# Wilson, Tabatha

From: Torrence, Rufus

**Sent:** Monday, July 15, 2013 9:02 AM

To: Wilson, Tabatha

**Subject:** FW: ARP000021 AR0034347 AFIN 27-00004 July 2013 Semi-Annual Pretreatment

Report

Attachments: PPS\_CAS.WPC.doc; AFIN 27-00004 ARP000021 Kohler Site Visit for Compliance

Assurance: Inspection; Kohler July 2013 Semi-Annual Pret Report.pdf

Follow Up Flag: Follow up Flag Status: Flagged



July 12, 2013

James House Kohler Company P O Box 427 415 South Oklahoma Street Sheridan, AR 82150

Re: KLR's July 2013 Semi-Annual Pretreatment Report

(Permit No. AR0034347 AFIN 27-00004)

Dear Mr. House:

The Department has reviewed Kohler's July 2013 Semi-annual Pretreatment Report and the report is inconclusive.

For the past two decades the Department has given Kohler the option to submit a TOMP (see attached inspection report) in lieu of testing for TTOs. However, over the years Kohler has elected to continue to test for toxic organics in the wastewater discharged to the POTW. The Department's understanding is that Kohler intends to document that TTOs are not entering the POTW. Kohler reported 0.00 mg/l for TTOs. The attached Arkansas Analytical lab report #1306154-01 does not confirm that Kohler is not discharging "reportable" TTOs.

When a parameter is listed as "non-detect", the Department policy is to use the non-detect value or at least half of the non-detect value to determine compliance. According to 40 CFR 433.11(e), "The term 'TTO' shall mean total toxic organics, which is the summation of all quantifiable values greater than .01 milligrams per liter...". Therefore, any parameter listed as non-detect greater than 10 µg/l can be used in the TTO summation. In reference to Arkansas Analytical lab report #1306154-01, summing all the TTO parameters shown as non-detect greater than or equal to 20 µg/l and using half of the non-detect value, the Department calculated a discharge concentration of 0.355 mg/l. However, summing all the TTO parameters shown as non-detect greater than 10 µg/l and using the non-detect value, the Department calculated a discharge concentration of 0.710 mg/l. The Department reserves the right to use the higher value to determine compliance.

Finally, Kohler's contract lab must use methods listed in 40 CFR 136 (preferably, with method detection levels<sup>2</sup> below  $10 \,\mu g/l^1$ ) to test for the TTOs. Note that Arkansas Analytical used EPA Method 624 to test for Dichlorodifluoromethane (see page 6 of 11). As of July 9, 2013 Method 624 is not listed in the 40 CFR 136 for Dichlorodifluoromethane. But most important Dichlorodifluoromethane (CAS #75-71-8) is not a 40 CFR 433.11(e) regulated parameter. Since the toxic organics have many synonyms but only one CAS (Chemical Abstract System) number, the Department has attached a list of CAS numbers for Kohler's convenience.

The Department will require Kohler either to (*I*) use only 40 CFR 136 lab methods and sum all "non-detect" and "detected" values greater than 10 µg/l for all parameters or (*2*) develop an approvable TOMP. Note that if Kohler develops a TOMP and continues testing for TTOs, Kohler must submit all the test results to ADEQ for review.

The Department appreciates Kohler's continued efforts in semi-annual reporting.

If you have any questions or concerns, please contact the Department at (501) 682-0626 or by email at <a href="mailto:torrence@adeq.state.ar.us">torrence@adeq.state.ar.us</a>.

Sincerely,

Rufus Torrence, Pretreatment Engineer

Frede Jovence

Water Division

<sup>&</sup>lt;sup>1</sup> If a 40 CFR 136 method with a method detection limit/level below 0.01 milligrams/liter is not available for a parameter, Kohler may exclude that parameter on the basis that it is not "quantifiable" below 10 μg/l. ADEQ must concur.

 $^2$ Method Detection Limit is defined in Appendix B to Part 136. The lab usually reports the "Method Detection Level" achieved based on the procedure in Appendix B. Kohler's contract lab may check with ADEQ water lab director for Part 136 methods with quantifiable levels below  $10 \,\mu\text{g/l}$ .

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALIT 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK / ARKANSAS 72118 5337 / TELEPHONE SE

# TABLE II

40CFR122 APP D / CHEMICAL ABSTRACT SYSTEM PPS-CAS.wpc

40CI KIZZ IN I D / CHEMICINE INDUING	TIS CIS.wpc
50-29-3 4,4'-DDT	107-06-2 1,2-Dichloroethane
50-32-8 Benzo(a)Pyrene	107-13-1 Acrylonitrile
51-28-5 2,4-Dinitrophenol	108-60-1 Bis(2-Chloroisopropyl)Ether
53-70-3 Dibenzo(a,h)Anthracene	108-88-3 Toluene
56-23-5 Carbon Tetrachloride	108-90-7 Chlorobenzene
56-55-3 Benzo(a)Anthracene	108-95-2 Phenol
57-74-9 Chlordane	110-75-8 2-Chloroethylvinylether
58-89-9 Gamma-BHC	111-44-4 bis (2-Chloroethyl) Ether
59-50-7 4-Chloro-3-Methylphenol	111-91-1 bis (2-Choloethoxy) Methane
60-57-1 Dieldrin	115-29-7 Alpha-Endosulfan
62-75-9 N-Nitrosodimethylamine	115-29-7 Beta-Endosulfan
67-66-3 Chloroform	117-81-7 bis(2-Ethylhexyl)Phthalate
67-72-1 Hexachloroethane	117-84-0 Di-n-Octyl Phthalate
71-43-2 Benzene	118-74-1 Hexachlorobenzene
71-55-6 1,1,1-Trichloroethane	120-12-7 Anthracene
72-20-8 Endrin	120-82-1 1,2,4-Trichlorobenzene
72-54-8 4,4'-DDD	120-83-2 2,4-Dichlorophenol
72-55-9 4,4'-DDE	121-14-2 2,4-Dinitrotoluene
74-83-9 methyl bromide	122-66-7 1,2-diphenylhydrazine
74-87-3 methyl chloride	124-48-1 Dibromochloromethane
75-00-3 Chloroethane	127-18-4 Tetrachloroethene
75-01-4 Vinyl Chloride	129-00-0 Pyrene
75-09-2 Methylene Chloride	131-11-3 Dimethyl Phthalate
75-25-2 Bromoform	156-60-5 Trans-l,2-Dichloroethene
75-27-4 Bromodichloromethane	191-24-2 Benzo(g,h,i)Perylene
75-34-3 l,l-Dichloroethane	193-39-5 Indeno(1,2,3-cd)Pyrene
75-35-4 1,1-dichloroethylene	205-99-2 3,4-benzofluoranthene
76-44-8 Heptachlor	206-44-0 Fluoranthene
77-47-4 Hexachlorocyclopentadiene	207-08-9 Benzo(k)Fluoranthene
78-59-1 Isophorone	208-96-8 Acenaphthylene
78-87-5 1,2-Dichloropropane	218-01-9 Chrysene
79-00-5 1,1,2-Trichloroethane	309-00-2 Aldrin
79-01-6 Trichloroethene	319-84-6 Alpha-BHC
79-34-5 1,1,2,2-Tetrachloroethane	319-85-7 Beta-BHC
83-32-9 Acenaphthene	319-86-8 Delta-BHC 534-52-1 4,6-Dinitro-2-Methylphenol
84-66-2 diethyl phthalate	541-73-1 1,3 Dichlorobenzene
84-74-2 Di-n-Butylphathalate	542-75-6 1,3-dichloropropylene
85-01-8 Phenanthrene	606-20-2 2,6-Dinitrotoluene
85-68-7 Butylbenzylphthalate	621-64-7 N-Nitroso-Di-n-Propylamine
86-30-6 N-Nirosodiphenylamine (1)	1024-57-3 Heptachlor Epoxide
86-73-7 Fluorene 87-68-3 Hexachlorobutadiene	1031-07-8 Endosulfan Sulfate
87-86-5 Pentachlorophenol	7005-72-3 4-Chlorophenol-phenylether
88-06-2 2,4,6-Trichlorophenol	7421-93-4 Endrin Aldehyde
88-75-5 2-Nitrophenol	8001-35-2 Toxaphene
91-20-3 Naphthalene	11096-82-5 Aroclor-1260
91-58-7 2-Chloronaphthalene	11097-69-1 Aroclor-1254
91-94-1 3,3'-Dichlorobenzidine	11104-28-2 Aroclor-1221
92-87-5 Benzidine	11141-16-5 Aroclor-1232
95-50-1 1,2-Dichlorobenzene	12672-29-6 Aroclor-1248
95-57-8 2-Chlorophenol	12674-11-2 Aroclor-1016
98-95-3 Nitrobenzene	39638-32-9 bis(2- c'i'propyl)ether
100-02-7 4-Nitrophenol	53469-21-9 Aroclor-1242
100-41-4 Ethylbenzene	
101-55-3 4-Bromophynyl-Phenylether	
105-67-9 2,4-Dimethylphenol	
106-46-7 1,4-Dichlorobenzene	
107-02-8 Acrolein	

