OhioEPA
State of Ohio Environmental Protection Agency

Southeast District Office

2195 Front Street
Logan, Ohio 43138

TELE: (740) 385-8501 FAX: (740) 385-6490
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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

June 19, 2007

Re: Lawrence County
Dow Chemical
Compliance Sampling Inspection (CSI)
Correspondence (IWW)

Mr. Carl Darling, Site Leader
Dow Chemical Company
925 County Road 1A
Ironton, Ohio 45638

Dear Mr. Darling:

On April 3 and 4, 2007, a Compliance Sampling Inspection (CSI) was conducted at Dow Chemical's Hanging Rock facility. The purpose of the inspection was to determine Dow's compliance with its National Pollutant Discharge Elimination System (NPDES) Permit. Present for the inspection were: Gail Bradley and Franks Deeds representing Dow; and Joann Montgomery and Stephen Wells representing Ohio EPA, Division of Surface Water, Southeast District Office. Wastewater samples were collected as part of the inspection. A copy of the analytical results and inspection report are attached.

As a result of my inspection, I have the following comments:

1. In the past year, Dow has had some violations of its NPDES Permit: missed required sampling and oil and grease effluent limitation violations. Dow has submitted letters in regards to these violations. No further response is requested.

2. Plant staff needs to continue sampling and testing the liquid styrene tank dike water for contaminants before discharging. Staff must continue to record test and discharge times, test performed and results.

3. The analytical results from the sampling are attached. Dow's and Ohio EPA's results were comparable. Also, the bioassay results are attached. Dow's effluent was determined to not be acutely toxic.

4. Ohio EPA would like to thank Mr. Deeds for returning the plant early Wednesday morning to check the status of the compliance samplers due to a report of a power outage. This helped prevent Ohio EPA from having to return to the site on another day to complete the sampling event.

The Ohio EPA strongly encourages pollution prevention as the preferred approach for waste management. The first priority of pollution prevention is to eliminate the generation of wastes and pollutants at the source (source reduction). For those wastes or pollutants that are generated, the second priority is to recycle or reuse them in an environmentally sound manner. You can benefit economically, help preserve the environment, and improve your public image by implementing pollution prevention programs. For more information about pollution prevention, including fact sheets or U.S. EPA's *"Facility Pollution Prevention Guide"* (EPA/600/R-92.008), please contact the Ohio EPA Pollution Prevention Section at (614) 644-3469.

In conclusion, Dow Chemical Company appeared to be in compliance with its NPDES Permit at the time of the inspection. No further response is requested to this letter.

If you have any questions, feel free to contact me at (740) 380-5434.

Sincerely,

Stephen Wells
District Representative
Division of Surface Water

SW/dh

Enclosures

c: Gail Bradley, Regulatory Affairs Leader (w/enclosures)

NPDES
Compliance Inspection Report

A. NATIONAL DATA SYSTEM CODING

Permit No.	NPDES No.	Date	Inspection Type	Inspector	Facility Type
0IF00004*FD	OH0099309	April 3 & 4, 2007	S	S	2

B. FACILITY DATA

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Dow Chemical Company Hanging Rock Plant 925 County Road 1A Ironton, Ohio 45638		December 1, 2003
	Exit Time	**Permit Expiration Date**
		July 31, 2008

Name(s) and Title(s) of On-Site Representative(s)	Phone Number(s)
Gail Bradley, Regulatory Affairs Leader	(740) 533-4035
Name, Address and Title of Responsible Official	**Phone Number**
Carl Darling, Site Leader Dow Chemical 925 County Road 1A Ironton, Ohio 45638	(740) 533-4000

C. AREAS EVALUATED DURING INSPECTION

S	Permit	S	Flow Measurement	--	Pretreatment
S	Records/Reports	N	Laboratory	--	Compliance Schedules
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	--	Other
--	Collection System				

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)

See attached letter.

Stephen Wells, Inspector, Ohio EPA, Southeast District Office — 6/19/07 Date

Timothy M. Campbell, Reviewer, Ohio EPA, Southeast District Office — 6/20/07 Date

Sections E through K: Complete on all inspections as appropriate (N/A = Not Applicable N/E = Not Evaluated)

E. PERMIT VERIFICATION

Inspection Observations Verify the Permit		Yes	No	N/A	N/E
a.	Correct name and mailing address of permittee	X			
b.	Correct name and location of receiving waters	X			
c.	Product(s) and production rates conform with permit application (industries)			X	
d.	Flows and loadings conform with NPDES permit	X			
e.	Treatment processes are as described in permit application/briefing memo	X			
f.	New treatment process(es) added since last inspection		X		
g.	Notification given to state of new, different, or increased discharges	X			
h.	All discharges are permitted	X			
I.	Number and location of discharge points are as described in permit	X			

Comments:

F. COMPLIANCE SCHEDULES/VIOLATIONS

		Yes	No	N/A	N/E
a.	Any significant violations since the last inspection	X			
b.	Permittee is taking actions to resolve violations	X			
c.	Permittee has compliance schedule		X		
d.	Compliance schedule contained in: _____				
e.	Permittee is meeting compliance schedule			X	

Comments:

G. OPERATION AND MAINTENANCE

Treatment Facility Properly Operated and Maintained		Yes	No	N/A	N/E
a.	Standby power available: Generator X Dual Feed X	X			
b.	Adequate alarm system available for power or equipment failures	X			
c.	All treatment units in service other than backup units	X			
d.	Sufficient operating staff provided: # of shifts 2 (12) Days/Week 7				
e.	Operator holds unexpired license of class required by permit Class: _____			X	
f.	Routine and preventive maintenance schedule/performed on time	X			
g.	Any major equipment breakdown since last inspection		X		
h.	Operation and maintenance manual provided and maintained	X			
I.	Any plant bypasses since last inspection		X		
j.	Regulatory agency notified of bypasses: _____ on MORS _____ 800 Number			X	
k.	Any hydraulic and/or organic overloads experienced since last inspection		X		

Comments:

