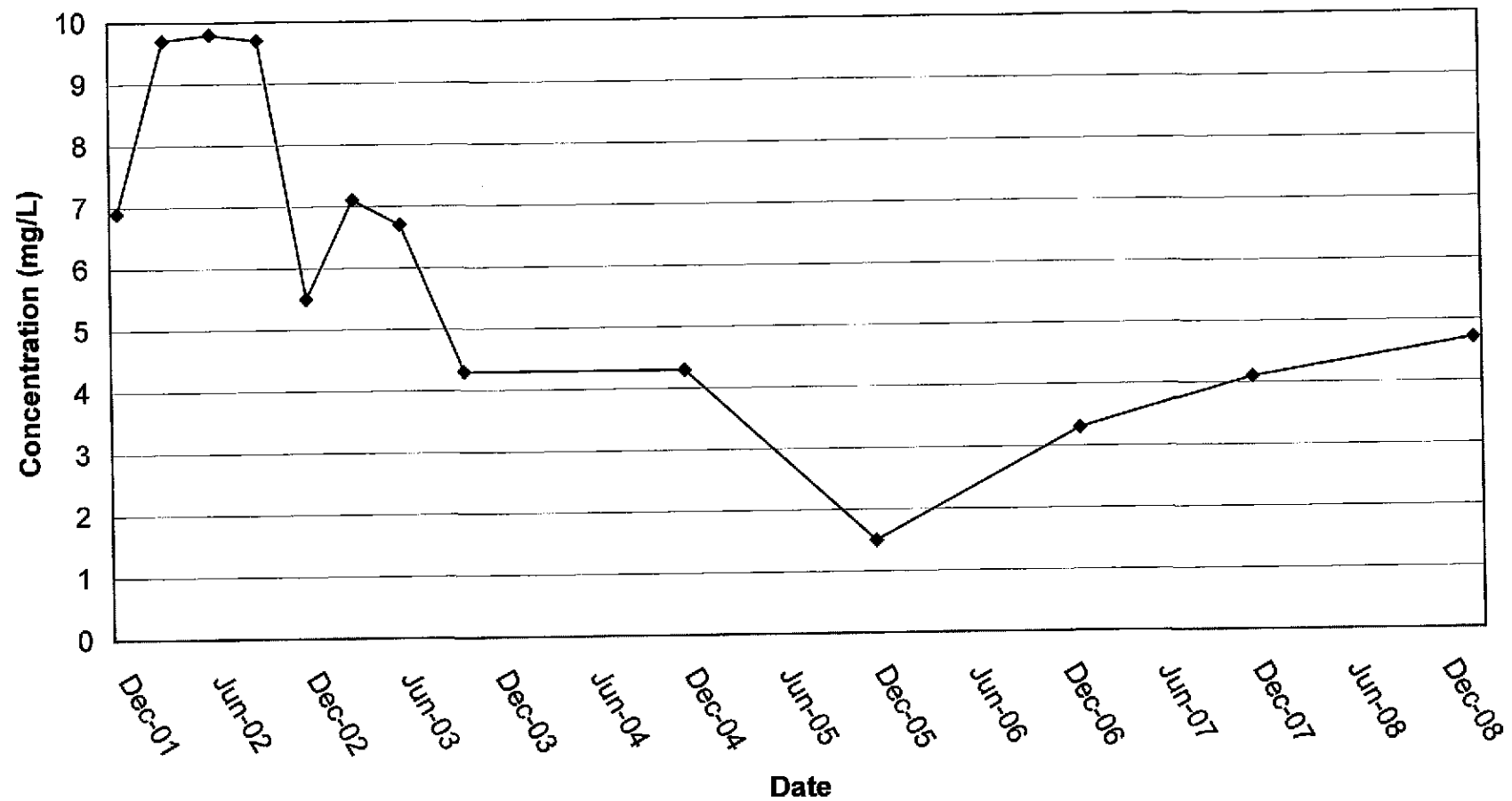
Methane Concentrations in MW-2R Hattiesburg, MS



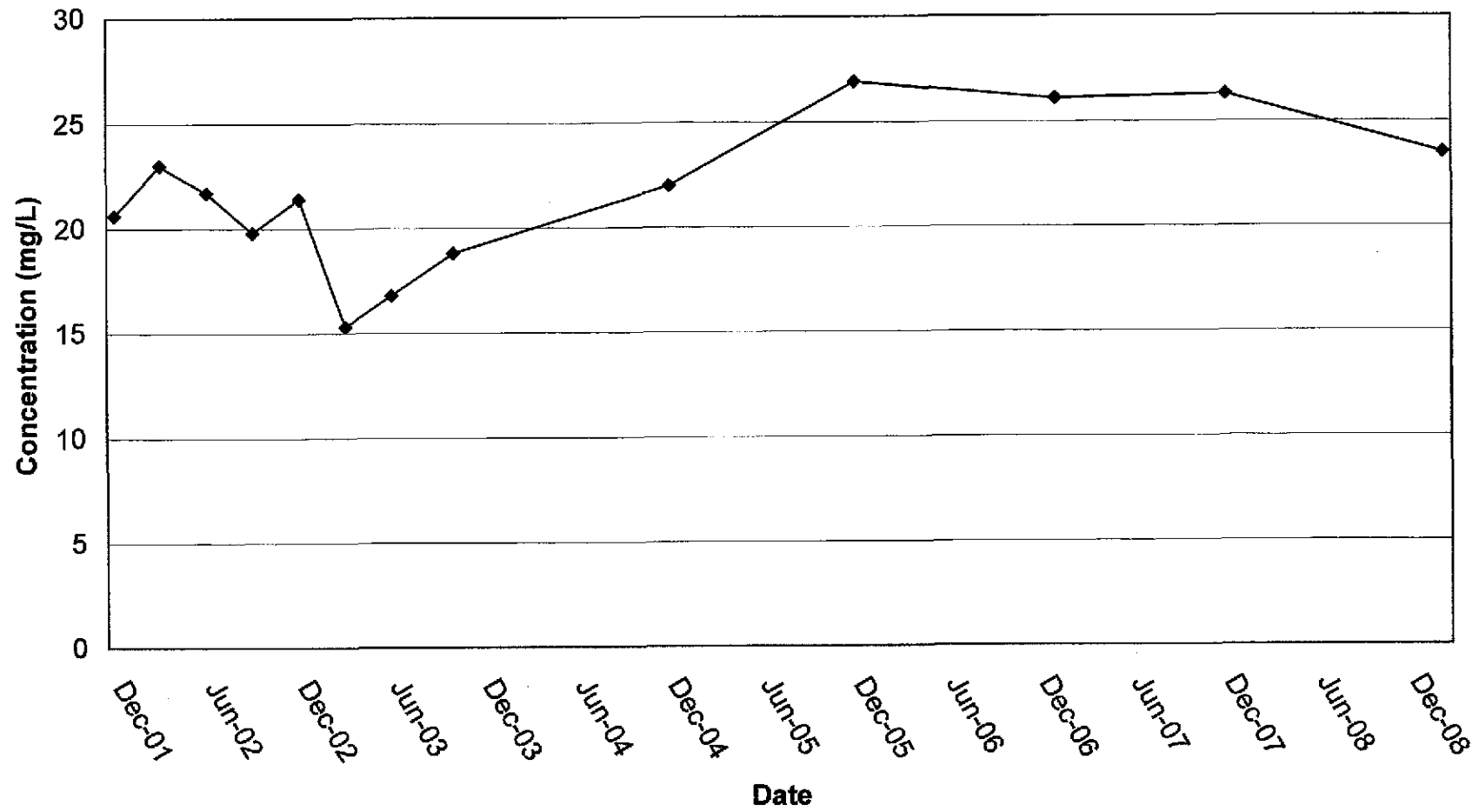
Sulfate Concentrations in MW-2R Hattiesburg, MS



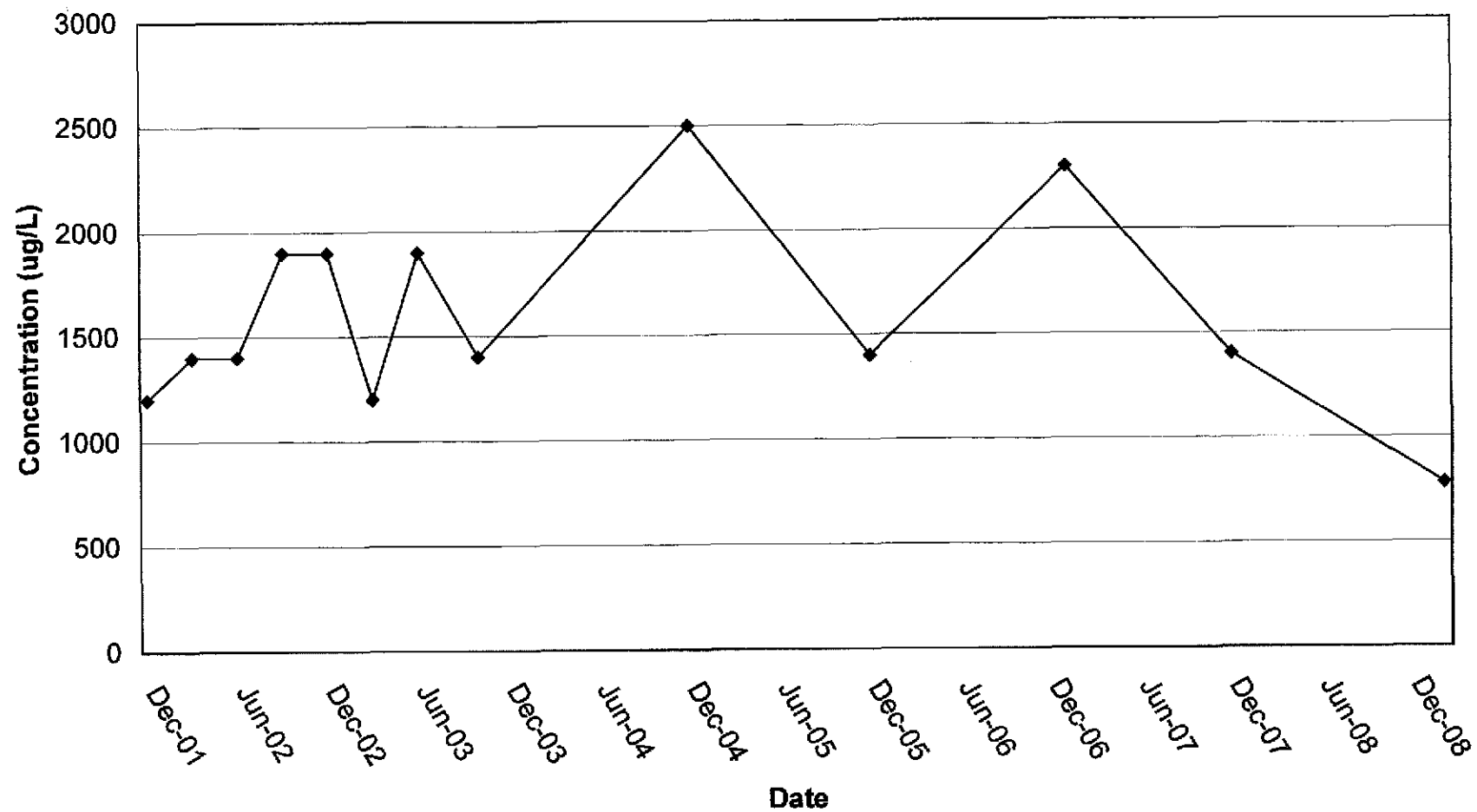
Sulfate Concentrations in MW-18 Hattiesburg, MS



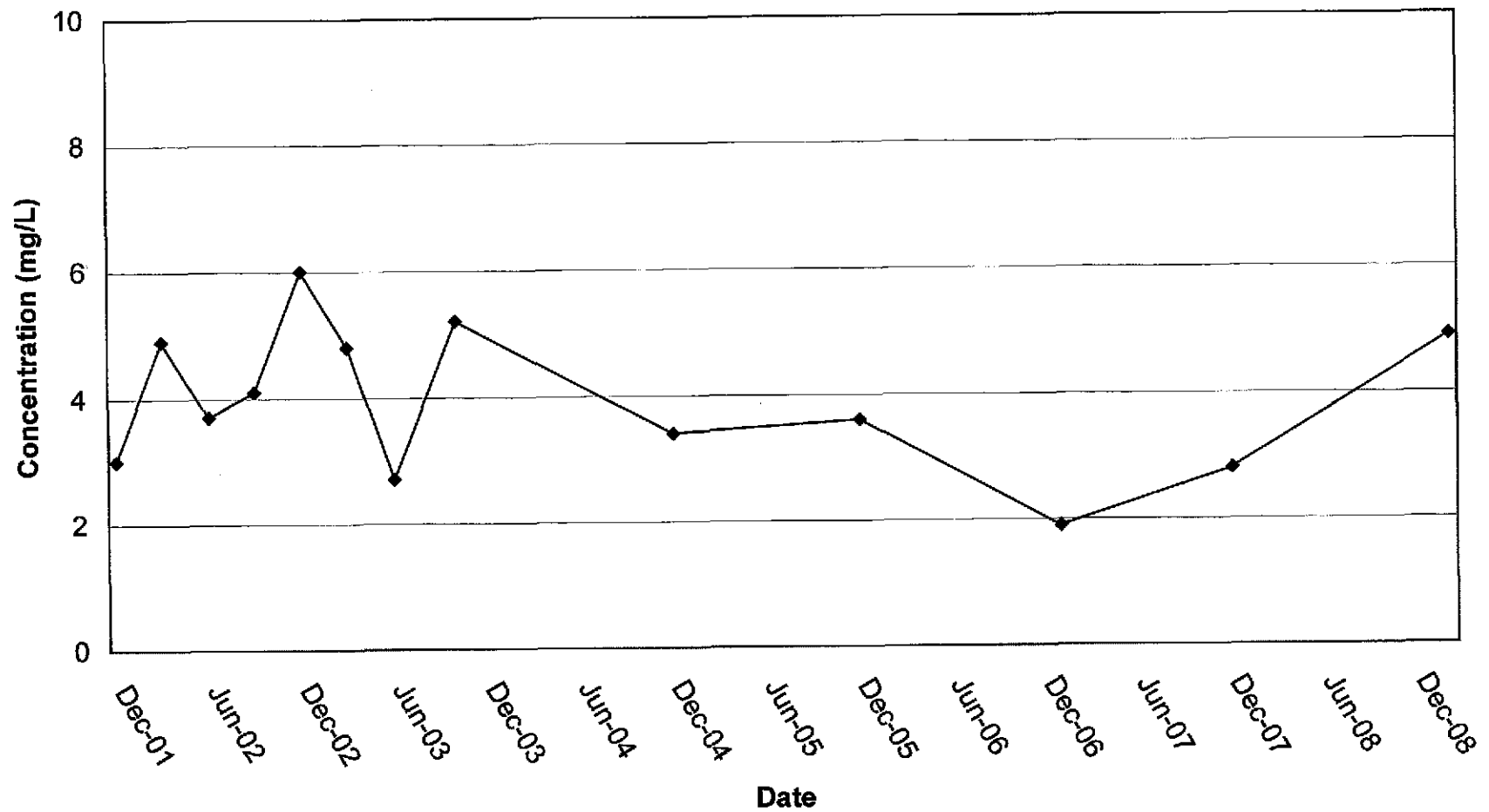
Total Iron Concentrations in MW-06 Hattiesburg, MS



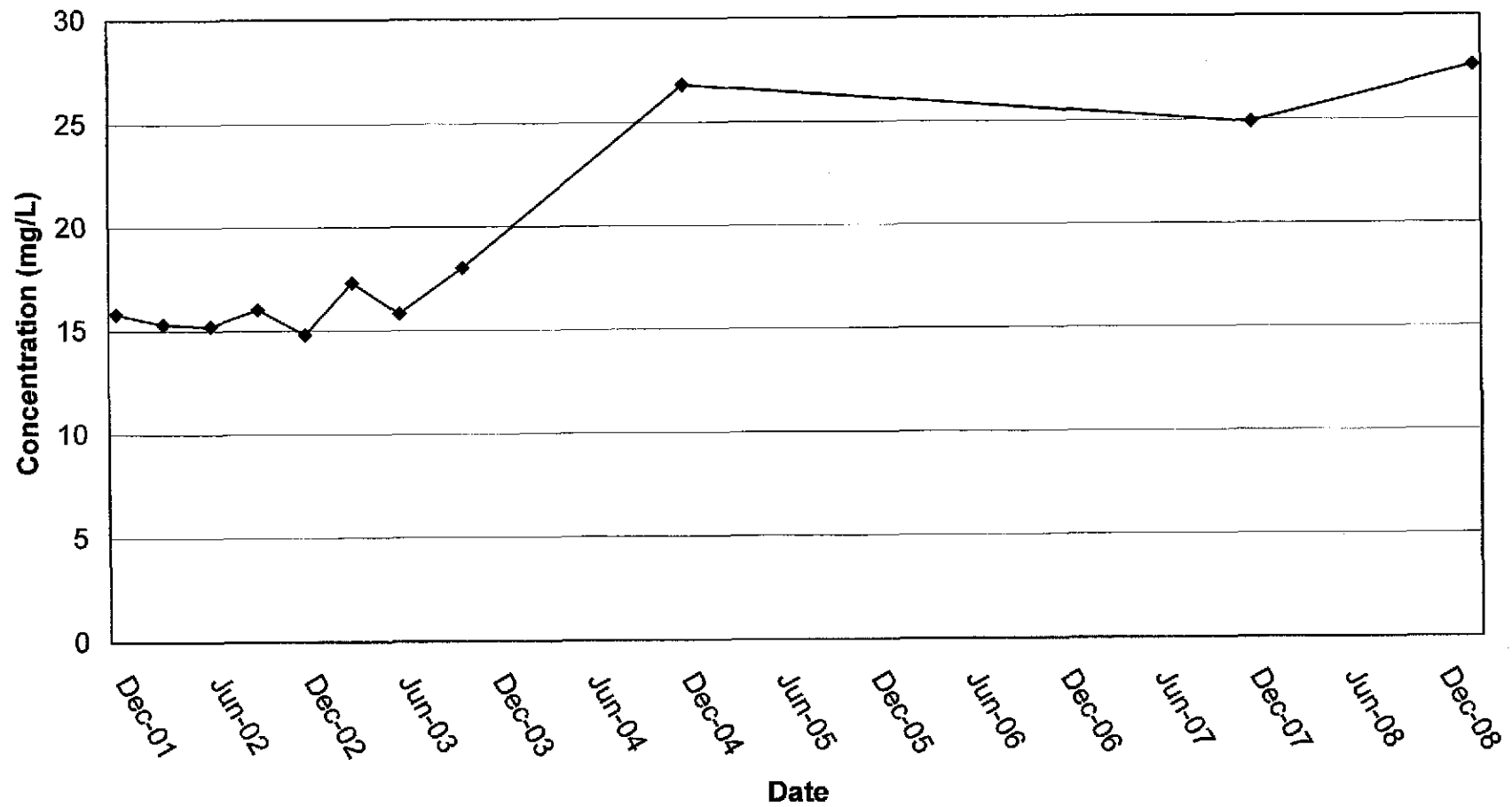
Methane Concentrations in MW-06 Hattiesburg, MS



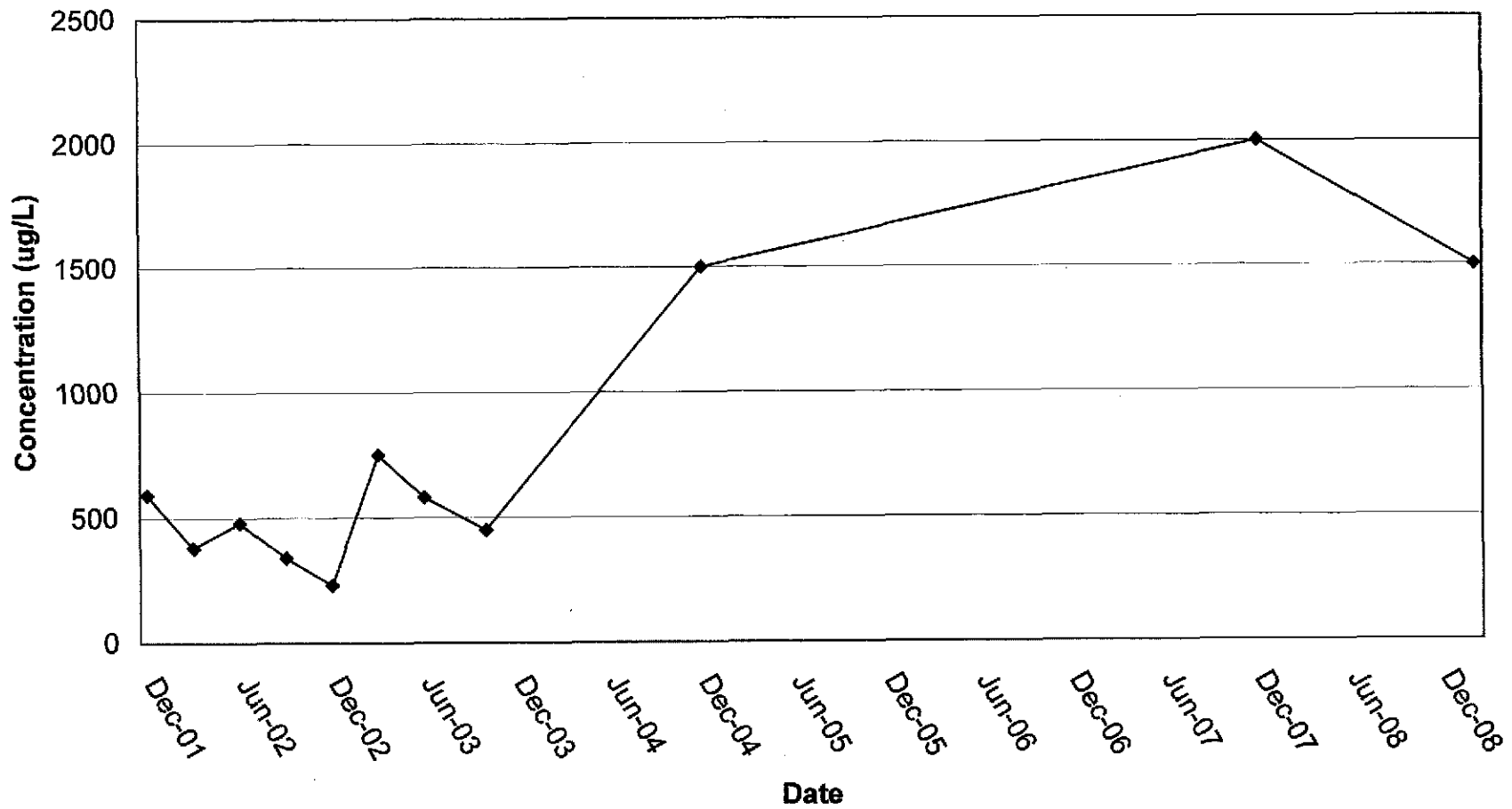
Sulfate Concentrations in MW-06 Hattiesburg, MS