107-02-8 Acrolein

### Wilson, Tabatha

From: Torrence, Rufus

Sent: Friday, September 30, 2011 9:08 AM

**To:** 'House James'

**Subject:** AFIN 27-00004 ARP000021 Kohler Site Visit for Compliance Assurance: Inspection

**Attachments:** KLR Insp 20110921.doc; Kohler Lab Results.xls



September 30, 2011

James House Kohler, Inc 415 South Oklahoma St Sheridan, AR 72150

Re: September 21, 2011 Site Visit for Compliance Assurance: Inspection (Tracking No. ARP000021 AFIN 27-00004)

Dear Mr. House:

Part of ADEQ responsibility to EPA is to ensure that inspections of industries regulated by categorical pretreatment standards (40 CFR Part 405 – 471) are performed on a periodic basis. These industries are referred to as Categorical Industrial Users (CIUs) if they discharge the regulated wastewater into the local Publicly Owned Treatment Works (POTW). Kohler has processes (Electroplating, Electroless Plating, etc) in the Sheridan facility that are regulated by 40 CFR Part 433 and discharges regulated wastewater to the City of Sheridan POTW. Therefore, Kohler is a CIU. In accordance to 40 CFR 403.12(e), Kohler must submit periodic reports to the Control Authority (ADEQ or Department) and in accordance with 40 CFR 403.8(f)(2)(v) be inspected by the Control Authority at least bi-annually. The Department appreciates Kohler taking the time on Wednesday (September 21, 2011) to show the ADEQ Engineer/Inspector (Rufus Torrence) the facility in Sheridan.

The inspection consisted of inspecting the plating operations and the treatment system. These operations (electroless plating and electroplating) are core operations. Core operations are the key processes in determining the applicability of the 40CFR433 category. The Sheridan plant makes brass and plastic

faucets. The plastic parts are electroless plated with palladium/nickel and then electroplated with copper. The copper plated plastic and brass parts are then electroplated with chrome. Kohler has no open floor drains in the plant which connect directly to the POTW. Wastewater enters open floor drains and flows to the pretreatment system. The pretreatment system has four primary feed streams (Hex Chrome, Nickel, Copper and Rinse wastewater). The Hex Chrome in the wastewater is reduced to Tri-valent Chrome and combined with the other three streams. The combined streams are treated, sampled, metered and discharged to the POTW.

According to 40CFR433.12(a) Kohler may submit a Toxic Organic Management Plan in lieu of sampling for TTOs; presently, Kohler is required to sample for the 110 toxic organic, seven metals and total cyanide for each semi-annual report. Kohler may review the EPA Guidance Manual for Implementing Total Toxic Organics Pretreatment Standards by accessing this web site:

http://www.epa.gov/npdes/pubs/owm0021.pdf

Kohler can find an example of a Toxic Organic Management Plan in Appendix D of this manual.

During the inspection, the inspector took a sample of the regulated wastewater that was entering the local POTW. The ADEQ lab analysis is attached. The wastewater complies with the limits in 40 CFR 433.

Kohler must continue sampling (at least semi-annually) all regulated wastewater for all 40 CFR 433 parameters before it enters the POTW.

The Department appreciates Kohler's continued efforts in periodic reporting.

Frence Jovence

If you have any questions or concerns, please contact the Department at (501) 682-0626 or <a href="mailto:torrence@adeq.state.ar.us">torrence@adeq.state.ar.us</a>.

Sincerely,

Rufus Torrence,

ADEQ Engineer/Inspector

Attachments: ADEQ Lab Analysis

ADEQ Inspection Report dated September 21, 2011

ARKANSAS DEPARTMENT OF ENVIRONMENTAL CLIALITY
5901 MORTHSHORE DRIVE / NORTH-LITTLE-ROCK / ARKANSAS 221 TB-9317 / TRUPHONE 501-682-0244 / F/X 501-687-058
1944 députitions

# 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 KOHLER Company	B. FACILITY & LOCATION ADDRESS 415 S. Oklahoma St.
NOTIZER Company	Sheridan, AR 72150
Sheridan, AR 72150	
C. FACILITY CONTACT: JAMES HOUSE	TELEPHONE NUMBER: 870-942-2111
(2) REPORTING PERIOD FISCAL YEAR From Ja	anuary 1 to December 31 (Both Semi-Annual Reports must cover Fiscal Year)
A. MONTHS WHICH REPORTS ARE DUE	B. PERIOD COVERED BY THIS REPORT
JANUARY & JULY	FROM: January, 2013 TO: June 30, 2013
(3) DESCRIPTION OF OPERATION	
A. REGULATED PROCESSES	B. CHANGES: SUMMARIZE ANY CHANGES IN THE REGULATED PROCESSES SINCE
	THE LAST REPORT. ATTACH AN ADDITIONAL SHEET IF THE SPACE
CORE PROCESS(ES)	BELOW IS INADEQUATE. PROVIDE A NEW SCHEMATIC IF
CHECK EACH APPLICABLE BLOCK	APPROPRIATE.
_x Electroplating	
Electroless Plating	
Anodizing	
Coating	
Chemical Etching and Milling	
Printed Circuit Board Manufacture	July 2013 SAR AR0034347
ANCILLARY PROCESS(ES)*	10 18 11 21217
LIST BELOW EACH PROCESS USED IN THE FACILITY	AK QQ 5474+
BRAZING	1511/27 00 808 61
ACID/ALKALI CLEANING	AFIN 27-00004
4704	
***************************************	
*SEE 40CFR.10(a) FOR 40 DIFFERENT OPERATIONS	
C. Number of Regular Employees at this Facility 258	D. [Reserved]

CDHOA

Kohler Co., 415 South Oklahoma St., Sheridan, Arkansas 72150 870-942-2111 Fax 870-942-5358 www.kohler.com

July 9, 2013

Mr. Rufus Torrence NPDES Pretreatment Engineer Arkansas Department of Environmental Quality 5301 Northshore Drive, North Little Rock, AR 72118

Re: SEMI-ANNUAL REPORT 1St HALF 2013

Dear Mr. Torrence,

In accordance with 40CFR403.12 (e) we are submitting semi-annual reports for the months January 1, 2013 through June 30, 2013. Attached with this report is the TTO/CN analysis for this period. Please contact me at 870-917-6215 should you have any questions.

Sincerely,

James House

Safety/Environmental Specialist

Attachments: TTO/CN Analysis for the 1st half of 2013

Cc: Jim Bilgo, EHS Supervisor, Kohler, WI

Dick Pfarrer, Global Faucets Program Coordinator

David Fitzgerald, Sheridan Waterworks

File





(4) FLOW 1	MEASUREME	ENT									
	INDIVIDUAL & T	OTAL PROCE	SS FLOWS DIS	CHARGED TO	POTW IN GAL	LONS PER DA	Y -			:0	
	Proc	ess	Ave	rage	Maxii	mum -	Type of	Discharge	]		
	Regulated (Cor	e & Anc)	63,	,662	218	,800	POTW C	ontinuous			
	Regulated (Cya	nide)		0	*	0	N	/A	]		
	§403.6(e) Unre	gulated*		0		0	N	/A	]		į
	§403.6(e) Dilut	е		0		0	N	/A	]		
1	Cooling Water		i i	0		0	N	/A	]		
	Sanitary		37,	755	87,	595	POTW C	ontinuous	1		
	Total Flow to P	OTW	101	,417	348	,562	*****	*****			ij
" 	*"Unregulated" has a prec	ise legal meaning; so	ce 40CFR403.6(c).		•						
	REMENT OF		ANTS								
A. TYPE (	OF TREATMENT	SYSTEM				Secretaria de			EATMENT S	SYSTEM	
							vater sampl				
CHECK E	ACH APPLICAB	LE BLOCK				l	ial lab for a	•			
							d twice per				
X	Neutralization	-				l	and delive			ay.	
X	Chemical Pre		and Sedime	entation	(a	Monthly 1	DMR is als	o submitte	d.		
X	Chromium Re										
	Cyanide Dest	ruction									
	Other					, r					
	None									Y	
C. THE INDU	STRIAL USER MUS	T PERFORM S	SAMPLING ANI	D ANALYSIS C	F THE EFFLUE	NT FROM ALI	REGULATED	PROCESSES	CORE&	· ·	
ANCILLARY	(AFTER TREATME	ENT, IF APPLIC	CABLE). ATTA	CH THE LAB	ANALYSIS WH	ICH SHOWS A	MAXIMUM; T.	ABULATE ALL	THE		
ANALYTICA	L DATA COLLECTE	D DURING TH	HE REPORT PE	RIOD IN THE S	SPACE PROVID	ED BELOW. 2	ZERO CONCEN	TRATIONS AR	E NOT		
ACCEPTABL	E; LIST THE DETEC					ION LIMIT.		14	4		1
	Pollutant(mg/l)	Cd	Cr	Cu	Pb	Ni	Ag	Zn	CN*	TTO*	
	Max for 1 day	0.69	2.77	3.38	0.69	3.98	0.43	2.61	MDL	2.13	
	Monthly Ave	0.26	1.71	2.07	0.43	2.38	0.24	1.48	MDL		
	Max Measured	0.005	2.05	0.66	0.015	1.12	0.02	0.25	0.02	0.00	
	Ave Measured	0.005	0.58	0.24	0.015	0.33	0.02	0.04	0.02	0.00	
							j				
	HE CONCENTRA		E IF NO CEI	RTIFICATIO	N IS PROVI	DED IN SEC	CTION 6 BEL	OW OR MA	RK N/A IF A	A	
	ION IS PROVIDE										
Sample Loc					EFORE DI	SCHARG	<u>E</u>				
	e (Grab or Con	-	COMPOS	SITE	1.03	// · · · · · · · · · · · · · · · · · ·	an a :				
	Samples and Fr	-		**		0.0000	ISE 2/SHIF	to resi			
40CFR1361	Preservation an	a Analytic	cal Method	s Use:	X	Yes		No			