Collection System		Yes	No	N/A	N/E
a.	Percent combined system: 0%				
b.	Any collection system overflows since last inspection (CSO _____ SSO _____)				
c.	Regulatory agency notified of overflow (SSOs)				
d.	CSO O and M plan provided and implemented				
e.	CSOs monitored and reported in accordance with permit				
f.	Portable pumps used to relieve system				
g.	Lift station alarm systems provided and maintained				
h.	Are lift stations equipped with permanent standby power or equivalent				
I.	Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection				
j.	Any complaints received since last inspection of basement flooding				
k.	Are any portions of the sewer system at or near capacity				

Comments:

H. SLUDGE MANAGEMENT

a. Sludge Management Plan (SMP): _____ Submitted Date
_____ Approval Number
_____ Not submitted
X N/A

		Yes	No	N/A	N/E
b.	Sludge Management Plan current			X	
c.	Sludge adequately disposed (Method: Landfilling)	X			
d.	If sludge is incinerated, where is ash disposed of? _____		X		
e.	Is sludge disposal contracted (Name: Green Valley Landfill)	X			
f.	Has amount of sludge generated changed significantly since last inspection		X		
g.	Adequate sludge storage provided at plant	X			
h.	Land application sites monitored and inspected per SMP			X	
I.	Records kept in accordance with state and federal law	X			
j.	Any complaints received in last year regarding sludge		X		
k.	Is sludge adequately processed (digestion, dewatering, pathogen control)	X			

Comments:

I. SELF-MONITORING PROGRAM

Part 1 - Flow Measurement		Yes	No	N/A	N/E
a.	Primary flow measuring device properly operated & maintained. Type of device: _____ ultrasonic & parshall flume _____ calculated from influent _X_ weir _____ Other _____ ultrasonic & weir _X_ Specify: See below*	X			
b.	Calibration frequency adequate (date of last calibration: Calibrated annually)	X			
c.	Secondary instruments (totalizers, recorders etc.) properly operated and maintained	X			
d.	Flow measurement equipment adequate to handle expected ranges of flows	X			
e.	Actual flow discharged is measured	X			
f.	Flow measuring equipment inspection frequency: _X_ Daily _____ Weekly _____ Monthly _____ Other				

Comments: *Outfall 001 - V-Notch weir
Outfall 601 - Magmeter

Part 2 - Sampling		Yes	No	N/A	N/E
a.	Sampling location(s) are as specified by permit	X			
b.	Parameters and sampling frequency agree with permit	X			
c.	Permittee uses required sampling method	X			
d.	Sample collection procedures are adequate	X			
i.	Samples refrigerated during compositing	X			
ii.	Proper preservation techniques used				X
	Conform with 40 CFR 136.3				X
e.	Monitoring records (e.g., flow, pH, D.O., etc.) maintained for a minimum of three years including all original strip chart recordings (e.g., continuous monitoring instrumentation, calibration, and maintenance records)	X			
f.	Adequate records maintained of sampling date, time, exact location, etc.	X			

Comments:

Part 3, Laboratory - General		Yes	No	N/A	N/E
a.	EPA approved analytical testing procedures used (40 CFR 136.3)	X			
b.	If alternate analytical procedures are used, proper approval has been obtained				X
c.	Analyses being performed more frequently than required by permit	X			
d.	If (c) is yes, are results reported in permittee's self-monitoring report	X			
e.	Commercial laboratory used 1. Parameters analyzed by commercial lab: All permit parameters except pH & chlorine 2. Lab name: REIC Lab	X			

Comments:

Complete as appropriate for sampling inspections
Do not attach this page when completing reports for evaluation inspections

L. SAMPLING PROCEDURES (FOR CSI'S)

__X__ Grab samples obtained
__X__ Composite obtained
__X__ Compositing frequency: 190 ml/15 min/24 hr. Preservation: HNO_3, H_2SO_4, ice
__--__ Flow proportioned sample obtained
__X__ Automatic sampler used
__X__ Sample split with permittee
__X__ Chain of custody employed
__X__ Sample obtained from facility sampling device
Sample refrigerated during compositing: __X__ Yes _____ No
Sample representative of volume and nature of discharge: Yes

Comments:

TABLE I

OHIO EPA FIELD DATA

FACILITY: Dow Chemical

DATES SAMPLED: April 3 & 4, 2007

Station	Date	Time	Parameter	Units	Value	Permit Limits
001	4/3	0953	pH	S.U.	7.85	6.5-9.0
			Temperature	°C	13.61	-
			Dissolved oxygen	mg/l	10.35	-
			Conductivity	umhos/cm	601	-
001	4/4	1015	pH	S.U.	8.13	6.5-9.0
			Temperature	°C	14.66	-
			Dissolved oxygen	mg/l	10.06	-
			Conductivity	umhos/cm	302	-
601	4/3	1150	pH	S.U.	6.81	6.5-9.0
			Temperature	°C	20.80	-
			Dissolved oxygen	mg/l	1.74	-
			Conductivity	umhos/cm	400	-
601	4/4	0945	pH	S.U.	7.08	6.5-9.0
			Temperature	°C	18.95	-
			Dissolved oxygen	mg/l	2.21	-
			Conductivity	umhos/cm	401	-

