

## TOXIC ORGANIC MANAGEMENT PLAN

### PARKER-HANNIFIN CORPORATION

#### TRUMANN, ARKANSAS

#### 1. Description of Facility and Product Use

##### A. Process Description

The Parker-Hannifin Corporation located in Trumann, Arkansas, manufactures prototype automotive air-conditioning plumbing assemblies. These assemblies consist of aluminum or steel tubing and rubber hose supplied by outside sources. The tubing may be formed, degreased, brazed or etched in preparation for assembly to the rubber hose. The assembly of the tubing to the hose is primarily done by a mechanical crimping process. A small portion of our product has an adhesive applied before the crimping process is preformed. This adhesive is the only product used in our manufacturing process that contains toxic organic chemicals.

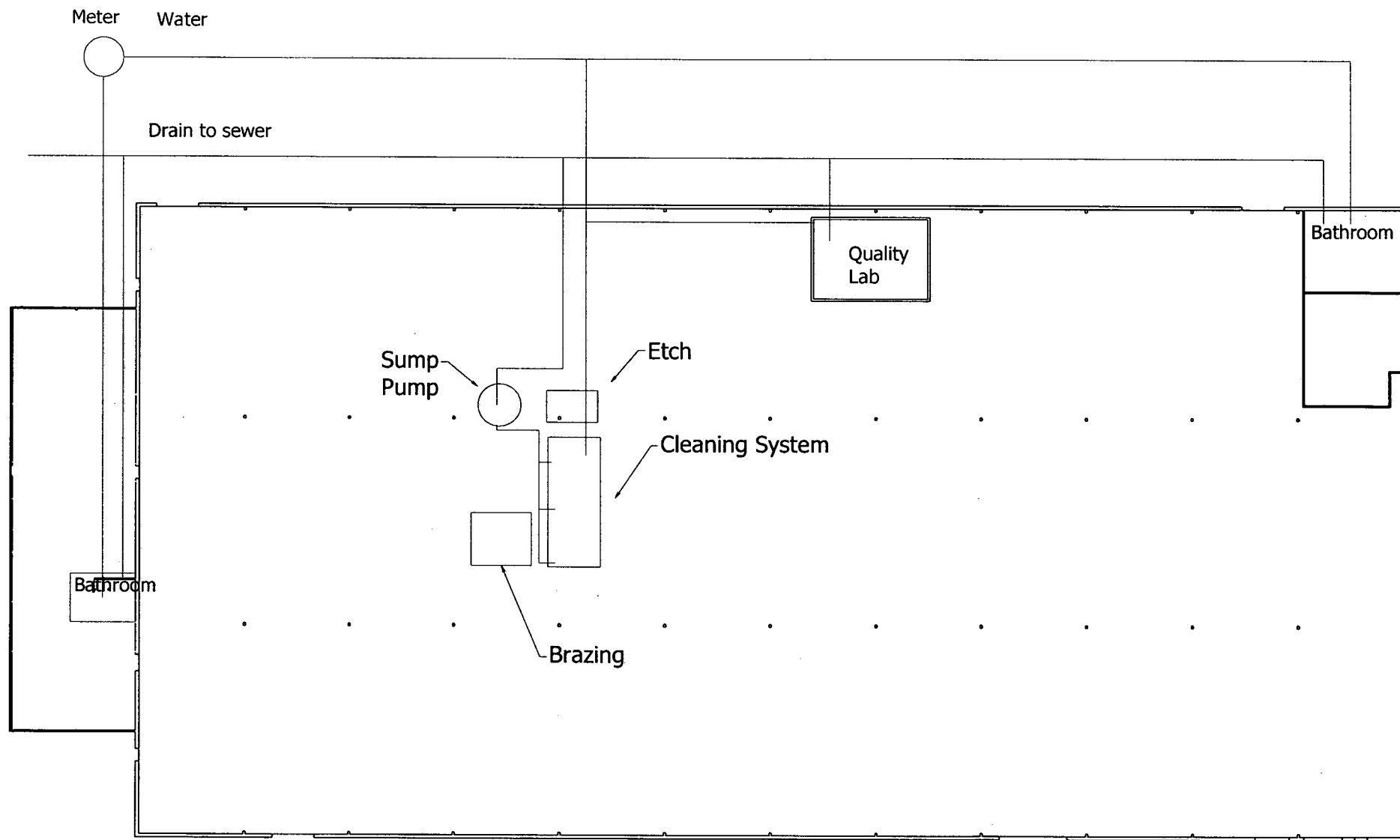
Figure 1 shows the location of all areas that discharge to the sewer system. One item to note is that there are no floor drains in the manufacturing area. The chart on Figure 1 lists the daily average flow rate from the different processes that discharge to the city sewer. The largest contributor to the waste stream is the sanitary waste system.