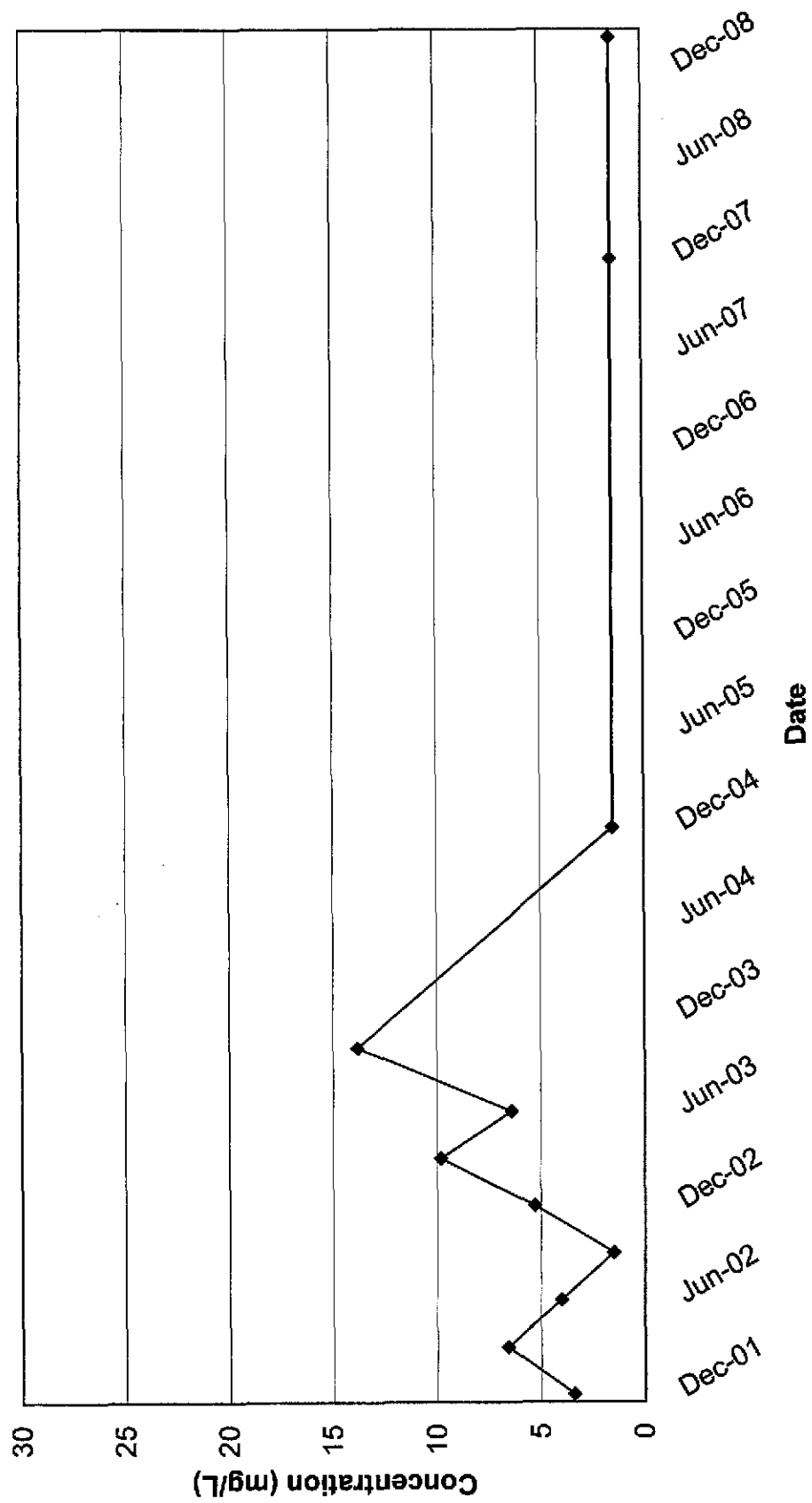
Total Iron Concentrations in MW-09R Hattiesburg, MS



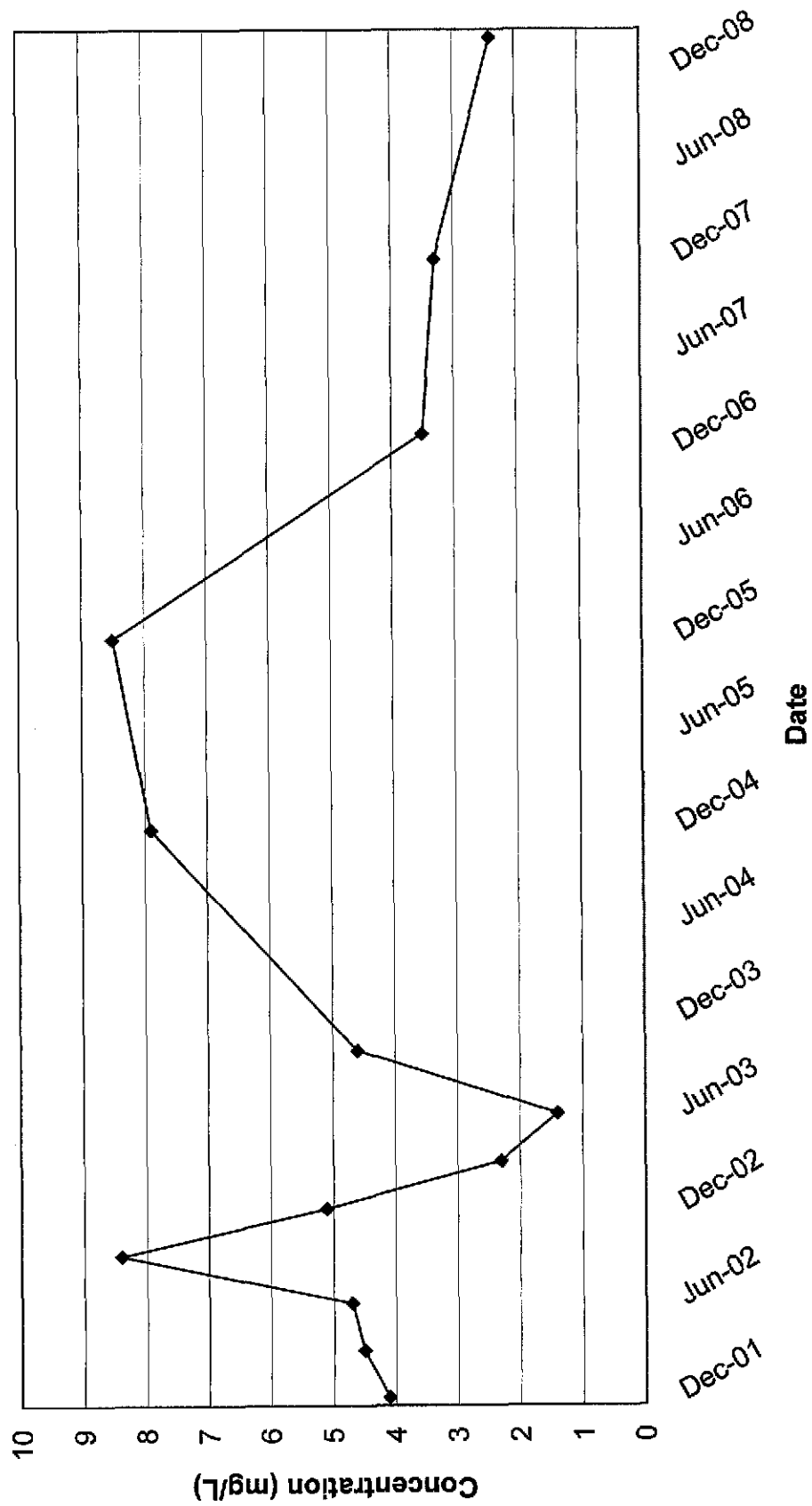
Methane Concentrations in MW-09R Hattiesburg, MS



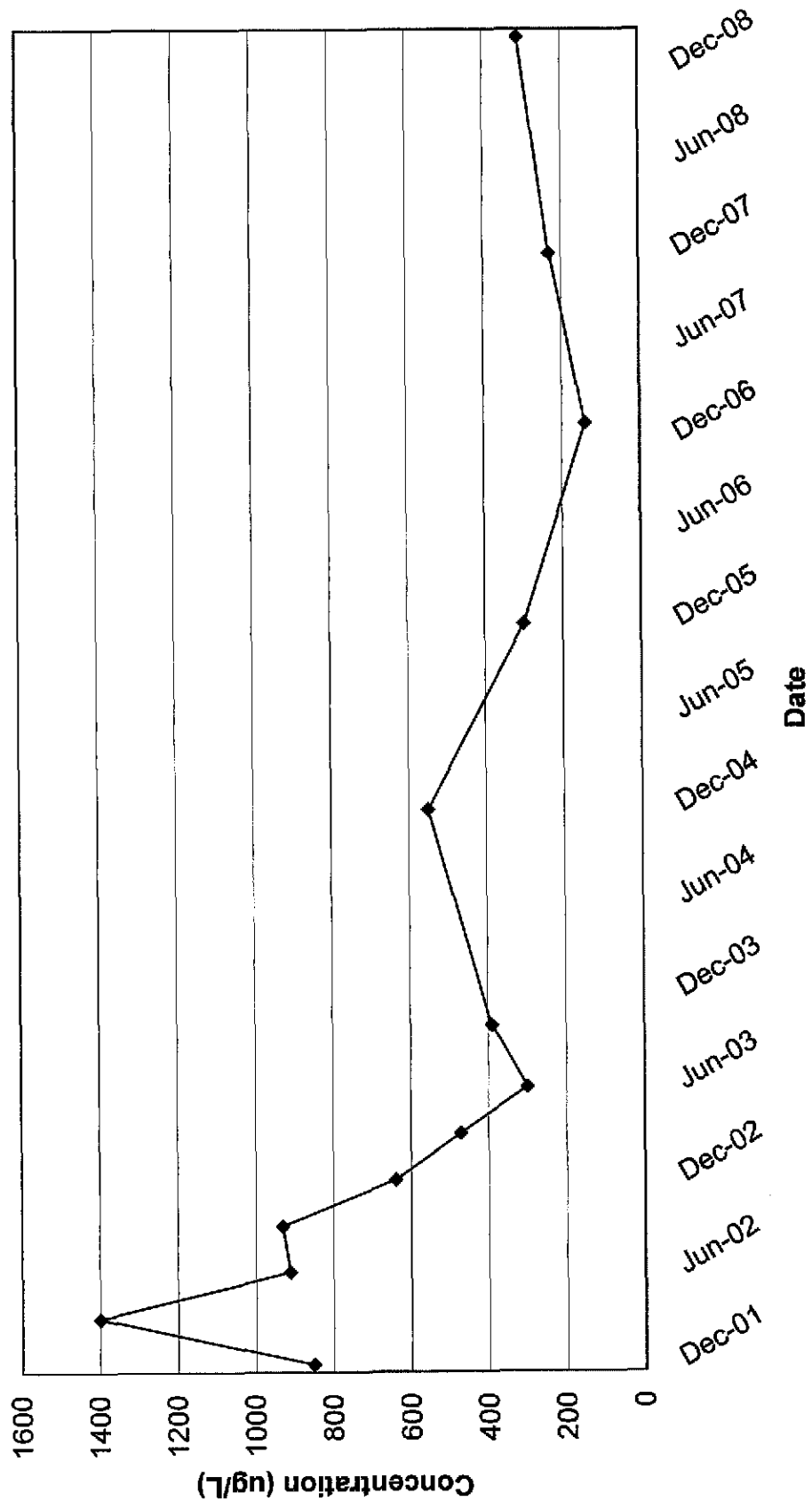
Sulfate Concentrations in MW-09R Hattiesburg, MS



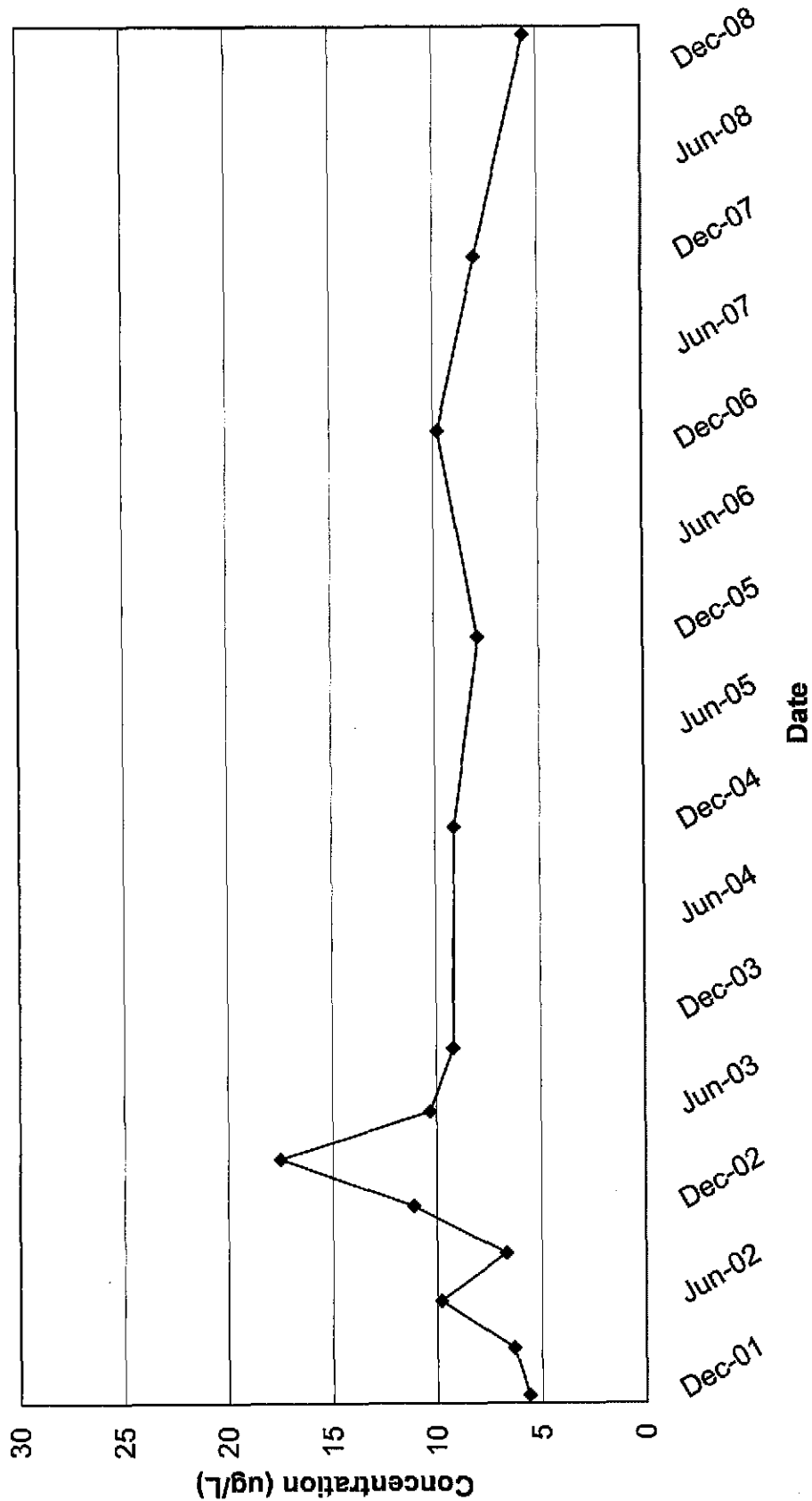
Total Iron Concentrations in MW-17 Hattiesburg, MS



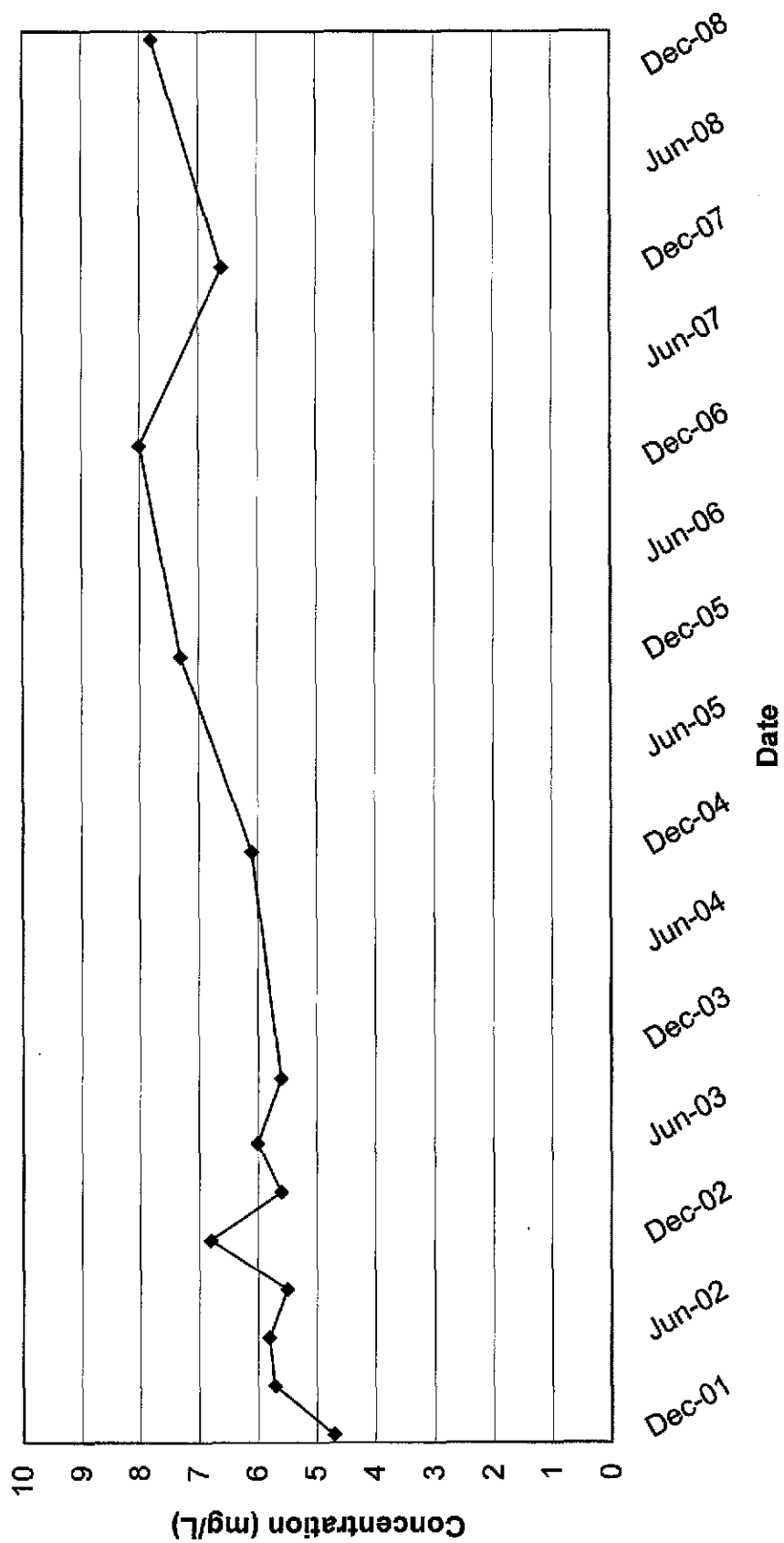
Methane Concentrations in MW-17 Hattiesburg, MS