Page 2

TCATION	
A. CYANIDE CERTIFICATION	
Based on my inquiry of the person or persons directly responsible for managing compl standards, I certify that to the best of my knowledge, cyanide has not been used or gen are regulated by the Metal Finishing (40CFR 433) categorical pretreatment standards s annual compliance report.	nerated in our processes which
(Typed Name)	
(Corporate Officer or authorized representative)  Date of Signature	
B. CHECK ONE: X \$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 compl standard for total toxic organics (TTO), I certify that, to the best of my knowledge and concentrated toxic organics into the waste waters has occurred since filing of the last s I further certify that this facility is implementing the toxic organic management plan st Department of Pollution Control and Ecology.	liance with the pretreatment I belief, no dumping of emi-annual compliance report.
N/A (Typed Name)	
(Corporate Officer or authorized representative)	
Date of Signature	
CORPORATE ACKNOWLEDGEMENT (Op	otional)
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 acknowledged to me that he executed the same for purposes and considerations therein therein stated and as the act and deed of said corporation.	1
Given under my hand and seal of office on this day of	2012 .
Notary Public in and forCounty, Arkansas	
My commission expires	

## KOHLER

(7) POLLUTIC	ON PREVENTION ACT OF 1990 [42 U.S.C. 13101 et seq.]
	\$6602 [42 U.S.C. 1310] 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	v list any new or ongoing Pollution Prevention practices:
	·
(8) GENERAL	COMMENTS
	ATTACHMENTS:
	TTO/CN Analysis Semi-Annual Metals Analysis
	Schil-Ailliual Wetals Allalysis
cc:	Dick Pfarrer - KOHLER EHS
	David Fitzgerald - Sheridan Waterworks
	File
(9) SIGNATOR	RY REQUIREMENTS [40CFR403.12(1)]
	I certify under penalty of law that I have personally examined and am familiar with the information in this semi-annual
	compliance report and all attachments, and that, based on my inquiry of those persons immediately responsible for obtaining the
	information contained in the report, I believe that the information is true, accurate and complete. I am aware that there are
	significant penalties for submitting false information, including the possibility of fine and imprisonment.
	Bill Royals
	Director of Arkansas Faucet Operations    Signature
	MINI
	Director of Arkansas Faucet Operations // 9/2013
	OFFICIAL TITLE DATE SIGNED

DATE	GALLONS	DATE	GALLONS	Date	GALLONS	DATE	GALLONS
1/1/13	Holiday	2/1/13	79300	3/1/13	57000	4/1/13	105500
1/2/13	68500	2/2/13	Saturday	3/2/13	Saturday	4/2/13	97900
1/3/13	71400	2/3/13	Sunday	3/3/13	Sunday	4/3/13	115000
1/4/13	70900	2/4/13	115400	3/4/13	106600	4/4/13	97500
1/5/13	7/17/46	2/5/13	101400	3/5/13	93400	4/5/13	26900
1/6/13	Sunday	2/6/13	96600	3/6/13	90100	4/6/13	7400
1/7/13	101800	2/7/13	91400	3/7/13	90700	4/7/13	Sunday
1/8/13	92500	2/8/13	75500	3/8/13	60300	4/8/13	101400
1/9/13	100400	2/9/13	9500	3/9/13	Saturday	4/9/13	76300
1/10/13	107800	2/10/13	Sunday	3/10/13	Sunday	4/10/13	78200
1/11/13	119000	2/11/13	98600	3/11/13	93700	4/11/13	115000
1/12/13	38400	2/12/13	58800	3/12/13	95000	4/12/13	66700
1/13/13	Sunday	2/13/13	85800	3/13/13	83000	4/13/13	22700
1/14/13	83400	2/14/13	95300	3/14/13	81800	4/14/13	Sunday
1/15/13	93800	2/15/13	59700	3/15/13	80400	4/15/13	91400
1/16/13	91200	2/16/13	Saturday	3/16/13	63800	4/16/13	106400
1/17/13	101700	2/17/13	Sunday	3/17/13	Sunday	4/17/13	91200
1/18/13	60200	2/18/13	88200	3/18/13	86700	4/18/13	91400
1/19/13	Saturday	2/19/13	85500	3/19/13	90700	4/19/13	29400
1/20/13	Sunday	2/20/13	90500	12/1/60	45500	4/20/13	Saturday
1/21/13	116400	2/21/13	86900	3/21/13	112800	4/21/13	Sunday
1/22/13	99900	2/22/13	53000	3/22/13	53900	4/22/13	101000
1/23/13	159000	2/23/13	Saturday	3/23/13	Saturday	4/23/13	93300
1/24/13	37400	2/24/13	Sunday	3/24/13	Sunday	4/24/13	123000
1/25/13	36900	2/25/13	94400	3/25/13	93600	4/25/13	111300
1/26/13	10400	2/26/13	91200	3/26/13	7400	4/26/13	33600
1/27/13	Sunday	2/27/13	82300	3/27/13	96700	4/27/13	10000
1/28/13	64000	2/28/13	86000	3/28/13	76900	4/28/13	Sunday
1/29/13	117800			3/29/13	Holiday	4/29/13	79700
1/30/13	83600			3/30/13	Saturday	4/30/13	96300
1/31/13	93800			3/31/13	Sunday		
	1943400		1725300	Barrier A	1660000		1968500

DATE	GALLONS	DATE	GALLONS
5/1/13	118300	6/1/13	Saturday
5/2/13	112100	6/2/13	Sunday
5/3/13	83500	6/3/13	108500
5/4/13	Saturday	6/4/13	117200
5/5/13	Sunday	6/5/13	107900
5/6/13	116900	6/6/13	104300
5/7/13	95200	6/7/13	42700
5/8/13	105000	6/8/13	31000
5/9/13	117800	6/9/13	Sunday
5/10/13	79800	6/10/13	100100
5/11/13	23700	6/11/13	115400
5/12/13	Sunday	6/12/13	101600
5/13/13	136700	6/13/13	107900
5/14/13	126700	6/14/13	69000
5/15/13	121800	6/15/13	Saturday
5/16/13	126700	6/16/13	Sunday
5/17/13	31000	6/17/13	120300
5/18/13	Saturday	6/18/13	99400
5/19/13	Sunday	6/19/13	121700
5/20/13	113900	6/20/13	119200
5/21/13	103100	6/21/13	73900
5/22/13	126200	6/22/13	73900
5/23/13	114000	6/23/13	Sunday
5/24/13	Down	6/24/13	107200
5/25/13	Saturday	6/25/13	114200
5/26/13	Sunday	6/26/13	117800
5/27/13	Holiday	6/27/13	92900
5/28/13	136400	6/28/13	34200
5/29/13	224900	6/29/13	Saturday
5/30/13	51400	6/30/13	Sunday
5/31/13	71200		
	ñ		
	2336300		2080300

# SEMI-ANNUAL REPORT CALCULATION WORKSHEET (January-June)

Process	Average	Maximum	Type of Discharge
Regulated (Core & Anc)	63662	218800	POTW Continuous
Regulated (Cyanide)	0	0	NA
\$403.6(e) Unregulated*	0	0	NA
§403.6(e) Dilute	0	0	NA
Cooling Water	0	0	NA
Sanitary	37755	87595	POTW Continuous
Total Flow to POTW	101,417,39	348,561.79	*****

TOTAL	NUMBER	AVERAGE	TOTAL	8	MAXIMUM	MAXIMUM
H2O TO	OF	CALLONS	1120	OF 1120	DAY	GALLONS
LANT*	DAYS	PER DAY	TREATED**	TREATED	TREATED**	PER DAY
008'099'	184	101417	11713800	62.8%	147700	235295

87595	235295	147700	37755	101417	63662	181	11,713,800
SANITARY	PER DAY	TREATED**	SANITARY	PER DAY	TOTAL	DAYS	TREATED**
MAXIMUM	GALLONS	DAY	AVERAGE	GALLONS	REGULATED	OF	H20
	MAXIMUM	MAXIMUM		AVERAGE	AVERAGE	NUMBER	TOTAL