TABLE II

COMPLIANCE SAMPLING DATA

FACILITY: Dow Chemical

DATES SAMPLED: April 3-4, 2007

				OHIO EPA		ENTITY		PERMIT LIMITS	
STATION	T*	PARAMETER	UNITS	CONC.	(KG/D) LOAD.	CONC.	(KG/D) LOAD.	CONC.	(KG/D) LOAD.
001	C	Susp. Solids	mg/l	15	-	16	-	-	-
	C	Diss. Solids	mg/l	328	-	308	-	-	-
	C	BOD_5	mg/l	<2.0	-	<2.0	-	-	-
	G	Oil & Grease	mg/l	2.3	5.63	<2.0	ND	10 max.	8.716
	C	Zinc, tot.	ug/l	42	-	40	-	-	-
	C	TOC	mg/l	5.0	-	5.13	-	-	-
	G	Styrene	ug/l	<0.5	-	<5.0	-	-	-
		Flow, tot.	MGD			0.647			
601	C	Susp. Solids	mg/l	<5.0	-	ND	-	130	8.3449
	C	BOD_5	mg/l	<2.0	-	ND	-	64	4.1181
	G	Oil & Grease	mg/l	2.3	0.165	ND	-	20	1.2869
	G	Cyanide, tot.	mg/l	<10	ND	ND	-	1.20	0.0772
	C	Chromium,tot	ug/l	<30	ND	ND	-	2770	0.1782
	C	Copper, tot.	ug/l	<10	ND	ND	-	3380	0.2175
	C	Lead, tot.	ug/l	-	-	ND	-	690	0.0444
	C	Nickel, tot.	ug/l	<40	ND	ND	-	3980	0.2561
	C	Zinc, tot.	ug/l	66	0.0047	65	0.0048	2610	0.1679
	C	TOC	mg/l	3.3	-	3.73	-	-	-
	G	F. coliform	#/100ml	<10	-	ND	-	2000	-
	G	1,3-Dichloropropylene	ug/l	<0.5	ND	<5	ND	44	0.0028
	C	Bis(2-ethlyhexyl)phthalate	ug/l	34	0.0024	43.9	0.0032	279	0.0180
		Flow, tot.	MGD			0.019			

*SAMPLE TYPE: G=grab; C=composite; ND= non-detectable (below detection limit)

All of the following volatile and semi-volatile parameters were below detection limits on Outfall 601, based on OEPA test results:

G	Carbon Tetrachloride ug/l	38	0.0024
G	Chloroform ug/l	46	0.0030
G	Toluene ug/l	80	0.0051
G	Benzene ug/l	136	0.0088
C	Acenaphthylene ug/l	59	0.0038
C	Acenaphthene ug/l	59	0.0038
G	Acrylonitrile ug/l	242	0.0156
C	Anthracene ug/l	59	0.0038
C	3,4-Benzofluoranthene ug/l	61	0.0039
C	Benzo(k)fluoranthene ug/l	59	0.0038
C	Benzo-A-Pyrene ug/l	61	0.0039
G	Chlorobenzene ug/l	28	0.0018
G	Chloroethane ug/l	268	0.0018
C	Chrysene ug/l	59	0.0038
C	Diethylphthalate ug/l	203	0.0131
C	Dimethylphthalate ug/l	47	0.0030
G	Ethylbenzene ug/l	108	0.0069
C	Fluoranthene ug/l	68	0.0044
C	Fluorene ug/l	59	0.0038
C	Hexachloroethane ug/l	54	0.0035
G	Methyl chloride ug/l	190	0.0122
G	Methylene chloride ug/l	89	0.0057
C	Nitrobenzene ug/l	68	0.0044
C	Phenanthrene ug/l	59	0.0038
C	Pyrene ug/l	67	0.0043
G	Tetrachloroethylene ug/l	56	0.0036
G	1,1-Dichloroethane ug/l	59	0.0038
G	1,1-Dichloroethylene ug/l	25	0.0016
G	1,1,1-Trichloroethane ug/l	54	0.0035
G	1,1,2-Trichloroethane ug/l	54	0.0035
C	Benzo(A)Anthracene ug/l	59	0.0038
G	1,2-Dichloroethane ug/l	211	0.0136
C	1,2-Dichlorobenzene ug/l	163	0.0105
G	1,2-Dichloropropane ug/l	230	0.0148
G	1,2-trans-Dichloroethylene ug/l	54	0.0035
C	1,2,4-Trichlorobenzene ug/l	140	0.0090
G	1,3-Dichlorobenzene ug/l	44	0.0028
G	1,4-Dichlorobenzene ug/l	28	0.0018
C	2-Chlorophenol ug/l	98	0.0063
C	2-Nitrophenol ug/l	69	0.0044
C	2,4-Dichlorophenol ug/l	112	0.0072
C	2,4-Dimethylphenol ug/l	36	0.0023

C	2,4-Dinitrotoluene	ug/l	285	0.0183
C	2,4-Dinitrophenol	ug/l	123	0.0079
C	2,6-Dinitrotluene	ug/l	641	0.0412
C	4-Nitrophenol	ug/l	124	0.0080
C	4,6-Dinitro-o-cresol	ug/l	277	0.0178
C	Phenol	ug/l	26	0.0017
C	Naphthalene	ug/l	59	0.0038
C	Di-N-Butyl Phthalate	ug/l	57	0.0037
G	Vinyl Chloride	ug/l	268	0.0172
G	Trichloroethylene	ug/l	54	0.0035
C	Hexachlorobenzene	ug/l	28	0.0018
C	Hexachlorobutadiene	ug/l	49	0.0032

A Report on the Acute Toxicity of Dow Chemical Company
Outfall 001 Effluents to *Pimephales promelas* and *Ceriodaphnia dubia*

Bioassay Report Number:
07-3652-SE

Sample Number:
91397

Jonathan C. McLaughlin
G. Duane Davis

Bioassay Section
Division of Environmental Services
Ohio Environmental Protection Agency

INTRODUCTION

Two grab samples and a composite sample of Dow Chemical Company outfall 001 effluents were collected by Joann Montgomery and Steve Wells, DSW, SEDO, Ohio EPA for use in screening bioassays as part of a toxics evaluation in conjunction with permit reissuance. Grab samples were also collected from the receiving stream, Big Thief Creek, upstream from the discharge and in the acute mixing zone. The effluent grab samples were collected on 3 April 2007 at 0953 hours and on 4 April 2007 at 1015 hours. The composite sample was collected on 3-4 April 2007 between 0945-0945 hours. The Big Thief Creek upstream water was collected on 3 April 2007 at 1025 hours. A mixing zone sample was manually prepared in the field using equal aliquots of upstream water and effluent on 3 April 2007 at 1035 hours. The fathead minnow, *Pimephales promelas*, and *Ceriodaphnia dubia* were used as test organisms in these 48-hour screening bioassays.