##### B. Adhesive Application

The adhesive is applied to the metal tubing manually with the aid of a cotton swab. This product is applied after all of the other processes that discharge to the city sewer. After the application process is complete the cotton swab is discarded to the trash. The adhesive could enter the waste water process if the person applying the adhesive gets any on their hands. When they washed their hands the water used for washing would enter the city sewer system. We use less than 2 quarts of adhesive per year.

##### C. Adhesive

There are two different adhesives, manufactured by the same company that we use in our process. The first is called Chemlok 233 and it contains the toxic organic chemicals Trichloroethene (CSA# 79-01-6) and Ethlbenzene (CAS# 100-41-4). This product is applied to the steel tubing. The second is called Chemlok 6108 and it contains Ethlbenzene (CAS# 100-41-4) and it is used on the aluminum tubing.



Process	Average Daily Flow Rate	
	Gallons/Day	Discharge Type
Degreasing	25	Batch
Etching	0.05	Batch
Brazing	2	Batch
Sanitary Waste	370	Continuous

Figure 1

D. Chemical Analysis of Wastewater

A grab sample of the facilities wastewater was taken for analysis and tested for toxic organics. The sample was tested in accordance with EPA methods 624 and 625. The results of the test indicated that all toxic organic compound concentrations were less than 50 ug/L.

2. Alternative Control Options

A. Adhesive Elimination

Currently there are test being performed to see if modifications to the product and/or process could result in the elimination of the adhesive from our manufacturing process. The focus of these test are on our product that uses steel tubing and Chemlok 233.

B. Adhesive Substitution

Divisional product specifications dictate that we use Chemlok 233 and Chemlok 6108. Our product engineering group has tested alternative adhesives. To date no other adhesive has been found to be a suitable replacement for the two Chemlok products we are currently using.

3. Toxic Organic Management Plan

We feel that the plan outlined below will control any toxic organic chemicals in our manufacturing process and serve as an adequate replacement for semi-annual wastewater testing.

A. Adhesive Application Procedure

The application of the Chemlok material will be by the use of a cotton swab and the person applying the material will wear disposable rubber gloves. The addition of the requirement to wear gloves will eliminate the possibility of the Chemlok coming in contact with the person's bare hands and subsequently being washed down the drain during the clean up process. After the application process is complete the used cotton swab and gloves will be placed in a sealable bag and discarded in the trash.

B. Adhesive Storage

All containers with Chemlok will be stored in a safety storage cabinet when not in use. Each container will have a "Right-To-Know" label and a label referencing the work instructions describing the proper handling and disposal for the Chemlok products. The expiration date for the product will also be included on this label. We receive material in a one gallon metal can and we will transfer apportion of the material into a smaller container for use in the manufacturing area.

C. Adhesive Disposal

Chemlok 233 and 6108 has a expiration date as specified by the manufacturer. Any Chemlok that has exceeded the expiration date will be transferred to licensed hazardous waste hauler. The proper disposal procedure will be referenced on a label that is affixed to container.

D. Adhesive Spill

In the event that a spill does occur an inert absorbent material shall be used to absorb spilled Chemlok. The contaminated absorbent material, paper towels and disposable gloves shall be placed in a sealable plastic bag and transferred to licensed hazardous waste hauler.

E. Training

All personnel involved in the application and clean-up of Chemlok will receive instruction in the proper handling and disposal of the adhesive and clean-up materials in order to keep regulated toxic organics out of this facilities wastewater. New employees will be trained in these procedures during their initial orientation. The training will consist of making employees aware of products containing toxic organics, where they are stored and proper handling and disposal.

F. Inspections

The safety committee at the Parker-Hannifin plant in Trumann Arkansas will inspect the areas where Chemlok is stored and used. They will verify that the handling and storage of said product is being done in accordance with current procedures.

G. Implementation

All provisions of this plan will be fully implemented by June 1, 2012.

4. Certification

The certification statement on the SEMI-ANNUAL REPORT FOR INDUSTRIAL USERS REGULATED BY 40CFR433 section 6 part B will used to indicate compliance with the management of toxic organics.