\*NUMBERS FROM WATER BILLS
\*\*NUMBERS FROM THE ECOLOGY LOG BOOK

			USAGES			
Location	To Plater	NE Front	SE Front	Plastics	Toilet Seats	Toilet Seats
Meter #	4097500	4098000	4099000	4100000	4110000	4111000
lanuary	251,800	265,300	1,906,000		445,000	39,700
Pebruary	127,900	154,300	1,440,000		10,000	36,300
March	234,200	240,700	2,319,000		277,100	65,600
April	209,100	214,700	1,782,000		980,900	33,600
May	545,700	525,700	1,977,000		320,400	50,000
lune	322,300	320,900	2,245,000		461,500	65,600
6MO Total	1,691,000	1,721,600	11,669,000	0	2,494,900	290,800
ŀ	1-1-1	000 000 01		Secretary Secretary	A CONTRACTOR CONTRACTOR AND A CONTRACTOR	Control of the Contro

	Cd Max	Cd Avg	Cr Max	Cr Avg	Cu Max	Cu Avg	Pb Max	Pb Avg	Ni Max	Ni Avg	Ag Max	Ag Avg	Zn Max	Zn Avg
January			0.85	0.48	310	9) (4			1.02	0.42			0.2	0.07
February			2.05	6.0	0.27	0.14			0.68	0.39			0.04	0.05
March			1.13	0.73	99.0	0.32			0.46	0.33			0.25	0.07

	Cd Max	Cd Avg	Cr Max	Cr Avg	Cu Max	Cu Avg	Pb Max	Pb Avg	Ni Max	Ni Avg	Ag Max	Ag Avg	Zn Max	Zn Avg	Zn Avg TTO Max TTO Avg Cn Max Cn Avg	TTO Avg	Cn Max	Cn Avg
any			0.85	0.48	310	91.0			1.02	0.42			0.2	.70.0				
lary			2.05	6.0	0.27	0.14			89'0	0.39			0.04	0.02				
19			1.13	0.73	99.0	0.32			0.46	0.33			0.25	70.0				
			1,01	0.43	0.44	0.27			1,12	0.43			50:05	0.02				
			1.06	0.54	0.61	0,42			0,47	0.26			0.03	0.02				
	0.005	0.005	1,055	0.42	0.16	0.13	0.015	0.015	13'0	25'0	0.02	0.02	0.02	0.01			0.02	0.02
leasured	900:0	90	2.05	2	0	99	0	0.015	1.12	5	0.02	2	0.25	5	0		0.02	
easured	0.0	05	0.58333	8333333	0.24	24	0	0.015	0.33333333	3333	0.02	2	0.04	4	0		0.02	近端の の



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

01 July 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

RE: Semiannual Wastewater Sample(s)

SDG Number: 1306154

Enclosed are the results of analyses for samples received by the laboratory on 11-Jun-13 15:26. 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,

Norma James

President

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01 July 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26



Sample Delivery Group - 1306154

Revised Analytical and/or Quality Control Results are Discussed Below:

At client request, sample 1306154-01 was reanalyzed for Arsenic. The revised results are on the following report page(s).



01 July 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

### **ANALYTICAL RESULTS**

Lab Number:

1306154-01RE2

Sample Name:

**Wastewater Composite** 

Date/Time Collected:

6/11/13 6:00

Sample Matrix:

Water

**Total Metals** 

**Units** 

Result

Qualifier(s)

Date/Time Analyzed

<u>Batch</u>

Arkansas Analytical

Method

Arsenic

mg/L

< 0.0112

106%

6/28/13 11:00

A306371

200.7, Rev 4.4 (1994)

### **QUALITY CONTROL RESULTS**

Total Metals -- Batch: A306371 (Water)

Prepared: 26-Jun-13 14:10 By: ST -- Analyzed: 26-Jun-13 17:25 By: ST

**Analyte** 

**BLK** 

LCS / LCSD

MS / MSD

Dup

**RPD** 

Qualifiers

Arsenic

<0.0110 mg/L

105% / NA

111%

3.87%

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.

Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by:

Norma James

President



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

18 June 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

RE: Semiannual Wastewater Sample(s)

SDG Number: 1306154

Enclosed are the results of analyses for samples received by the laboratory on 11-Jun-13 15:26. 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,

Norma James

President

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18 June 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26



Sample Delivery Group - 1306154

Qualified Analytical and/or Quality Control Results are Discussed Below:

### **Volatiles Analysis:**

<u>Second Source Verification Failure (E5):</u> Acrolein failed to recover within method specified requirements in the second source verification of the initial calibration curve. Acrolein was qualified as "estimated" (E5) in all samples and in the quality control section of the final report.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Failure: Acrolein failed to recover within acceptance criteria in the MS and/or MSD sample. The recoveries were qualified by "%D1" in the quality control section of the final report. Acrolein was qualified as "estimated" (E20) in the parent sample, 1306154-01.

### **Semivolatiles Analysis:**

<u>Continuing Calibration Verification (CCV) Failure (E21):</u> 3,3-Dichlorobenzidine failed (low) to meet method criteria in the CCV associated with sample 1306154. 3,3-Dichlorobenzidine was qualified as "estimated" (E21) in the sample and in the quality control section of the final report.

Continuing Calibration Verification (CCV) Failure (E-01): 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol failed (high) to meet method criteria in the CCV associated with sample 1306154. 2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol were qualified as "estimated" (E-01) in the associated samples and in the quality control section of the final report. If the sample is non-detect for the analyte, the CCV has demonstrated the analyte would have been detected if it were present.

<u>Laboratory Control Spike/Laboratory Control Spike Duplicate (LCS/LCSD) Surrogate Failure:</u> The surrogate Terphenyl-d14 failed to recover within acceptance criteria in the LCS/LCSD sample. The recoveries were qualified by "%D3."

### Pesticides Analysis:

Continuing Calibration Verification (CCV) Failure (E-01): Chlordane failed (high) to meet method criteria in the CCV associated with sample 1306154. Chlordane was qualified as "estimated" (E-01) in the associated samples and in the quality control section of the final report. If the sample is non-detect for the analyte, the CCV has demonstrated the analyte would have been detected if it were present.

Arkansas Analytical

18 June 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

Project: Semiannual Wastewater Sample(s)

Lab Number:

Date Received: 11-Jun-13 15:26

# ANALYTICAL RESULTS

1306154-01

Sample Name:		Wastewater Composite	)			
Date/Time Collected:		6/11/13 6:00				
Sample Matrix:		Water				
Acid Compounds	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
2,4,6-Trichlorophenol	ug/L	< 10.0		6/12/13 21:51	A306149	. 625 (mod.)
2,4-Dichlorophenol	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2,4-Dimethylphenol	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2,4-Dinitrophenol	ug/L	< 50.0	E-01	6/12/13 21:51	A306149	625 (mod.)
2-Chlorophenol	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2-Nitrophenol	ug/L	€20.0		6/12/13 21:51	A306149	625 (mod.)
4-Chloro-3-methylphenol	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
4-Nitrophenol	ug/L	< 50.0		6/12/13 21:51	A306149	625 (mod.)
4,6-Dinitro-2-methylphenol	ug/L	< 50.0	E-01	6/12/13 21:51	A306149	625 (mod.)
Pentachlorophenol	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Phenol	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2,4,6-Tribromophenol [surr]	%	83.8		6/12/13 21:51	A306149	625 (mod.)
2-Fluorophenol [surr]	%	39.2		6/12/13 21:51	A306149	625 (mod.)
Phenol-d5 [surr]	%	29.9	*	6/12/13 21:51	A306149	625 (mod.)
Base/Neutral Compounds	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
1,2,4-Trichlorobenzene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
1,2-Dichlorobenzene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
1,2-Diphenyl Hydrazine	ug/L	< 20.0		6/12/13 21:51	A306149	625 (mod.)
1,3-Dichlorobenzene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
1,4-Dichlorobenzene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2,3,7,8-TCDD Screen	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2,4-Dinitrotoluene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2,6-Dinitrotoluene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2-Chloronaphthalene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
3,3'-Dichlorobenzidine	ug/L	< 5.00	E21	6/12/13 21:51	A306149	625 (mod.)
4-Bromophenyl-phenylether	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
4-Chlorophenyl-phenylether	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Acenaphthene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Acenaphthylene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Anthracene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Benzidine	ug/L	< 50.0		6/12/13 21:51	A306149	625 (mod.)
Benzo[a]pyrene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Benzo[b]fluoranthene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Benzo[g,h,i]perylene	ug/L	< 20.0		6/12/13 21:51	A306149	625 (mod.)
Benzo[k]fluoranthene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Benzo (a) anthracene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Bis(2-chloroethoxy)methane	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Bis(2-chloroethyl)ether	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Bis(2-chloroisopropyl)ether	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Bis(2-ethylhexyl)phthalate	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Butylbenzylphthalate	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Chrysene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Dibenz[a,h]anthracene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)

Arkansas Analytical

Inc.