PREVIOUS RESULTS

Bioassays of Dow Chemical Company outfall 001 effluents were previously conducted by the Ohio EPA within the last ten years in March 2000 (Bioassay Number 00-2337-SE). The previously tested effluents were not acutely toxic to *P. promelas* and *C. dubia* (Appendix 1).

RESULTS AND CONCLUSIONS

Details of the tests may be found on the attached bioassay report forms. The effluents were not acutely toxic. One daphnid died in the 3 April effluent grab. No other mortality or adverse effects were observed in the ambient waters and effluents for either *P. promelas* or *C. dubia*. Survival in the laboratory controls was 100 percent for both species.

Screening bioassays are utilized to determine if an effluent is acutely toxic to the test organisms and to indicate if more extensive bioassays should be conducted to estimate median lethal concentrations or persistence of toxicity. The results of these and previous bioassays indicate that Dow Chemical Company outfall 001 effluents were not acutely toxic to either *P. promelas* or *C. dubia*. Additional bioassays should be conducted to further demonstrate the absence of unacceptable toxic conditions associated with this discharge.

These tests did not address the possibility of chronic toxicity. Discharge data for Dow Chemical Company outfall 001 and the Big Thief Creek should be evaluated to determine if chronic toxicity is of concern. Chronic tests may be required to adequately evaluate the possibility of toxicity in this discharge.

OHIO ENVIRONMENTAL PROTECTION AGENCY
Screening Bioassay Report Form

Report Date: 6 April 2007	**Bioassay Report Number**: 07-3652-SE

Investigators:	Jonathan C. McLaughlin and G. Duane Davis
Effluent tested and source:	Dow Chemical Company, 925 County Road 1-A, Ironton, Lawrence County, Ohio, outfall 001
NPDES Number:	OH0099309
Ohio EPA Permit Number:	0IF00004*FD
Business/Process:	Chemical Manufacturer
Collector(s):	Joann Montgomery and Steve Wells, DSW, SEDO, Ohio EPA
Test Organisms:	Fathead minnow (*Pimephales promelas*) and *Ceriodaphnia dubia* from Ohio EPA Bioassay Section rearing units
Fathead Minnow Data:	n = 20. Number of fish used in estimating mean standard length and mean weight

	Mean	Standard Deviation	Range
Standard Length (millimeters):	5.8	0.44	5.0-6.5
Weight (milligrams):	0.6	0.22	0.3-1.1

Hatched: 27-28 March 2007; 7-8 days old at test initiation

Rearing unit water and reconstituted water were used in the controls for this static bioassay. Adverse effects measured in the test are death, immotility, and loss of equilibrium. Death is the cessation of all visible movement with no response to gentle prodding (fish) or to gentle test container agitation (*Ceriodaphnia*). An immotile organism is paralyzed or stunned with only occasional slight movements and cannot maintain its normal position in the water column. Loss of equilibrium is the organism's inability to maintain normal swimming posture in the water column and may be characterized by periods of quiescence followed by bursts of uncontrolled swimming. The effluent is considered to be acutely toxic if 20 percent, or more, of either species of test organism exhibits any combination of the adverse effects in the 100 percent effluent. Test results are invalid if more than ten percent of either species of test organism exhibits the adverse effects in the control.

Results of screening bioassays of Dow Chemical Company outfall 001 effluent

Bioassay Number: 07-3652-SE

Sample	Time Collected Date: Time: (hours)	Test Start Date: Time: (hours)	Cumulative percent mortality (plus/or exhibiting other adverse effects)			
			P. promelas Time (hours)		*C. dubia* Time (hours)	
			24	48	24	48
Big Thief Ck. upstream	3 April 2007 1025	4 April 2007 1424	0	0	0	0
Manual mixing zone (1:1)	3 April 2007 1035	4 April 2007 1424	0	0	0	0
Grab 001	3 April 2007 0953	4 April 2007 1424	0	0	5	5
Grab 001	4 April 2007 1015	4 April 2007 1424	0	0	0	0
Composite 001 effluent	3-4 April 2007 0945-0945	4 April 2007 1424	0	0	0	0
Rearing unit water control		4 April 2007 1424	0	0	-	-
Reconstituted water control		4 April 2007 1424	-	-	0	0

Relevant information: A mixing zone sample was manually prepared in the field using equal aliquots of upstream water and effluent. The Big Thief Creek upstream water and manual mixing zone were clear yellow and contained settleable solids. The effluents were clear yellow. After warming to the 25°C test temperature, the ambient waters and effluents were shaken vigorously for approximately 15 seconds to release supersaturated dissolved oxygen. Physicochemical parameters measured prior to test initiation and at test end are on the next page.

Results of screening bioassays of Dow Chemical Company outfall 001 effluent

Bioassay Number: 07-3652-SE

Relevant information (cont.): Physicochemical parameters recorded prior to test initiation were:

Sample	Temperature (°C)		Dissolved Oxygen (mg/L)	pH	Conductivity
	Upon Rcpt.	Test Init.	Initial-Adjusted	(S.U.)	(µmhos/cm)
Big Thief Creek upstream	1.0	24.9	9.9-7.8	7.95	277
Manual mixing zone (1:1)	1.4	25.0	9.8-7.6	7.84	462
Grab 001, 3 April 2007	1.0	25.1	10.2-7.7	7.77	638
Grab 001, 4 April 2007	5.1	24.7	9.3-7.7	8.17	323
Composite 001 effluent	1.1	24.8	10.5-7.7	8.36	574
Rearing unit water control	22.1	24.3	7.9	7.27	390
Reconstituted water control	25.2	24.6	7.6	8.25	600

Physicochemical parameters recorded at *P. promelas* (FHM) and *C. dubia* (CDU) test end were:

Sample	Temperature (°C)		Dissolved Oxygen (mg/L)		pH (S.U.)		Conductivity (µmhos/cm)	
	FHM	CDU	FHM	CDU	FHM	CDU	FHM	CDU
Big Thief Creek upstream	-	-	-	-	-	-	-	-
Manual mixing zone (1:1)	-	-	-	-	-	-	-	-
Grab 001, 3 April 2007	-	-	-	-	-	-	-	-
Grab 001, 4 April 2007	-	-	-	-	-	-	-	-
Composite 001 effluent	-	-	-	-	-	-	-	-
Rearing unit water control	-	-	-	-	-	-	-	-
Reconstituted water control	-	-	-	-	-	-	-	-

Appendix 1.