Parker Hannifin Corporation  
Mobile Climate Systems Division  
748 Hwy 463 South  
Trumann, AR 72472  
Phone 870-483-0512

February 27, 2012

Rufus J. Torrence  
ADEQ NPDES Engineer  
Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118

RE: Semi-Annual report

Dear Mr. Torrence:

Enclosed is the Semi-Annual report for the Parker Hannifin facility located in Trumann, Arkansas. Also enclosed is a copy of our Toxic Organic Management Plan for this facility. Please review the plan and advise if any changes are required. The next Semi-Annual report will be submitted in August 2012.

Sincerely,



Ray Copeland  
Manufacturing Engineer

Enclosure

CC: Scotty Jones, Manager  
Trumann Waterworks  
106 E Main St.  
Trumann, AR 72472

**SEMI-ANNUAL REPORT FOR INDUSTRIAL USERS REGULATED BY 40CFR433**

Use of this form is not an EPA/ADEQ requirement.

Attn: Water Div/NPDES Pretreatment

**(1) IDENTIFYING INFORMATION**

**A. LEGAL NAME & MAILING ADDRESS**

Parker Hannifin Corp.  
748 Hwy 463 South  
Trumann, AR 72472

**B. FACILITY & LOCATION ADDRESS**

Parker Hannifin Corp.  
748 Hwy 463 South  
Trumann, AR 72472

**C. FACILITY CONTACT:** Ray Copeland      **TELEPHONE NUMBER:** (870)483-0512      **e-mail:**rcopeland@parker.com

**(2) REPORTING PERIOD--FISCAL YEAR From Feb 1 to Jan 31 (Both Semi-Annual Reports must cover Fiscal Year)**

**A. MONTHS WHICH REPORTS ARE DUE**

February      &      August

**B. PERIOD COVERED BY THIS REPORT**

**FROM:** 9/11      **TO:** 2/12

**(3) DESCRIPTION OF OPERATION**

**A. REGULATED PROCESSES**

**CORE PROCESS(ES)**

CHECK EACH APPLICABLE BLOCK

- Electroplating
- Electroless Plating
- Anodizing
- Coating
- Chemical Etching and Milling
- Printed Circuit Board Manufacture

**ANCILLARY PROCESS(ES)\***

LIST BELOW EACH PROCESS USED IN THE FACILITY

- Cleaning
- Etching
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**B. CHANGES:**

SUMMARIZE ANY CHANGES IN THE REGULATED PROCESSES SINCE THE LAST REPORT. ATTACH AN ADDITIONAL SHEET IF THE SPACE BELOW IS INADEQUATE. PROVIDE A NEW SCHEMATIC IF APPROPRIATE.

\*SEE 40CFR433.10(a) FOR 40 DIFFERENT OPERATIONS

**C. Number of Regular Employees at this Facility**

19

**D. [Reserved]**

**(4) FLOW MEASUREMENT**

INDIVIDUAL & TOTAL PROCESS FLOWS DISCHARGED TO POTW IN GALLONS PER DAY

Process	Average	Maximum	Type of Discharge
Regulated (Core & Cyanide)	25	2250	Batch
' 403.6(e) Unregulated*			
' 403.6(e) Dilute			
Cooling Water			
Sanitary	750	830	Continuous
Total Flow to POTW			*****

\*"Unregulated" has a precise legal meaning; see 40CFR403.6(e).

**(5) MEASUREMENT OF POLLUTANTS**

**A. TYPE OF TREATMENT SYSTEM**

CHECK EACH APPLICABLE BLOCK

- Neutralization
- Chemical Precipitation and Sedimentation
- Chromium Reduction
- Cyanide Destruction
- Other \_\_\_\_\_
- None

**B. COMMENTS ON TREATMENT SYSTEM**

C. THE INDUSTRIAL USER MUST PERFORM SAMPLING AND ANALYSIS OF THE EFFLUENT FROM ALL REGULATED PROCESSES-- CORE & ANCILLARY--(AFTER TREATMENT, IF APPLICABLE). ATTACH THE LAB ANALYSIS WHICH SHOWS A MAXIMUM; TABULATE ALL THE ANALYTICAL DATA COLLECTED DURING THE REPORT PERIOD IN THE SPACE PROVIDED BELOW. ZERO CONCENTRATIONS ARE NOT ACCEPTABLE; LIST THE DETECTION LIMIT IF CONCENTRATION WAS BELOW DETECTION LIMIT.

