2016 ANNUAL OPERATING REPORT

Site:

GEIGY CHEMICAL CORPORATION CERCLA SITE
ABERDEEN, MOORE COUNTY, NORTH CAROLINA
COMMITTEE CORRESPONDENCE

Submitted To:

MR. JON BORNHOLM
USEPA REGION IV
61 FORSYTH STREET, SW
MAIL CODE: 9T25
ATLANTA, GA 30303-8960

Prepared By:

ENVIROTRAC LTD.
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FEBRUARY 2017

A Full Service Environmental Consulting and Contracting Firm

EnviroTrac
Environmental Services

February 13, 2017

Mr. Jon Bornholm
Remedial Project Manager
USEPA Region IV
61 Forsyth Street, SW
Mail Code: 9T25
Atlanta, Georgia 30303-8960

RE: 2016 Annual Operating Report
Groundwater Remediation Permit No. WQ0009949
Geigy Chemical Corporation CERCLA Site
Aberdeen, North Carolina

Dear Mr. Bornholm:

On behalf of Olin Corporation and Syngenta Crop Protection (the Companies), the purpose of this letter is to transmit the analytical results for the 2016 annual sampling event for the Geigy Chemical Corporation CERCLA Site groundwater extraction, treatment, and discharge system. Information provided in this report includes:

- Monitoring requirements summary table (Attachment 1);
- Site extraction and treatment system layout (Attachment 2);
- Monitoring event analytical summary tables (Attachment 3);
- BHC isomer trend graphs for site indicator wells and figures (Attachment 4);
- Completed copies of NCDEQ GW-59 Forms and laboratory reports with chain-of-custody documents (Attachment 5); and
- Monthly windshield survey for new construction (Attachment 6).

The system performed as designed during 2016 and experienced minimal down-time. Over 8.3 million gallons of water was extracted and treated between December 30, 2015 and December 21, 2016, at an effective treatment efficiency of nearly 100 percent. The system is routinely shutdown for brief periods to conduct operation and maintenance activities such as replacing carbon drums, fittings, and bag filters. Well pumps, flow meters, and electrical relays were replaced without shutting down the system. Five 55-gallon drums of granular activated carbon were transported to Siemens for recycling/re-activation. Pumping of the Upper Black Creek Aquifer extraction wells (PW-1D, PW-2D, and PW-3D) continues to fulfill the closed-loop requirement of the Site Groundwater Remediation Permit. Due to the inconsistency in quality

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control and results attributed to laboratory error, a different laboratory will be utilized during the 2017 sampling events.

BHC isomer concentration trend graphs are provided in Attachment 4. The graphs include data from the initial sampling event through the October 2016 sampling event to facilitate review of the groundwater quality monitoring data. Alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC concentrations are provided on the graphs as these constituents typically represent the highest concentrations and detection frequencies among the pesticides included in the sample analyses. In reviewing the graphs, please note that monitoring wells MW-16S, MW-17S, and MW-18S are screened in the surficial aquifer to monitor the infiltration gallery. Monitoring wells MW-16D and MW-17D are screened in the Upper Black Creek aquifer and are located hydraulically upgradient of the site. The graphs generally indicate steady or decreasing trends in BHC isomer concentrations from historical levels.

Information provided in Attachment 5 of this submittal is intended to fulfill the annual reporting requirements described in Section IV, Paragraph 4 of the Site Groundwater Remediation Permit. Accordingly, one copy of this report has been sent to the North Carolina Department of Environmental Quality (NCDEQ) Division of Water Resources (DWR).

Monthly windshield surveys of properties within the BHC plume have been summarized on the Table included in Attachment 6. New construction was observed on Campbell Street between High Street and Bethesda Avenue during the October 2016 site reconnaissance and is documented on the form.

Should you have questions regarding the report, please contact Chris Hay at (336) 763-6025.

Sincerely,
ENVIROTRAC LTD.

Gail Hay

Gail G. Hay, P.E.
Senior Engineer

Chris Hay

Christopher W. Hay, E.I.
Principal

Enclosure

Cc: Doug Rumford, NCDEQ Superfund Section, w/enc.
Michael Rogers, NCDEQ DWR, w/enc.
Garland Hilliard, Olin Corporation, w/enc.
George Crouse, Syngenta, w/enc.