Results of previous bioassays of Dow Chemical Company outfall 001 effluent

Screening Results

Bioassay Number	Date (mm/yy)	Acutely Toxic (Y/N)	*Pimephales promelas* mortality (plus/or exhibiting other adverse effects)			*Ceriodaphnia dubia* mortality (plus/or exhibiting other adverse effects)		
			Day 1 Grab	Day 2 Grab	Composite	Day 1 Grab	Day 2 Grab	Composite
00-2337-SE	03/00	N	0	0	0	10	0	5

* All previous results are available electronically upon request.

Definitive Results

Bioassay Number	*Pimephales promelas*			*Ceriodaphnia dubia*		
	LC50 (95 percent confidence limits)	EC50 (95 percent confidence limits)	LC50 TUa (EC50 TUa)	LC50 (95 percent confidence limits)	EC50 (95 percent confidence limits)	LC50 TUa (EC50 TUa)
-	-	-	-	-	-	-
-	-	-	-	-	-	-

Definitions

- The **LC50s** and **EC50s** are reported as percent by volume effluent (%).
- The **LC50** is the effluent concentration that is lethal to 50 percent of a species of test organism in a stated exposure period. The **EC50** includes mortality plus data on other adverse effects. Both are usually obtained by statistical or graphical methods.
- The **TUa** is calculated by dividing 100 by the **LC50** or **EC50**.

91347

OHIO EPA, DES, BIOASSAY SECTION, SAMPLE SUBMISSION FORM

Name of Entity and Outfall Tested: Dow Chemical Company-Outfall 001 **OEPA Permit #:** 0IF00004**FD

Facility Address: 925 County Road 1-A, Ironton, Ohio **NPDES #:** OH0099309

Receiving Stream (R.M.) Big Thief Creek (near Ohio River) **County:** Lawrence

Collector(s) [Print Full Name]: Joann Montgomery Steve Wells

Collector(s) Signature: Joann Montgomery

Upstream control samples shall be collected upstream from any discharge/receiving stream interactions. Generally, acute (near field) samples should be collected in the center of the effluent plume 5 times the stream depth downstream from the outfall and chronic (far field) samples should be collected midplume, or if a plume no longer exists midstream 5 times the stream width downstream from the outfall. If atypical mixing characteristics exist, samples can be collected at closer distances than the above guidelines to insure the samples are within the effluent plume. If a mixing zone sample cannot be safely collected, one can be prepared using equal aliquots of the day 1 effluent grab and upstream dilution water (be sure to write "manual" in the "Location of Sample Collection" space provided below).

Sample Identification	Effluent Day 1 Grab	Effluent Day 2 Grab	Effluent Composite	Upstream/ Dilution-Grab	Acute Mixing Zone-Grab	Chronic Mixing Zone-Grab
Location of Sample Collection	001 outfall	001 outfall	001 outfall	Ohio River	50-50 manually mixed	--
If Composite, Sample Volume and Frequency	---	---	/15 min.	---	---	--
Collection Containers, Types and Number	1 cubitaner	1 cubitaner	2 cubitaners/ glass jar	3 cubitaners	1 cubitaner	--
Volume Collected	1 gallon	1 gallon	2 gallons	3 gallons	1 gallon	--
Date of Sample Collection	4/3/07	4/4/07	4/3-4/07	4/3/07	4/3/07	--
Time of Sample Collection, beginning-Ending Time	0953	1015	0945-0945	1025	1035	--
Flow (in MGD)	--	--		--	---	---
Temperature (°C)	13.61	14.66	8.46	13.78	---	---
Dissolved Oxygen (mg/L)	10.35	10.06	12.70	10.76	---	---
pH (S.U.)	7.85	8.13	8.74	7.61	---	---
Conductivity (µmhos/cm)	601	302	488	260	---	---
Total Residual Chlorine (mg/L)	---	---	---	---	---	---

Place a check mark next to all the appropriate characteristics of the outfall/mixing zone:

___ Turbulent Mixing
X Nonturbulent Mixing
X Onshore Pipe (ditch → Big Thief)
___ Offshore Pipe
___ Shore hugging Plume
___ Rapid Complete Mixing
___ Flume
___ Diffuser

~~Ohio River elevated. Outfall not visible. Facility uses ultraviolet disinfection~~.

Notes:
Big Thief Creek is actually the receiving stream, but is very near the Ohio River. Upstream of the discharge is very swampy and appeared to have very little flow movement. The upstream dilution water was collected at the barge on the Ohio River, about 100 yards upstream of the confluence of Big Thief Creek.

UV disinfection.....no chlorine is being used.

Name and Title		Year	Month	Day	Hour	Minute
Received from:	[signature]	07	04	04	13	30
Received by:	[signature]	07	04	04	13	30
Received from:						
Received by:						
Received from:						
Received by:						
Received from:						
Received by:						
Received from:						
Received by:						

In the vicinity of the discharge: Steam Depth _____ Stream Width _____

CHEMISTRY SAMPLE NUMBERS
91387--96

Location Map Drawing

Describe and map the upstream control and any mixing zone sampling sites so someone else could sample at the exact same points (include landmarks if possible). Stream depth should be recorded for any acute (near field) mixing zone sample and stream width for any chronic (far field) mixing zone sample. For the mixing zone sample location, delineate the distance downstream from the outfall and map the effluent plume. Be specific on discharge and receiving stream characteristics.