Pollutant(mg/l)	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN	TTO*
Max for 1 day	0.11	2.77	3.38	0.69	3.98	0.43	2.61	1.20	2.13
Monthly Ave	0.07	1.71	2.07	0.43	2.38	0.24	1.48	0.65	--
Max Measured	<0.0005	0.019	0.029	<0.015	<0.010	<0.020	.318	<0.010	0.169
Ave Measured	<0.0005	<0.010	<0.020	<0.015	<0.010	<0.020	.0119	<0.010	

Sample Location Sump

Sample Type (Grab or Composite) Grab

Number of Samples and Frequency Collected One, Semi-annual

40CFR136 Preservation and Analytical Methods Use:  Yes  No

**(6) CERTIFICATION**

A. [Reserved]

[Reserved]

B. CHECK ONE: ' 433.11(e) TOXIC ORGANIC ANALYSIS ATTACHED  ' 433.12(a) TTO CERTIFICATION

Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last semi-annual compliance report. I further certify that this facility is implementing the toxic organic management plan submitted to Arkansas Department of Environmental Quality.

Gary Wrinkle  
(Typed Name)

Gary Wrinkle  
(Corporate Officer or authorized representative)

Date of Signature 2-28-12

**CORPORATE ACKNOWLEDGEMENT (Optional)**

STATE OF ARKANSAS )  
COUNTY OF \_\_\_\_\_ )

Before me, the undersigned authority, on this day personally appeared \_\_\_\_\_ of \_\_\_\_\_, a corporation, known to me to be the person whose name is subscribed to the foregoing instrument(s), and acknowledged to me that he executed the same for purposes and considerations therein expressed, in the capacity therein stated and as the act and deed of said corporation.

Given under my hand and seal of office on this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

\_\_\_\_\_  
Notary Public in and for \_\_\_\_\_  
County, Arkansas

My commission expires \_\_\_\_\_.



**(7) POLLUTION PREVENTION ACT OF 1990 [42 U.S.C. 13101 et seq.]**

'6602 [42 U.S.C. 13101] Findings and Policy para (b) Policy.--The Congress hereby declares it to be the national policy of the United States that pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.

The User may list any new or ongoing Pollution Prevention practices:

**(8) GENERAL COMMENTS**

**(9) SIGNATORY REQUIREMENTS [40CFR403.12(l)]**

I certify under penalty of law that I have personally examined and am familiar with the information in this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Gary Wrinkle  
NAME OF CORPORATE OFFICER OR AUTHORIZED REPRESENTATIVE

Gary Wrinkle  
SIGNATURE

Facility Manager  
OFFICIAL TITLE

2-28-12  
DATE SIGNED



11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209  
501-455-3233 Fax 501-455-6118

21 February 2012

Ray Copeland  
Parker Hannifin  
748 Hwy. 463 S  
Trumann, AR 72472

RE: Waste Water Test

SDG Number: 1202138

Enclosed are the results of analyses for samples received by the laboratory on 15-Feb-12 09:45. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✓
Containers Correct	✓
COC/Labels Agree	✓
Preservation Confirmed	✓
Received On Ice	✓
Temperature on Receipt	3.0°C

Sincerely,

A handwritten signature in cursive script that reads "Norma James".

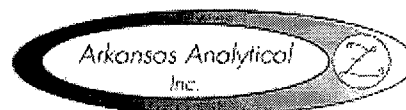
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Norma James  
President

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21 February 2012

Ray Copeland  
Parker Hannifin  
748 Hwy. 463 S  
Trumann, AR 72472  
Project: Waste Water Test



Date Received: 15-Feb-12 09:45

**ANALYTICAL RESULTS**

Lab Number: 1202138-01  
Sample Name: Waste Water  
Date/Time Collected: 2/14/12 13:00  
Sample Matrix: Water

Total Metals	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Cadmium	mg/L	< 0.000500		2/16/12 12:00	A202187	200.7
Chromium	mg/L	< 0.0100		2/16/12 12:00	A202187	200.7
Copper	mg/L	< 0.0200		2/16/12 12:00	A202187	200.7
Lead	mg/L	< 0.0150		2/16/12 12:00	A202187	200.7
Nickel	mg/L	< 0.0100		2/16/12 12:00	A202187	200.7
Silver	mg/L	< 0.0200		2/16/12 12:00	A202187	200.7
Zinc	mg/L	0.0119		2/16/12 12:00	A202187	200.7

Wet Chemistry	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Cyanide (total)	mg/L	< 0.010		2/20/12 14:01	A202234	4500-CN E/9014

**QUALITY CONTROL RESULTS**

Total Metals -- Batch: A202187 (Water)  
Prepared: 15-Feb-12 16:40 By: TC -- Analyzed: 16-Feb-12 16:00 By: TC