ATTACHMENT 1

MONITORING REQUIREMENTS SUMMARY TABLE

TABLE 1: GROUNDWATER EXTRACTION AND TREATMENT SYSTEM MONITORING SCHEDULE

SAMPLE LOCATION	PARAMETERS		FREQUENCY	
	TCL PESTICIDES	TCE	QUARTERLY	ANNUALLY
MW-4S	✓			✓
MW-5S	✓			✓
MW-6S	✓			✓
MW-10S	✓	✓		✓
MW-16S	✓	✓		✓
MW-17S	✓	✓		✓
MW-18S	✓	✓		✓
MW-11D	✓	✓		✓
MW-16D		✓		✓
MW-17D		✓		✓
MW-18D	✓	✓		✓
MW-20D	✓			✓
MW-22D	✓			✓
MW-23D	✓			✓
MW-26D	✓			✓
MW-30D	✓	✓		✓
MW-22L	✓			✓
MW-25L	✓			✓
MW-27L	✓			✓
MW-31L	✓			✓
MW-32L	✓			✓
MW-36L	✓			✓
MW-37L	✓			✓
MW-38L	✓			✓
MW-39L	✓			✓
MW-40L	✓			✓
PZ-2	✓			✓
PZ-3	✓			✓
PZ-5	✓			✓
Influent	✓	✓	✓	
Effluent	✓	✓	✓	
Carbon Train A	✓	✓	✓	
Carbon Train B	✓	✓	✓	

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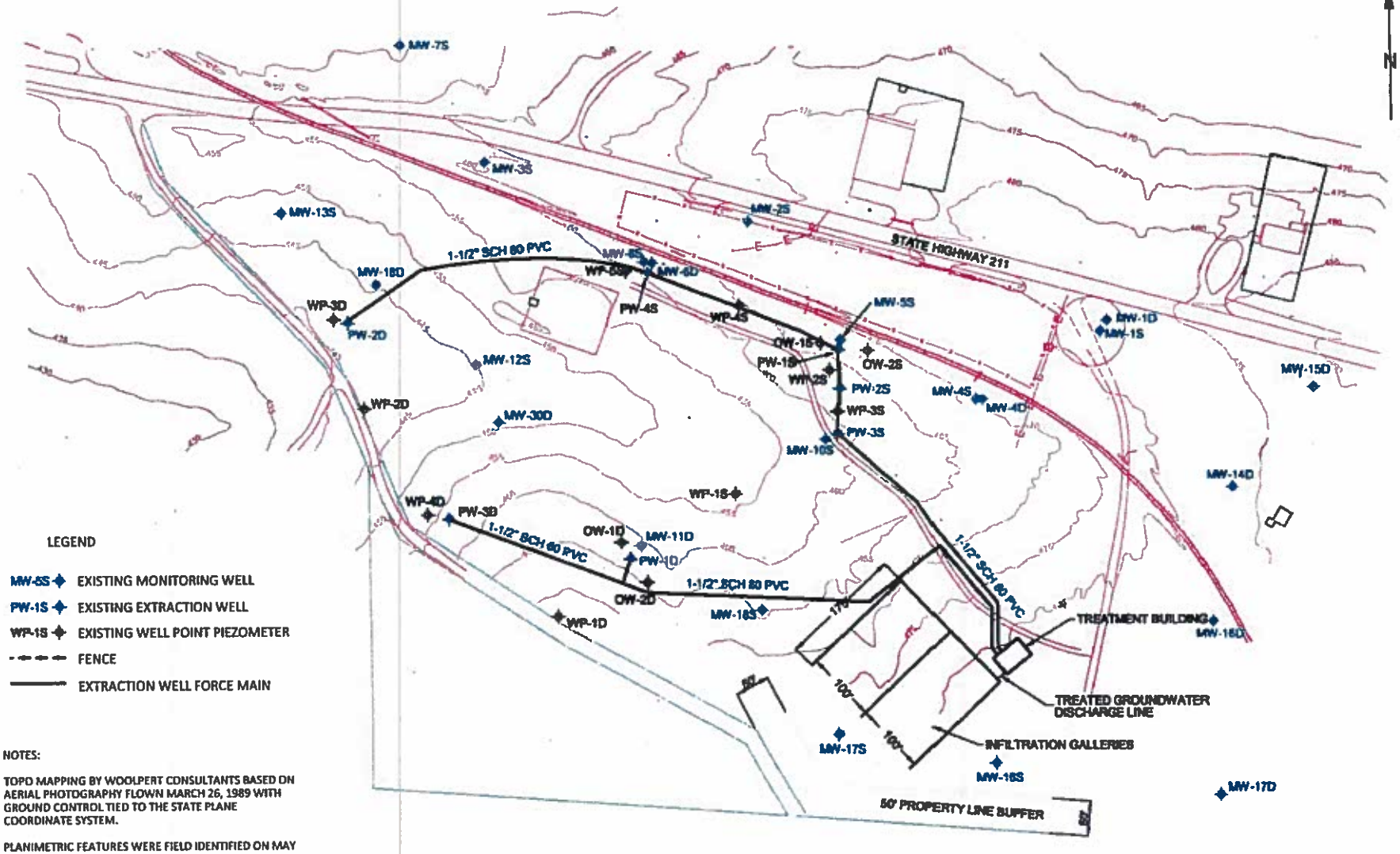
ATTACHMENT 2

SITE EXTRACTION AND TREATMENT SYSTEM LAYOUT



LEGEND

- MW-5S EXISTING MONITORING WELL
- PW-1S EXISTING EXTRACTION WELL
- WP-1S EXISTING WELL POINT PIEZOMETER
- FENCE
- EXTRACTION WELL FORCE MAIN

NOTES:

TOPO MAPPING BY WOOLPERT CONSULTANTS BASED ON AERIAL PHOTOGRAPHY FLOWN MARCH 26, 1989 WITH GROUND CONTROL TIED TO THE STATE PLANE COORDINATE SYSTEM.