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

### **ANALYTICAL RESULTS**

Lab Number: 1306154-01
Sample Name: Wastewater Composite
Date/Time Collected: 6/11/13 6:00
Sample Matrix: Water

Sample Matrix:		6/11/13 6:00 Water				
Base/Neutral Compounds	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Diethylphthalate	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Dimethylphthalate	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Di-n-butylphthalate	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Di-n-octylphthalate	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Fluorene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Hexachlorobenzene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Hexachlorobutadiene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Hexachlorocyclopentadiene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Hexachloroethane	ug/L	< 20.0		6/12/13 21:51	A306149	625 (mod.)
Indeno[1,2,3-cd]pyrene	ug/L	< 5.00		6/12/13 21:51	A306149	625 (mod.)
Isophorone	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Naphthalene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Nitrobenzene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
N-Nitrosodimethylamine	ug/L	< 50.0		6/12/13 21:51	A306149	625 (mod.)
N-Nitroso-di-n-propylamine	ug/L	< 20.0		6/12/13 21:51	A306149	625 (mod.)
N-Nitrosodiphenylamine/diphenylamine	ug/L	< 20.0		6/12/13 21:51	A306149	625 (mod.)
Phenanthrene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
Pyrene	ug/L	< 10.0		6/12/13 21:51	A306149	625 (mod.)
2-Fluorobiphenyl [surr]	%	58.6		6/12/13 21:51	A306149	625 (mod.)
Nitrobenzene-d5 [surr]	%	56.1		6/12/13 21:51	A306149	625 (mod.)
Terphenyl-d14 [surr]	%	72.7		6/12/13 21:51	A306149	625 (mod.)
Pesticides/PCBs	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Aldrin	ug/L	< 0.010		6/18/13 11:34	A306222	608
alpha-BHC	ug/L	< 0.050		6/18/13 11:34	A306222	608
beta-BHC	ug/L	< 0.050		6/18/13 11:34	A306222	608
gamma-BHC (Lindane)	ug/L	< 0.050		6/18/13 11:34	A306222	608
delta-BHC	ug/L	< 0.050		6/18/13 11:34	A306222	608
Chlordane	ug/L	< 0.200	E-01	6/18/13 11:34	A306222	608
4,4´-DDT	ug/L	< 0.020		6/18/13 11:34	A306222	608
4,4'-DDE	ug/L	< 0.100		6/18/13 11:34	A306222	608
4,4´-DDD	ug/L	< 0.100		6/18/13 11:34	A306222	608
Dieldrin	ug/L	< 0.020		6/18/13 11:34	A306222	608
Endosulfan I	ug/L	< 0.010		6/18/13 11:34	A306222	. 608
Endosulfan II	ug/L	< 0.020		6/18/13 11:34	A306222	608
Endosulfan sulfate	ug/L	< 0.100		6/18/13 11:34	A306222	608
Endrin	ug/L	< 0.020		6/18/13 11:34	A306222	608
Endrin aldehyde	ug/L	< 0.100		6/18/13 11:34	A306222	608
Heptachlor	ug/L	< 0.010		6/18/13 11:34	A306222	608
Heptachlor epoxide	ug/L	< 0.010		6/18/13 11:34	A306222	608
Chlorpyrifos	ug/L	< 0.070		6/18/13 11:34	A306222	608
Aroclor-1242	ug/L	< 0.200		6/18/13 11:34	A306222	608
Aroclor-1254	ug/L	< 0.200		6/18/13 11:34	A306222	608
Aroclor-1221	ug/L	< 0.200		6/18/13 11:34	A306222	608

Arkansas Analytical

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

### **ANALYTICAL RESULTS**

Lab Number: 1306154-01
Sample Name: Wastewater Composite
Fime Collected: 6/11/13 6:00

Sample Name.		wastewater Composite	•			
Date/Time Collected:		6/11/13 6:00				
Sample Matrix:		Water		8		
Pesticides/PCBs	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	Method
Aroclor-1232	ug/L	< 0.200		6/18/13 11:34	A306222	608
Aroclor-1248	ug/L	< 0.200		6/18/13 11:34	A306222	608
Aroclor-1260	ug/L	< 0.200		6/18/13 11:34	A306222	608
Aroclor-1016	ug/L	< 0.200		6/18/13 11:34	A306222	608
Toxaphene	ug/L	< 0.300		6/18/13 11:34	A306222	608
TCMX [surr]	%	32.4		6/18/13 11:34	A306222	608
DCBP [surr]	%	82.3		6/18/13 11:34	A306222	608
<u>Total Metals</u>	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Arsenic	mg/L	0.0119		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Cadmium	mg/L	< 0.000500		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Chromium	mg/L	0.160	¥6	6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Copper	mg/L	0.141		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0150		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Mercury	mg/L	< 0.000200		6/18/13 10:24	A306239	7470A/245.1,3.01994
Molybdenum	mg/L	< 0.0300		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Nickel	mg/L	0.145		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Selenium	mg/L	< 0.0500		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Silver	mg/L	< 0.0200		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
Zinc	mg/L	0.00772		6/12/13 16:44	A306165	200.7, Rev 4.4 (1994)
<u>Volatiles</u>	<u>Units</u>	Result	Qualifier(s)	Date/Time Analyzed	Batch '	Method
1,1-Dichloroethane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
1,1-Dichloroethene	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
1,1,1-Trichloroethane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
1,1,2-Trichloroethane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
1,1,2,2-Tetrachloroethane	ug/L	< 10.0	ä	6/13/13 12:05	A306176	624 (mod.)
1,2-Dichlorobenzene	ug/L	< 5.00		6/13/13 12:05	A306176	624 (mod.)
1,2-Dichloropropane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
1,2-Dichloroethane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
1,3-Dichlorobenzene	ug/L	< 5.00		6/13/13 12:05	A306176	624 (mod.)
1,4-Dichlorobenzene	ug/L	< 5.00		6/13/13 12:05	A306176	624 (mod.)
2-Chloroethyl vinyl ether	ug/L	< 10:0		6/13/13 12:05	A306176	624 (mod.)
Acrylonitrile	ug/L	< 20.0		6/13/13 12:05	A306176	624 (mod.)
Benzene	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
Bromodichloromethane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
Bromoform	ug/L	< 10:0		6/13/13 12:05	A306176	624 (mod.)
Acrolein	ug/L	< 50.0	E20, E5	6/13/13 12:05	A306176	624 (mod.)
Bromomethane	ug/L	< 50.0		6/13/13 12:05	A306176	624 (mod.)
Carbon tetrachloride	ug/L	< 2.00		6/13/13 12:05	A306176	624 (mod.)
Chlorobenzene	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
Chlorodibromomethane	ug/L	< 10.0		6/13/13 12:05	A306176	624 (mod.)
Chloroethane	ug/L	50.0		6/13/13 12:05	A306176	624 (mod.)
Chloroform	ug/L	< 10.0	· · · · · · · · · · · · · · · · · · ·	6/13/13 12:05	A306176	624 (mod.)

Arkansas Analytical

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

### **ANALYTICAL RESULTS**

1306154-01 Lab Number: Sample Name: **Wastewater Composite** 6/11/13 6:00 Date/Time Collected: Sample Matrix: Water **Volatiles Units** Qualifier(s) Result Date/Time Analyzed <u>Batch</u> Method < 50.0 Chloromethane ug/L A306176 624 (mod.) 6/13/13 12:05 < 10.0 cis-1,3-Dichloropropene ug/L A306176 624 (mod.) 6/13/13 12:05 Ethylbenzene ug/L < 10.0 6/13/13 12:05 A306176 624 (mod.) Methylene chloride ug/L < 20.0 6/13/13 12:05 A306176 624 (mod.) Tetrachloroethene ug/L < 10.0 A306176 624 (mod.) 6/13/13 12:05 Toluene ug/L < 10.0 6/13/13 12:05 A306176 624 (mod.) trans-1,2-Dichloroethene ug/L < 10.0 6/13/13 12:05 A306176 624 (mod.) Trichloroethene ug/L < 10.0 A306176 624 (mod.) 6/13/13 12:05 trans-1,3-Dichloropropene < 10.0 A306176 624 (mod.) ug/L 6/13/13 12:05 Vinyl chloride ug/L < 2.00 A306176 624 (mod.) 6/13/13 12:05 Trichlorofluoromethane ug/L < 50.0 A306176 624 (mod.) 6/13/13 12:05 Dichlorodifluoromethane < 50.0 624 (mod.) ug/L A306176 6/13/13 12:05 4-Bromofluorobenzene [surr] % 97.6 6/13/13 12:05 A306176 624 (mod.) 1,2-Dichloroethane-d4 [surr] % 98.9 6/13/13 12:05 A306176 624 (mod.) Toluene-d8 [surr] % 101 624 (mod.) 6/13/13 12:05 A306176 Wet Chemistry Units Result Qualifier(s) Date/Time Analyzed <u>Batch</u> Method 5210 B-2001, Hach 13060 BOD-5 mg/L 5.10 6/12/13 13:00 A306230 4500-CN B.E-1999 Cyanide (total) mg/L < 0.010 A306211 6/17/13 11:42 **TSS** mg/L 4.8 6/12/13 11:49 A306158 2540 D-1997 ANALYTICAL RESULTS 1306154-02 Lab Number: Sample Name: **Wastewater Grab** Date/Time Collected: 6/11/13 6:00 Sample Matrix: Water Wet Chemistry Units Qualifier(s) Date/Time Analyzed Result **Batch** Method

< 2.6

A306167

6/13/13 9:00

1664A Mod

Arkansas Analytical

Oil and Grease

mg/L

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

QUALITY CONTROL RESULTS



Base/Neutral Compounds -- Batch: A306149 (Water)
Prepared: 12-Jun-13 10:00 By: CT -- Analyzed: 12-Jun-13 20:47 By: TB