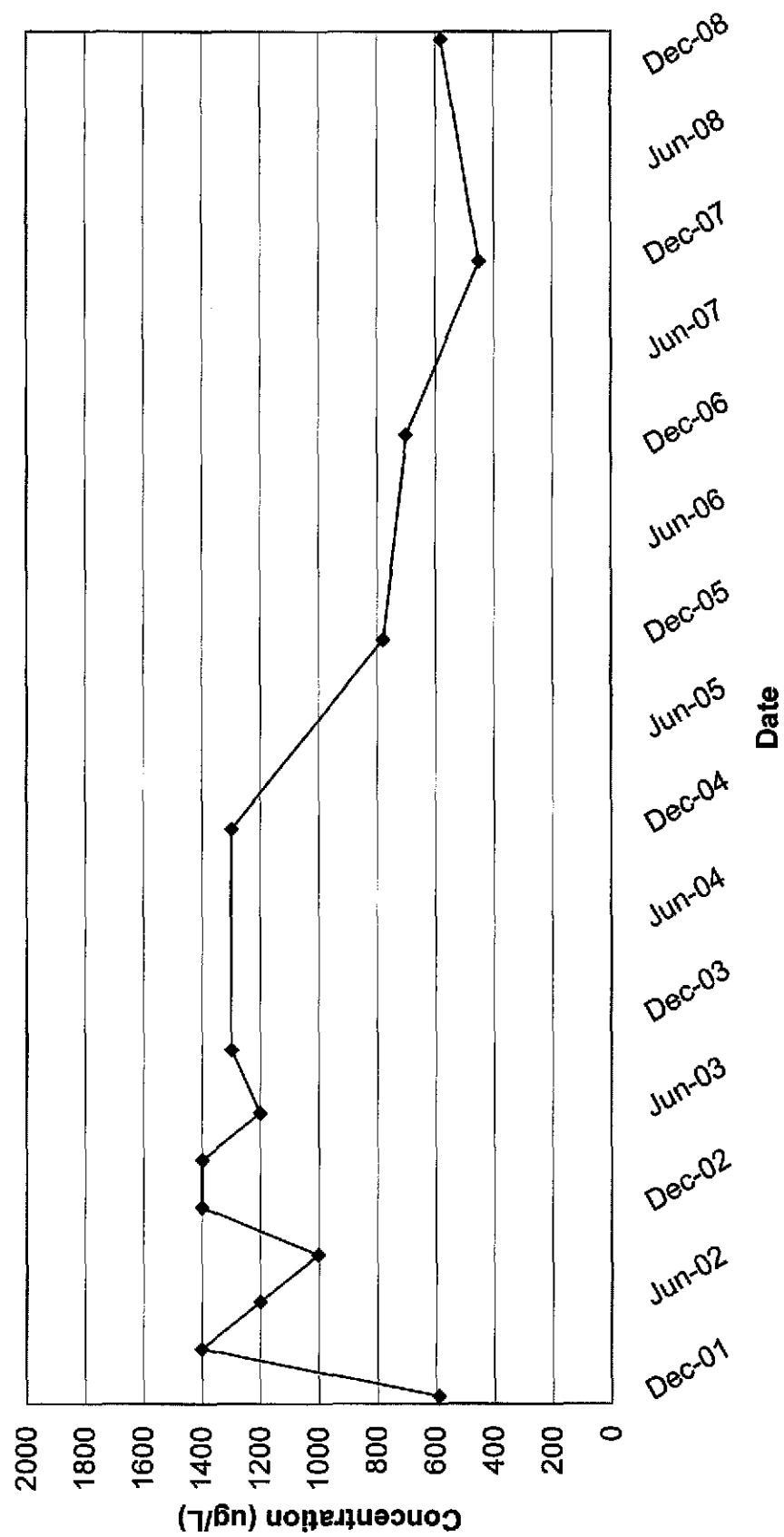
Sulfate Concentrations in MW-17 Hattiesburg, MS



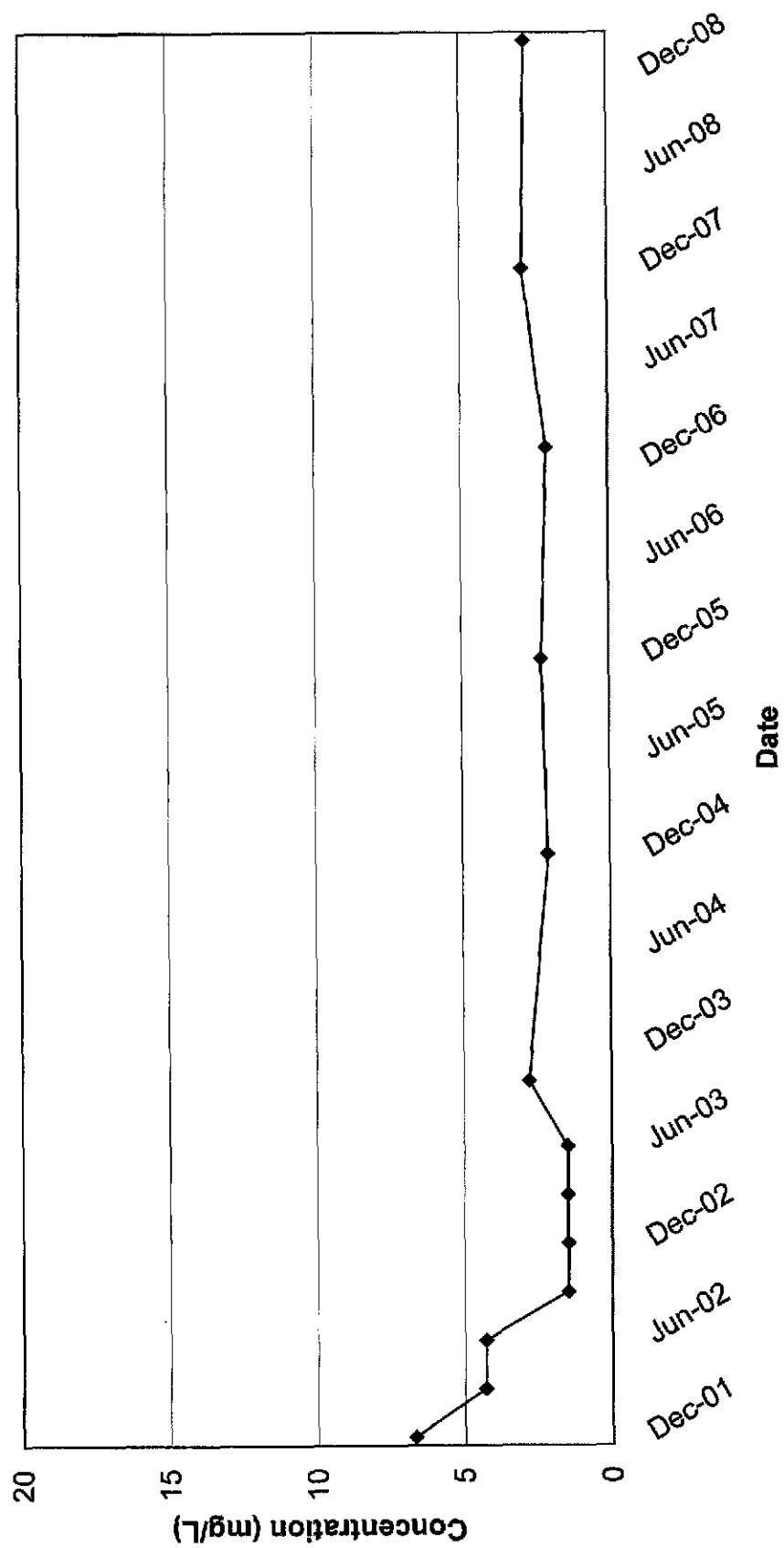
Total Iron Concentrations in MW-19 Hattiesburg, MS



Methane Concentrations in MW-19 Hattiesburg, MS



Sulfate Concentrations in MW-19 Hattiesburg, MS



December 2009

2009 GROUNDWATER ELEVATIONS & PRODUCT THICKNESS

Date: 2/23/2009			Date: 5/18/2009			Date: 8/17/2009			Date: 11/17/2009		
Well#	Depth to Water	Sinker Thickness	Well#	Depth to Water	Sinker Thickness	Well#	Depth to Water	Sinker Thickness	Well#	Depth to Water	Sinker Thickness
MW - 1	3.6	Trace	MW - 1	3.04	Clean	MW - 1	4.87	Clean	MW - 1	4.47	Clean
MW - 2	2.64	Clean	MW - 2	2.41	Clean	MW - 2	3.92	Clean	MW - 2	3.28	Clean
MW - 3	2.79	Clean	MW - 3	2.28	Clean	MW - 3	3.96	Clean	MW - 3	3.34	Clean
MW - 4	1.65	Clean	MW - 4	1.5	Clean	MW - 4	3.13	Clean	MW - 4	2.54	Clean
MW - 5	1.9	Clean	MW - 5	0.23	Clean	MW - 5	2.27	Clean	MW - 5	2.28	Clean
MW - 6	2.23	0.8	MW - 6	1.83	0.58	MW - 6	2.71	0.63	MW - 6	2.84	1.01
MW - 7	1.2	Clean	MW - 7	0.35	Clean	MW - 7	2.68	Clean	MW - 7	2.7	Clean
MW - 8	2.28	Clean	MW - 8	0.5	Clean	MW - 8	2.85	Clean	MW - 8	2.85	Clean
MW - 9	1.18	Clean	MW - 9	0.55	Clean	MW - 9	3.79	Clean	MW - 9	3	Clean
MW - 10	4.27	Clean	MW - 10	3.45	Clean	MW - 10	6.3	Clean	MW - 10	6.63	Clean
MW - 11	9.21	Clean	MW - 11	5.47	Clean	MW - 11	8.55	Clean	MW - 11	8.43	Clean
MW - 12	4.76	Clean	MW - 12	5.09	Clean	MW - 12	7.27	Clean	MW - 12	6.84	Clean
RW - 1	0.63	Clean	RW - 1	2.89	Clean	RW - 1	3.19	Clean	RW - 1	1.8	Clean
RW - 2	0.4	Clean	RW - 2	1.72	Clean	RW - 2	2.35	Clean	RW - 2	0.8	Trace
RW - 3	0.6	Clean	RW - 3	Flow to Top	Clean	RW - 3	1.68	Clean	RW - 3	0.7	Trace
RW - 4	2.43	0.23	RW - 4	1.5	0.16	RW - 4	0.89	Clean	RW - 4	1.95	0.15
RW - 5	1.03	Trace	RW - 5	1.14	Trace	RW - 5	1.34	Trace	RW - 5	1.51	0.17
RW - 6	0.4	Clean	RW - 6	Flow to Top	Trace	RW - 6	1.49	0.27	RW - 6	0.75	Trace
RW - 7	0.3	Trace	RW - 7	Flow to Top	0.35	RW - 7	1.62	0.23	RW - 7	1.08	0.17
RW - 8	1.34	Trace	RW - 8	0.25	0.2	RW - 8	2.01	0.2	RW - 8	1.37	Trace
RW - 9	0.3	Clean	RW - 9	0.62	Clean	RW - 9	2.32	Clean	RW - 9	2.15	Clean
RW - 10	0.5	Clean	RW - 10	Flow to Top	Clean	RW - 10	2.4	Clean	RW - 10	1.89	Clean
RW - 11	0.3	Clean	RW - 11	Flow to Top	Clean	RW - 11	2.37	Clean	RW - 11	2.02	Clean
RW - 12	0.4	Clean	RW - 12	Flow to Top	Clean	RW - 12	1.13	Clean	RW - 12	0.42	Clean
RW - 13	0	Clean	RW - 13	Flow to Top	Clean	RW - 13	1.36	Clean	RW - 13	0.89	Clean
RW - 14	Flow to top	Clean	RW - 14	Flow to Top	Clean	RW - 14	1.1	Clean	RW - 14	0.51	Clean
RW - 15	0.6	Clean	RW - 15	2.01	Clean	RW - 15	3.34	Clean	RW - 15	1.71	Clean
RW - 16	0.3	Clean	RW - 16	0.2	Clean	RW - 16	2.14	Clean	RW - 16	0.95	Clean
RW - 17	Flow to top	Clean	RW - 17	Flow to Top	Clean	RW - 17	1.11	Clean	RW - 17	0.45	Clean
Recovered Product 1/4 Gallon			Recovered Product 1/4 Gallon			Recovered Product 1/4 Gallon			Recovered Product 1/2 gallon		

Comments: MW-6 replaced with MW-11. MW-12 replaced with MW-13. MW-14 replaced with MW-15. MW-16 replaced with MW-17.



Howard.Ralph@epamail.epa.
gov
11/10/2009 01:45 PM

To Tony_Russell@deq.state.ms.us,
Moore.Ben@epamail.epa.gov
cc
bcc

Subject Fwd (2): EPA review of APEX report: Ltr dtd 11/06

History: This message has been forwarded.

Helps to have the atch...

(See attached file: Nov 2009 ltr to Mayor Dupree.pdf)

----- Forwarded by Ralph Howard/R4/USEPA/US on 11/10/2009 02:41 PM -----

From: Ralph Howard/R4/USEPA/US
To: Tony_Russell@deq.state.ms.us, Ben Moore/R4/USEPA/US@EPA
Cc: Tonya James/R4/USEPA/US@EPA
Date: 11/10/2009 02:39 PM
Subject: Fwd: EPA review of APEX report: Ltr dtd 11/06

Guys, FYI. Thanks for your help Tony, earlier today.

----- Forwarded by Ralph Howard/R4/USEPA/US on 11/10/2009 02:37 PM -----

From: Dawn Taylor/R4/USEPA/US
To: Ralph Howard/R4/USEPA/US@EPA
Date: 11/09/2009 08:15 AM
Subject: Fw: EPA review of APEX report

FYI - please forward to the state and others (Ben Moore?) as you see appropriate
Thanks
Dawn

----- Forwarded by Dawn Taylor/R4/USEPA/US on 11/09/2009 08:14 AM -----

From: Dawn Taylor/R4/USEPA/US
To: ftate@hattiesburgms.com
Date: 11/06/2009 03:40 PM
Subject: EPA review of APEX report

Good afternoon Franklyn-

Hope all is well. As promised, although a little later than I had hoped, here is a copy of the letter we put in the mail today to the Mayor regarding our review of the APEX report. Please feel free to contact me with any questions or concerns. Have a wonderful weekend.

Thanks

Dawn

[attachment "PDF of Nov 2009 ltr to Mayor.pdf" deleted by Ralph Howard/R4/USEPA/US]

Dawn C. Taylor, Chief
Superfund Site Evaluation Section
Superfund Remedial and Site Evaluation Branch
Superfund Division
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
404-562-8575 work
404-909-0829 cell
taylor.dawn@epa.gov



Nov 2009 ltr to Mayor Dupree.pdf

Henry Folmar/FS/OPC/DEQ
07/16/2009 04:39 PM

To Jerry Banks/HW/OPC/DEQ@DEQ
cc Tony Russell/HW/OPC/DEQ@DEQ, Jerry
Cain/EPD/OPC/DEQ@DEQ, Jon Shell/FS/OPC/DEQ@DEQ,
Jackie Key/SW/OPC/DEQ@DEQ, Beverly
bcc
Subject Fw: APEX / Tennie White / Hattiesburg

Jerry B.,

As you requested, I asked the lab to review the data and information you provided. Jackie Key, Jon Shell, and Beverly Ashmore-Bates conducted the review. Based on the information we received, the analyses appear to be solid, but the data interpretation and presentation are questionable.

Several key pieces of information needed in order to do a thorough data review are not provided:

- The data reports, showing the reported results and the minimum quantitation levels.
- Calibration curves
- We are not clear as to what the term 'analyte limit' represents in the spreadsheet with the red highlights.

Based on our review of the information provided, the analyses and calculations appear to be valid with an appropriate level of QA. The analyst was thorough and detailed, we checked the calculations of the 3 samples of primary interest (BB22220, BB22221, BB22223) and confirmed that the calculations were correct.

The data interpretation is subject to question. Ms. White cites the numbers that the analyst reported, and which we believe to be accurate, but she does so without qualifiers, as if these were hard numbers. The analyst had marked through these results on the chromatogram with the notation 'BDL', which we believe stands for below detection limit. In our lab the numbers would be reported as < MQL. These values probably fall below the endpoint on the calibration curve, and therefore can not be reliably quantified.

In addition, Ms. White refers to evidence of gasoline being present in the samples. She may have access to other information to support this, but based on the information provided, we did not see evidence to confirm the presence of gasoline in these samples.

The results reported for these samples were all below our TRGs.

If you have any questions or want to discuss in more detail, please let me know.

Henry

----- Forwarded by Henry Folmar/FS/OPC/DEQ on 07/16/2009 04:53 PM -----

Jon Shell/FS/OPC/DEQ
07/16/2009 04:39 PM

To Henry Folmar/FS/OPC/DEQ@DEQ
cc Beverly Ashmore-Bates/FS/OPC/DEQ@DEQ, Jackie
Key/SW/OPC/DEQ@DEQ, David
Singleton/FS/OPC/DEQ@DEQ
Subject APEX / Tennie White / Hattiesburg

Henry,

I have reviewed each of the semi-volatile GC/MS data sheets in the e-mail attachments I received from you and Jackie. The data sheets all appear to be complete and reasonable. Qualitative identification of

organic compounds using method 8270 are generally made by inspection of the mass spectral data generated during the analysis and subsequent mass spectral library searches using probability based matching algorithms. Quantitative analysis of the identified compounds is based on comparison of integrated peak areas of the calibration ions with standard curves previously generated.

The hand calculations done on the data reports appear to be accurate however, we do not have any official reports to see how the data was finally reported. We normally report data in ug/L or ug/Kg (ppb) while the calculations hand written on the instrumental data sheets appear to stop with the results in mg/L or mg/Kg (ppm).

I believe that Ms. White highlighted some areas on the total ion chromatograms with red boxes and yellow "sticky notes". She indicated that peaks in these areas might be indicative of the presence of gasoline, other hydrocarbons, or even PCB's in the sample extracts. We were given no mass spectral data or library search information concerning these highlighted areas and therefore can make no determination about them. Ms. White may have had access to this information and this may be why she indicated the possibility of their presence.

All of the GC/MS data sheets for semi-volatile analyses indicate that the desired analysis was for either BNA's or PAH's. It is not unreasonable that the analyst would disregard indications of the presence of gasoline, other hydrocarbons or even PCB's, as these compounds would be better identified and quantitated using other methods of analysis. (GRO; DRO; VOC; or PCB) If these components were suspected or tentatively identified, this information might have been noted in the comments section of the laboratory reports.

I received some indication that special attention should be given to sample numbers 22220, 22221, and 22223. The GC/MS data sheets for these three extracts appear normal and complete. The analysis request for each of the samples appears to be for "soil PAH's". The raw data sheets from the GC/MS analysis each have the handwritten notation of "BDL" which I feel indicates that all component quantities found in the instrumental analyses were "below the detection limit" for this analysis. This "BDL" would equate to what we refer to here at the MDEQ lab as "below minimum quantifiable levels" or "MQL's".

I reviewed the calculated values (in mg/Kg or ppm) which are listed in the "Troubleshooter" correspondence for the following compounds:

	BB22220	BB22221	BB22223	MDEQ MQL
1) Pentachlorophenol	0.29	0.288	0.288	0.666 mg/Kg
2) Benzo(a)anthracene	0.064	0.021	0.022	0.330 mg/Kg
3) Benzo(a)pyrene	0.024	0.004	0.004	0.330 mg/Kg
4) Benzo(b)fluoranthene	0.082	0.011	0.013	0.330 mg/Kg
5) Naphthalene	0.004	0.001	0.002	0.330 mg/Kg
6) 4-Chloroaniline	0.254	0.254	0.254	0.330 mg/Kg
7) 2,4-Dichlorophenol	0.159	*0.161	0.159	0.330 mg/Kg

*Note: This value was listed in error in the red highlighted area in the "Troubleshooter" correspondence as 0.181 mg/Kg.

The calculated values listed in this correspondence appear to be correct based on the sample weights listed on the extraction data sheets and the indicated GC/MS instrumental concentrations. However, the instrumental values listed would be considered below the minimum quantifiable levels in the MDEQ laboratory and would appear to be below the "detection limits" used by the analyst at APEX laboratory.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303

November 6, 2009

Mayor Johnny L. DuPree, Ph.D.
City of Hattiesburg
P. O. Box 1898
Hattiesburg, Mississippi 39403-1898

Dear Mayor DuPree:

At your request, the U.S. Environmental Protection Agency (EPA) conducted a full and thorough review of the environmental site assessment (ESA) report prepared by APEX Environmental Consultants, Inc., (APEX) on behalf of the City of Hattiesburg, Mississippi regarding the Gulf States Creosote site, a former wood treating plant, located in Hattiesburg, Forrest County, Mississippi. The study area of the APEX ESA report encompasses a residential neighborhood located east of the former Gulf States Creosote facility. The purpose of EPA's review was to determine whether the ESA conducted by APEX complied with acceptable EPA standards and protocols. File information reviewed included the APEX ESA report and analytical data package; the APEX Sampling Protocols for Direct-Push Hydraulic Probe Sampling; the agreement between the City of Hattiesburg, Mississippi and APEX; a document regarding "Notes on the Investigation conducted by APEX Environmental Consultants" dated June 2, 2008 that was prepared by Troubleshooters, Inc. (Troubleshooters), and miscellaneous correspondence among various EPA, City of Hattiesburg, and State of Mississippi personnel; and background information.

Below is a summary of EPA's findings based on the review of the APEX ESA report. The numbered comments presented in this section are findings identified during EPA's review of the APEX ESA report. The italicized text following each numbered comment in this section presents EPA's conclusion or recommendation regarding the finding.

1. It does not appear that APEX prepared a sampling and analysis plan (SAP) or quality assurance project plan (QAPP). Instead, a "Sampling Protocols for Direct-Push Hydraulic Probe Sampling" document was provided. This document specifies general APEX protocols on collecting soil and groundwater samples. Page 8 of the ESA report indicates that Work Plan protocols are specified in Sections 3.1 and 3.2 of the ESA report.

The SAP and QAPP are planning documents that outline important information about the sampling event, including scope and purpose, design, procedures, methodology, and data quality objectives. The SAP and QAPP also help guide field activities, and deviations from their specifications that occur in the field should be documented in the report. In this case, because a SAP and QAPP were not prepared, the ESA report should have included a summary of sampling procedures employed and the standard operating procedures (SOP) followed during the sampling event.

