



To: Mr. James W. Scialabba, Marathon Oil Company

From: Linda E. Cummings

Date: August 6, 1996

Re: Erratum - Environmental Sampling Report, Surface and Subsurface Water
Results, Airline Highway Gasoline Release, July 1996

Attached is a revised page 5 of the above-referenced report. The typographical error in the original statement in Section 4.0, Summary, which reads "(a)nalyses of water samples for BTEX/TPH-GRO detected benzene (0.005-0.338 mg/L) on May 24, 1996 at sampling locations 73-52496U3/U4 and 73-52496U5/U6, which are within the approximately 0.6 mile stretch of Blind River between the mouth of tributary #5 and Interstate 10", has been corrected. As displayed in Figure 1 of the report, sampling locations U3/U4 and U5/U6 are between tributary #5 and Airline Highway, not Interstate 10. The text revision changes "...Interstate 10" to the accurate reference point of "Airline Highway".

Please accept our apologies for any inconvenience or misunderstanding that this typographical error may have caused.

LEC:lc
attachment



GOVERNOR'S OFFICE
STATE CAPITOL
P.O. BOX 94004
BATON ROUGE, LOUISIANA 70804-9004



Administrative Record
FOR:

May, 1996 Blind River Gasoline Release
Marathon Pipeline Company, RP

TERRA
CONSULTING GROUP



FINAL REPORT

**CONFIDENTIAL
ATTORNEY/CLIENT PRIVILEGE**

Prepared for:

MARATHON PIPE LINE COMPANY

FINDLAY, OHIO

Prepared by:

TERRA CONSULTING GROUP, INCORPORATED™

BATON ROUGE, LOUISIANA

ENVIRONMENTAL SAMPLING REPORT

SURFACE AND SUBSURFACE WATER RESULTS

AIRLINE HIGHWAY GASOLINE RELEASE

July 1996

TABLE OF CONTENTS

	<u>PAGE</u>
List of Tables.....	ii
List of Figures	iii
1.0 INTRODUCTION.....	1
1.1 Purpose.....	1
2.0 METHODS.....	2
3.0 RESULTS.....	4
4.0 SUMMARY	5
Attachments	

LIST OF TABLES

<u>Table No.</u>	<u>Title</u>
1	Summary of Analytical Requests
2	Validated BTEX/TPH-GRO Results from Inchcape Testing Services
3	Validated Volatile Results from Inchcape Testing Services
4	Validated Semivolatile Results from Inchcape Testing Services
5	Water Quality Parameters

LIST OF FIGURES

<u>Figure No.</u>	<u>Title</u>
1	Blind River Water Sampling Results
2	Blind River Water Sampling Time-Series Results

1.0 INTRODUCTION

On or about May 24, 1996, Marathon Pipe Line Company (Marathon) discovered a release of approximately 11,308 barrels of unleaded gasoline in the pipe line right-of-way adjacent to U.S. Highway 61 (Airline Highway) in St. James Parish approximately 3 miles northeast of Gramercy, Louisiana. The release resulted from a ruptured Garyville-to-Zachary 20-inch pipe line owned by Marathon. Two tributaries of Blind River in the vicinity of the gasoline release site served as conduits for the movement of an unknown quantity of the gasoline into the river (Figure 1). A cypress-tupelo gum swamp habitat (McElroy Swamp) surrounds the release site and borders Blind River (Figure 1).

1.1 Purpose

An emergency response sampling and analysis plan for surface and subsurface water was developed in conjunction with Marathon personnel. The goal of the sampling plan was to document the movement and areal extent of gasoline product in Blind River and to obtain analytical data of known quality, thus assuring the scientific accuracy of project data. Because of the rapid volatilization of the constituents of gasoline and the rapid turnaround of analyses provided by the contract laboratory, sampling activities were revised daily, based upon the previous day's analytical results. This report summarizes the surface and subsurface water sampling methods and analytical results from Blind River.

2.0 METHODS

During the 9 sampling events (May 24 - 31, 1996; June 3, 1996), 109 surface water and 94 subsurface water samples were collected by two sampling crews from a total of 35 locations along Blind River, St. James Parish, Louisiana. Figure 1 indicates the locations of the water sampling stations, which covered a 10 mile reach extending from an access canal south of Airline Highway to river mile 6, north of Interstate 10. Water samples collected on June 3, 1996 from tributary 5 were mislabeled on the chain of custody form as tributary 6 samples. All water samples were collected from a boat at midstream of Blind River.

Latex gloves were worn during sample collection activities. Commercially obtained certified clean sampling containers were supplied by Inchcape Testing Services of Baton Rouge, Louisiana. Surface samples were collected by placing the sampling container just below the water surface (< 10 cm). Subsurface samples were collected with 3-foot disposable bailers or with a peristaltic pump/tygon tubing at a depth of either 3 or 4 feet. Decontamination of the pump and tubing was accomplished by flushing with Alconox followed by deionized water. Sample jars were individually placed into Ziploc® plastic bags and stored in a laboratory-supplied cooler packed with wet ice to chill the containers to approximately 4°C. All samples were tracked according to established chain-of-custody procedures and transported to the contract laboratory. The chain-of-custody forms are included as Attachment 1.

Inchcape Testing Services analyzed the water samples for Total Petroleum Hydrocarbons (TPH)-Gas Range Organics (GRO) (Method 8015 modified) and benzene/toluene/ethyl

benzene/xylene (BTEX) (EPA Method 8020) (Table 1). Selected samples were analyzed for volatiles (EPA Method 8260), semivolatiles (EPA Method 8270), total organic carbon (TOC), and chemical oxygen demand (COD).