PLANIMETRIC FEATURES WERE FIELD IDENTIFIED ON MAY 18, 1989 BY WOOLPERT CONSULTANTS.

ORIGINAL DRAWING PRODUCED BY RUST ENVIRONMENT AND INFRUSTRUCTURE.

LOCATION OF ACCESS ROAD SHOWN ON THIS DRAWING IS APPROXIMATE.

0 50 100 200 300

SCALE IN FEET

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GREENSBORO, NORTH CAROLINA

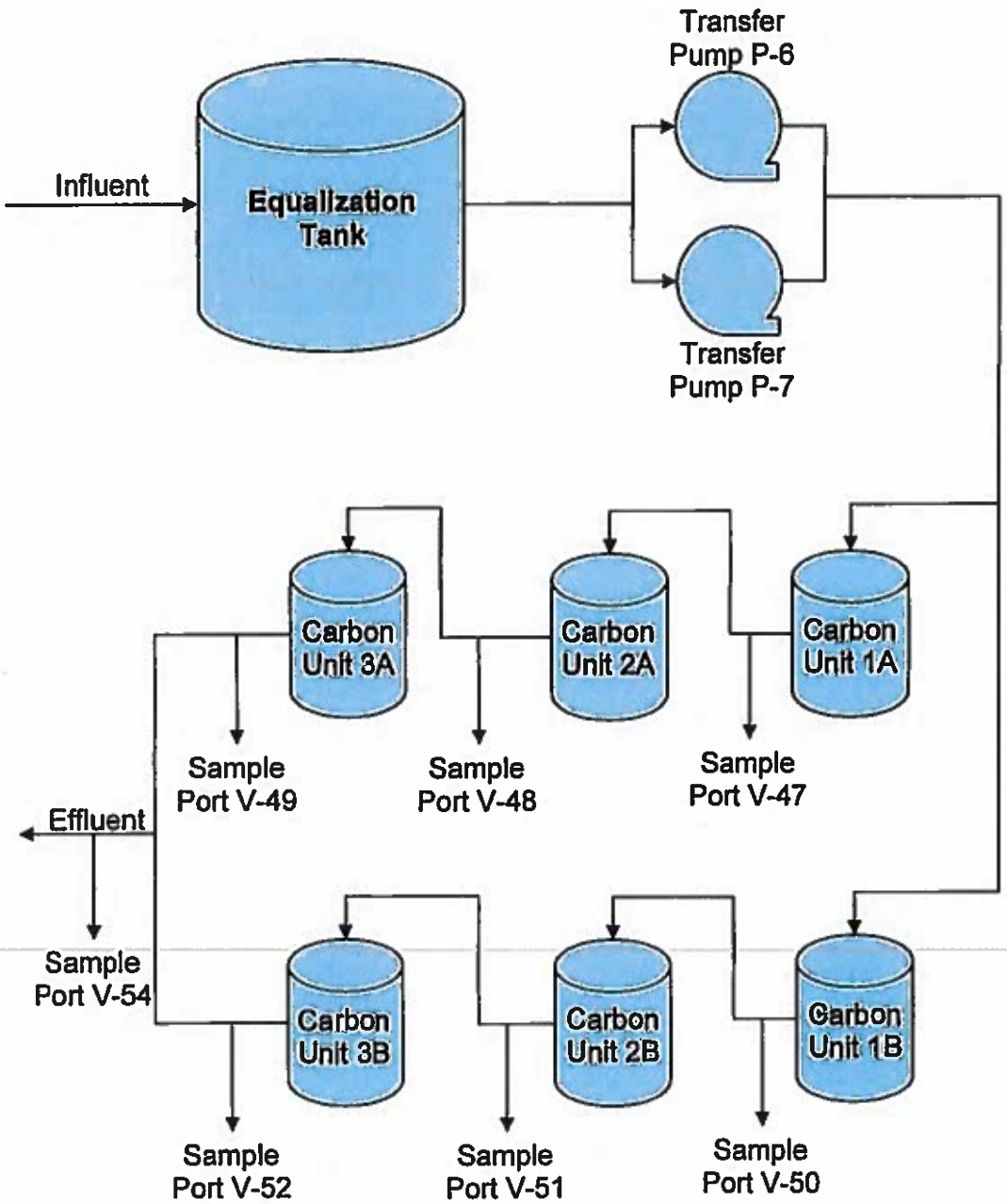
FIGURE 1
EXTRACTION AND TREATMENT SYSTEM SITE LAYOUT

Geigy Chemical Corporation
Aberdeen, North Carolina

DATE: 11/04/2015	APPROVED BY: CWH	SCALE: AS SHOWN
DRAWN BY: AB		PROJECT NO: 11.990010.00

CAD FILE: W:\Projects\11.990010.00 Olin Geigy Site\2015 Annual Reports\Figures_2015.dwg