2. The general Sampling Protocols document provided does not adequately describe the sampling procedures employed during the sampling event. The Sampling Protocols document mentions that soil and groundwater sampling were conducted in accordance with the EPA Region 4 Science and Ecosystem Support Division (SESD) Environmental Investigations and *Standard Operating Procedures and Quality Assurance Plan* (EISOPQAM) dated November 2001.

At the time of the sampling event, the EISOPQAM had been superseded by the SESD Field Branches Quality System and Technical Procedures dated November 2007 through August 2009. Because neither logbook notes nor a summary of sampling procedures appears in the ESA report, the actual procedures employed could not be verified.

3. Logbook notes that document field activities are not provided as an attachment to the ESA report. These notes should include site conditions, observations in the field, and pertinent sampling information (date and time of sample collection, sample depth, and sampling procedures). Boring logs included as Appendix A of the ESA report convey boring depths, whether creosote was observed in the borings, field screening results, and general monitoring well construction and development (purgings) data.

Appendix A contains valuable information regarding sampling activities; however, other pertinent information about each sample is not provided, including the interval at which the soil sample was collected, time of sample collection, sample collection procedure, and brief description of sample characteristics. In addition, page 6 of the ESA report indicates that all sample collection and preservation procedures followed SW-846 protocol. It is not clear whether this is a typographical error and the author intended to state that sample collection and preservation procedures followed the SESD EISOPQAM.

-
4. Pages 5 and 6 of the ESA report indicate that a photoionization detector (PID) was used to screen the soil samples for the presence of VOCs and to guide selection of sample intervals at which soil samples were collected. Samples were then collected from the portion of the borings with the highest PID readings. Also, if no PID reading was detected in the entire boring, a composite sample was collected from the first 4 feet of the boring and submitted to the laboratory for analysis for polynuclear aromatic hydrocarbons (PAH) using EPA Method 8270C. Page 6 of the ESA report also indicates that in areas where multiple borings were proximate to each other, a representative number of the borings were submitted for laboratory analysis.

The PID is a screening tool that can assist with determining the interval at which soil samples should be collected for VOC analysis. But because the former Gulf State Creosote facility used creosote for wood treating activities, the primary constituents of concern are semivolatile organic compounds (SVOC), in particular polynuclear aromatic hydrocarbons (PAH) and pentachlorophenol (PCP). Therefore, the procedure of using the PID to detect VOCs, guide the sample intervals, and ultimately choose samples to be submitted for laboratory analysis for PAHs was not appropriate—SVOCs might have been present in some borings in which the PID did not detect VOCs.

At locations where VOCs were not detected by the PID, the depth interval of 0 to 4 feet below ground surface (bgs) was not an appropriate specification for collection of soil samples because the purpose of the investigation was to determine whether site-related contamination might be present at concentrations that may pose an exposure risk to residents. Instead, the soil samples should have been collected at or near the surface and at shallow subsurface depths up to 2 feet bgs. Also when collecting soil samples, care should be taken to ensure that soil samples were not collected from areas where fill material might have been present.

Of the 32 soil borings advanced, 24 samples were submitted to the laboratory for analysis. Of the 24 soil samples submitted to the laboratory for analysis, 22 samples were collected from 0 to 4 feet bgs, and one each at 3 to 4 feet bgs and 6 feet bgs. Also, only three samples were submitted for the full suite of SVOCs; all other samples were analyzed only for PAHs. In addition to the PAHs, at a minimum the SVOC compounds 2-methylnaphthalene and PCP should have been added to the analytical suite for all samples. PCP was one of the primary preservatives historically used at wood treating facilities (the other being creosote). The compound 2-methylnaphthalene is a PAH. Both 2-methylnaphthalene and PCP are included in the Mississippi Department of Environmental Quality (MDEQ) Tier I target remediation goals (TRG). Also, dioxins and furans are constituents of concern at wood treating sites, and these were not included in the analytical suite. Dioxins and furans form during manufacture of technical grade PCP.

5. Calculations of carcinogenic benzo(a)pyrene (cBAP) toxicity equivalents (TEQ) and dioxin/furan TEQs were not included in the ESA report.

Calculations of the cBAP and dioxin/furan TEQs would have been useful for the ESA report, because these values are significant aids in evaluating total health effects.

6. Pages 7 and 9 indicate that three samples were submitted to the laboratory for VOC analysis at the request of Ms. Tennie White. However, the ESA report does not indicate whether this request for VOC analysis occurred before or after collection of the samples. Also, the procedures followed during sample collection are not provided.

The ESA report does not mention whether additional sample volume was collected and submitted to the laboratory when VOCs were requested to be added to the analytical suite for the three samples. The proper sampling procedures for collecting soil samples for VOC analysis is provided in the EISOPQAM, Section 5.13.9, which specifies that samples collected for VOC analysis should not be homogenized. In the ESA report, it is not clear whether the samples selected for VOC analysis were homogenized. Because the primary constituents of concern are not VOCs, homogenization of the samples, if conducted, would not have proven detrimental to the project.

7. On Page 9 of the ESA report, the MDEQ TRG for benzo(a)pyrene for restricted use is not correct.

The correct MDEQ TRG for benzo(a)pyrene for restricted use is 0.784 milligrams per kilogram (mg/kg).

8. In some cases, the reporting detection limits (RDL) used by the laboratory are higher than the MDEQ TRGs.

Because the samples were collected to determine whether contaminant concentrations may pose a threat to human health, detection limits lower than or equal to the MDEQ TRGs for constituents of concern should be used for the project.

9. Pages 6 and 7 of the ESA report indicate that "purging will be conducted until relatively clear water is obtained. After relatively clear water is obtained, the groundwater samples will be collected." The boring logs presented in Appendix A contain field parameters data including temperature, pH, and total dissolved solids (TDS) that were recorded during monitoring well purging activities prior to groundwater sample collection. Field parameters listed in the APEX Sampling Protocols include temperature, pH, and conductivity.

Section 7.2.1 of the EISOPQAM specifies that during well purging activities and prior to groundwater sample collection, the following field parameters should be monitored and allowed to stabilize: temperature, pH, specific conductance, and turbidity. Specific conductance and turbidity were not monitored during well purging activities and prior to groundwater sample collection. It should be noted that APEX allowed the parameters that were monitored (temperature, pH, and TDS) to stabilize prior to collection of groundwater samples. It also should be noted that the purge volumes prior to groundwater sample collection were appropriate based on the temporary well construction details provided in Appendix A of the ESA report.

10. Minor errors are contained in the table that presents the summary of groundwater analytical results.

The second entry for naphthalene for monitoring well (MW)-7 should be phenanthrene. Also, a row for anthracene at a concentration of 0.0061 in sample MW-11 needs to be added to the table.

11. As part of the APEX ESA, APEX reviewed previous sampling data and interviewed lifelong residents of the area to assist with identifying the number of samples to be collected and locations in the study area possibly impacted by past activities at the former Gulf State Creosote facility.

EPA was tasked to review the APEX report to determine whether acceptable sampling protocols were followed. The APEX report does not include a summary of previous sampling data. EPA was unable to determine whether an adequate number of samples were collected during the ESA. Therefore, EPA cannot definitively determine whether (1) APEX met its project requirements and (2) potential impacts to the nearby residential area have been adequately documented.

Review of Issues or Concerns Raised by Troubleshooters, Inc.

The numbered items below are issues or concerns raised by Troubleshooters in a document dated June 2, 2008. The issues or concerns raised by Troubleshooters are presented in italicized text. EPA reviewed the document regarding "Notes on the Investigation conducted by APEX Environmental Consultants." It is EPA's understanding that this document includes statements based on Troubleshooters' review of the EDL Labs. Inc. (EDL) analytical data package and quantitation report. EPA's review of the Troubleshooters document focused only on those items that pertain to the EDL data package and quantitation report.

1. *Groundwater samples are contaminated by creosote chemicals.*

EPA assumes this is a statement rather than an issue/concern. The ESA report includes a table that summarizes creosote concentrations found in the groundwater samples.

2. *Laboratory used 50 parts per billion (ppb) for the internal standard instead of 10 ppb. This provides a chromatogram that appears to have low concentrations of chemicals. Trip blank is contaminated.*

The source of the 10 ppb value is unclear. For VOCs, Section 5.10 of SW-846 Method 8260B (located at

<http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/8260b.pdf>) specifies that the final volume of internal standards utilized should be 50 micrograms per liter ($\mu\text{g/L}$).

For SVOCs (of which the creosote component is a subset), Section 7.5.1 of SW-846 Method 8270D (located at

<http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/8270d.pdf>) specifies that the final volume of the internal standards utilized should be 40 nanograms per microliter

($\text{ng}/\mu\text{L}$). The quantitation reports provided to EPA by APEX indicate that the subcontracted laboratory used 50 $\mu\text{g/L}$ internal standard spikes for VOCs and 40 $\text{ng}/\mu\text{L}$ internal standard spikes for SVOCs. The results summary for the trip blank does not indicate any contamination at the RDL presented. Review of the quantitation report indicates some possible low-level detects between the RDL and the method detection limit (MDL). Because the documentation presented by APEX does not include the laboratory's MDL study, EPA is unable to address this concern definitively. Any detection between the MDL and RDL would have been qualified as estimated.

3. *The sample bb24344 has a designation of X10.*

The X10 designation indicates that a ten-fold dilution was performed on the sample.

4. *Chemicals found: naphthalene reported as 0.24 mg/kg...translates to 240 $\mu\text{g}/\text{kg}$, limit 6.5 $\mu\text{g}/\text{kg}$.*

The source of the 6.5 $\mu\text{g}/\text{kg}$ limit is unclear. The MDEQ Tier I TRGs for naphthalene are listed as 247 mg/kg for restricted use and 194 mg/kg for unrestricted use.

5. *Sample SB30 MW-19 BB24345: Water sample contains: Benzo(k)fluoranthene limit 0.03 µg/L, chromatogram 0.05 µg/L, report BDL*

In the absence of specific instructions from the contractor as to whether or not to report results down to the MDL, laboratories report data in accordance with their internal quality manuals. EPA has not seen the EDL Labs, Inc., quality manual and is unaware if APEX requested that the laboratory report results down to the MDL. Both methods of reporting results are technically correct. The source of the 0.03 µg/L could not be verified. Assuming the limit of 0.03 µg/L is the MDL for benzo(k)fluoranthene, reporting the result as "BDL" or as 0.05 µg/L with an estimated qualification would both be acceptable. Which way is appropriate for the project depends on the project data quality objectives.

6. *Benzo(a)pyrene limit 0.003 µg/L, chromatogram 0.09 µg/L, report BDL.*

The source of the 0.003 µg/L could not be verified. Assuming the limit of 0.003 µg/L is the MDL for benzo(a)pyrene, reporting the result as "BDL" or as 0.09 µg/L with an estimated qualification would both be acceptable. Also see the response to Troubleshooters item number 5 above.

7. *Dibenz(a,h)anthracene limit 0.003 µg/L, chromatogram 0.04 µg/L, report BDL.*

The source of the 0.003 µg/L could not be verified. Assuming the limit of 0.003 µg/L is the MDL for dibenz(a,h)anthracene, reporting the result as "BDL" or as 0.04 µg/L with an estimated qualification would both be acceptable. Also see the response to Troubleshooters item number 5 above.

8. *Reports units mg/L, EPA RCBA units µg/L, chromatogram units µg/mL.*

Results reported in µg/mL are typical for chromatograms (quantitation reports). The automated instrument readings are converted to reporting units (in this case, µg/L) for easier comparison to action levels.

9. *Let's cut to the chase...Sampling protocol was not followed. Soil samples collected for volatiles were homogenized, a procedure EPA protocols clearly prohibited. Soil samples for PAH were not protected from sunlight (UV radiation). The best that we can expect from the soil samples is an indication of the presence of chemicals without a true indication of the levels.*

Neither the ESA report nor the APEX sampling protocol documentation mentions homogenization. The APEX sampling protocol does reference EPA standard operating procedures, which require homogenization for PAHs and no homogenization for VOCs. Soil samples are considered protected from ultraviolet (UV) radiation as long as the samples are placed inside a closed cooler immediately after sample collection. The ESA report indicates that samples were immediately placed on ice after collection, which

would seem to indicate that samples were protected from UV radiation. However, EPA cannot speak to either aspect (homogenization and UV radiation exposure) definitively, because EPA was not present during sampling activities and does not have access to logbook documentation detailing activities. If the VOC samples were homogenized, the results would be estimated with a possible low bias.

10. The Public Scope of Services was to find creosote.

The ESA report and supporting documentation does not indicate what was included in the Public Scope of Services. Regardless of the Scope of Services, one cannot be tasked to find creosote if it is not present.

11. The Private Scope of Services was not to find creosote.

The ESA report and supporting documentation does not indicate the full extent of what was included in the Private Scope of Services. Regardless of the Scope of Services, one cannot be tasked to fail to find creosote if it is present.

12. The laboratory altered the level of the internal standard to alter the appearance of the chromatograms. This was done in order to make the visible invisible.

There is no evidence that the laboratory altered the internal standard spiking amount. Internal standard spike amounts match those indicated in the corresponding SW-846 method. Please see EPA's response to Troubleshooters item number 2 above.

13. The limits set by EPA Risk Based Assessment for the chemicals of concern any competent lab can meet and format reports to meet these standards.

Some limits are derived from mathematical functions and are not achievable by current technology. Others are achievable by alternative methods (for example, high-performance liquid chromatography or selective ion monitoring). The laboratory uses methods based on contractual agreements and formats analytical data packages (reports) to meet the contractor's requirements or specifications (within the limitations of the individual laboratory's information management system). Determination of whether the MDLs/RDLs meet applicable standards or project objectives is not in the laboratory's purview. Instead, during the planning process, MDLs/RDLs to meet project objectives can be identified and included in the laboratory specifications when analytical services are procured.

14. Science is about reproducibility. Any competent lab can give EPA acceptable results; any competent lab welcomes comparison between their data.

EPA is unclear as to the purpose of this statement. Science is about reproducibility under identical test conditions. The nature of environmental sampling (heterogeneous matrices, weather impacts, sample handling, etc.) precludes identically reproducing test conditions. Environmental data should be reproducible within statistically derived limitations, so that

conclusions derived from the data set are uniform. There is no indication that the data provided by the laboratory produced unacceptable (rejected) results. However, EPA could not determine if verification/validation activities were performed on the subject data. EPA is not aware of any alternate data sets to be used as comparison, and is therefore unable to speak to this point.

15. *All of the water samples contained some level of creosote. The groundwater from visual observation is present at 3.5 to 4 feet. This impacts maintenance workers, construction workers, and residents digging on their property.*

All groundwater results included in the ESA report did not contain positive results for creosote components. Of the 21 groundwater samples collected during the ESA, analyses of nine were positive for selected SVOCs that are components of creosote. Analytical results of groundwater samples that contained creosote compounds at concentrations above the MDEQ Tier I TRGs appear in the ESA report. Creosote compounds that exceeded MDEQ Tier I TRGs included benzene in sample SB30 MW19 and naphthalene at several groundwater locations scattered throughout the study area.

16. *Nothing was discovered in this investigation that the responsible parties didn't already know.*

EPA assumes this is a statement rather than an issue/concern. It is not possible to determine the results of an investigation before the investigation takes place.

17. *The recommendations of the Health Risk Assessment Report currently located in the City of Hattiesburg's Public Library clearly state that residents would be exposed to potentially unacceptable levels of risk. The Report recommends relocating residents.*

EPA has not reviewed this report and is therefore unable to speak to this point.

18. *It should be noted that restrictions prohibit rebuilding residential units for the target properties.*

EPA has not reviewed these restrictions and is therefore unable to speak to this point.

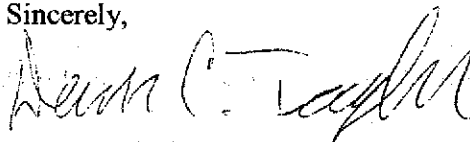
Additionally, the following is a list of EPA's observations/recommendations for the site should further investigation be planned:

- Conduct an evaluation of the laboratory's MDLs and RDLs against the MDEQ Tier I TRGs. This evaluation would help ensure that the appropriate methods are selected for sample analysis.
- Request in advance that the laboratory performing the analyses report all results to the MDL.
- Collect soil samples for VOCs analysis according to SW-846 Method 5035A, using either Encore™ samplers or Terra Core kits.

- In addition to the PAHs (creosote components), at a minimum the SVOC compounds 2-methylnaphthalene and PCP should have been added to the analytical suite for all samples. PCP was one of the primary preservatives historically used at wood treating facilities (the other being creosote). The compound 2-methylnaphthalene is a PAH. Both 2-methylnaphthalene and PCP are included in the MDEQ Tier I TRG.
- Also, dioxins and furans are constituents of concern at wood treating sites, and these were not included in the analytical suite. Dioxins and furans form during manufacture of technical grade PCP.
- Calculations of the cBAP and dioxin/furan TEQs would have been useful for the ESA report, because these values are significant aids in evaluating total health effects.

If you have questions or need additional information from EPA, please contact me at (404) 562-8575.

Sincerely,



Dawn C. Taylor, Chief
Superfund Site Evaluation Section



Tony Russell/HW/OPC/DEQ
10/26/2009 02:27 PM

To "Dave Upthegrove"
<dupthegrove@windstream.net>@INETDEQ
cc
bcc
Subject RE: Hattiesburg annual GW sampling event

okay, I will put on calendar to start sampling residential on Wednesday.

Tony Russell
Assessment Remediation Branch Chief
Mississippi Department of Environmental Quality
P. O. Box 2261
Jackson, MS 39225

Physical address:
515 East Amite Street (39201)

Phone 601-961-5318
Fax 601-961-5300

"Dave Upthegrove" <dupthegrove@windstream.net>



"Dave Upthegrove"
<dupthegrove@windstream.net>
10/26/2009 02:02 PM

To <Tony_Russell@deq.state.ms.us>
cc "Brad Blalock" <bmbalock@ix.netcom.com>
Subject RE: Hattiesburg annual GW sampling event

Brad will take a round of water levels and begin sampling on the west side (i.e., the non-residential side) of the tracks the afternoon of Monday, December 14. As we're down to 7 wells on the west side of the tracks and 10 wells on the east side, he'll probably begin work in the residential area first thing Wednesday morning. Brad (and Tony), please help me remember as the time approaches that we need to notify the Braziles at 115 E. Scooba St. that we'll be sampling the well on their lot. Their contact info is as follows:

Eddie and Katherine Brazile
601-545-2543 (home)
601-310-2224 (cell)
kbrazile115@comcast.net

Thanks for coordinating this with us, Tony.

David C. Upthegrove
Michael Pisani & Associates, Inc.
13313 Southwest Freeway, Suite 221
Sugar Land, Texas 77478

(281) 242-5700 (office)
(281) 242-1737 (fax)
(504) 481-6470 (cell)
dupthegrove@windstream.net (please note new email address)

-----Original Message-----

From: Tony_Russell@deq.state.ms.us [mailto:Tony_Russell@deq.state.ms.us]
Sent: Monday, October 26, 2009 1:40 PM
To: dupthegrove@windstream.net
Subject: RE: Hattiesburg annual GW sampling event

Dave,

Thought I was going to have a conflict that week but got it worked out. I just need to know the days that Brad will be in the neighbor hood sampling so I can be present those days.

Thanks.
Tony

Tony Russell
Assessment Remediation Branch Chief
Mississippi Department of Environmental Quality
P. O. Box 2261
Jackson, MS 39225

Physical address:
515 East Amite Street (39201)

Phone 601-961-5318
Fax 601-961-5300

"Dave Upthegrove"
<dupthegrove@windstream.net>

10/26/2009 10:22 AM

To
<Tony_Russell@deq.state.ms.us>
cc
Subject
RE: Hattiesburg annual GW sampling event

Keith indicated that you'd mentioned the week of 12/14. If that works for you, it would work for Brad as well. Please let me know.

David C. Upthegrove
Michael Pisani & Associates, Inc.
13313 Southwest Freeway, Suite 221
Sugar Land, Texas 77478
(281) 242-5700 (office)
(281) 242-1737 (fax)
(504) 481-6470 (cell)
dupthegrove@windstream.net (please note new email address)

-----Original Message-----

From: Tony_Russell@deq.state.ms.us [mailto:Tony_Russell@deq.state.ms.us]
Sent: Monday, October 26, 2009 10:17 AM
To: dupthegrove@windstream.net
Subject: Fw: Hattiesburg annual GW sampling event

You all need to get with me about a date pretty soon.

Tony Russell
Assessment Remediation Branch Chief
Mississippi Department of Environmental Quality
P. O. Box 2261
Jackson, MS 39225

Physical address:
515 East Amite Street (39201)

Phone 601-961-5318
Fax 601-961-5300

----- Forwarded by Tony Russell/HW/OPC/DEQ on 10/26/2009 10:16 AM -----

"Watson, Keith"
<Keith.Watson@tronox.com>

10/20/2009 09:09
AM

"Watson, Keith"
<Keith.Watson@tronox.com>,
<Tony_Russell@deq.state.ms.us>

To

cc

"Dave Upthegrove"
<dupthegrove@windstream.net>

Subject
RE: Hattiesburg annual GW sampling
event

Tony:

Due to unforeseen scheduling issues on our end, we are having Pisani do

this sampling again this year. Dave will be in touch/

A. Keith Watson
Tronox LLC
P.O. Box 268859
Oklahoma City, OK 73126-8859
Phone: 405/775-5475
Email: Keith.Watson@tronox.com
Fax: 405/775-6562 (NOTE NEW FAX NUMBER)

If you are not the intended recipient of this e-mail message, any use, distribution or copying of the message is prohibited. Please let me know immediately by return e-mail if you have received this message by mistake, then delete the e-mail message. Thank you.