			Allalyzeu. 12-5ull-13 20.47 L			
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	<u>Qualifiers</u>
1,2,4-Trichlorobenzene	<10.0 ug/L	75.2% / NA	57.4% / 61.8%		7.40%	
1,2-Dichlorobenzene	<10.0 ug/L	84.5% / NA	61.4% / 62.7%		2.10%	
1,2-Diphenyl Hydrazine	<20.0 ug/L	88.8% / NA	71.0% / 85.6%		18.7%	
1,3-Dichlorobenzene	<10.0 ug/L	76.8% / NA	58.5% / 61.9%		5.58%	
1,4-Dichlorobenzene	<10.0 ug/L	84.6% / NA	62.5% / 66.6%		6.31%	
2,4,6-Trichlorophenol	<10.0 ug/L	68.4% / NA	57.8% / 56.9%		1.53%	
2,4-Dichlorophenol	<10.0 ug/L	80.9% / NA	63.6% / 69.8%		9.23%	
2,4-Dimethylphenol	<10.0 ug/L	73.6% / NA	52.0% / 64.6%	*	21.6%	
2,4-Dinitrophenol	<50.0 ug/L	83.1% / NA	85.4% / 94.4%		9.96%	E-01
2,4-Dinitrotoluene	<10.0 ug/L	87.9% / NA	84.5% / 79.9%		5.55%	
2,6-Dinitrotoluene	<10.0 ug/L	88.8% / NA	66.4% / 71.0%		6.55%	
2-Chloronaphthalene	<10.0 ug/L	71.6% / NA	61.5% / 71.3%	7	14.9%	
2-Chlorophenol	<10.0 ug/L	81.0% / NA	61.5% / 64.1%		4.19%	
2-Nitrophenol	<20.0 ug/L	77.4% / NA	55.9% / 71.0%		23.6%	
3,3'-Dichlorobenzidine	<5.00 ug/L	86.2% / NA	74.2% / 76.1%		2.56%	E21
4,6-Dinitro-2-methylphenol	<50.0 ug/L	106% / NA	90.6% / 99.4%		9.29%	E-01
4-Bromophenyl-phenylether	<10.0 ug/L	91.2% / NA	80.7% / 93.1%		14.2%	
4-Chloro-3-methylphenol	<10.0 ug/L	90.5% / NA	78.3% / 86.7%		10.2%	
4-Chlorophenyl-phenylether	<10.0 ug/L	89.7% / NA	69.9% / 76.8%		9.40%	
4-Nitrophenol	<50.0 ug/L	49.6% / NA	41.9% / 39.6%		4.78%	
Acenaphthene	<10.0 ug/L	71.7% / NA	66.6% / 71.3%		6.83%	
Acenaphthylene	<10.0 ug/L	77.3% / NA	61.0% / 70.8%		14.9%	
Anthracene	<10.0 ug/L	100% / NA	81.3% / 90.9%		11.1%	
Benzidine	<50.0 ug/L	86.6% / NA	59.8% / 68.9%		14.0%	
	<5.00 ug/L	93.7% / NA	75.0% / 85.0%		12.6%	
Benzo (a) anthracene	<5.00 ug/L	87.9% / NA	73.2% / 84.3%		14.1%	
Benzo[a]pyrene	<0.00 ug/L		74.7% / 76.8%		2.70%	
Benzo[b]fluoranthene					17.2%	
Benzo[g,h,i]perylene	<20.0 ug/L	69.1% / NA				
Benzo[k]fluoranthene	<5.00 ug/L	94.2% / NA			17.8%	
Bis(2-chloroethoxy)methane	<10.0 ug/L	73.6% / NA	54.8% / 65.4%		17.7%	
Bis(2-chloroethyl)ether	<10.0 ug/L	88.2% / NA	61.9% / 67.8%		9.12%	
Bis(2-chloroisopropyl)ether	<10.0 ug/L	87.6% / NA	64.8% / 68.2%		5.13%	
Bis(2-ethylhexyl)phthalate	<10.0 ug/L	104% / NA	88.5% / 87.1%		1.65%	
Butylbenzylphthalate	<10.0 ug/L	113% / NA	86.5% / 88.8%		2.60%	
Chrysene	<5.00 ug/L	89.1% / NA	68.0% / 74.5%		9.10%	
Dibenz[a,h]anthracene	<5.00 ug/L	50.8% / NA	46.7% / 55.8%		17.7%	
Diethylphthalate	<10.0 ug/L	82.8% / NA	74.4% / 72.5%		2.59%	
Dimethylphthalate	<10.0 ug/L	84.2% / NA	75.1% / 79.0%		5.04%	
Di-n-butylphthalate	<10.0 ug/L	96.7% / NA	85.8% / 94.4%		9.50%	
Di-n-octylphthalate	<10.0 ug/L	96.9% / NA	82.7% / 88.7%		6.92%	
Fluorene	<10.0 ug/L	73.8% / NA	65.0% / 69.1%		6.14%	
Hexachlorobenzene	<5.00 ug/L	91.7% / NA	76.5% / 91.5%		17.9%	
Hexachlorobutadiene	<10.0 ug/L	65.4% / NA	48.6% / 58.8%		19.1%	
Hexachlorocyclopentadiene	<10.0 ug/L	64.2% / NA	46.5% / 53.2%		13.4%	
Hexachloroethane	<20.0 ug/L	83.4% / NA	59.9% / 60.7%		1.40%	
Indeno[1,2,3-cd]pyrene	<5.00 ug/L	73.2% / NA	68.9% / 70.1%		1.73%	
Isophorone	<10.0 ug/L	79.5% / NA	55.8% / 68.1%		19.8%	
Naphthalene	<10.0 ug/L	58.9% / NA	44.8% / 55.0%		20.5%	
***						

Arkansas Analytical

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

QUALITY CONTROL RESULTS



		A Description of the Control of the	s Batch: A306149 (Wateı Analyzed: 12-Jun-13 20:	-		
Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Nitrobenzene	<10.0 ug/L	73.9% / NA	54.9% / 63.7%		14.8%	
N-Nitrosodimethylamine	<50.0 ug/L	52.2% / NA	43.6% / 42.6%		2.40%	
N-Nitroso-di-n-propylamine	<20.0 ug/L	98.3% / NA	69.3% / 66.6%		3.91%	
N-Nitrosodiphenylamine/diphenylamine	<20.0 ug/L	94.8% / NA	80.8% / 93.9%		14.9%	
Pentachlorophenol	<5.00 ug/L	87.9% / NA	79.5% / 90.9%		13.3%	
Phenanthrene	<10.0 ug/L	94.0% / NA	82.2% / 90.2%		9.30%	
Phenol	<10.0 ug/L	41.2% / NA	29.6% / 33.6%		12.9%	
Pyrene	<10.0 ug/L	93.9% / NA	75.4% / 85.2%		12.3%	
2,4,6-Tribromophenol [surr]	88.7 %	96.4% / NA	83.5% / 82.9%		NA	
2-Fluorobiphenyl [surr]	81.6 %	77.8% / NA	59.3% / 70.7%		NA	
2-Fluorophenol [surr]	67.5 %	63.1% / NA	43.8% / 48.1%		NA	
Nitrobenzene-d5 [surr]	87.1 %	70.5% / NA	53.1% / 61.3%		NA	
Phenol-d5 [surr]	48.1 %	49.6% / NA	36.4% / 40.1%		NA	
Terphenyl-d14 [surr]	95.4 %	108% / NA	80.3% / 87.7%		NA	%D3
		-	atch: A306158 (Water)			
		-Jun-13 11:49 By: AP -	- Analyzed: 12-Jun-13 11:4			Ĭ.
<u>Analyte</u>	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
TCC	<1.0 mg/L	100% / 99.0%	NA / NA		1.01%	
155		•	NA / NA		335.125	
TSS			ch: A306165 (Water)			
				52 By: MH		
			ch: A306165 (Water)	52 By: MH <u>Dup</u>	RPD	Qualifiers
Analyte	Prepared: 12	2-Jun-13 15:42 By: ST	ch: A306165 (Water) Analyzed: 12-Jun-13 16:			Qualifier
Analyte Arsenic	Prepared: 12	2-Jun-13 15:42 By: ST LCS / LCSD	ch: A306165 (Water) Analyzed: 12-Jun-13 16: <u>MS / MSD</u>		RPD	Qualifier
Analyte Arsenic Cadmium	Prepared: 12 <u>BLK</u> <0.0100 mg/L	2-Jun-13 15:42 By: ST LCS / LCSD 94.6% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:  MS / MSD 97.2% / 90.0%		<u>RPD</u> 7.47%	Qualifier
Analyte Arsenic Cadmium Chromium	Prepared: 12  BLK  <0.0100 mg/L  <0.000500 mg/L	2-Jun-13 15:42 By: ST LCS / LCSD 94.6% / NA 85.9% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:  MS / MSD  97.2% / 90.0% 84.9% / 79.9%		RPD 7.47% 6.08%	Qualifier
Analyte Arsenic Cadmium Chromium Copper	Prepared: 12  BLK  <0.0100 mg/L  <0.000500 mg/L  <0.0100 mg/L	2-Jun-13 15:42 By: ST LCS / LCSD 94.6% / NA 85.9% / NA 90.6% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:  MS / MSD  97.2% / 90.0% 84.9% / 79.9% 85.4% / 79.1%		RPD 7.47% 6.08% 5.58%	Qualifier
Analyte Arsenic Cadmium Chromium Copper Lead	Prepared: 12  BLK  <0.0100 mg/L  <0.000500 mg/L  <0.0100 mg/L  <0.00500 mg/L	2-Jun-13 15:42 By: ST LCS / LCSD 94.6% / NA 85.9% / NA 90.6% / NA 93.7% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:		RPD 7.47% 6.08% 5.58% 6.15%	Qualifier
3	Prepared: 12  BLK  <0.0100 mg/L  <0.000500 mg/L  <0.0100 mg/L  <0.00500 mg/L  <0.00500 mg/L	2-Jun-13 15:42 By: ST  LCS / LCSD  94.6% / NA 85.9% / NA 90.6% / NA 93.7% / NA 89.7% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:		RPD 7.47% 6.08% 5.58% 6.15% 6.50%	Qualifier
Analyte Arsenic Cadmium Chromium Copper Lead Molybdenum Nickel	Prepared: 12 <u>BLK</u> <0.0100 mg/L <0.000500 mg/L <0.0100 mg/L <0.00500 mg/L <0.0150 mg/L <0.0300 mg/L	2-Jun-13 15:42 By: ST  LCS / LCSD  94.6% / NA 85.9% / NA 90.6% / NA 93.7% / NA 89.7% / NA 89.0% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:		RPD 7.47% 6.08% 5.58% 6.15% 6.50% 5.59%	Qualifier
Analyte Arsenic Cadmium Chromium Copper Lead Molybdenum	Prepared: 12 <u>BLK</u> <0.0100 mg/L <0.000500 mg/L <0.0100 mg/L <0.00500 mg/L <0.0150 mg/L <0.0300 mg/L <0.0300 mg/L	2-Jun-13 15:42 By: ST  LCS / LCSD  94.6% / NA 85.9% / NA 90.6% / NA 93.7% / NA 89.7% / NA 89.0% / NA 91.5% / NA	ch: A306165 (Water) Analyzed: 12-Jun-13 16:		RPD 7.47% 6.08% 5.58% 6.15% 6.50% 5.59% 5.44%	Qualifier