OhioEPA Division of Environmental Services

Laboratory Inorganic Analysis Data Report

Sample	91387				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected	04/03/2007 9:45 AM	04/04/2007 9:45 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical Outfall 001				

Analysis	Parameter	Storet	Result	RL	Units	Date	Qualifier
BOD-5	BOD5	P310	<2.0	2	mg/L	04/05/2007	
CBOD-5	CBOD5	P80082	<2.0	2	mg/L	04/05/2007	
Solids_Diss	Total Dissolved Solids	P70300	328	10	mg/L	04/06/2007	
Solids_Susp	Total Suspended Solids	P530	15	5	mg/L	04/06/2007	
TOC	TOC	P680	5.0	2	mg/L	04/09/2007	
ICP_(WAT)	Aluminum	P1105	436	200	ug/L	04/13/2007	
ICP_(WAT)	Barium	P1007	39	15	ug/L	04/13/2007	
ICP_(WAT)	Calcium	P916	52	2	mg/L	04/13/2007	
ICP_(WAT)	Chromium	P1034	<30	30	ug/L	04/13/2007	
ICP_(WAT)	Copper	P1042	<10	10	ug/L	04/13/2007	
ICP_(WAT)	Hardness, Total	P900	167	10	mg/L	04/13/2007	
ICP_(WAT)	Iron	P1045	640	50	ug/L	04/13/2007	
ICP_(WAT)	Magnesium	P927	9	1	mg/L	04/13/2007	
ICP_(WAT)	Manganese	P1055	82	10	ug/L	04/13/2007	
ICP_(WAT)	Nickel	P1067	<40	40	ug/L	04/13/2007	
ICP_(WAT)	Potassium	P937	4	2	mg/L	04/13/2007	
ICP_(WAT)	Sodium	P929	38	5	mg/L	04/13/2007	
ICP_(WAT)	Strontium	P1082	135	30	ug/L	04/13/2007	
ICP_(WAT)	Zinc	P1092	42	10	ug/L	04/13/2007	
Mercury_(WAT)	Mercury	P71900	<0.20	0.2	ug/L	04/10/2007	
SIMAA_(WAT)	Arsenic	P1002	2.0	2	ug/L	04/13/2007	
SIMAA_(WAT)	Cadmium	P1027	0.71	0.2	ug/L	04/13/2007	
SIMAA_(WAT)	Lead	P1051	<2.0	2	ug/L	04/13/2007	
SIMAA_(WAT)	Selenium	P1147	<2.0	2	ug/L	04/13/2007	
Alkalinity	Alkalinity	P410	66.3	5	mg/L	04/12/2007	
Ammonia	Ammonia	P610	1.01	0.05	mg/L	04/18/2007	
COD	COD	P340	15	10	mg/L	04/18/2007	
Chloride	Chloride	P940	45.0	5	mg/L	04/23/2007	
Conductivity	Conductivity	P95	419	1	umhos/cm	04/10/2007	
Nitrate	Nitrate+nitrite	P630	1.12	0.1	mg/L	04/18/2007	
TKN	TKN	P625	1.55	0.2	mg/L	04/13/2007	
TP	Total Phosphorus	P665	0.237	0.01	mg/L	04/13/2007	

Field Comments

Lab Comments

QC / Sample Comments

Approved By SROBERTS **On** 05/02/2007

OhioEPA Division of Environmental Services

Laboratory Inorganic Analysis Data Report

Sample	91388				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin		**End**	**Sample Type**	COMPLIANCE
Date Collected	04/03/2007 11:00 AM		04/04/2007 9:45 AM	**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical Outfall 001				

Analysis	Parameter	Storet	Result	RL	Units	Date	Qualifier
BOD-5	BOD5	P310	<2.0	2	mg/L	04/05/2007	
Solids_Susp	Total Suspended Solids	P530	<5	5	mg/L	04/06/2007	
TOC	TOC	P680	3.3	2	mg/L	04/09/2007	
ICP_(WAT)	Aluminum	P1105	<200	200	ug/L	04/13/2007	
ICP_(WAT)	Barium	P1007	<15	15	ug/L	04/13/2007	
ICP_(WAT)	Calcium	P916	34	2	mg/L	04/13/2007	
ICP_(WAT)	Chromium	P1034	<30	30	ug/L	04/13/2007	
ICP_(WAT)	Copper	P1042	<10	10	ug/L	04/13/2007	
ICP_(WAT)	Hardness, Total	P900	110	10	mg/L	04/13/2007	
ICP_(WAT)	Iron	P1045	<50	50	ug/L	04/13/2007	
ICP_(WAT)	Magnesium	P927	6	1	mg/L	04/13/2007	
ICP_(WAT)	Manganese	P1055	16	10	ug/L	04/13/2007	
ICP_(WAT)	Nickel	P1067	<40	40	ug/L	04/13/2007	
ICP_(WAT)	Potassium	P937	8	2	mg/L	04/13/2007	
ICP_(WAT)	Sodium	P929	32	5	mg/L	04/13/2007	
ICP_(WAT)	Strontium	P1082	101	30	ug/L	04/13/2007	
ICP_(WAT)	Zinc	P1092	66	10	ug/L	04/13/2007	

Field Comments

Lab Comments

QC / Sample Comments

Approved By SROBERTS **On** 05/02/2007

OhioEPA Division of Environmental Services

Laboratory Inorganic Analysis Data Report

Sample	91389				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected		04/03/2007 11:50 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical Outfall 001				

Analysis	Parameter	Storet	Result	RL	Units	Date	Qualifier
Oil&Grease	Oil & Grease	P556	2.3	2	mg/L	04/10/2007	
Cyanide_Total	Cyanide, Total	P720	<10	10	ug/L	04/05/2007	

Field Comments

Lab Comments

QC / Sample Comments

Approved By SROBERTS **On** 05/02/2007

OhioEPA Division of Environmental Services

Laboratory Inorganic Analysis Data Report

Sample	91390				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected		04/03/2007 9:53 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical Outfall 001				

Analysis	Parameter	Storet	Result	RL	Units	Date	Qualifier
Oil&Grease	Oil & Grease	P556	2.9	2	mg/L	04/12/2007	
Cyanide_Total	Cyanide, Total	P720	<10	10	ug/L	04/05/2007	
Phenolics_MD	Phenolics	P32730	<10.0	10	ug/L	04/24/2007	

Field Comments

Lab Comments

QC / Sample Comments

Approved By SROBERTS **On** 05/02/2007

OhioEPA Division of Environmental Services

Laboratory Inorganic Analysis Data Report

Sample	91391				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected		04/04/2007 9:45 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical Outfall 001				