From: Watson, Keith
Sent: Monday, October 12, 2009 10:51 AM
To: 'Tony_Russell@deq.state.ms.us'
Subject: Hattiesburg annual GW sampling event

Tony:

Confirming our discussion of a few minutes ago.

1. Tronox plans to take over sampling and reporting from Michael Pisani & Associates. We will use a staff hydrogeologist, a field sampler and plan to use Dickie Allison as well.
2. After comparing schedules, it looks like the week of Dec. 14, 2009 will work for all.
3. Tronox will analyze GW for the organic chemicals of concern, and for this event; we will not analyze for the other parameters related to in-situ biodegradation.

A. Keith Watson
Tronox LLC
P.O. Box 268859
Oklahoma City, OK 73126-8859
Phone: 405/775-5475
Email: Keith.Watson@tronox.com
Fax: 405/775-6562 (NOTE NEW FAX NUMBER)

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"Watson, Keith"
<Keith.Watson@tronox.com>
10/12/2009 10:50 AM

To <Tony_Russell@deq.state.ms.us>
cc
bcc
Subject Hattiesburg annual GW sampling event

Tony:

Confirming our discussion of a few minutes ago.

1. Tronox plans to take over sampling and reporting from Michael Pisani & Associates. We will use a staff hydrogeologist, a field sampler and plan to use Dickie Allison as well.
2. After comparing schedules, it looks like the week of Dec. 14, 2009 will work for all.
3. Tronox will analyze GW for the organic chemicals of concern, and for this event; we will not analyze for the other parameters related to in-situ biodegradation.

A. Keith Watson
Tronox LLC
P.O. Box 268859
Oklahoma City, OK 73126-8859
Phone: 405/775-5475
Email: Keith.Watson@tronox.com
Fax: 405/775-6562 (NOTE NEW FAX NUMBER)

If you are not the intended recipient of this e-mail message, any use, distribution or copying of the message is prohibited. Please let me know immediately by return e-mail if you have received this message by mistake, then delete the e-mail message. Thank you.


Tronox Confidentiality Notice!

If you are not the intended recipient of this e-mail message, any use, distribution or copying of the message is prohibited.

Please let me know *immediately* by return e-mail if you have received this message by mistake, then delete the e-mail message.

Thank you.

FAX

To:	From: TONY RUSSELL
Bill Felder	Office of Pollution Control
Congressman Gene	P. O. Box 10385
Taylor's Office	Jackson, MS
	39289-0385
	
	MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
Phone:	Phone: (601) 961- 5318
Fax: 601-582-3452	Fax: (601) 961- 5300

Date: Oct. 8, 2009

Routine ☒ Priority

Number of pages, including this one: 16

Messages: Bill, enclosed is 16 pages of material.

Please call me with any questions you may have.

Tony

HP Officejet Pro L7600 All-in-One series

Fax Log for
Jere "Trey" Hess, P.E.
601 961 5300
Oct 08 2009 1:14PM

FILE COPY

Last Transaction

Date	Time	Type	Station ID	Duration	Pages	Result
Oct 8	1:08PM	Fax Sent	9016015823452-832396	5:31	16	OK

Gloria Tatum/FS/OPC/DEQ
09/28/2009 12:46 PM

To Jerry Banks/HW/OPC/DEQ@DEQ, Tony
Russell/HW/OPC/DEQ@DEQ

cc

bcc

Subject Fw: From Mr Sherri Jones

History:

This message has been forwarded.

Oops forgot to cc you all on this. I sent it to J Cain. Sherri Jones is after me again, just to stay in the media. Oh well, Jerry Cain will be able to handle this.

----- Forwarded by Gloria Tatum/FS/OPC/DEQ on 09/28/2009 12:41 PM -----

Gloria Tatum/FS/OPC/DEQ
09/28/2009 12:35 PM

To Jerry Cain/EPD/OPC/DEQ

cc

Subject Fw: Fw: From Mr Sherri Jones

----- Forwarded by Gloria Tatum/FS/OPC/DEQ on 09/28/2009 12:35 PM -----



Sherri Jones
<sjfcest48@yahoo.com>
09/28/2009 09:18 AM

To Gloria_Tatum@deq.state.ms.us

cc trudy_fisher@deq.state.ms.us,
Hall.Tayoka@epamail.epa.gov, "Kim \Cochran\ Coalter"
<Kim_Coalter@cochran.senate.gov>, Bill Felder
<Bill.Felder@mail.house.gov>,
yolandamccree@megagate.com, twfcest@yahoo.com,
bhallenenvironmental@yahoo.com, bjfcest@yahoo.com,
cjfcest@yahoo.com, ckiller1002@yahoo.com,
crfcest@yahoo.com, Deborah
<dawnconerly@peoplepc.com>, dosshelen@yahoo.com,
dwfcest@yahoo.com, fbfcest@yahoo.com,
grandoris33@comcast.net, greatereastlampton@yahoo.com,
jkenter@kc.rr.com, John.Sanders2008@comcast.net,
kbrazile115@comcast.net, Johnny Kenter
<jbrkent@yahoo.com>, lc.pitts50@yahoo.com,
ljfcest@yahoo.com, mariehibbler@yahoo.com,
MayAvegirl@comcast.net, mealtw@earthlink.net,
mhfcest@yahoo.com, sjam9653@bellsouth.net,
sjfcest48@yahoo.com, vwpfcest@yahoo.com, mary watts
<talkradiomary@yahoo.com>

Subject Fw:

Dear Ms. Tatum:

You have been forwarded a document that reflects a meeting between MDEQ and Kerr-McGee wherein a discussion to allow the Ditch and Drainage Project to be separated and presented as "a stand along project." We believe this action by MDEQ officials allowed Kerr-McGee to separate the project based on race and location of property owners. We ask for you assistance to establish a relationship to determine if there were reasons for

separating the project other than the ones we have stated above.

We thank you for your cooperation in this matter and ask for a response within 3 days.

Thank you,

Sherri Jones



OVERVIEW OF PROPOSED REMEDIAL ACTION.17

In February 2000, KMC submitted to MDEQ a *Remedial Action Work Plan* for the Site. The work plan outlined proposed remedial activities to address affected media in the following areas:

- the Gordon's Creek Fill Area (the Fill Area);
- several subsurface features (i.e., storage tanks, a sump, and a suspected burial area) within the former Process Area;
- the area situated between the former Process Area and the Southern railroad tracks; and
- the northeast drainage ditch.

In a June 28, 2001 meeting, MDEQ and KMC agreed that ~~in order to expediate cleanup of affected sediment and soil in the northeast drainage ditch~~, proposed activities to address the ditch would be presented in a stand-alone document. A *Removal Action Work Plan* for the northeast drainage ditch was submitted to MDEQ on August 3, 2001. Proposed response activities for affected media in the other above-listed areas, including additional work necessary to address MDEQ comments on the February 2000 plan, were presented in a *Remedial Action Work Plan* dated September 19, 2001.

Since the submittal of that plan, KMC and MDEQ have had numerous discussions and meetings regarding a mutually-acceptable remedy. On May 8, 2002, MDEQ provided written comments on the September 19, 2001 plan. This revised *Remedial Action Work Plan* incorporates KMC responses to MDEQ comments.

Overview of Proposed Remedial Action

Gordon's Creek Fill Area

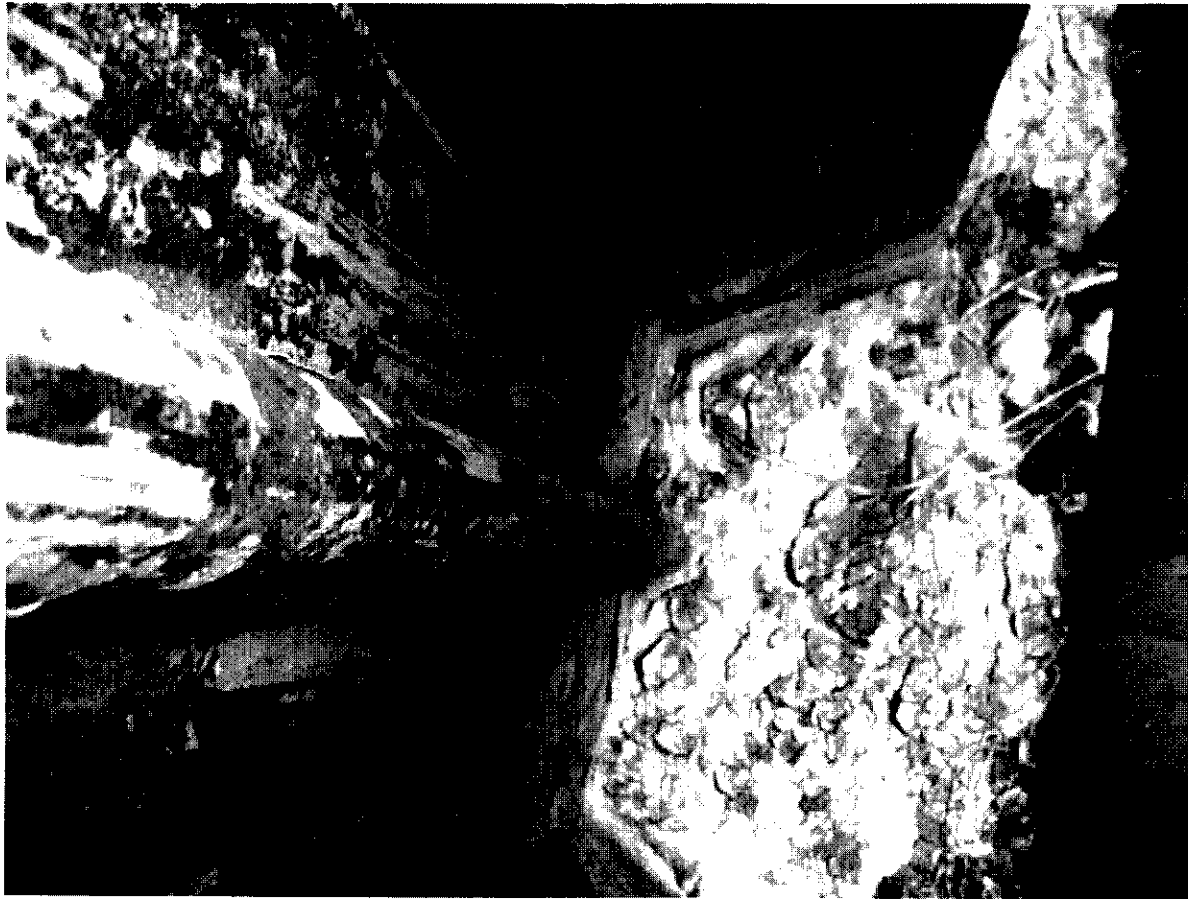
The scope of remedial action for addressing the Fill Area consists of the following steps:

1. Install culvert in the ditch bisecting the Fill Area between West Pine Street and Gordon's Creek.
2. Drive sheet pilings to cut off intermittent seeps of dense non-aqueous phase liquids (DNAPLs) to Gordon's Creek.
3. Delineate the extent of visible DNAPLs in the Gordon's Creek streambed, and develop a plan to remediate DNAPLs, if necessary.
4. Install a recovery system behind the sheet piling barrier to collect, contain, and dispose of DNAPLs.
5. Install a geosynthetic clay liner atop affected Fill Area materials to inhibit the infiltration of precipitation through affected soils and reduce the potential for ground water mounding.
6. Implement a phytoremediation program to reduce the potential for ground water mounding, promote the capture of affected ground water, and accelerate further degradation of site constituents in shallow soils.