The following quality assurance/quality control (QA/QC) samples were collected for every 20 samples during each daily sampling event:

- field duplicate,
- matrix spike,
- matrix spike duplicate,
- field blank,
- method blank, and
- laboratory control sample.

A trip blank was packed in each cooler shipped to the laboratory. Subsurface samples that were collected with a peristaltic pump/tygon tubing also included a rinsate blank. Archive samples were also collected through May 31, 1996.

Water quality parameters recorded at each sampling station included pH, temperature (°F), and conductivity (uS/cm), along with water depth (ft).

The results reported in this summary are based on validated analytical data in accordance with *U.S. EPA SW-846, 3rd Edition* and *National Functional Guidelines for Organic Data Review (USEPA, February 1994)*. Validation of the analytical data was performed by Terra Consulting Group, Incorporated of Baton Rouge, Louisiana.

3.0 RESULTS

Table 2 summarizes the analytical results for BTEX/TPH-GRO in Blind River surface water (SW) and water column (WC) samples. Benzene was detected at sampling locations 73-52496U3/U4 (0.0725 mg/L^{*}), and 73-52496U5/U6 (0.338 mg/L) on May 24, 1996, and at D1-WC-3-1 (0.005 mg/L) on May 26, 1996. Toluene (0.0782 - 0.397 mg/L), ethylbenzene (0.0053 - 0.0293 mg/L), and total xylene (0.0266 - 0.144 mg/L) were detected only at sampling locations 73-52496U3/U4 and 73-52496U5/U6 on May 24, 1996. Gas range organics (0.112 - 4.17 mg/L) were detected at 73-52496U3/U4 and 73-52496U5/U6 on May 24, 1996; D1-WC-3-1, D1-SW-19-1, D1-SW-20-1, and D1-WC-20-1 on May 26, 1996; D1-SW-5ALT-1 on May 27, 1996; D1-SW-5.2-1, D1-WC-5.2-1, D1-SW-19-2, D1-WC-19-2, D1-SW-19.2-1, and D1-SW-20-3 on May 28, 1996; and at D1-SW-5.3-3 on May 31, 1996 (Figure 2). Table 3 summarizes the analytical results for volatiles in Blind River surface water samples; no volatiles were detected in this particular sample delivery group.

For sample D3-SW-1-2, total organic carbon (TOC) was 15.0 mg/L C, and chemical oxygen demand was 30.5 mg/L O₂. Table 4 summarizes the analytical results for semivolatiles in Blind River surface water and water column samples. Naphthalene (0.0406 mg/L), the only analyte detected, occurred once at sampling location D1-SW-5.3-1 on May 29, 1996 (Figure 1).

^{*} mg/L = parts per million (ppm) concentration.

Table 5 summarizes water quality parameters at sampling stations on Blind River. For surface water, conductivity ranged from 50 at site 0603TRIB11 to 421 uS/cm at site D-1-5 Alternate; temperature ranged from 72 °F at site D2-2 to 90 °F at site D3-3; pH ranged from 4.1 at site 0603TRIB11 to 8.4 at site D1-1. For the water column, conductivity ranged from 80 at sites D1-2, D1-4.7, D1-3.5, and D1-5.2 to 391 uS/cm at site D1-5; temperature ranged from 77 °F at sites D1-2 and D2-2 to 88.5 °F at site D1-5Alternate; pH ranged from 4.3 at sites D1-3.5, D1-3.7, D1-5, and D2-3 to 7.4 at sites D1-1 and D1-2. Water depth in Blind River ranged from 5.2 at site D1-1 to 20.6 feet at site D3-4. Tributary depths ranged from 1.0 at 0603TRIB07 to 2.7 feet at 0603TRIB09.

4.0 SUMMARY

One hundred-nine surface water and 94 water column samples were collected from a total of 35 sample locations, which covered a 10-mile reach of Blind River. Analyses of water samples for BTEX/TPH-GRO detected benzene (0.005 - 0.338 mg/L) on May 24, 1996 at sampling locations 73-52496U3/U4 and 73-52496U5/U6, which are within the approximately 0.6 mile stretch of Blind River between the mouth of tributary #5 and Interstate 10. An isolated detection of benzene on May 26, 1996 was reported at sampling point D1-WC-3-1, located within 1 mile southwest of the mouth of tributary #5. Toluene (0.0782 - 0.397 mg/L), ethylbenzene (0.0053 - 0.0293 mg/L), and total xylene (0.0266 - 0.144 mg/L) were detected only at sampling locations 73-52496U3/U4 and 73-52496U5/U6 on May 24, 1996. BTEX was not detected after May 26, 1996. Gas range organics (0.112 - 4.17 mg/L) were detected at sampling locations 73-52496U3/U4 and 73-52496U5/U6 on May 24, 1996; D1-WC-3-1, D1-SW-19-1, D1-SW-20-1, and D1-WC-

20-1 on May 26, 1996; D1-SW-5ALT-1 on May 27, 1996; D1-SW-5.2-1, D1-WC-5.2-1, D1-SW-19-2, D1-WC-19-2, D1-SW-19.2-1, and D1-SW-20-3 on May 28, 1996; and at D1-SW-5.3-3 on May 31, 1996. The only semivolatile compound detected was naphthalene (0.0406mg/L), which occurred on May 29, 1996 at location D1-SW-5.3-1, the sampling point nearest the release site.