Analysis	Parameter	Storet	Result	RL	Units	Date	Qualifier
Fecal Coliform	Fecal Coliform	P31616	<10	10	#/100ml	04/04/2007	

Field Comments

Lab Comments

QC / Sample Comments

Approved By SROBERTS **On** 04/18/2007

OhioEPA Division of Environmental Services

Laboratory Organic Analysis Data Report

Sample	91392				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected	04/03/2007 9:45 AM	04/04/2007 9:45 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical outfall 001				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 625	**ug/L**					
Acenaphthene		000083-32-9	<5.1	5.1	04/09/2007	
Acenaphthylene		000208-96-8	<5.1	5.1	04/09/2007	
Anthracene		000120-12-7	<2.1	2.1	04/09/2007	
Benzo[a]anthracene		000056-55-3	<2.1	2.1	04/09/2007	
Benzo[a]pyrene		000050-32-8	<2.1	2.1	04/09/2007	
Benzo[b]fluoranthene		000205-99-2	<2.1	2.1	04/09/2007	
Benzo[g,h,i]perylene		000191-24-2	<2.1	2.1	04/09/2007	
Benzo[k]fluoranthene		000207-08-9	<2.1	2.1	04/09/2007	
bis(2-Chloroethoxy)methane		000111-91-1	<5.1	5.1	04/09/2007	
bis(2-Chloroethyl)ether		000111-44-4	<2.1	2.1	04/09/2007	UJ
bis(2-Chloroisopropyl)ether		000108-60-1	<2.1	2.1	04/09/2007	
bis(2-Ethylhexyl)phthalate		000117-81-7	<10.2	10.2	04/09/2007	
4-Bromophenyl-phenylether		000101-55-3	<5.1	5.1	04/09/2007	
Butylbenzylphthalate		000085-68-7	<2.1	2.1	04/09/2007	
4-Chloro-3-methylphenol		000059-50-7	<10.2	10.2	04/09/2007	
2-Chloronaphthalene		000091-58-7	<5.1	5.1	04/09/2007	
2-Chlorophenol		000095-57-8	<2.1	2.1	04/09/2007	
4-Chlorophenyl-phenylether		007005-72-3	<2.1	2.1	04/09/2007	
Chrysene		000218-01-9	<2.1	2.1	04/09/2007	
Di-n-butylphthalate		000084-74-2	<5.1	5.1	04/09/2007	
Di-n-octylphthalate		000117-84-0	<2.1	2.1	04/09/2007	
Dibenz[a,h]anthracene		000053-70-3	<2.1	2.1	04/09/2007	
1,3-Dichlorobenzene		000541-73-1	<2.1	2.1	04/09/2007	
1,4-Dichlorobenzene		000106-46-7	<2.1	2.1	04/09/2007	
1,2-Dichlorobenzene		000095-50-1	<2.1	2.1	04/09/2007	
2,4-Dichlorophenol		000120-83-2	<2.1	2.1	04/09/2007	
Diethylphthalate		000084-66-2	<5.1	5.1	04/09/2007	
2,4-Dimethylphenol		000105-67-9	<10.2	10.2	04/09/2007	
Dimethylphthalate		000131-11-3	<5.1	5.1	04/09/2007	
4,6-Dinitro-2-methylphenol		000534-52-1	<5.1	5.1	04/09/2007	
2,4-Dinitrophenol		000051-28-5	<20.5	20.5	04/09/2007	
2,6-Dinitrotoluene		000606-20-2	<2.1	2.1	04/09/2007	
2,4-Dinitrotoluene		000121-14-2	<2.1	2.1	04/09/2007	
Fluoranthene		000206-44-0	<2.1	2.1	04/09/2007	
Fluorene		000086-73-7	<2.1	2.1	04/09/2007	
Hexachlorobenzene		000118-74-1	<2.1	2.1	04/09/2007	
Hexachlorobutadiene		000087-68-3	<2.1	2.1	04/09/2007	
Hexachlorocyclopentadiene		000077-47-4	<2.1	2.1	04/09/2007	
Hexachloroethane		000067-72-1	<5.1	5.1	04/09/2007	
Indeno[1,2,3-cd]pyrene		000193-39-5	<2.1	2.1	04/09/2007	
Isophorone		000078-59-1	<2.1	2.1	04/09/2007	
N-Nitroso-di-n-propylamine		000621-64-7	<2.1	2.1	04/09/2007	
N-Nitrosodiphenylamine		000086-30-6	<5.1	5.1	04/09/2007	UJ
Naphthalene		000091-20-3	<2.1	2.1	04/09/2007	
Nitrobenzene		000098-95-3	<2.1	2.1	04/09/2007	
2-Nitrophenol		000088-75-5	<2.1	2.1	04/09/2007	
4-Nitrophenol		000100-02-7	<20.5	20.5	04/09/2007	
Pentachlorophenol		000087-86-5	<10.2	10.2	04/09/2007	
Phenanthrene		000085-01-8	<2.1	2.1	04/09/2007	
Phenol		000108-95-2	<2.1	2.1	04/09/2007	UJ
Pyrene		000129-00-0	<2.1	2.1	04/09/2007	

OhioEPA Division of Environmental Services

Laboratory Organic Analysis Data Report

Sample	91392				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected	04/03/2007 9:45 AM	04/04/2007 9:45 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical outfall 001				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 625	**ug/L**					
1,2,4-Trichlorobenzene		000120-82-1	<2.1	2.1	04/09/2007	
2,4,6-Trichlorophenol		000088-06-2	<5.1	5.1	04/09/2007	

Field Comments

Lab Comments

QC / Sample Comments bis(2-Chloroethyl)ether, N-nitrosodiphenylamine, and phenol estimated due to low recovery in the associated QC.