BOOK 0902 PAGE 435



GSC - Hattiesburg
Sept 2009



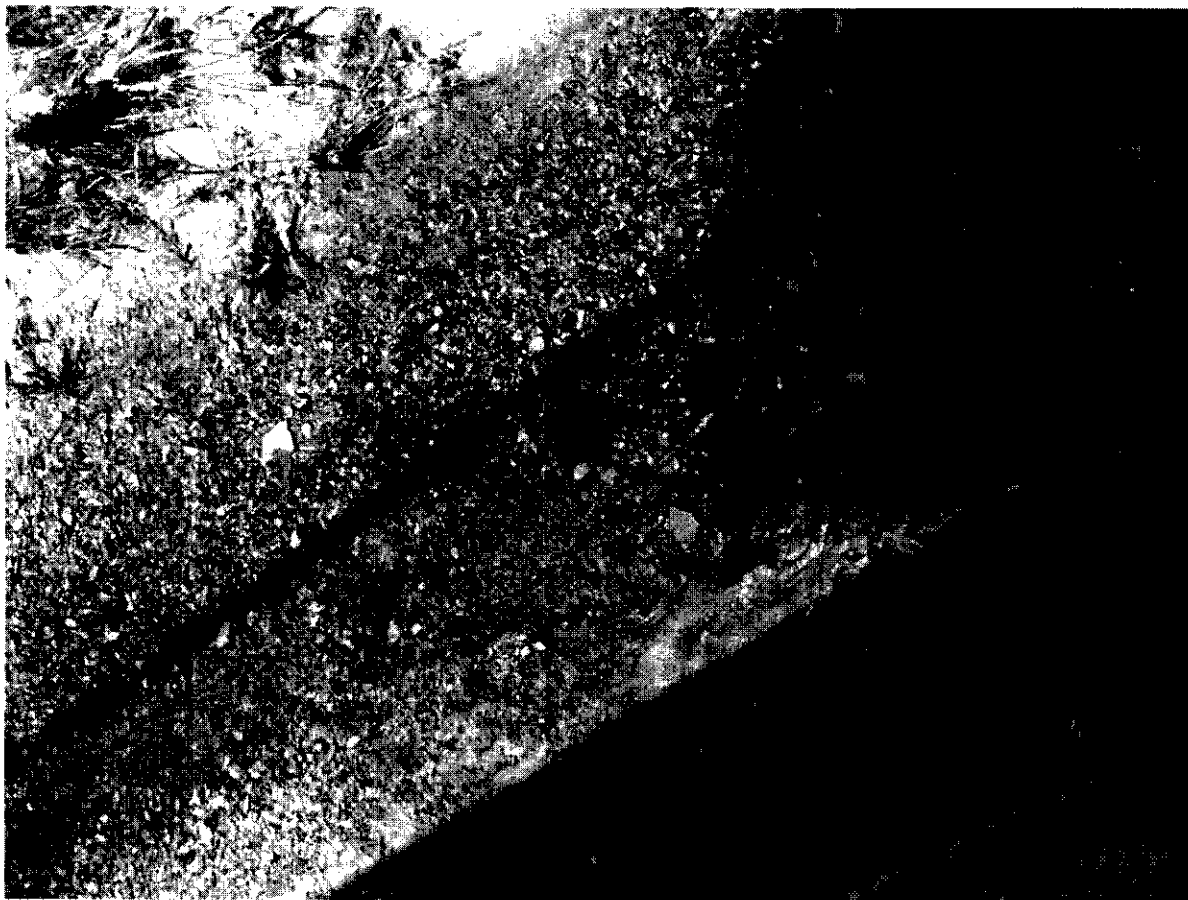
GSC- Hattiesburg
Sept 2009



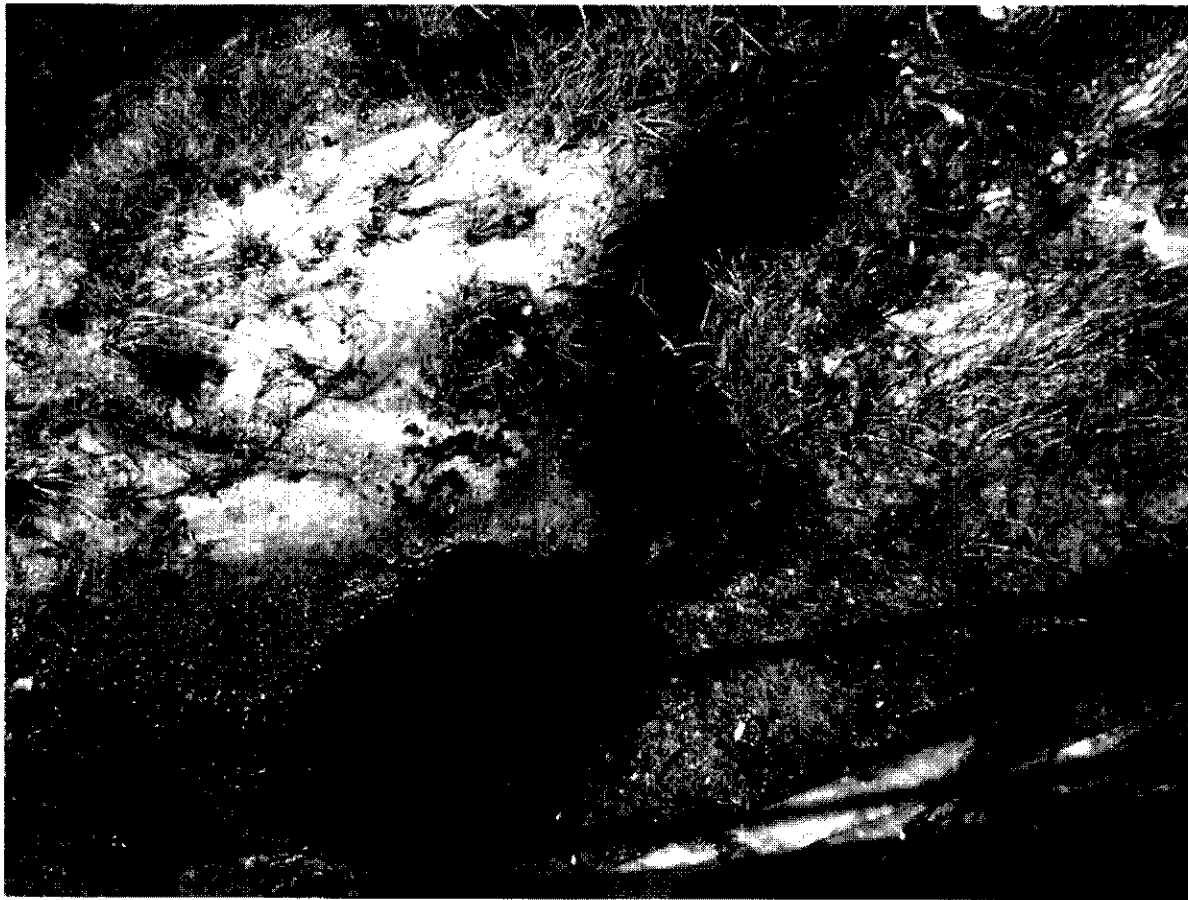
GSC - Hattiesburg
Sept 2009



GSC - Hattiesburg
Sept 2009



GSC - Wattiesburg
Sept. 2009



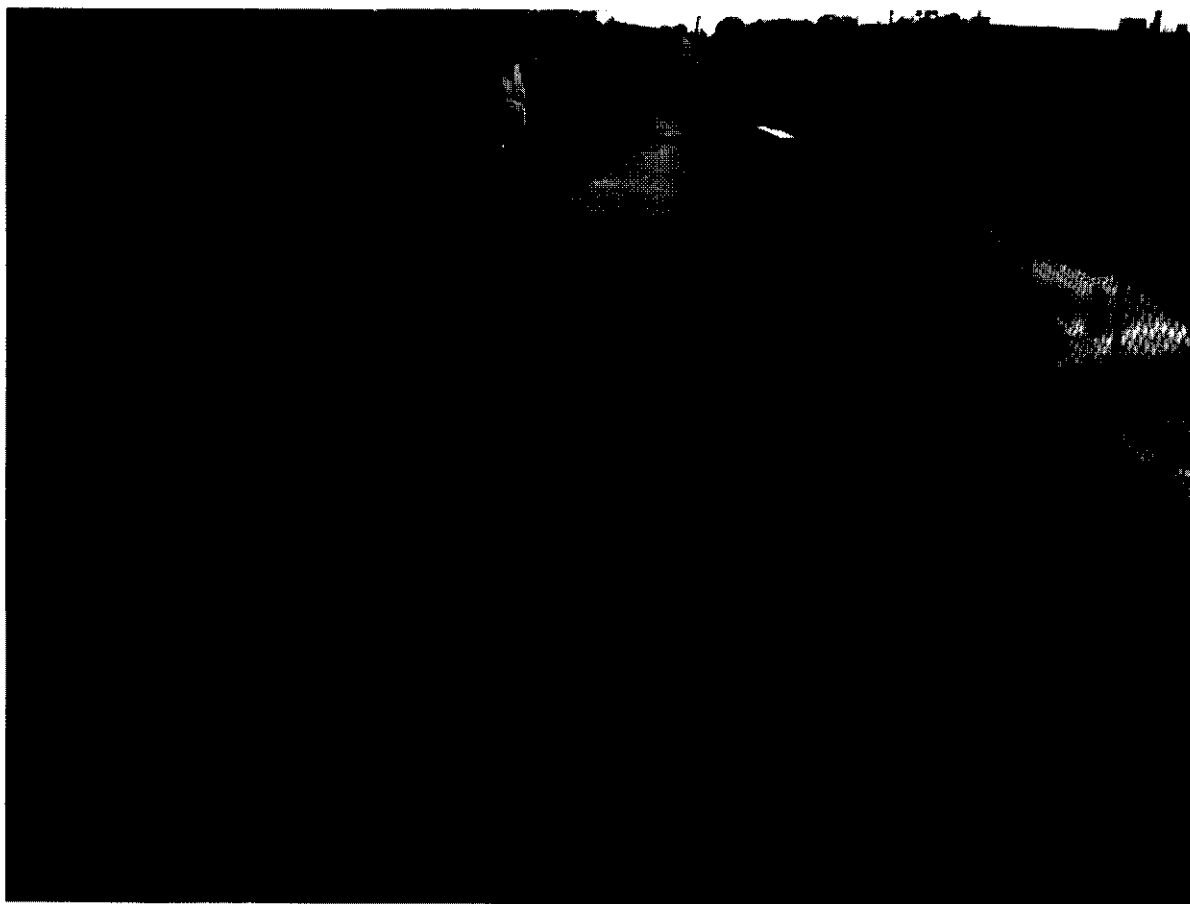
GSC - Hittiesburg
Sept. 2009

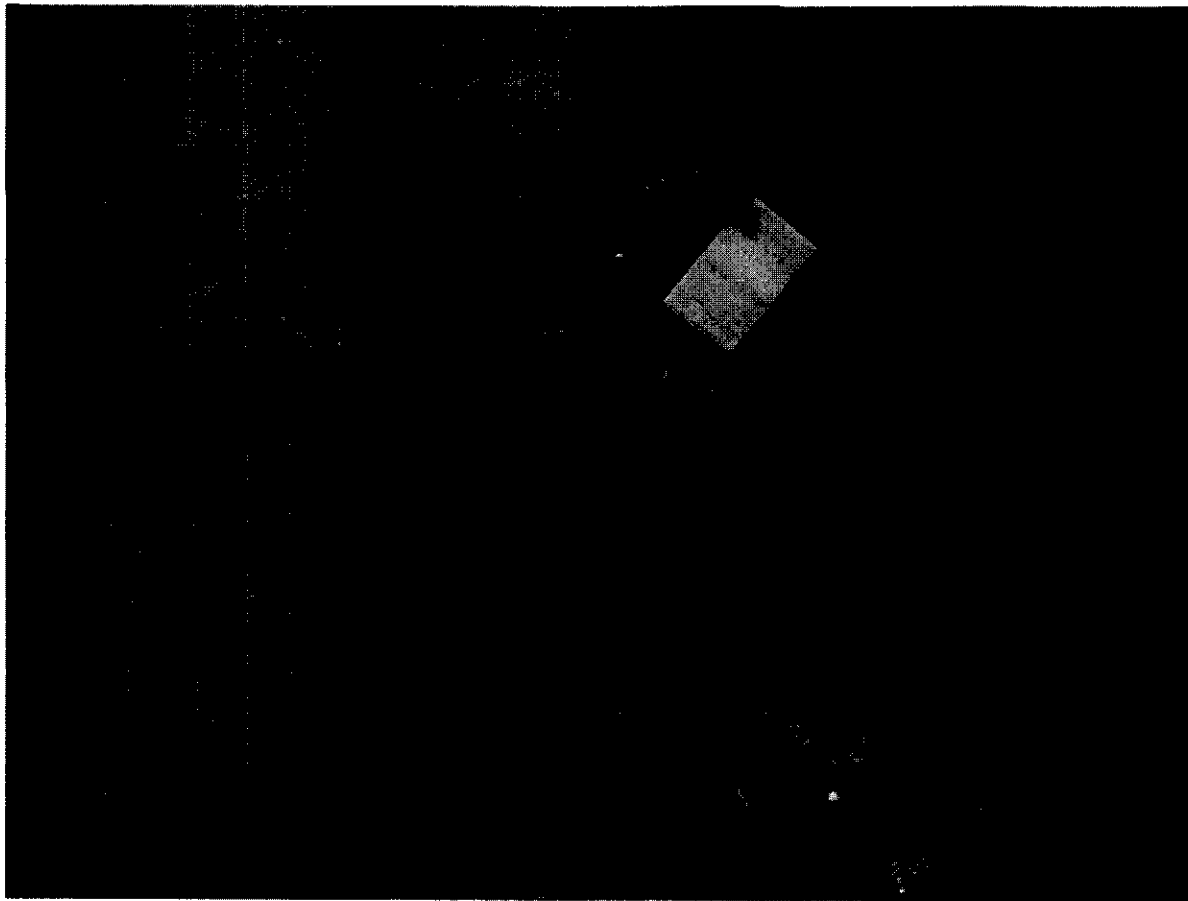


GSC - Hattiesburg
Sept. 2009



GSC - Hattiesburg
Sept, 2009





GSC - Tattiesburg
Sept. 2009

Gloria Tatum/FS/OPC/DEQ
09/25/2009 01:04 PM

To Jerry Cain/EPD/OPC/DEQ@DEQ, Jerry
Banks/HW/OPC/DEQ@DEQ, Tony
Russell/HW/OPC/DEQ@DEQ

cc

bcc

Subject Fw: Letters

----- Forwarded by Gloria Tatum/FS/OPC/DEQ on 09/25/2009 01:04 PM -----



Sherri Jones
<sjfcest48@yahoo.com>
09/25/2009 11:33 AM

To Gloria_Tatum@deq.state.ms.us, twfcest@yahoo.com,
Peurifoy.Cynthia@epamail.epa.gov,
Pugliese.Suzzette@epamail.epa.gov,
Hall.Tayoka@epamail.epa.gov, Bill Felder
<Bill.Felder@mail.house.gov>, mblake@who.eop.gov,
lmsenvironmenta@comcast.ne, "Kim \ (Cochran) Coalter"
<Kim_Coalter@cochran.senate.gov>

cc

Subject Fw: Letters

Dear Ms. Tatum:

I errored in my e-mail to you dated 9/23/09 by adding Congressman Taylor and Sen. Cochran's office in my comment that they were in support of FCEST position that the citizens of Hattiesburg was treated differently based on race. Both elected officials have been conducting their own inquiry into the above matter and recently have submitted request on our behalf. We believe once their inquiry have been completed, their findings will mirror the findings of the elected officials of the City of Hattiesburg and Forrest County.

Please see attached letters which we again respectfully request your assistance as the Environmental Justice liaison for the State Of Mississippi. It is our opinion that the record will reflect that MDEQ representatives have failed in their mission to protect the minority citizens of the State of Mississippi and you have failed in your role as Environmental Justice Liaison because of your conflict of interest and loyalty to your former employee and colleagues and it is for these reasons, we are requesting through our Congressman and Senator that an Environmental Justice person access our concerns from the Washington D.C. office. This is on behalf the following communities: Richton, Columbus, Crystal Springs, Columbia, Hattiesburg and Greenwood.

Respectfully submitted,
Sherri Jones

----- Forwarded Message -----

From: Sherri Jones <sjfcest48@yahoo..com>
To: sjfcest48@yahoo.com
Sent: Friday, September 25, 2009 10:40:58 AM
Subject: Letters



Charles E. Lawrence, Jr.

ATTORNEY AND COUNSELOR-AT-LAW

P.O. Box 1624 • 1105 EDWARDS STREET • HATTIESBURG, MS 39403-1624

TELEPHONE (601) 582-4157 • FAX (601) 582-4140

September 1, 2009

VIA FACSIMILE and U. S. Mail
(601) 582-6666

Dr. Annie P. Wimbish, Superintendent
Hattiesburg Public Schools
301 Mamie Street
Hattiesburg, MS 39401

Re: Kerr-Magee/ Tronox – Affected Residential Property Owners

Dear Dr. Wimbish:

Please be advised that Mayor DuPree has given much thought and consideration to the question of what, if anything, the City can do to assist its residents in the Eastside Avenue/Scooba Street area that are 16th Section leaseholders whose property was affected by the waste and/or by-products product of Kerr-Magee/Tronox. Mayor DuPree has come to the conclusion that assistance to the residents should be rendered by the school district as the Lessor of the property.

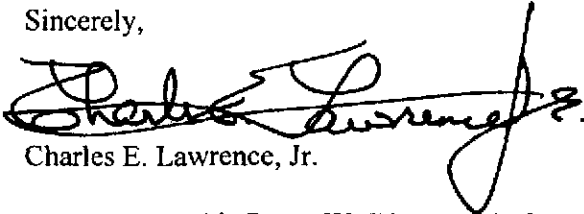
Mayor DuPree is requesting on behalf of the residential leaseholders that the school district identify the affected residential properties by defining the areas where creosote is or was present or any hazardous by-products. Further, he requests that the school district performed upon said properties an appraisal as was performed upon the commercial properties in the area. Also, the district should pay for the appraisals just as it paid for commercial properties appraisals authorized in the School Board minutes of September 3, 1996 at page 355 and the minutes of February 1, 2000 at page 385. Also, Mayor DuPree is requesting that the district allow the School Board Attorney, the Honorable Percy W. Watson, to represent the leaseholders regarding any property damage they may have sustained and if necessary to engage special counsel for this purpose. This request is based upon the precedent previously established by the school board of allowing the board attorney to represent the commercial property leaseholders in this respect.

Please note that the City's request is limited to any claim for property damage and does not include claims of personal injuries. Should the Board comply with this request, we believe that it would be prudent to express to the affected property leaseholders that the claim is limited to property damage only.

Page 2
September 1, 2009
Letter to Dr. Wimbish
Re: Kerr-Magee/Tronox

If the City of Hattiesburg can be of any assistance to the school district in this matter, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Lawrence, Jr.", with a stylized flourish at the end.

Charles E. Lawrence, Jr.

cc: Honorable Percy W. Watson, via fax and mail
Mayor Johnny L. DuPree, Ph.D.
Council President Kim Bradley
Council Vice-President Dave Ware
Councilwoman Deborah Delgado
Councilman Carter Carroll
Councilman Henry Naylor

Honorable Percy W. Watson
Mayor Johnny L. DuPree, Ph.D.
Council President Kim Bradley
Council Vice-President Dave Ware
Councilwoman Deborah Delgado
Councilman Carter Carroll
Councilman Henry Naylor

FORREST COUNTY ENVIRONMENTAL SUPPORT TEAM TIME LINE

Exhibit A – This document contains the original Agreed Order, dated January 16, 1979, which did not identify any contamination on the east side of the railroad track. The property of concern in this matter is referenced in all documents, as Exhibit B this document which was used in the settlement agreement to obtain \$17 million dollars was also used to reduce the taxes only on the west side of the railroad track.

The Court was notified prior to the 1999 settlement agreement that Kerr-McGee's testing program was flawed and did not reflect the affected property. Based on that information the Court refused the initial clean up plan and instructed MDEQ to determine the parameters of the impacted property. This is reflected in Exhibit C which is excerpts from a Court document of statements by Atty. J. B. Van Slyke, see page 32 line 19 and page 33 lines 1 – 6.

It should be clear to all involved that the original agreed order was flawed as it did not address all of the affected property. Therefore, requiring the Court to instruct MDEQ to present facts and evidence of the entire affected property, this resulted in what Atty. J. B. Van Slyke admitted was a delay in the original settlement. The Director of MDEQ that signed the original agreement later became the Head of EPA Region 4, Mr. Jimmy Palmer.

The additional testing took an additional three (3) years and required a second Agreed Order, dated March 26, 2003, No. 4539-03 with a human risk assessment see Exhibit C, page 34, line 21, comments from Atty. Hammond.

Please see Exhibit D, page five (5) and it reads **"In June 28, 2001 MDEQ and Kerr-McGee agreed that in order to expedite clean up the affected sediments soils in the Northeast Drainage Ditch proposed activities to address the ditch would be presented in a stand-alone document."** Please see pages 1, 2 and 3 also in Exhibit D, Gloria Tatum, Chief Field Service Division for MDEQ invites Mr. Brad Nix and his committee to Jackson to discuss their concerns. This letter clearly reflects MDEQ'S failure to properly inform the community as mandated under Environmental Justice. The record also will reflect in this same exhibit pages 2 and 3 reveals that the City of Hattiesburg was busy obtaining easement agreements from the minority leaseholders and failed to mention in the easement the remediation project. The first easement was obtained June 20, 2001 and the next one obtained July 9, 2001. Page 4 reflects the City becoming the owner of the property which is actually the ditch. **Page 6 of this same exhibit reflects a meeting with the Mayor Dupree to brief him on the Kerr-McGee Chemical site and associated remediation plan.**

Exhibit A we believe will reveal cause for concern with respect to paragraph 8, and it is our opinion that this is the Agreed Order and work plan which was submitted to the Court in order to obtain the \$17 million dollar settlement and the question that needs to be answered is what map was submitted? Did they use the map referred to as exhibit B or

did they used the second map that revealed the contamination on the east side of the track. We believe Atty. Chaney with the Secretary of State have answered that question for us, please see Exhibit E, which is a letter from Atty. Chaney in which he explains this case very well. In a letter dated January 13, 2004, he explains that it is imperative that the clean up of the creosote contamination is complete as soon as possible. In his letter dated December, 2008 he is still talking about the importance of completing the project and what is very clear in all of his letters is the fact that the School Board is responsible for taking whatever action necessary including actions in Court to make sure that 16th Section property is properly remediated. January 30, 2004, Atty. Chaney advised Atty. Don Barrett to contact Atty. Jane Rayford a Kerr-McGee lawyer to determine the responsibility of the City of Hattiesburg. In this letter he states "the City was hired to perform the labor." It appears that Atty. Chaney is suggesting that a contractual relationship existed between Kerr-McGee and the City of Hattiesburg. In Atty. Chaney's December 8, 2008 letter he again attempts to get the School District to act improperly by requesting that they sign a document in an attempt to place restrictions on minority leaseholder's property without properly notifying or including them in this process, this is again a prim example of MDEQ violating their Environmental Justice mandate, but Atty. Chaney makes it very clear that the property east of the track referenced as the Northeast Drainage Ditch was the basis for the settlement agreement.

Therefore it is our opinion that new information in recent testing will reflect that parties involved have committed several violations and possibly fraud upon the Court and the minority citizens without a doubt have been denied their right to due process by information being concealed for more than two decades. We believe this is reflected in MDEQ'S, June 28, 2001 meeting when they agreed with Kerr-McGee to separate the Northeast Drainage Ditch Project and **allow it to be presented in a stand alone document.**

F. C. E. S. T. appreciated all of those who have supported our efforts to obtain equal justice for this community.

Conclusion: Minority Lease Holders as reflected by the maps were included in all phases of this case. Human Health Assessment, Remediation, but excluded from receiving compensation or equal protection under the law and their rights.

Section 1 Fourteenth Amendment to the United States Constitution

Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Forrest County



DAVID B. MILLER
BOARD ATTORNEY

641 MAIN STREET
P. O. BOX 1310
HATTIESBURG, MISSISSIPPI 39403-1310

PHONE (601) 545-6006
FAX (601) 545-6172

August 28, 2009

The Honorable Jim Hood
Mississippi Attorney General
Post Office Box 220
Jackson, Mississippi 39205

Re: Contamination of 16th section lands near former Gulf States Creosote facility

Dear General Hood:

Please accept this letter as the formal request of the Forrest County Board of Supervisors for your office to make an inquiry into the settlement of certain claims regarding the contamination of 16th section lands in Hattiesburg near the former Gulf States Creosote facility and related remediation efforts coordinated with the Mississippi Department of Environmental Quality.

I have enclosed for your reference copies of a similar letter to your office from District Attorney Jon Mark Weathers and of a recent letter from the Board of Supervisors to the Hattiesburg Public School District regarding resolution of the affected leaseholders' outstanding claims.

The Board sincerely appreciates your time, attention, and consideration in this matter.

Sincerely,

David B. Miller
David B. Miller
Board Attorney



JON MARK WEATHERS

**District Attorney
Twelfth Circuit Court District**

P. O. BOX 166
HATTIESBURG, MS 39403-0166
TELEPHONE (601) 545-1551
FAX (601) 545-6097
WWW.FORRESTPERRYDA.COM

June 10, 2009

Mr. Sherri Jones
Forrest County Environmental
Support Team
P. O. Box 374
Hattiesburg, MS 39403-0374

RE: Kerr-McGee, et al litigation

Dear Mr. Jones:

As per your request, I have contacted Attorney General Jim Hood and advised him of your request to open an inquiry into the settlement and remediation referenced in your letter of April 7, 2009. I have furnished him with a brief background on the situation and will make the documentation attached to the letter available to his office should he open an inquiry.

I furnished your name, telephone number and address to General Hood.

Hopefully, someone will contact you within the next several weeks.

Thank you for your patience.

With best regards,


Jon Mark Weathers

Forrest County



DAVID B. MILLER
BOARD ATTORNEY

641 MAIN STREET
P. O. BOX 1310
HATTIESBURG, MISSISSIPPI 39403-1310

PHONE (601) 545-6006
FAX (601) 545-6172

August 28, 2009

Dr. Annie P. Wimbish, Superintendent
Hattiesburg Public School District
301 Mamie St.
Hattiesburg, MS 39401

Re: Residential leaseholders impacted by Gulf States Creosote contamination:

Dear Dr. Wimbish:

Please accept this letter as the formal request of the Forrest County Board of Supervisors for District assistance on behalf of 16th section residential leaseholders whose properties have been impacted by contamination from the former Gulf States Creosote facility. Specifically, the County joins the City of Hattiesburg's pending request that the District provide the residential leaseholders with the same assistance previously afforded to affected commercial leaseholders, to wit: identification of the affected properties, funding for a contamination appraisal of said properties, and waiver of any conflicts with respect to legal representation of the leaseholders.

Please note that the County's request is limited to District assistance in establishing the extent of contamination related property damage and does not contemplate District involvement in establishing other injuries suffered by the residential leaseholders, if any.

The Board of Supervisors very much appreciates your time and attention in this matter. Please let me know if any additional information or documentation would facilitate the District's consideration of the County's request.

Sincerely,

David B. Miller
David B. Miller
Board Attorney



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS
FROM: Tony Russell *DAR 8/18/09*
DATE: August 18, 2009
SUBJECT: Fill Area – Product Removal Conducted Aug 17, 2009

I met with Dickie Allison on August 17, 2009 to observe the gauging of wells for product and free product removal. The same four wells (MW-6, RW-6, RW-7 & RW-8) that had free product back in May again had free product. None of the wells were flowing during this field event as the water table had dropped some.

The product is removed with a peristaltic pump. The pump is connected to dedicated tubing in the well and the product is removed along with some water. The total amount of fluid removed from all four wells is less than one gallon.

Gordon's Creek was real low during this site visit. No noticeable sheens or odors were observed in the creek during this product removal event. The creek was full of small fish such as bass, bream and minnows.

No photos were taken during this site visit.

MW-6	.63 ft
RW-6	.21 ft
RW-7	.23 ft
RW-8	.20 ft



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

July 31, 2009

Mr. Keith Watson
Tronox LLC
P. O. Box 268859
Oklahoma City, OK 73126-8859

FILE COPY

Re: Gulf States Creosote Site
Groundwater Monitoring Report Calendar Year 2008 Event dated May 26,
2009
Hattiesburg, Mississippi

Dear Mr. Watson:

The Mississippi Department of Environmental Quality has reviewed the above referenced report submitted by Michael Pisani & Associates (MPA) on behalf of Tronox. The report contained date errors in Table 3-2 and there was no plume map for the Fill Area. MPA submitted revised copies of the tables and a revised plume map. Therefore, MDEQ finds the report to be satisfactory and agrees with the conclusions presented. The report is therefore accepted without further comment.

MPA requested that the next sampling event be conducted in two (2) years. MDEQ can not approve the requested change in sampling frequency at this time. Therefore, the next scheduled sampling event should be conducted in January 2010.

Please call me with any questions you may have concerning this matter at 601-961-5318.

Sincerely,

Tony Russell, Chief
Assessment Remediation Branch

cc: Dave Upthegrove Michael Pisani & Associates [VIA EMAIL ONLY]



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

July 30, 2009

Mr. Franklyn Tate
City of Hattiesburg
P.O. Box 1898
Hattiesburg, MS 39403-1898

FILE COPY

Re: Gulf States Creosote Site
Calendar Year 2008 Ground Water Monitoring Report
Hattiesburg, Mississippi

Dear Mr. Tate:

Please find enclosed a copy of documents that were revised at the request of MDEQ. Some errors were detected in the tables and a plume map was not included in the original monitoring report submittal. Also included is an electronic copy of the report.

Please call me with any questions you may have at 601-961-5318.

Sincerely,

A handwritten signature in black ink, appearing to read "TRussell".

Tony Russell, Chief
Assessment Remediation Branch

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us

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MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

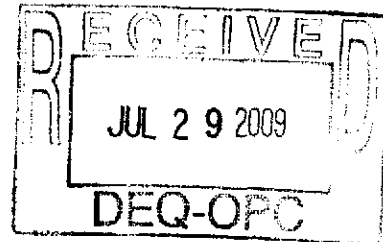
13313 Southwest Freeway
Suite 221
Sugar Land, Texas 77478
Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@windstream.net

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

17431 Jefferson Highway
Suite A
Baton Rouge, Louisiana 70816
Telephone (225) 755-2250
Facsimile (225) 755-2259
m.pisani@ix.netcom.com

July 28, 2009

Mr. Tony Russell
Assessment Remediation Branch Chief
Mississippi Department of Environmental Quality
515 East Amite Street
Jackson, Mississippi 39201



Re: Revised Pages – *Calendar Year 2008 Ground Water Monitoring Report*
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

Enclosed are two hard copies of Table 3-2 and Figure 3-3 from the referenced document (one for MDEQ and one for the City of Hattiesburg) and two copies of a CD containing a complete electronic version of the report. Table 3-2 was revised to reflect the correct month of sampling for the 2008 event (i.e., February 2009 instead of January 2009) and Figure 3-3 was revised to show the approximate extent of affected ground water in the Fill Area.

Should you have any questions or wish to discuss the enclosed revisions, please contact me.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.

David C. Upthegrove

cc: Keith Watson – Tronox

Henry Folmar/FS/OPC/DEQ
07/16/2009 04:39 PM

To Jerry Banks/HW/OPC/DEQ@DEQ
cc Tony Russell/HW/OPC/DEQ@DEQ, Jerry
Cain/EPD/OPC/DEQ@DEQ, Jon Shell/FS/OPC/DEQ@DEQ,
Jackie Key/SW/OPC/DEQ@DEQ, Beverly
bcc
Subject Fw: APEX / Tennie White / Hattiesburg

Jerry B.,

As you requested, I asked the lab to review the data and information you provided. Jackie Key, Jon Shell, and Beverly Ashmore-Bates conducted the review. Based on the information we received, the analyses appear to be solid, but the data interpretation and presentation are questionable.