Figure 2
Treatment System Process Layout
Geigy Chemical Corporation Site



ATTACHMENT 3

OCTOBER 2016 MONITORING EVENT
SUMMARY TABLES

TABLE 2: UPPER BLACK CREEK AQUIFER GROUNDWATER MONITORING SUMMARY

PARAMETER	ANALYTICAL DATA							PERFORMANCE STANDARD
SAMPLE LOCATION	MW-11D	MW-18D	MW-20D	MW-22D	MW-23D	MW-26D	MW-30D	
DATE COLLECTED	10/04/16	10/05/16	10/04/16	10/04/16	10/04/16	10/04/16	10/04/16	
Aldrin	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	0.05
alpha-BHC	0.022 J	**0.050**	0.049 U	0.016 J p	0.040 J	0.014 J	**0.12**	0.05
beta-BHC	**1.1**	**0.58**	0.033 J	**0.16**	0.044 J	0.049 U	**4.5**	0.05
delta-BHC	**0.072**	**0.11**	0.049 U	**0.067**	0.049 U	0.049 U	**0.50**	0.05
gamma-BHC (Lindane)	0.019 J	0.062	0.049 U	0.019 J	0.030 J	0.030 J	0.11	0.2
alpha-Chlordane	**0.027 J**	0.049 U	0.049 U	0.050 U	0.049 U	**0.019 J p**	**0.11**	NE
gamma-Chlordane	**0.019 J**	0.049 U	0.049 U	**0.0098 J**	0.049 U	**0.014 J**	**0.066**	NE
Dieldrin	0.089 p	**0.10**	0.049 U	0.050 U	0.049 U	0.049 U	**0.50**	0.1
4,4'-DDD	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
4,4'-DDE	0.058 U	**0.011 J p**	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
4,4'-DDT	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Endosulfan I	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Endosulfan II	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Endosulfan sulfate	**0.017 J**	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Endrin	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Endrin aldehyde	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Endrin ketone	0.091	0.076	0.049 U	0.050 U	0.049 U	0.049 U	**0.39**	0.1
Heptachlor	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Heptachlor epoxide	**0.030 J**	**0.013 J p**	0.049 U	0.050 U	0.049 U	**0.015 J**	**0.092**	NE
Methoxychlor	0.058 U	0.049 U	0.049 U	0.050 U	0.049 U	0.049 U	0.049 U	NE
Toxaphene	**2.1 J**	**3.2 J**	4.9 U	5.0 U	4.9 U	4.9 U	**8.1**	1
Trichloroethene	1.0 U	1.1	NA	NA	NA	NA	1.3	**

NOTES

Results are presented in micrograms per liter

J = Estimated value less than the reporting limit but greater than the method detection limit

* = LCS and LCSD exceeds the control limits

** = Trichloroethene is not a COC for the Geigy site.

NE = No standard established

NA = Not analyzed for this compound

NS = Not sampled

U = Indicates the analyte was not detected

p = The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Bold = Concentration exceeds performance standard or method detection limits if no standard is established