Wet Chemistry -- Batch: A306167 (Water)
Prepared: 13-Jun-13 09:00 By: AT -- Analyzed: 13-Jun-13 09:00 By: AT

MS / MSD

NA

80.0%

LCS / LCSD

91.2% / 92.5%

**BLK** 

<2.5 mg/L

<u>RPD</u>

1.43%

**Qualifiers** 

<u>Dup</u>

**Analyte** 

Oil and Grease

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26
QUALITY CONTROL RESULTS



Volatiles -- Batch: A306176 (Water)

	Prepared: 13	3-Jun-13 09	:49	By: KR	Analyzed:	13-J	un-13 13:19	By: KR		
Analyte	BLK	LCS	/ LC	SD	MS	/ MS	D.	<u>Dup</u>	RPD	Qualifiers
1,1,1-Trichloroethane	<10.0 ug/L	90.8%	1	NA	95.1%	1	101%		5.62%	
1,1,2,2-Tetrachloroethane	<10.0 ug/L	101%	/	NA	111%	1	108%		3.05%	
1,1,2-Trichloroethane	<10.0 ug/L	105%	/	NA	107%	1	99.8%		7.18%	
1,1-Dichloroethane	<10.0 ug/L	99.1%	1.	NA	103%	1	109%		6.11%	
1,1-Dichloroethene	<10.0 ug/L	86.2%	/	NA	97.1%	1	97.8%		0.719%	
1,2-Dichlorobenzene	<5.00 ug/L	100%	/	NA	106%	1	95.2%		11.2%	
1,2-Dichloroethane	<10.0 ug/L	97.6%	/	NA	98.1%	1	106%		7.29%	
1,2-Dichloropropane	<10.0 ug/L	102%	/	NA	100%	1	92.2%		8.20%	
1,3-Dichlorobenzene	<5.00 ug/L	98.2%	/	NA	110%	1	102%		7.57%	
1,4-Dichlorobenzene	<5.00 ug/L	102%	/	NA	112%	1	94.4%		17.0%	*
2-Chloroethyl vinyl ether	<10.0 ug/L	108%	/	NA	104%	1	108%		3.61%	
Acrolein	<50.0 ug/L	77.6%	/	NA	38.2%	1	16.3%		80.4%	%D1, D, E5
Acrylonitrile	<20.0 ug/L	95.2%	/	NA	92.8%	1	95.3%		2.66%	
Benzene	<10.0 ug/L	99.2%	/	NA	102%	1	107%		3.99%	
Bromodichloromethane	<10.0 ug/L	97.5%	/	NA	100%	1	93.6%		7.01%	
Bromoform	<10.0 ug/L	103%	/	NA	94.6%	1	92.4%		2.40%	
Bromomethane	<50.0 ug/L	86.8%	/	NA	93.7%	1	94.9%		1.28%	
Carbon tetrachloride	<2.00 ug/L	93.9%	/	NA	97.6%	1	101%		3.62%	
Chlorobenzene	<10.0 ug/L	106%	/	NA	107%	1	100%		6.40%	
Chlorodibromomethane	<10.0 ug/L	105%	/	NA	105%	1	94.9%		10.0%	
Chloroethane	<50.0 ug/L	72.6%	/	NA	85.6%	1	78.4%		8.80%	
Chloroform	<10.0 ug/L	95.8%	1	NA	106%	1	103%		2.71%	
Chloromethane	<50.0 ug/L	69.2%	/	NA	77.3%	1	91.5%		16.9%	
cis-1,3-Dichloropropene	<10.0 ug/L	102%	/	NA	102%	1	95.1%		6.59%	
Dichlorodifluoromethane	<50.0 ug/L	84.2%	/	NA	91.0%	1	94.3%		3.58%	
Ethylbenzene	<10.0 ug/L	106%	/	NA	110%	1	101%		8.94%	
Methylene chloride	<20.0 ug/L	91.5%	/	NA	93.0%	1	97.1%		4.29%	
Tetrachloroethene	<10.0 ug/L	106%	/	NA	108%	1	96.8%		10.6%	
Toluene	<10.0 ug/L	104%	/	NA	109%	1	99.3%		8.97%	
trans-1,2-Dichloroethene	<10.0 ug/L	96.3%	/	NA	103%	1	115%		11.4%	
trans-1,3-Dichloropropene	<10.0 ug/L	102%	/	NA	107%	1	94.8%		11.8%	
Trichloroethene	<10.0 ug/L	108%	/	NA	97.8%	1	91.9%		6.23%	
Trichlorofluoromethane	<50.0 ug/L	86.7%	/	NA	94.7%	1	97.2%		2.53%	
Vinyl chloride	<2.00 ug/L	91.4%		NA	93.0%	1	99.9%		7.14%	
1,2-Dichloroethane-d4 [surr]	97.9 %	101%		NA	102%	1	104%		NA	
				E 161 E 1	00.404		07 50/			

Wet Chemistry Batch: A306211 (Water)	
Prepared: 17-Jun-13 08:23 By: KP Analyzed: 17-Jun-13 11:42 By: K	P

99.4%

105%

97.5%

95.4%

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD Qualifiers
Cyanide (total)	<0.010 mg/L	87.7% / NA	89.0% / 79.7%		11.1%

NA

NA

NA

NA

4-Bromofluorobenzene [surr]

Toluene-d8 [surr]

98.3 %

98.4 %

100% /

107% /

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

QUALITY CONTROL RESULTS



Pesticides/PCBs Batch: A306222 (Water)
Prepared: 17-Jun-13 13:35 By: MB Analyzed: 18-Jun-13 11:22 By: MB

Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u> <u>RPD</u> <u>Qualifiers</u>
4,4'-DDD	<0.100 ug/L	80.2% / 70.3%	73.2% / NA	13.2%
4,4´-DDE	<0.100 ug/L	66.7% / 60.1%	58.8% / NA	10.4%
4,4´-DDT	<0.020 ug/L	90.6% / 74.7%	81.5% / NA	19.3%
Aldrin	<0.010 ug/L	60.8% / 57.8%	49.9% / NA	5.08%
alpha-BHC	<0.050 ug/L	79.6% / 81.5%	75.8% / NA	2.43%
beta-BHC	<0.050 ug/L	68.4% / 67.2%	71.0% / NA	1.71%
delta-BHC	<0.050 ug/L	86.8% / 76.8%	66.9% / NA	12.2%
Dieldrin	<0.020 ug/L	68.7% / 63.8%	57.3% / NA	7.42%
Endosulfan I	<0.010 ug/L	69.9% / 65.3%	57.4% / NA	6.83%
Endosulfan II	<0.020 ug/L	` 78.1% / 67.9%	70.0% / NA	14.1%
Endosulfan sulfate	<0.100 ug/L	103% / 77.5%	94.9% / NA	28.1%
Endrin	<0.020 ug/L	75.0% / 67.8%	67.3% / NA	10.2%
Endrin aldehyde	<0.100 ug/L	119% / 91.6%	74.2% / NA	25.9%
gamma-BHC (Lindane)	<0.050 ug/L	62.8% / 63.0%	48.4% / NA	0.382%
Heptachlor	<0.010 ug/L	62.6% / 62.1%	44.9% / NA	0.804%
Heptachlor epoxide	<0.010 ug/L	63.0% / 61.8%	52.6% / NA	1.95%
DCBP [surr]	49.0 %	78.0% / 55.7%	67.8% / NA	NA
TCMX [surr]	46.2 %	51.2% / 48.8%	38.5% / NA	NA