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Cadmium	<0.000500 mg/L	92.3% / NA	90.9% / 92.8%		2.01%	
Chromium	<0.0100 mg/L	98.5% / NA	95.4% / 97.3%		1.90%	
Copper	<0.00500 mg/L	102% / NA	99.8% / 102%		2.23%	
Lead	<0.0150 mg/L	95.5% / NA	92.2% / 94.3%		2.29%	
Nickel	<0.0100 mg/L	92.2% / NA	91.8% / 93.6%		1.98%	
Silver	<0.0200 mg/L	91.6% / NA	90.8% / 93.2%		2.54%	
Zinc	<0.00500 mg/L	92.7% / NA	95.5% / 96.9%		1.52%	

Wet Chemistry -- Batch: A202234 (Water)  
Prepared: 20-Feb-12 14:00 By: SB -- Analyzed: 20-Feb-12 14:01 By: SB

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Cyanide (total)	<0.010 mg/L	103% / NA	98.7% / 97.0%		1.70%	

All Analysis performed according to EPA approved methodology when available:  
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods, 20th Edition.  
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: \_\_\_\_\_  
Norma James  
President



11701 Interstate 30, Bldg. 1, Ste. 115  
 Little Rock, AR 72209  
 PHONE: 501-455-3233  
 FAX: 501-455-6118

# CHAIN OF CUSTODY RECORD

CLIENT INFORMATION			Project Description		Turn-around Time	Preservation Codes:										
Parker Hannifin 748 Hwy. 263 S Trumann, AR 72472			Waste Water Sample		24 Hour 48 Hour 72 Hour	1. Cool, 5 Degrees Centigrade 2. Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2 3. Nitric Acid (HNO <sub>3</sub> ), pH < 2	4. Thiosulfate for Dechlorination 5. Hydrochloric Acid (HCl) 6. Sodium Hydroxide (NaOH), pH > 12									
Attn: Ray Copeland			Reporting Information Telephone: 870-433-0512 Email: rcopeland@parker.com		Reurns (5 Days) Preservative Code Reagent Type	TEST PARAMETERS										
<i>Ray Copeland</i> Sampler(s) Signature			Ray Copeland Sampler(s) Printed		1,6 P	1,3 P	Beak Type Code G = Glass, P = Plastic 9 = Square, 6 = Round									
Field Number	SAMPLE COLLECTION		Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	Cyanide	Cd	Cr	Cu	Pb	Ni	Ag	Zn	Arkansas Analytical Work Order Number:
	Date/s	Time/s														
	2/14/12	1:00 PM	X		2	Water	Waste Water	X	X							1202138
1. Relinquished by: (Signature)			Date/Time		2. Received by: (Signature)			SAMPLE CONDITION UPON RECEIPT IN LAB					REMARKS / SAMPLE COMMENTS			
<i>Ray Copeland</i>			2/14/12 2:00 PM		<i>fedex</i>			1. CUSTODY SEALS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 2. CONTAINERS CORRECT: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 3. CO-LABELS AGREE: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 4. PRESERVATION CONFIRMED: Yes <input type="checkbox"/> No <input type="checkbox"/> 5. RECEIVED ON ICE: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 6. TEMPERATURE ON RECEIPT: 3°					P.O. Number			
2. Relinquished by: (Signature)			Date/Time		4. Received by lab: (Signature)			FOR COMPLETION BY LAB ONLY								
<i>fedex</i>			2/15/12 0945		<i>Amanda Fabish</i>											

21 February 2012

Ray Copeland  
 Parker Hannifin  
 748 Hwy. 463 S  
 Trumann, AR 72472  
 Project: Waste Water Test

Date Received: 15-Feb-12 09:45

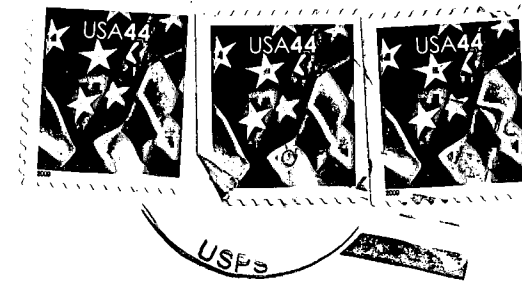
CHAIN OF CUSTODY FORM(S)

Revision 1  
 12/2009



**Parker**

Parker Hannifin Corporation  
Mobile Climate Systems  
748 Highway 463 South  
Trumann, AR 72472 USA



Rufus J. Torrence

ADEQ NPDES Engineer

Arkansas Department of Environmental Quality

5301 Northshore Drive

North Little Rock, AR

72118