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TABLE 3: LOWER BLACK CREEK AQUIFER GROUNDWATER MONITORING SUMMARY

PARAMETER	ANALYTICAL DATA													PERFORMANCE STANDARD
SAMPLE LOCATION	MW-22L	MW-25L	MW-27L	MW-31L	MW-32L	MW-36L	MW-37L	MW-38L	MW-39L	MW-40L	PZ-2	PZ-3	PZ-5	
DATE COLLECTED	10/04/16	10/05/16	10/19/16	10/19/16	10/19/16	10/04/16	10/05/16	10/19/16	10/19/16	10/19/16	10/05/16	10/05/16	10/19/16	
Aldrin	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	0.05
alpha-BHC	**0.17**	**0.44**	**1.0**	**0.37**	0.048 U	0.050 U	**0.70**	0.048 U	0.049 U	**0.56**	**0.25**	**0.17**	**0.87**	0.05
beta-BHC	**0.70**	**0.39**	**2.3**	**0.72**	0.048 U	0.050 U	**0.63**	0.048 U	0.049 U	**1.3**	**0.20**	**0.083**	**0.30**	0.05
delta-BHC	**0.48**	**0.64**	**2.2**	**0.81**	0.048 U	0.050 U	**1.3**	0.048 U	0.049 U	**1.9**	**0.19**	**0.10**	**0.48**	0.05
gamma-BHC (Lindane)	0.13	0.077	0.19	0.073	0.048 U	0.050 U	0.14	0.048 U	0.049 U	0.087	0.18	0.12	0.22	0.2
alpha-Chlordane	0.026 J	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
gamma-Chlordane	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.0087 J	0.053 U	0.055 U	0.052 U	NE
Dieldrin	0.057 p	0.051 U	0.097	0.021 J	0.048 U	0.050 U	0.014 J	0.012 J	0.049 U	0.032 J	0.017 J	0.055 U	0.052 U	0.1
4,4'-DDD	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
4,4'-DDE	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
4,4'-DDT	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Endosulfan I	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Endosulfan II	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Endosulfan sulfate	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Endrin	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Endrin aldehyde	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Endrin ketone	0.061	0.024 J	0.19	0.050 J	0.048 U	0.050 U	0.036 J	0.048 U	0.049 U	0.074	0.053 U	0.055 U	0.019 J	0.1
Heptachlor	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Heptachlor epoxide	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Methoxychlor	0.050 U	0.051 U	0.048 U	0.051 U	0.048 U	0.050 U	0.051 U	0.048 U	0.049 U	0.047 U	0.053 U	0.055 U	0.052 U	NE
Toxaphene	1.5 J	5.1 U	4.8 U	5.1 U	4.8 U	5.0 U	5.1 U	4.8 U	4.9 U	4.7 U	5.3 U	5.5 U	5.2 U	1

NOTES
Results are presented in micrograms per liter
J = Estimated value less than the reporting limit but greater than the method detection limit
* = LCS and LCSD exceeds the control limits
NE = No standard established
NA = Not analyzed for this compound
U = Indicates the analyte was not detected
p = The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
Bold = Concentration exceeds performance standard or method detection limits if no standard is established

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TABLE 4: INFLUENT AND EFFLUENT MONITORING SUMMARY

PARAMETER	FIRST QUARTER				SECOND QUARTER						THIRD QUARTER		FOURTH QUARTER		PERFORMANCE STANDARD
DATE COLLECTED	01/27/16		02/19/16 (resample)		04/28/16		05/17/16 (resample)		06/24/16 (resample)		07/12/16	07/12/16	10/04/16	10/04/16	
SAMPLE LOCATION	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	
Aldrin	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0479	0.0216 U	0.029 U	0.0057 U	0.018 J p	0.048 U	0.05
alpha-BHC	0.055	0.049 U	0.053	0.049 U	0.042 J	0.048 U	0.048 U	0.048 U	0.0385	0.0216 U	0.053 U	0.010 U	0.072	0.048 U	0.05
beta-BHC	2.8	0.059	2.6	0.049 U	2.3	0.057	0.048 U	0.12	1.94	0.0849	2.1	0.0066 U	3.2	0.20	0.05
delta-BHC	0.44	0.049 U	0.37	0.049 U	0.45	0.048 U	0.048 U	0.017 J	0.301	0.0216 U	0.37	0.0075 U	0.46	0.017 J p	0.05
gamma-BHC (Lindane)	0.037 J p	0.049 U	0.037 J p	0.049 U	0.032 J p	0.048 U	0.048 U	0.048 U	0.0498	0.0216 U	0.063 U	0.012 U	0.083	0.048 U	0.2
alpha-Chlordane	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.053 U	0.010 U	0.094	0.014 J	NE
gamma-Chlordane	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.0059 J p	0.0216 U	0.0216 U	0.087 U	0.017 U	0.047 U	0.013 J	NE
Dieldrin	0.32	0.049 U	0.33	0.049 U	0.33 B	0.032 J B	0.048 U	0.076	0.284	0.0303 p	0.24 p	0.012 U	0.36	0.074	0.1
4,4'-DDD	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.058 U	0.011 U	0.047 U	0.048 U	NE
4,4'-DDE	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0885	0.0216 U	0.069 J	0.0094 U	0.047 U	0.048 U	NE
4,4'-DDT	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.077 U	0.015 U	0.047 U	0.048 U	NE
Endosulfan I	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.053 U	0.010 U	0.047 U	0.048 U	NE
Endosulfan II	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.178	0.0216 U	0.029 U	0.0057 U	0.047 U	0.048 U	NE
Endosulfan sulfate	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.038 U	0.0075 U	0.047 U	0.048 U	NE
Endrin	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.048 U	0.0094 U	0.047 U	0.048 U	NE
Endrin aldehyde	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.043 U	0.0085 U	0.047 U	0.048 U	NE
Endrin ketone	0.28	0.049 U	0.35	0.049 U	0.23	0.024 J	0.048 U	0.043 J	0.186	0.0226	0.16	0.014 U	0.22	0.051	0.1
Heptachlor	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.029 U	0.0057 U	0.047 U	0.048 U	NE
Heptachlor epoxide	0.051 U	0.049 U	0.086	0.049 U	0.055 p B	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.034 U	0.0066 U	0.054 p	0.048 U	NE
Methoxychlor	0.051 U	0.049 U	0.048 U	0.049 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0216 U	0.0216 U	0.087 U	0.017 U	0.047 U	0.048 U	NE
Toxaphene	5.7	4.9 U	6.3	4.9 U	7.3	4.8 U	0.048 U	1.1 J	1.72 U	1.72 U	5.8 U	1.1 U	6.7	1.1 J	1
Trichloroethene	0.93 J	1.0 U	0.77 J	1.0 U	1.0 U	1.0 U	0.73 J	1.0 U	1.0 U	1.0 U	0.66 J	0.20 U	0.53 J	1.0 U	**