Several key pieces of information needed in order to do a thorough data review are not provided:

- The data reports, showing the reported results and the minimum quantitation levels.
- Calibration curves
- We are not clear as to what the term 'analyte limit' represents in the spreadsheet with the red highlights.

Based on our review of the information provided, the analyses and calculations appear to be valid with an appropriate level of QA. The analyst was thorough and detailed, we checked the calculations of the 3 samples of primary interest (BB22220, BB22221, BB22223) and confirmed that the calculations were correct.

The data interpretation is subject to question. Ms. White cites the numbers that the analyst reported, and which we believe to be accurate, but she does so without qualifiers, as if these were hard numbers. The analyst had marked through these results on the chromatogram with the notation 'BDL', which we believe stands for below detection limit. In our lab the numbers would be reported as < MQL. These values probably fall below the endpoint on the calibration curve, and therefore can not be reliably quantified.

In addition, Ms. White refers to evidence of gasoline being present in the samples. She may have access to other information to support this, but based on the information provided, we did not see evidence to confirm the presence of gasoline in these samples.

The results reported for these samples were all below our TRGs.

If you have any questions or want to discuss in more detail, please let me know.

Henry

----- Forwarded by Henry Folmar/FS/OPC/DEQ on 07/16/2009 04:53 PM -----

Jon Shell/FS/OPC/DEQ
07/16/2009 04:39 PM

To Henry Folmar/FS/OPC/DEQ@DEQ
cc Beverly Ashmore-Bates/FS/OPC/DEQ@DEQ, Jackie
Key/SW/OPC/DEQ@DEQ, David
Singleton/FS/OPC/DEQ@DEQ
Subject APEX / Tennie White / Hattiesburg

Henry,

I have reviewed each of the semi-volatile GC/MS data sheets in the e-mail attachments I received from you and Jackie. The data sheets all appear to be complete and reasonable. Qualitative identification of

organic compounds using method 8270 are generally made by inspection of the mass spectral data generated during the analysis and subsequent mass spectral library searches using probability based matching algorithms. Quantitative analysis of the identified compounds is based on comparison of integrated peak areas of the calibration ions with standard curves previously generated.

The hand calculations done on the data reports appear to be accurate however, we do not have any official reports to see how the data was finally reported. We normally report data in ug/L or ug/Kg (ppb) while the calculations hand written on the instrumental data sheets appear to stop with the results in mg/L or mg/Kg (ppm).

I believe that Ms. White highlighted some areas on the total ion chromatograms with red boxes and yellow "sticky notes". She indicated that peaks in these areas might be indicative of the presence of gasoline, other hydrocarbons, or even PCB's in the sample extracts. We were given no mass spectral data or library search information concerning these highlighted areas and therefore can make no determination about them. Ms. White may have had access to this information and this may be why she indicated the possibility of their presence.

All of the GC/MS data sheets for semi-volatile analyses indicate that the desired analysis was for either BNA's or PAH's. It is not unreasonable that the analyst would disregard indications of the presence of gasoline, other hydrocarbons or even PCB's, as these compounds would be better identified and quantitated using other methods of analysis. (GRO; DRO; VOC; or PCB) If these components were suspected or tentatively identified, this information might have been noted in the comments section of the laboratory reports.

I received some indication that special attention should be given to sample numbers 22220, 22221, and 22223. The GC/MS data sheets for these three extracts appear normal and complete. The analysis request for each of the samples appears to be for "soil PAH's". The raw data sheets from the GC/MS analysis each have the handwritten notation of "BDL" which I feel indicates that all component quantities found in the instrumental analyses were "below the detection limit" for this analysis. This "BDL" would equate to what we refer to here at the MDEQ lab as "below minimum quantifiable levels" or "MQL's".

I reviewed the calculated values (in mg/Kg or ppm) which are listed in the "Troubleshooter" correspondence for the following compounds:

	BB22220	BB22221	BB22223	MDEQ MQL
1) Pentachlorophenol	0.29	0.288	0.288	0.666 mg/Kg
2) Benzo(a)anthracene	0.064	0.021	0.022	0.330 mg/Kg
3) Benzo(a)pyrene	0.024	0.004	0.004	0.330 mg/Kg
4) Benzo(b)fluoranthene	0.082	0.011	0.013	0.330 mg/Kg
5) Naphthalene	0.004	0.001	0.002	0.330 mg/Kg
6) 4-Chloroaniline	0.254	0.254	0.254	0.330 mg/Kg
7) 2,4-Dichlorophenol	0.159	*0.161	0.159	0.330 mg/Kg

*Note: This value was listed in error in the red highlighted area in the "Troubleshooter" correspondence as 0.181 mg/Kg.

The calculated values listed in this correspondence appear to be correct based on the sample weights listed on the extraction data sheets and the indicated GC/MS instrumental concentrations. However, the instrumental values listed would be considered below the minimum quantifiable levels in the MDEQ laboratory and would appear to be below the "detection limits" used by the analyst at APEX laboratory.



Jerry Banks/HW/OPC/DEQ

07/13/2009 12:43 PM

To Jerry Cain/EPD/OPC/DEQ@DEQ

cc Tony Russell/HW/OPC/DEQ@DEQ, Henry
Folmar/FS/OPC/DEQ@DEQ

bcc

Subject Fw: EPA review

Apparently, this is the information to go with the previous email. It says that a chromatogram is attached. If so we'll have to get Henry or someone at lab to interpret.

----- Forwarded by Jerry Banks/HW/OPC/DEQ on 07/13/2009 12:34 PM -----



Tennie White
<twfcest@yahoo.com>

07/13/2009 12:23 PM

To Taylor.Dawn@epamail.epa.gov

cc sjam9653@bellsouth.net, jackson.lisa@epa.gov,
Anderson.Matt@epamail.epa.gov,
dbernardo@hattiesburgms.com,
Anderson.Matt@epamail.epa.gov, AskDOJ@usdoj.gov,
bjfcest@yahoo.com, bonnie.hill@hpsd.k12.ms.us,
brendawilliams@megagate.com, cjfcest@yahoo.com,
crfcest@yahoo.com, dbernardo@hattiesburgms.com,
dwfcest@yahoo.com, evans.carlos@epa.gov,
fbfcest@yahoo.com, ftate@hattiesburgms.com,
grandoris33@comcast.net, greatereastlampton@yahoo.com,
hall.tayoka@epa.gov, jackson.lisa@epa.gov,
jbrown@hattiesburgms.com, jdupree@hattiesburgms.com,
Jerry_Banks@deq.state.ms.us, knight.karen@epa.gov,
kpree@ago.state.ms.us, lee.charles@epa.gov,
ljfcest@yahoo.com, pwatson@megagate.com,
sjam9653@bellsouth.net, sjfcest48@yahoo.com,
Tracy.mcgaugh@gmail.com, twfcest@yahoo.com,
vwfcest@yahoo.com, yolandamccree@megagate.com

Subject Re: EPA review

Dawn,

I have attached the chromatograms surrendered by APEX.. The First set of Data contains presistent Pentachlorophenol and Chloroaniline at 0 to 4 feet. Please have your risk assessors evaluation exposure for children playing out side or person's working the yard or garden.

Respectfully,

Tennie White

From: "Taylor.Dawn@epamail.epa.gov" <Taylor.Dawn@epamail.epa.gov>

To: Sherri Jones <sjfcest48@yahoo.com>

Cc: ftate@hattiesburgms.com; twfcest@yahoo.com

Sent: Monday, July 13, 2009 7:35:15 AM

Subject: EPA review

Sherri-

I expect to receive the APEX data from Franklyn via fedex sometime this week. It would be extremely helpful to me if you could detail your specific concerns regarding the APEX investigation and specify any particular issues that you want us to look in to. EPA was originally

asked by the Mayor's office to review the concerns posed by Ms. Tennie White in a letter dated June 2, 2008 (attached).
(See attached file: Tennie White Cmts re APEX report 060208.pdf)

Below is EPA's initial draft response based on the final APEX report. We did this in April 2009 - as you can see from these responses, additional info was needed, thus resulting in our request for the full set of raw data and sampling protocols from APEX. Any clarification you or Ms. White can provide, would be much appreciated. Also, while we are conducting our current more thorough review, if there are any other issues you want us to address, please let me know by the end of this week (July 17), so I can make sure I task the appropriate people (risk assessors, QA managers, etc.) and to ensure that I am as specific as possible in my request to the reviewers.

Thanks
Dawn

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(Embedded image moved to file: pic05794.jpg)

(Embedded image moved to file: pic25084.jpg)

(Embedded image moved to file: pic17915.jpg)

Sherri Jones
<sjfcest48@yahoo.com>
To
Tayoka Hall/DC/USEPA/US@EPA, Dawn
07/10/2009 11:55 AM Taylor/R4/USEPA/US@EPA
cc
Matt Anderson/R4/USEPA/US@EPA
Subject
Fw: data

----- Forwarded Message -----

From: Sherri Jones <sjfcest48@yahoo.com>
To: "Tate, Franklyn" <ftate@hattiesburgms.com>
Cc: mayor@hattiesburgms.com
Sent: Friday, July 10, 2009 10:46:39 AM
Subject: Re: data

Thanks Mr. Tate please let us know if you agree that this is still not all the data what happen to the data from Down Home Cooking, 114 Townson Street, and Out in the Field.

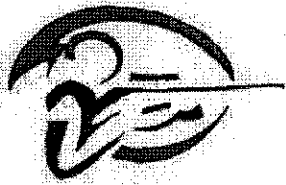
From: "Tate, Franklyn" <ftate@hattiesburgms.com>
To: "DuPree, Mayor Johnny L." <jdupree@hattiesburgms.com>;
sjfcst48@yahoo.com
Sent: Thursday, July 9, 2009 8:48:12 AM
Subject: data

Sherri,

I have the data from APEX / EDL. It is available in my office for pick-up at your convience. I have forwarded it to Dawn Taylor via fed ex as well.



GulfStatesCreosoteApex surrendered 7_9_2009b.pdf apex surrendered data first set of data January08.pdf

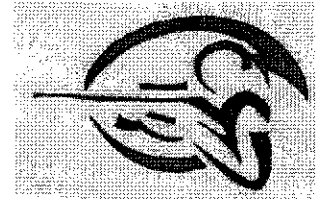


TROUBLESHOOTERS, INC.

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*Office: 601-982-1920
Fax: 601-982-1980*

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Monday, July 13, 2009

Annie P. Wimbish, Ed.D.
Superintendent
Hattiesburg Public School District
301 Mamie Street
Hattiesburg, MS 39401
601-582-5078 (Phone)
601-583-7339 (Fax)
annie.wimbish@hpsd.k12.ms.us

RE: Gulf States Creosote

APEX Consultants the Firm hired by the City of Hattiesburg has released new information. A preliminary assessment has revealed that Environmental Contamination is present as far South of Courtesy Ford as Baxter Street. The Chemicals pose a hazard as they are over the EPA Target Remediation Goals. Previously unreported amounts of Pentachlorophenol and Chloroaniline and the presence of Gasoline components increase the level of urgency. On behalf of Forrest County Environmental Support Team we are requesting the School Board as the Landlord of 16 Section Lands implement the necessary notifications to the Courts, Kerr McGee, MDEQ and EPA Region 4. The contamination present exists at zero (0) to four (4) feet making it impossible for residents to escape exposure. The calculations of exposure are usually based on 8 hours, residents are exposed 24 hours a day 7 days a week. Children playing in their own yards or adults working in the yard are all being exposed to hazardous levels of Environmental Contamination. Please contact me should you have any questions.

Respectfully,

Tennie White,
President

Cc:

Hattiesburg Public School District
Ms. Bonnie Hill
301 Mamie Street
Hattiesburg, MS 39401

bonnie.hill@hpsd.k12.ms.us

Mississippi Attorney General's Office
Public Integrity
Karl Pree, Chief Investigator
P.O. Box 2
Jackson, MS 39205

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORKIn re: Chapter 11
TRONOX INCORPORATED, et al., Case No. 09-10156 (ALG)
Debtors. (Jointly Administered)

NOTICE OF AUGUST 12, 2009

DEADLINE FOR FILING PROOFS OF CLAIM

TO: ALL PERSONS AND ENTITIES WHO MAY HAVE CLAIMS AGAINST TRONOX INCORPORATED OR ITS AFFILIATED DEBTORS.

PLEASE TAKE NOTICE that, on January 12, 2009, Tronox Incorporated and 14 of its affiliates (collectively, the "Debtors") filed voluntary petitions for relief under chapter 11 of title 11 of the United States Code (the "Bankruptcy Code") in the United States Bankruptcy Court for the Southern District of New York (the "Court"). The Debtors are listed below.

PLEASE TAKE FURTHER NOTICE that, on May 28, 2009, the Court entered an order establishing August 12, 2009 at 5:00 p.m. (Pacific Time) as the last date (the "Bar Date") for any person or entity (including individuals, corporations, partnerships, trusts, and governmental units) to file a proof of claim (a "Proof of Claim"). The Bar Date and the procedures for filing a Proof of Claim apply to all Claims (as defined in section 101(5) of the Bankruptcy Code) against a Debtor that arose prior to January 12, 2009, except as specifically excluded below.

PURSUANT TO THE BAR DATE ORDER ENTERED BY THE COURT:

- THE DEADLINE TO FILE A PROOF OF CLAIM IN THESE CASES IS AUGUST 12, 2009 AT 5:00 P.M. (PACIFIC TIME).
- IF YOU ARE REQUIRED TO FILE A PROOF OF CLAIM BY THE BAR DATE BUT FAIL TO DO SO, YOUR CLAIM WILL BE FOREVER BARRED. THIS MEANS THAT YOU WILL NOT BE ELIGIBLE TO VOTE ON ANY CHAPTER 11 PLAN OR RECEIVE ANY DISTRIBUTION FROM THE DEBTORS ON ACCOUNT OF YOUR CLAIM.

THIS NOTICE CONTAINS INFORMATION REGARDING (1) HOW TO DETERMINE IF YOU MUST FILE A PROOF OF CLAIM AND, IF YOU ARE REQUIRED TO DO SO, (2) HOW TO FILE A PROOF OF CLAIM.

I. WHO MUST FILE A PROOF OF CLAIM. You MUST file a Proof of Claim if you have a Claim against any of the Debtors that arose before January 12, 2009, except for the types of Claims listed below. Acts or omissions that occurred before January 12, 2009 may give rise to Claims that are subject to the Bar Date, even if the Claims may not have become known or fixed or liquidated until after January 12, 2009.

The Debtors were "spun off" from Kerr-McGee Corporation in 2006. As a result of the spin-off, it is possible that you may have a Claim against the Debtors that is related to Kerr-McGee Corporation's operations prior to March 2006.

Under section 101(5) of the Bankruptcy Code, the word "Claim" means: (a) a right to payment, whether or not such right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, legal, equitable, secured or unsecured; or (b) a right to an equitable remedy for breach of performance if such breach gives rise to a right to payment, whether or not such right to an equitable remedy is reduced to judgment, fixed, contingent, matured, unmatured, disputed, undisputed, secured or unsecured.

II. WHAT TO FILE. For your Proof of Claim to be valid, it must (a) be signed by you or your authorized agent, (b) be written in the English language, (c) be denominated in lawful currency of the United States, and (d) conform substantially with Official Form No. 10. In addition, you must attach to your Proof of Claim any documents on which your Claim is based (if voluminous, you may instead attach a summary). You must specifically identify the Debtor against which you assert a Claim by name and case number. You should include all Claims against a particular Debtor in a single Proof of Claim. If you have Claims against multiple Debtors, you must file a separate Proof of Claim against each Debtor. You may obtain a Proof of Claim form from any bankruptcy court clerk's office, from your lawyer, by going to www.uscourts.gov/bankform or www.kcccllc.net/tronox, or by calling (866) 381-9100.

III. WHEN AND WHERE TO FILE. Proofs of Claim must be submitted so as to be actually received no later than **5:00 p.m. (Pacific Time) on August 12, 2009** at:

Tronox Claims Processing Center
c/o Kurtzman Carson Consultants LLC
2335 Alaska Avenue, El Segundo, CA 90245

PLEASE NOTE that your Proof of Claim must be delivered to the above address by first class U.S. Mail (postage prepaid), in person, by courier service, or by overnight delivery.

A PROOF OF CLAIM THAT IS SENT BY FACSIMILE OR E-MAIL WILL NOT BE ACCEPTED.

IV. A LIST OF THE DEBTORS AND CERTAIN RELATED INFORMATION.

DEBTOR CASE NUMBER PRIOR NAMES USED IN THE LAST 6 YEARS (IF ANY): Tronox Incorporated, 09-10156, New-Co Chemical, Inc., Tronox Luxembourg S.A., 09-10155, Kerr-McGee Chemical (Luxembourg) S.A., Kerr-McGee Luxembourg S.A., Cimarron Corporation, 09-10157, Southwestern Refining Company, Inc., 09-10158, Southwestern Oil & Refining Company, Transworld Drilling Company, 09-10159, Triangle Refineries, Inc., 09-10160, Triple S Environmental Management Corporation, 09-10161, Edgebrook Development Corp., Kerr-McGee Environmental Management Corp., Triple S Mineral Resources Corporation, 09-10162, Kerr-McGee Minerals Resources Corporation, Triple S Refining Corporation, 09-10163, Kerr-McGee Refining Corporation, Triple S, Inc., 09-10164, Tronox Finance Corp., 09-10165, Tronox Holdings, Inc., 09-10166, Kemira Holdings Inc.-2000, Kerr-McGee Holdings Inc.-2006, Tronox LLC, 09-10167, Kerr-McGee Chemical LLC, Tronox Pigment (Savannah) Inc., 09-10168, Kemira Pigments, Inc., Kerr-McGee Pigments (Savannah), Inc., Tronox Worldwide LLC, 09-10169, Kerr-McGee Chemical Worldwide LLC.

V. WHO NEED NOT FILE A PROOF OF CLAIM. YOU DO NOT need to file a Proof of Claim for the following types of Claims:

- A. Any Claim for which a Proof of Claim already has been filed with the Clerk of the Court in a form substantially similar to Official Bankruptcy Form No. 10.
- B. Any Claim that was listed in the Debtors' schedules of assets and liabilities and statements of financial affairs, which were filed on March 30, 2009 (the "Schedules"); however, if (i) the Schedules list your

your Claim, or (ii) you dispute that your Claim is an obligation of the specific Debtor that is identified in the Schedules, then you MUST submit a Proof of Claim by the Bar Date.

C. Any Claim that has been allowed pursuant to an order of the Court that was entered prior to May 28, 2009 at 12:00 p.m. (Eastern Time).

D. Any Claim against a Debtor that has been paid in full by any of the Debtors or any other party.

E. Any Claim that is subject to specific deadlines other than the Bar Date fixed by the Court.

F. Any Claim held by a Debtor in these Chapter 11 Cases.

G. Any Claim held by a current employee of the Debtors for Wages and Benefits (as defined in the order of the Court entered on February 6, 2009 [Dkt. No. 143] authorizing the Debtors to honor Claims for Employee Wages and Benefits).

H. Any Claim that is limited exclusively to the repayment of principal, interest and/or other applicable fees and charges ("Debt Claim") owed under any bond or note issued by the Debtors pursuant to an indenture (a "Debt Instrument"); however, (i) an indenture trustee under a Debt Instrument (the "Indenture Trustee") MUST file one Proof of Claim by the Bar Date with respect to all of the amounts owed under each of the Debt Instruments and (ii), if you are the holder of a Debt Claim and wish to assert a Claim, other than a Debt Claim, arising out of or relating to a Debt Instrument, you MUST submit a Proof of Claim by the Bar Date.

I. Any Claim that is based on an interest in an equity security of the Debtors; however, if you wish to assert a Claim against any of the Debtors based on, without limitation, Claims for damages or rescission based on the purchase or sale of an equity security, you MUST submit a Proof of Claim by the Bar Date. The Debtors reserve all rights with respect to any such Claims, including the right to assert that such Claims are subject to subordination pursuant to section 510(b) of the Bankruptcy Code; and

J. Any Claim allowable under sections 503(b) and 507(a)(1) of the Bankruptcy Code as an administrative expense of the Debtors' chapter 11 cases, with the exception of any Claim allowable under section 503(b)(9) of the Bankruptcy Code, which is subject to the Bar Date.

VI. SPECIAL DEADLINES APPLY TO EXECUTORY CONTRACTS AND UNEXPIRED LEASES. The Debtors may choose to reject certain executory contracts or unexpired leases. If your contract or lease is rejected, you may have a Claim resulting from that rejection. If the Debtors reject your contract or lease after May 28, 2009, you must file a Proof of Claim for damages relating to the rejection of your contract or lease by the later of: (a) the Bar Date; or (b) the date provided in the order authorizing the Debtor to reject (or notice of rejection of) the contract or lease, or, if no date is provided in the order, 30 days after the date the order authorizing the rejection is entered.

VII. EXAMINATION OF SCHEDULES. Your Claim may be listed in the Debtors' Schedules. If you agree with the nature, amount and status of your Claim and the Debtor against whom your Claim is scheduled as listed in the Schedules, and if your Claim is not described as "disputed," "contingent" or "unliquidated," then you do not need to file a Proof of Claim.