	Wet Chemistry Batch: A306230 (Water)
Prenare	d: 12-Jun-13 13:00 By: KP Analyzed: 12-Jun-13 13:00 By: J

Analyte	BLK	LCS / LCSD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
BOD-5	<2.00 mg/L	92.9% / 94.4%	NA / NA		1.62%	

# Total Metals -- Batch: A306239 (Water)

Prepared: 18-Jun-13 08:53 By: ST -- Analyzed: 18-Jun-13 10:28 By: ST

Analyte	2	BLK	LCS / LC	SD	MS / MSD	<u>Dup</u>	RPD	Qualifiers
Mercury		<0.000200 mg/L	94.3% /	NA	100% / 9	1.4%	8.96%	

### QUALIFIER(S)

\*%D1: Matrix Spike and/or Matrix Spike Duplicate Percent Recovery Does Not Meet Laboratory Acceptance Criteria

\*%D3: Surrogate Percent Recovery Does Not Meet Laboratory Acceptance Criteria

\*D: RPD Value Does Not Meet Laboratory Acceptance Criteria

\*E-01: Estimated Result; This Analyte Failed "High" in the CCV; If the sample is non-detect for this analyte, the CCV

demonstrated the analyte would have been detected were it present.

\*E20: Estimated Result Due to Matrix Spike and/or Matrix Spike Duplicate Failure; This sample was used as the "parent

sample" in MS/MSD prep.

\*E21: Estimated Result; This Analyte failed (low) in the CCV.

\*E5: Estimated Result Due to Quality Control Failure

18 June 2013

James House Kohler-Plating - Sheridan 415 S Oklahoma St. Sheridan, AR 72150

Project: Semiannual Wastewater Sample(s)

Date Received: 11-Jun-13 15:26

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. Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by:

Norma James President Arkansas Analytica



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

# CHAIN OF CUSTODY RECORD

<b>CLIENT INFORMATION</b>	MATION	2			Project Description	Turnar	Turnaround Time				Pres	Preservation Codes:	Codes:			
Kohler				S	Semi-Annual TTO Sample		24 Hour 1.	1. Cool, 4 Degrees Centigrade	Degrees (	entigrad		Ì	4. Thiosu	4. Thiosulfate for Dechlorination	chlorination	u
415 South Oklahoma St.	noma St.	,				34	48 Hour 2	2. Sulfuric Acid (H,SO4), pH < 2	Acid (H,	SO4), pH	<2		5. Hydro	5. Hydrochloric Acid(HCI)	(HCI)	
Sheridan, AR 72150	2150				Reporting Information		72 Hour 3.	3. Nitric Acid (HNO,), pH < 2	cid (HNC	s), pH < 2		F	6. Sodium	6. Sodium Hydroxide (NaOH), pH > 12	(NaOH), p	H > 12
					Telephone: 870-942-2111		Routine (5 Day)			TEST	PARA	PARAMETERS	ERS		Bottle	Bottle Type Code
Attn: James House	nse			Em	Email: james.house@kohler.com,		Preservative Code:		70		Н	-			G=Gla	G = Glass; P = Plastic
		-		јое.тс	joe.mcelroy@kohler.com, neal.hollinger@kohler.com	hler.com	Bottle Type:	۵.	а.	P GV	/ GA	GA	GA		V = Sept	V = Septum; A = Amber
Sampler(s) Signature	Kym Brit	<u> </u>	L VNVIV		SMitH			S	r, Củ, Pb, Mo,	r, Cu, Pb, Mo, y, Zn, Hg	tiles icides/PCBs	S	rease		Ark Analyt Order	Arkansas Analytical Work Order Number:
Field	SAMPLE CO	SAMPLE COLLECTION	Number	Sample	SAMPLE	SAMPLE	ā	OD, TS	yanide S, Cd, C		FIS Vola Jesq Sq	ANB S9	D bns li		70	1200 olgu
	1119-0119	Wb	Grab Comp Bottles	Water	Wastewater Composite	N DESCRIPTION	5	×		』^	╣╴	d ×	0			200
	11/9		×		Wastewater Grab		8 83					7	×			20
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4																
			+								- 13					
						-	Ì									
1. Relinguished by: (Signature)	y: (Signature)	Date/Time	2. Received by: (Signature)	by: (Sig		SAMPLE CONDITION UPON RECEIPT IN LAB	ION UPON RI	ECEIPT	NLAB		2	EMARK	S / SAN	REMARKS / SAMPLE COMMENTS	MMENTS	
× hum -		6111 MAM	Allen sa	in 80	2. CO	1. CUSTODY SEALS: 2. CONTAINERS CORRECT: 3. COC/LABELS AGREE:	ECT:	Yes	2 2 2	1	101		00	001		
3. Relinquished by: (Signature)	y: (Signature)	Date/Time	4. Received by lab: (Signature)	by lab:		4. PRESERVATION CONFIRMED:	VFIRMED:	Yes	2							
	(	15%		3		5. RECEIVED ON ICE:		Y Kes	8					ça la		
Glim	Glim Carper	6/4/13	- Limberton		6)	TEMPERATURE ON RECEIPT	RECEIPT:	300		$\dashv$						
				9	JUN SW	FOR COMPL	FOR COMPLETION BY LAB ONLY	AB ONL		_				100		



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Kohler				Semi	Semi-Annual TTO Sample	le le	24 Hour	1. Cool, 4 Degrees Centigrade	Degrees C	entigrade		4	. Thiosul	4. Thiosulfate for Dechlorination	hlorination	
415 South Oklahoma St.	homa St.						48 Hour	2. Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2	Acid (Hs	O <sub>4</sub> ), pH <	7	v.	. Hydrocl	5. Hydrochloric Acid(HCl)	нсі)	
Sheridan, AR 72150	72150			Rep	Reporting Information		72 Hour	3. Nitric A	Nitric Acid (HNO <sub>3</sub> ), pH < 2	), pH < 2		9	. Sodium	Hydroxide (	6. Sodium Hydroxide (NaOH), pH > 12	12
			19	Tel	Telephone: 870-942-2111	-	Routine (5 Day)		1	TEST	PARAME	METE	TERS		Bottle Type Code	Code
Attn: James House	onse			Email: j	Email: james.house@kohler.com,		Preservative Code:		1,6 1,3	Н	1	1			G = Glass; P = Plastic	- Plastic
				joe.mcelroy@	joe.mcelroy@kohler.com, neal.hollinger@kohler.com	hler.com	Bottle Type:	Ь	РР	GV	GA	GA	GA		V = Septum; A = Amber	= Amber
No X	& you But		LYMU SMIT	7	WitH				Cn, Pb, Mo, Zn, Hg		sa		əsee		Arkansas Analytical Work	work
Sampler(s) Signature	nature SAMDIE C	<b>有</b>	Sampler(s) Printed			L		SST			1 62	sAN8	a) D		Order Number:	mber:
Number	SAMPLE C Date/s	SAMPLE COLLECTION  Date/s Time/s ©	Number of Orab Bottles	Sample	SAMPLE IDENTIFICATION/ DESCRIPTION	SAMPLE TION/ DESCRIP <sup>.</sup>	NOIL	BOD'.	Cyanic As, Cd	'es 'iν		B Sdd	ons liO		13010194	玉
)	11/9-01/9	64M-6AM	6 ×	Water	Nastewater Composite			×	3			×			0	
	11/9		×	Water Was	Nastewater Grab								×		0.2	7
						. Ta										
						þ.								-		
1. Relinguished by: (Signature)		<u>Date/Time</u>	2. Received by: (Signature)	by: (Signatu		MPLE COND	SAMPLE CONDITION UPON RECEIPT IN LAB	ECEIPT	N LAB	4	RE	MARKS	S/SAM	REMARKS / SAMPLE COMMENTS	IMENTS	
X frm.	Kim Int	6/11 MAM	allen sa	na	1. CUST	1. CUSTODY SEALS: 2. CONTAINERS CORRECT: 3. COCMARRIS AGREE	RECT:	Yes	8 8 8	4	HOU		100	001		10 p
3. Relinguished by: (Signature)	by: (Signature)	Date/Time	4. Received by lab: (Signature)	by lab: (Sig		4. PRESERVATION CONFIRMED:	ONFIRMED:	Yes	≥ 							
	19	15%		101	5. RECE	RECEIVED ON ICE:		T ves	8 					192		(90
Glim	Glim Carby	6/4/13	maran		() 6. TEMF	TEMPERATURE ON RECEIPT:	N RECEIPT:	300							2 %	7
	malani		<u> </u>	450	WSW	FOR COM	FOR COMPLETION BY LAB ONLY	AB ONL)			· ·				1	
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