NOTES
Results are presented in micrograms per liter
J = Estimated value less than the reporting limit but greater than the method detection limit
** = Trichloroethene is not a COC for the Geigy site.
p = The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
Bold = Concentration exceeds performance standard or method detection limits if no standard is established
NE = No standard established
U = Indicates the analyte was not detected

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TABLE 5: ON SITE GROUNDWATER MONITORING SUMMARY

PARAMETER	ANALYTICAL DATA												PERFORMANCE STANDARD
SAMPLE LOCATION	MW-4S	MW-5S	MW-6S	MW-10S	MW-11D	MW-16S	MW-16D	MW-17S	MW-17D	MW-18S	MW-18D	MW-30D	
DATE COLLECTED	10/05/16	10/05/16	10/05/16	10/05/16	10/04/16	10/04/16	10/04/16	10/04/16	10/04/16	10/04/16	10/05/16	10/04/16	
Aldrin	0.050 U	**0.096 p**	0.011 J p	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	0.05
alpha-BHC	0.14	0.026 J	0.039 J	0.055 U	0.022 J	0.053 U	NA	0.049 U	NA	0.055 U	**0.050**	**0.12**	0.05
beta-BHC	**48**	**2.5**	**2.8**	**0.31**	**1.1**	0.053 U	NA	0.020 J	NA	**0.063**	**0.58**	**4.5**	0.05
delta-BHC	**0.40 p**	**0.23**	**0.24**	0.055 U	**0.072**	0.053 U	NA	0.049 U	NA	0.055 U	**0.11**	**0.50**	0.05
gamma-BHC (Lindane)	0.077 p	0.058	0.051 U	0.055 U	0.019 J	0.053 U	NA	0.049 U	NA	0.055 U	0.062	**0.11**	0.2
alpha-Chlordane	0.050 U	**0.22**	0.051 U	0.055 U	**0.027 J**	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	**0.11**	NE
gamma-Chlordane	0.050 U	**0.15**	0.051 U	0.055 U	**0.019 J**	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	**0.066**	NE
Dieldrin	**6.2**	**0.87**	**0.22**	0.037 J p	0.089 p	0.053 U	NA	0.049 U	NA	0.031 J	**0.10**	**0.50**	0.1
4,4'-DDD	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
4,4'-DDE	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	**0.011 J p**	0.049 U	NE
4,4'-DDT	0.050 U	0.058 U	0.051 U	**0.021 J p**	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Endosulfan I	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Endosulfan II	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Endosulfan sulfate	0.050 U	0.058 U	0.051 U	0.055 U	**0.017 J**	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Endrin	**1.5**	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Endrin aldehyde	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Endrin ketone	**6.4**	**0.29**	**0.18**	**0.061**	**0.091**	0.053 U	NA	0.049 U	NA	0.021 J	**0.076**	**0.39**	0.1
Heptachlor	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Heptachlor epoxide	**0.52 p**	0.058 U	**0.032 J p**	0.055 U	**0.030 J**	0.053 U	NA	0.049 U	NA	0.055 U	**0.013 J p**	**0.092**	NE
Methoxychlor	0.050 U	0.058 U	0.051 U	0.055 U	0.058 U	0.053 U	NA	0.049 U	NA	0.055 U	0.049 U	0.049 U	NE
Toxaphene	**24 p**	**17**	**4.2 J p**	**0.52 J p**	**2.1 J**	5.3 U	NA	4.9 U	NA	0.24 J p	**3.2 J**	**8.1**	1
Trichloroethene	NA	NA	NA	1.0 U	1.0 U	1.0 U	59	1.0 U	160	1.0 U	1.1	1.3	**

NOTES

Results are presented in micrograms per liter

J = Estimated value less than the reporting limit but greater than the method detection limit

** = Trichloroethene is not a COC for the Geigy site.

p = The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Bold = Concentration exceeds performance standard or method detection limits if no standard is established

NE = No standard established

NA = Not analyzed for this compound

U = Indicates the analyte was not detected

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TABLE 6: GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SUMMARY