The Debtors' Schedules may be examined and inspected during regular business hours at (a) the offices of Kirkland & Ellis LLP, 153 East 53rd Street, New York, New York 10022 or (b) the Clerk of the Court, United States Bankruptcy Court, Southern District of New York, One Bowling Green, Room 511, New York, New York 10004-1408, Monday through Friday, 9:00 a.m. - 4:30 p.m. The Debtors' Schedules also are available online at www.kcccllc.net/tronox. All documents filed in the cases are accessible at the Court's internet site: <http://www.kcccllc.net/tronox>. Through an account obtained from the PACER website at <http://pacer.uscourts.gov>, Creditors that wish to rely on the Schedules are responsible for determining that their Claims are listed accurately on them.

VIII. ADDITIONAL INFORMATION. Additional information regarding the Bar Date, including Proof of Claim Forms and a copy of the Bar Date Order, may be obtained by contacting the Debtors' notice and claims agent, Kurtzman Carson Consultants LLC, at 2335 Alaska Ave., El Segundo, California 90245; Telephone: (866) 381-9100, at www.kcccllc.net/tronox.

If you have additional questions that are not covered by this notice, you should consult an attorney to determine your rights and obligations.

Dated: May 28, 2009 **BY ORDER OF THE COURT**

New York, New York
KIRKLAND & ELLIS LLP
153 East 53rd Street, New York, New York 10022
Counsel to the Debtors and Debtors in Possession

Tronox Incorporated and certain of its affiliates (collectively, the "Debtors") are required to provide notice to parties who may have a claim against the Debtors related to exposure to hazardous materials at particular sites. Two of these sites are former wood-treating facilities located in Jackson and Hattiesburg, Mississippi, at which creosote contamination arising from past operations of the facilities is alleged to exist or to have existed.

If you, your property, your spouse or an immediate family member was exposed to contaminants at or near the Jackson and/or Hattiesburg sites, and if that exposure directly or indirectly caused injury that becomes apparent now or in the future, you may have a claim under various legal theories for damages. Personal injury damages could relate to physical, emotional or other personal injuries such as bodily injury, wrongful death, medical monitoring, survivorship or proximate damages. Property-related damages could relate to cost of removal, diminution of property value or economic loss, or proximate, consequential, general and special damages or punitive damages. More information about the definition of "claims" that must be filed before the August 12, 2009 deadline is included in the legal notice that appears above.

If you believe that you may have a claim related to you or your property's exposure to any products, raw materials or contaminants that were produced, manufactured, supplied, used or disposed of at the Jackson and/or Hattiesburg sites, you MUST file a proof of claim form with the Bankruptcy Court according to the legal instructions above by August 12, 2009 or you will forever lose your rights to recover on your claim in the future. Filing a proof of claim form does not automatically entitle you to compensation.

For more information about the filing process and/or to receive a proof of claim form, please call (866) 381-9100 or visit www.kcccllc.net/tronox.

MICHAEL PISANI & ASSOCIATES, INC.

Environmental Management and Engineering Services

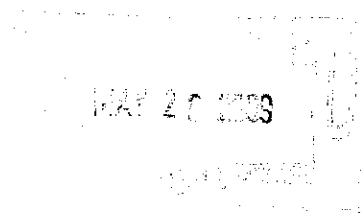
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Telephone (281) 242-5700
Facsimile (281) 242-1737
dangle@alltel.net

1100 Poydras Street
1430 Energy Centre
New Orleans, Louisiana 70163
Telephone (504) 582-2468
Facsimile (504) 582-2470
m.pisani@ix.netcom.com

18163 East Petroleum Drive
Suite B
Baton Rouge, Louisiana 70809
Telephone (225) 755-2250
Facsimile (225) 755-2259
cmfettters@ix.netcom.com

May 26, 2009

Mr. Tony Russell
Assessment Remediation Branch Chief
Mississippi Department of Environmental Quality
515 East Amite Street
Jackson, Mississippi 39201



Re: *Calendar Year 2008 Ground Water Monitoring Report*
Former Gulf States Creosoting Site
Hattiesburg, Mississippi

Dear Mr. Russell:

Enclosed are two hard copies of the referenced document (one for MDEQ and one for the City of Hattiesburg). A CD containing a complete electronic version of the report will follow. The calendar year 2008 monitoring results indicate that constituent concentrations in site ground water continue to decrease over time.

Since 2001, Tronox has conducted two years of quarterly monitoring followed by five year of annual monitoring. Based on an evaluation of the monitoring data, Tronox believes that a decrease in monitoring frequency to every other year is warranted for the following reasons:

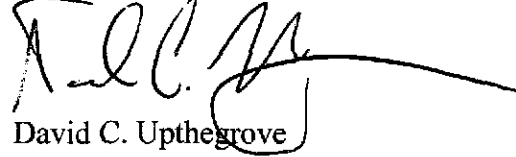
- All sources of ongoing contamination have been addressed through either source removal or engineering controls;
- The low ground water gradient results in little potential for lateral migration of contaminants; and
- The two contaminant plumes exhibit trends indicating that ground water conditions are improving over time as a result of remedial activities conducted from 2003 through 2007.

Mr. Tony Russell
May 26, 2009
Page 2

Tronox looks forward to receiving MDEQ's response to our request for decreased monitoring frequency. Should you have any questions or wish to discuss the enclosed report, please contact me.

Sincerely,

MICHAEL PISANI & ASSOCIATES, INC.



David C. Upthegrove

cc: Keith Watson – Tronox

Enforcement

Government Alleges Kerr-McGee, Anadarko Fraudulently Evaded Liability for Cleanup

Federal authorities in Manhattan have alleged that Kerr-McGee Corp. and Anadarko Petroleum Corp. fraudulently attempted to evade hundreds of millions of dollars in environmental penalties and cleanup costs through a corporate restructuring that shifted the liabilities to a spin-off company that ended up in bankruptcy court (*Tronox Inc. v. Anadarko Petroleum Corp.*, Bankr. S.D.N.Y., No. 09-1198, *motion to intervene filed 5/21/09*).

Kerr-McGee engaged in a restructuring beginning in 2000 "with the actual intent to hinder, delay, or defraud the United States" by shielding itself from the costs of cleanup at a New Jersey superfund site and other contaminated sites, according to government documents filed May 21 in U.S. Bankruptcy Court for the Southern District of New York.

Kerr-McGee and Anadarko, a successor company that took over Kerr-McGee in 2006, also attempted to evade other environmental, tort, workers' compensation, and post-employment benefit liabilities through the restructuring, the government said.

The allegations were filed as part of a motion by Acting U.S. Attorney Lev Dassin to intervene in an ongoing lawsuit filed by Tronox Inc. against Kerr-McGee and Anadarko.

On May 12, Tronox, a former Kerr-McGee subsidiary already in bankruptcy, filed a civil complaint against Anadarko and Kerr-McGee claiming they had spun off Tronox to shed liabilities, while stripping Tronox of its assets.

The Department of Justice described the events detailed in the Tronox lawsuit "a compelling account of corporate greed."

Site Called 'Tip of the Iceberg.'

Although it is unclear exactly how much liability is at stake, the government cited \$280 million as the cost for one site, the Federal Creosote Superfund Site in Manville, N.J., and said that was "the tip of the iceberg."

The site occupies 50 acres of a highly developed residential and commercial area in Manville. A coal-tar wood treatment facility operated at the site from approximately 1911 to 1956, according to the Environmental Protection Agency.

In its filing, the government cited the complaint by Tronox and other related companies that said they were forced into bankruptcy "in large part by crippling environmental liabilities at dozens, if not hundreds, of sites throughout the country."

Anadarko Petroleum was unavailable for comment on the government's action May 22.

Kerr-McGee was involved for decades in the oil and gas industry, mining, forest products, and the nuclear and chemical industries, but by 2000 it limited its activity to oil and gas exploration and chemicals.

In 1999, EPA notified Kerr-McGee of its liability for cleanup of the New Jersey superfund site, which prompted the company directors to initiate the restructuring, the government said.

The government alleged that Kerr-McGee undertook a reorganization, named "Project Focus," aimed at keeping about \$500 million in proceeds from a loan, while shedding environmental liabilities.

The restructuring had the effect of isolating Kerr-McGee's substantial environmental liabilities into the chemical-business subsidiary, which it renamed Tronox, and Kerr-McGee attempted to sell Tronox in 2005, according to the government filing. When Kerr-McGee could not find a buyer, it created an initial public offering and kept the \$225 million in proceeds and 23 million shares in the new company, the government alleged.

After Kerr-McGee shed its liabilities by making Tronox an independent company on April 1, 2006, Anadarko bought Kerr-McGee for about \$18 billion, according to the complaint.

Tronox Files for Bankruptcy

On Aug. 28, 2008, the United States sued Tronox for about \$283 million related to the cleanup of the Manville superfund site under the Comprehensive Environmental Response, Compensation, and Liability Act (*United States v. Tronox LLC*, D.N.J., No. 3:08-cv-4368, 8/28/08).

Tronox, in turn, filed for bankruptcy on Jan. 12, 2009.

In its civil proceeding, the United States is seeking three forms of relief: a judgment against Anadarko in the amount of the fraudulently transferred liabilities, an order voiding the fraudulent transfer of assets from Tronox to Kerr-McGee,

Related Terms

Topics:

Enforcement
Superfund

Federal Statutes:

CERCLA

and an order stating that assets fraudulently conveyed should be applied to pay liabilities to the United States.

In a written statement, Dassin praised EPA for its investigation and acknowledged the assistance of Department of Justice attorneys Matthew L. Schwartz, Tomoko Onozawa, Katherine Kane, and Marcello Mollo in preparation of the lawsuit.

Tronox continues to operate its business and manage its property while the lawsuit is pending. Its principal place of business is in Oklahoma City, Okla. Anadarko Petroleum Corp. has its principal place of business in The Woodlands, Tex.

The companies identified as debtors in the Tronox Chapter 11 filing include: Tronox Luxembourg S.ar.L.; Tronox Inc.; Cimarron Corp.; Southwest Refining Co.; Transworld Drilling Co.; Triangle Refineries Inc.; Triple S Inc.; Triple S Environmental Management Corp.; Triple S Minerals Resources Corp.; Triple S. Refining Corp.; Tronox LLC; Tronox Finance Corp.; Tronox Holdings Inc.; Tronox Pigments (Savannah) Inc.; and Tronox Worldwide LLC.

By Robert C. Cook

More information on the Federal Creosote Superfund Site is available at <http://epa.gov/region02/superfund/npl/federalcreosote/>.

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We may, at our option, open and inspect your packages before or after you give them to us to deliver.

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***United States Attorney
Southern District of New York***

**FOR IMMEDIATE RELEASE
May 21, 2009**

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YUSILL SCRIBNER,
REBEKAH CARMICHAEL,
JANICE OH
PUBLIC INFORMATION OFFICE
(212) 637-2600**

**EPA
ELIZABETH TOTMAN
PUBLIC INFORMATION OFFICE
(212) 637-3662**

**UNITED STATES FILES SUIT AGAINST ANADARKO PETROLEUM
CORPORATION AND KERR-MCGEE CORPORATION FOR FRAUDULENT
TRANSFERS DESIGNED TO AVOID HUNDREDS OF MILLIONS OF
DOLLARS IN ENVIRONMENTAL LIABILITIES**

LEV L. DASSIN, the Acting United States Attorney for the Southern District of New York, and GEORGE PAVLOU, the Acting Administrator for Region 2 of the Environmental Protection Agency ("EPA"), announced today the filing of a civil Complaint against KERR-MCGEE CORPORATION and ANADARKO PETROLEUM CORPORATION, which acquired KERR-MCGEE in 2006, for fraudulently attempting to avoid hundreds of millions of dollars in environmental liabilities in connection with KERR-MCGEE's corporate spinoff of its various Tronox entities in 2006.

According to the Complaint and other documents filed in Manhattan bankruptcy court by the United States:

Commencing in the 1920s, KERR-MCGEE has been involved in the oil and gas, mining, forest products, nuclear, and chemical industries. By 2000 KERR-MCGEE had discontinued many of those operations and retained only two main operating businesses: oil and gas exploration, and chemicals. However, KERR-MCGEE remained responsible for significant environmental, tort, and employee benefit liabilities related to its discontinued businesses. In particular, in 1999 the EPA notified KERR-MCGEE that it considered KERR-MCGEE to be liable for cleanup costs at its Manville, New Jersey, site. KERR-MCGEE's directors became immediately concerned not only about the New Jersey site with its now-\$280 million cleanup costs, but also about other similar sites throughout the country.

Thus, beginning in 2001 KERR-MCGEE undertook a series of mergers that converted the original parent company -- with its many years of operations and environmental liabilities -- into a subsidiary of a new "clean" parent company, which was given the same name as the old parent. This reorganization, dubbed "Project Focus," had the effect of isolating KERR-MCGEE's substantial environmental liabilities into the chemical-business subsidiary. In addition, as part of Project Focus, valuable assets were moved out of the chemical business and into the new parent or another subsidiary. KERR-MCGEE also took in the \$537.1 million net proceeds from a \$550 million debt that the chemical subsidiary remained obliged to service.

Then, in 2005, KERR-MCGEE attempted to sell off its chemical business, which it had renamed Tronox. Those efforts were unsuccessful. Unwilling to retain its environmental liabilities, and unable to find a suitable buyer, KERR-MCGEE then elected to spin off Tronox in an initial public offering. KERR-MCGEE kept the \$224.7 million in IPO proceeds, as well as nearly 23 million shares in Tronox. Tronox thereby became an independent company on April 1, 2006. Three months later -- having apparently been freed from its environmental liabilities -- KERR-MCGEE was acquired by ANADARKO for \$18 billion.

Tronox, meanwhile, was forced into bankruptcy. Earlier this month Tronox filed an adversary Complaint against ANADARKO and KERR-MCGEE, alleging that they had spun off Tronox to rid themselves of their accumulated liabilities, stripping Tronox of valuable assets at the same time. The United States has today moved to intervene in that adversary proceeding. In its Complaint, the United States seeks a judgment against ANADARKO and KERR-MCGEE declaring that the avoidance of environmental debts to the Government, and the stripping of assets that could have satisfied those debts, were fraudulent conveyances under the Federal Debt Collection Procedures Act. The Complaint seeks to reverse those transfers, or to obtain a judgment from ANADARKO and KERR-MCGEE for the amounts of those debts.

Mr. DASSIN praised the EPA for its investigative work and thanked the Environment and Natural Resources Division of the Department of Justice for its assistance in this case.

Assistant United States Attorneys MATTHEW L. SCHWARTZ and TOMOKO ONOZAWA, and KATHERINE KANE and MARCELLO MOLLO from the Environment and Natural Resources Division of the Department of Justice, are in charge of the case.

09-158

###



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

MEMORANDUM

TO: Gulf States Creosote Site File
Hattiesburg, MS

FROM: Tony Russell *TR* 5/19/09

DATE: May 19, 2009

SUBJECT: Fill Area – Product Removal Conducted May 18

I met with Dickie Allison on May 18, 2009 to observe the gauging of wells for product and free product removal. A couple of the same wells were observed to contain small amounts of free product. The product continues to move around. The water table behind the wall was so high that most of the four (4) inch wells would flow once the plug was removed from the top of the well.

The product is removed with a peristaltic pump. The pump is connected to dedicated tubing in the well and the product is removed along with some water. The total amount of fluid removed is one to two gallons.

It had just rained the day before so the creek was very turbid. No noticeable sheens or odors were observed in the creek during this product removal event.


No photos were taken during this site visit.

OFFICE OF POLLUTION CONTROL

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FAX

To: <i>Ralph Howard</i> <i>Site Evaluation Group</i> Phone: <i>404-562-8829</i> Fax: <i>404-562-8788</i>	From: <i>TONY RUSSELL</i>  <small>MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY</small> <i>Office of Pollution Control P. O. Box 10385 Jackson, MS 39289-0385</i> Phone: <i>(601) 961- 5318</i> Fax: <i>(601) 961- 5300</i>
---	--

Date: *May 13*, 2009

Routine ☒ *Priority*

Number of pages, including this one: *1 / 2*

Messages: _____
*Ralph attached is two orders that I found pertaining to the old
Kerr McGee site in Hattiesburg.*

Tony

TRONOX

Name: A. Keith Watson
Title: Project Manager

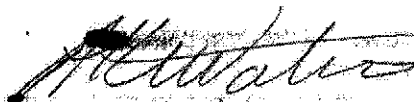
Phone: (405) 775-5475
Fax: (405) 775-5632
e-mail: Keith.Watson@Tronox.com

April 30, 2009

NOTICE TO REGULATORS TRONOX ADDRESS CHANGE

Tronox LLC has moved and our corporate address has changed. This is the address that should be used for FedEx/UPS type deliveries. Our P.O. Box remains unchanged, and is the preferred method for normal mailings. Please update your records to reflect the change.

Thanks,



A. Keith Watson
Project Manager

ADDRESS INFORMATION:

Tronox LLC
3301 N.W. 150th Street
Oklahoma City, OK 73134

Tronox LLC
P.O. Box 268859
Oklahoma City, OK 73126-8859



STATE OF MISSISSIPPI

HALEY BARBOUR

GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

TRUDY D. FISHER, EXECUTIVE DIRECTOR

April 21, 2009

Mr. & Mrs. David Parker
512 Eastside Avenue
Hattiesburg, MS 39401

FILE COPY

Re: East Side Flooring – 512 Eastside Avenue
Gulf States Creosote Site
Hattiesburg, MS

Dear Mr. and Mrs. Parker:

The Mississippi Department of Environmental Quality (MDEQ) has reviewed your letter dated March 30, 2009, to Ms. Trudy Fisher, Executive Director. We are indeed thankful that citizens such as you are concerned about the environment. You can be assured that MDEQ has spent considerable man hours in evaluating not only the three properties referenced in your letter but all the properties adjacent to the Northeast Drainage Ditch and the old Gulf States Creosote property site.

MDEQ required Kerr McGee (now Tronox) to remove all contaminated soil along the Northeast Drainage Ditch that posed a threat to human health and the environment. MDEQ staff was present during the removal of contaminated soil on the Bevon, Down Home Cooking, and Woods properties and observed that all contaminated soil was removed except for some contaminated soil beneath the buildings on the Bevon and Down Home Cooking property and a small area between the two buildings. The contaminated soil that was left in place is under a two foot concrete pipe (old drain pipe) filled with flow-able fill (mixture of concrete and sand). As part of the final remedy, a restrictive use agreement is to be placed on the Bevon property and the Down Home Cooking property which will not allow any digging on that property without prior MDEQ notification and approval.

The removal of contamination on the properties adjacent to East Side Flooring did not reveal that any contamination extended onto your property and no further action is required. The contamination was limited to under the drain pipe along the narrow confines of the old ditch. Additionally, the samples collected by APEX adjacent to your property did not detect any contamination. Any

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us

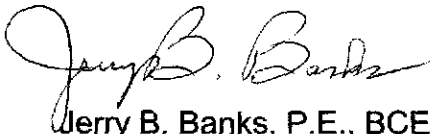
AN EQUAL OPPORTUNITY EMPLOYER

digging/excavation work required on your property for the installation of water or sewer lines to accommodate new businesses or tenants is not prohibited by a restrictive use agreement and will not require MDEQ involvement. The Department does not have any record of a restricted use agreement on your property.

Please have your financial institution contact us if they have questions concerning this matter.

If the agency may be of further assistance please feel free to contact me at 601-961-5221.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jerry B. Banks".

Jerry B. Banks, P.E., BCE

Chief, Groundwater Assessment & Remediation Division



512 Eastside Ave. Hattiesburg

Image © 2009 DigitalGlobe

Google

31°16'43.28" N 89°18'14.08" W

Dec 13, 2004 Eye alt 163 m

512 Eastside Ave.

Image © 2009 DigitalGlobe

Google

31°18'28.63" N 89°18'28.74" W

Dec 13, 2004 Eye alt 1.22 km

**East Side Flooring
512 Eastside Ave
Hattiesburg, MS 39401**

March 30, 2009

David & Verna Parker
512 Eastside Ave.
Hattiesburg, MS 39401



Trudy Fisher, Executive Director
Mississippi Department of Environmental Quality
PO Box 2261
Jackson, MS 39225-2261

Dear Ms Fisher:

We are the property owners of Eastside Flooring located at the above address adjacent to Down Home Cooking. The purpose of this letter is to serve you notice of our intentions to conduct renovations on our building and property.

Down Home Cooking has been the center of the creosote contamination for many years and we only became aware of the potential threat of contamination to our property when the City employed APEX Consultants to perform testing next door to our property. To see people drilling and sampling for chemicals next to our property have caused our financial institution to become greatly concerned about their investment.

We also are concerned about the future opportunities that this issue may prevent us from renting space to other businesses in the vacant portion of our business. In order to accommodate tenants in this portion of our building it would be necessary to install water and sewage, which will require digging on and around our property.

The question to you on behalf of Eastside Flooring, are you or any member of your staff aware of any data or any other information that would confirm that the property which we are occupying is contaminated or not? If you have any information that is relevant to our property, please forward it to us with a summary explaining the information in detail. If you cannot confirm, then we believe it is necessary to have our property tested to prevent the cloud of environmental concern about the potential of becoming exposed to chemicals while other are visiting or while we are working on the above property.

Please see attached map 271 Eastside Flooring, 272 Down Home Cooking, 273 Bevon's, 270 Woods properties. We respectfully ask for a reply to this letter within 5 working days.

Sincerely,

A handwritten signature in cursive script, appearing to read "David & Verna Parker".

David & Verna Parker





Eastside Flooring
512 Eastside Avenue
Hattiesburg, MS 39401

HAFFELBACH PG 304

30 MAR 2003 PM 1 T

MAR 2009

LET US DARE TO SPEAK
THINK, SPEAK MIND
John Adams, 1785
BOSTON OFFICIAL RECORD



Trudy Fisher, Executive Director
Ms. Department of Environmental Quality
P.O. Box 2261
Jackson, MS

39225-2261

[illegible]

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