Approved By DTURNER **On** 04/11/2007

OhioEPA Division of Environmental Services

Laboratory Organic Analysis Data Report

Sample	91394				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
	Begin	**End**		**Sample Type**	COMPLIANCE
Date Collected		04/03/2007 9:53 AM		**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical outfall 001				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 624	**ug/L**					
Benzene		000071-43-2	<0.50	0.5	04/05/2007	
Bromobenzene		000108-86-1	<0.50	0.5	04/05/2007	
Bromochloromethane		000074-97-5	<0.50	0.5	04/05/2007	
Bromodichloromethane		000075-27-4	<0.50	0.5	04/05/2007	
Bromoform		000075-25-2	<0.50	0.5	04/05/2007	
Bromomethane		000074-83-9	<0.50	0.5	04/05/2007	
n-Butylbenzene		000104-51-8	<0.50	0.5	04/05/2007	
sec-Butylbenzene		000135-98-8	<0.50	0.5	04/05/2007	
tert-Butylbenzene		000098-06-6	<0.50	0.5	04/05/2007	
Carbon tetrachloride		000056-23-5	<0.50	0.5	04/05/2007	
Chlorobenzene		000108-90-7	<0.50	0.5	04/05/2007	
Chloroethane		000075-00-3	<0.50	0.5	04/05/2007	
Chloroform		000067-66-3	<0.50	0.5	04/05/2007	
Chloromethane		000074-87-3	<0.50	0.5	04/05/2007	
2-Chlorotoluene		000095-49-8	<0.50	0.5	04/05/2007	
4-Chlorotoluene		000106-43-4	<0.50	0.5	04/05/2007	
Dibromochloromethane		000124-48-1	<0.50	0.5	04/05/2007	
1,2-Dibromo-3-chloropropane		000096-12-8	<0.50	0.5	04/05/2007	
1,2-Dibromoethane		000106-93-4	<0.50	0.5	04/05/2007	
Dibromomethane		000074-95-3	<0.50	0.5	04/05/2007	
1,2-Dichlorobenzene		000095-50-1	<0.50	0.5	04/05/2007	
1,3-Dichlorobenzene		000541-73-1	<0.50	0.5	04/05/2007	
1,4-Dichlorobenzene		000106-46-7	<0.50	0.5	04/05/2007	
Dichlorodifluoromethane		000075-71-8	<0.50	0.5	04/05/2007	
1,1-Dichloroethane		000075-34-3	<0.50	0.5	04/05/2007	
1,2-Dichloroethane		000107-06-2	<0.50	0.5	04/05/2007	
1,1-Dichloroethene		000075-35-4	<0.50	0.5	04/05/2007	
cis-1,2-Dichloroethene		000156-59-2	<0.50	0.5	04/05/2007	
trans-1,2-Dichloroethene		000156-60-5	<0.50	0.5	04/05/2007	
1,2-Dichloropropane		000078-87-5	<0.50	0.5	04/05/2007	
1,3-Dichloropropane		000142-28-9	<0.50	0.5	04/05/2007	
2,2-Dichloropropane		000594-20-7	<0.50	0.5	04/05/2007	
1,1-Dichloropropene		000563-58-6	<0.50	0.5	04/05/2007	
cis-1,3-Dichloropropene		010061-01-5	<0.50	0.5	04/05/2007	
trans-1,3-Dichloropropene		010061-02-6	<0.50	0.5	04/05/2007	
Ethylbenzene		000100-41-4	<0.50	0.5	04/05/2007	
Hexachlorobutadiene		000087-68-3	<0.50	0.5	04/05/2007	
Isopropylbenzene		000098-82-8	<0.50	0.5	04/05/2007	
4-Isopropyltoluene		000099-87-6	<0.50	0.5	04/05/2007	
Methylene chloride		000075-09-2	<0.50	0.5	04/05/2007	
Naphthalene		000091-20-3	<0.50	0.5	04/05/2007	
n-Propylbenzene		000103-65-1	<0.50	0.5	04/05/2007	
Styrene		000100-42-5	<0.50	0.5	04/05/2007	
1,1,1,2-Tetrachloroethane		000630-20-6	<0.50	0.5	04/05/2007	
1,1,2,2-Tetrachloroethane		000079-34-5	<0.50	0.5	04/05/2007	
Tetrachloroethene		000127-18-4	<0.50	0.5	04/05/2007	
Toluene		000108-88-3	<0.50	0.5	04/05/2007	
1,2,3-Trichlorobenzene		000087-61-6	<0.50	0.5	04/05/2007	
1,2,4-Trichlorobenzene		000120-82-1	<0.50	0.5	04/05/2007	
1,1,1-Trichloroethane		000071-55-6	<0.50	0.5	04/05/2007	
1,1,2-Trichloroethane		000079-00-5	<0.50	0.5	04/05/2007	

OhioEPA Division of Environmental Services

Laboratory Organic Analysis Data Report

Sample	91394				
Date Received	04/04/2007 2:05 PM	**Matrix**	WW	**Collected by**	MONTGOMERY, JOANN
Begin		**End**		**Sample Type**	COMPLIANCE
Date Collected			04/03/2007 9:53 AM	**Station ID**	
Program	SEDO-DSW			**Customer ID**	JWM0404
Client	DSW_C			**External ID**	
OEPA Division	DSW				
Location	Dow Chemical outfall 001				

EPA Method Parameter	Units	Cas Number	Result	RL	Analyzed	Qualifier
USEPA 624	**ug/L**					
Trichloroethene		000079-01-6	<0.50	0.5	04/05/2007	
Trichlorofluoromethane		000075-69-4	<0.50	0.5	04/05/2007	
1,2,3-Trichloropropane		000096-18-4	<0.50	0.5	04/05/2007	
1,2,4-Trimethylbenzene		000095-63-6	<0.50	0.5	04/05/2007	
1,3,5-Trimethylbenzene		000108-67-8	<0.50	0.5	04/05/2007	
Vinyl chloride		000075-01-4	<0.50	0.5	04/05/2007	
o-Xylene		000095-47-6	<0.50	0.5	04/05/2007	
Total m&p-xylenes		000108-38-3	<0.50	0.5	04/05/2007	

Field Comments

Lab Comments

QC / Sample Comments

Approved By DTURNER **On** 04/10/2007