LOCATION													
DATE	12/30/15	01/27/16	02/18/16	03/30/16	04/28/16	05/17/16	06/24/16	07/12/16	08/03/16	09/13/16	10/04/16	11/17/16	12/21/16
PW-1S	5,206,763	5,224,913	5,236,925 [1]	5,248,937 [1]	5,260,949 [1]	5,315,555	5,389,506	5,444,649	5,497,625	5,590,483	5,635,708	5,801,840	5,888,097
PW-1D	61,803,778	62,151,975	62,428,174	62,799,300	63,127,268	63,310,481	63,582,674	63,770,362	64,024,704	64,498,994	64,745,517	64,994,611	65,284,971 [4]
PW-2S	1,433,548	1,448,740	1,461,833	1,489,090	1,508,759	1,521,071	1,534,733	1,549,081	1,562,714	1,592,971	1,607,212	1,639,836	1,661,379
PW-2D	17,764,743	17,851,900	17,924,972	18,035,403	18,135,426	18,198,085	18,292,463	18,358,062	18,443,471	18,599,433	18,680,834	18,830,507	18,904,723
PW-3S	1,761,752	1,769,383	1,815,958	1,868,177	1,898,690	1,932,954 [2]	1,967,214 [3]	1,977,096	1,990,180	2,015,664	2,028,463	2,097,147	2,129,564
PW-3D	15,098,339	15,190,393	15,267,088	15,379,319	15,491,550	15,553,572	15,645,840	15,710,541	15,796,869	15,942,912	16,020,768	16,155,994	16,219,565
PW-4S	21,539,792	21,663,883	21,762,731	21,892,699	22,014,538	22,089,076	22,201,959	22,275,963	22,384,675	22,580,281	22,678,719	22,843,876	22,920,173
Extraction Wells	124,608,715	125,321,187	125,895,681	126,712,925	127,437,180	127,920,794	128,614,389	129,085,754	129,700,238	130,820,738	131,397,221	132,363,811	133,008,472
Treatment Building	132,466,791	133,213,702	133,798,492	134,778,887	135,492,555	135,961,742	136,646,738	137,138,855	137,781,637	138,956,896	139,557,837	140,790,259	141,398,952
Difference	7,858,076	7,892,515	7,902,811	8,065,962	8,055,375	8,040,948	8,032,349	8,053,101	8,081,399	8,136,158	8,160,616	8,426,448	8,390,480
% Difference	5.9%	5.9%	5.9%	6.0%	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	5.8%	6.0%	5.9%

LOCATION													
TIME PERIOD	11/04/15 12/30/15	12/30/15 01/27/16	01/27/16 02/18/16	02/18/16 03/30/16	03/30/16 04/28/16	04/28/16 05/17/16	05/17/16 06/24/16	06/24/16 07/12/16	07/12/16 08/03/16	08/03/16 09/13/16	09/13/16 10/04/16	10/04/16 11/17/16	11/17/16 12/21/16
DAYS IN PERIOD	56	28	22	41	29	19	38	18	22	41	21	44	34
TOTAL DAYS OF OPERATION	6,735	6,763	6,785	6,826	6,855	6,874	6,912	6,930	6,952	6,993	7,014	7,058	7,092
Average Daily Volume (gallons)													
PW-1S	470	648	546	293	414	2,874	1,946	3,064	2,408	2,265	2,154	3,776	2,537
PW-1D	10,586	12,436	12,464	9,101	11,309	9,643	7,163	10,427	11,561	11,568	11,739	5,661	8,540
PW-2S	423	543	595	665	678	648	360	797	620	738	678	741	634
PW-2D	2,125	3,113	3,321	2,693	3,449	3,298	2,484	3,644	3,882	3,804	3,876	3,402	2,183
PW-3S	629	987	1,208	1,274	1,052	1,803	902	549	595	622	609	1,561	953
PW-3D	2,985	3,288	3,486	2,737	3,870	3,264	2,428	3,595	3,924	3,562	3,707	3,073	1,870
PW-4S	3,401	4,432	4,493	3,170	4,201	3,923	2,971	4,111	4,941	4,771	4,688	3,754	2,244
Extraction Wells	20,618	25,445	26,113	19,933	24,974	25,453	18,253	26,187	27,931	27,329	27,452	21,968	18,981
Average Flow Rate (gallons per minute)													
PW-1S	0.33	0.45	0.38	0.20	0.29	2.00	1.35	2.13	1.67	1.57	1.50	2.62	1.76
PW-1D	7.35	8.64	8.66	6.32	7.85	6.70	4.97	7.24	8.03	8.03	8.15	3.93	5.93
PW-2S	0.29	0.38	0.41	0.46	0.47	0.45	0.25	0.55	0.43	0.51	0.47	0.51	0.44
PW-2D	1.48	2.16	2.31	1.87	2.40	2.29	1.72	2.53	2.70	2.64	2.69	2.36	1.52
PW-3S	0.44	0.69	0.84	0.88	0.73	1.25	0.63	0.38	0.41	0.43	0.42	1.08	0.66
PW-3D	2.07	2.28	2.42	1.90	2.69	2.27	1.69	2.50	2.73	2.47	2.57	2.13	1.30
PW-4S	2.36	3.08	3.12	2.20	2.92	2.72	2.06	2.86	3.43	3.31	3.26	2.61	1.58
Extraction Wells	14.32	17.67	18.13	13.84	17.34	17.68	12.68	18.19	19.40	18.98	19.06	15.26	13.17
SYSTEM TO DATE	13.66	13.68	13.69	13.71	13.73	13.74	13.73	13.74	13.76	13.80	13.82	13.85	13.85

NOTES

[1] Estimated gallons, based on average flow during the last three years. Flow meter replaced 4/28/16.

[2] Groundwater pump in PW-3S failed and was replaced 5/19/16.

[3] Estimated gallons, based on average flow during the last three years. Flow meter replaced 7/18/16.

[4] Estimated gallons, based on average flow during the last three years. Flow meter replaced 12/21/16.

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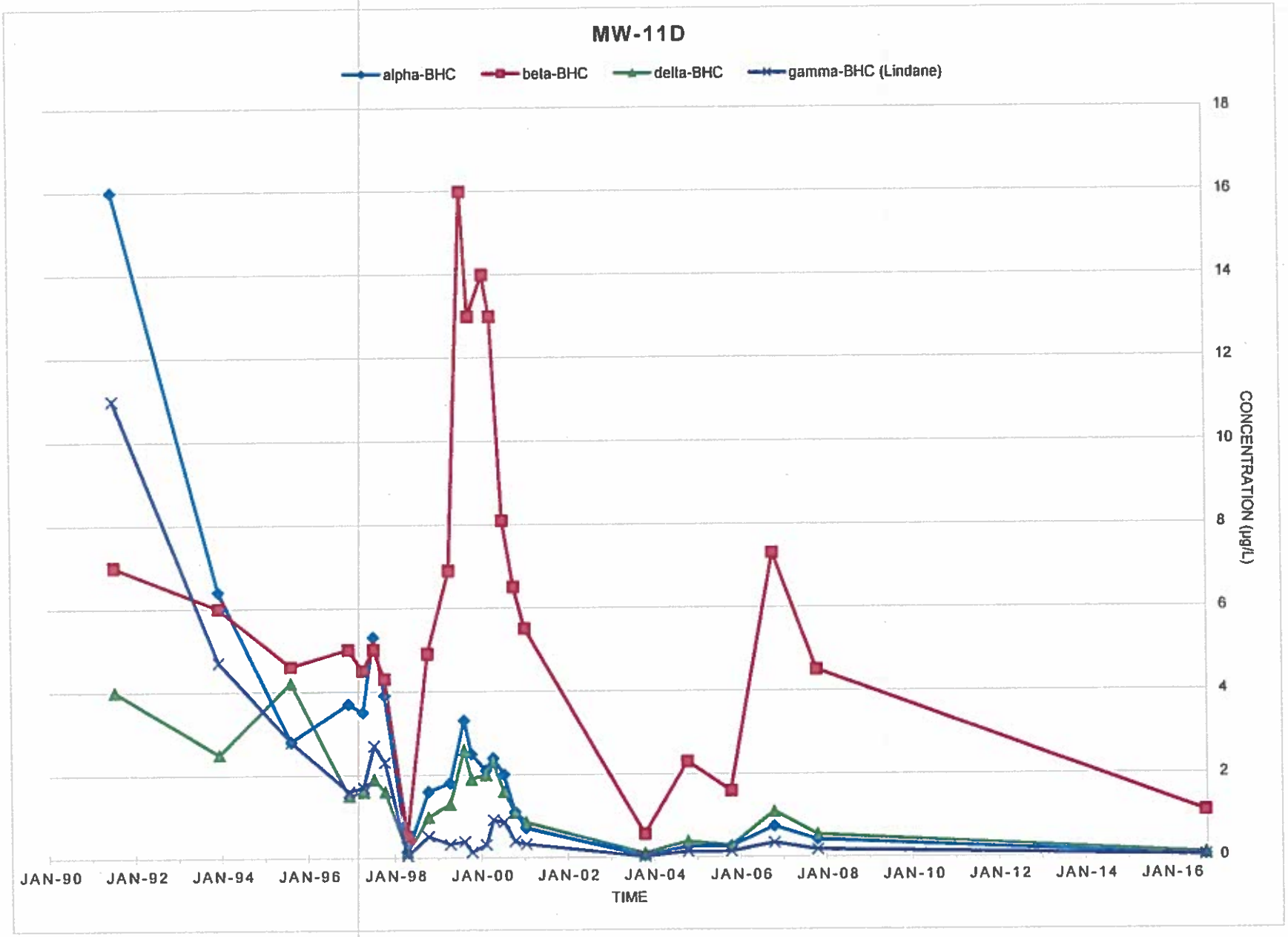
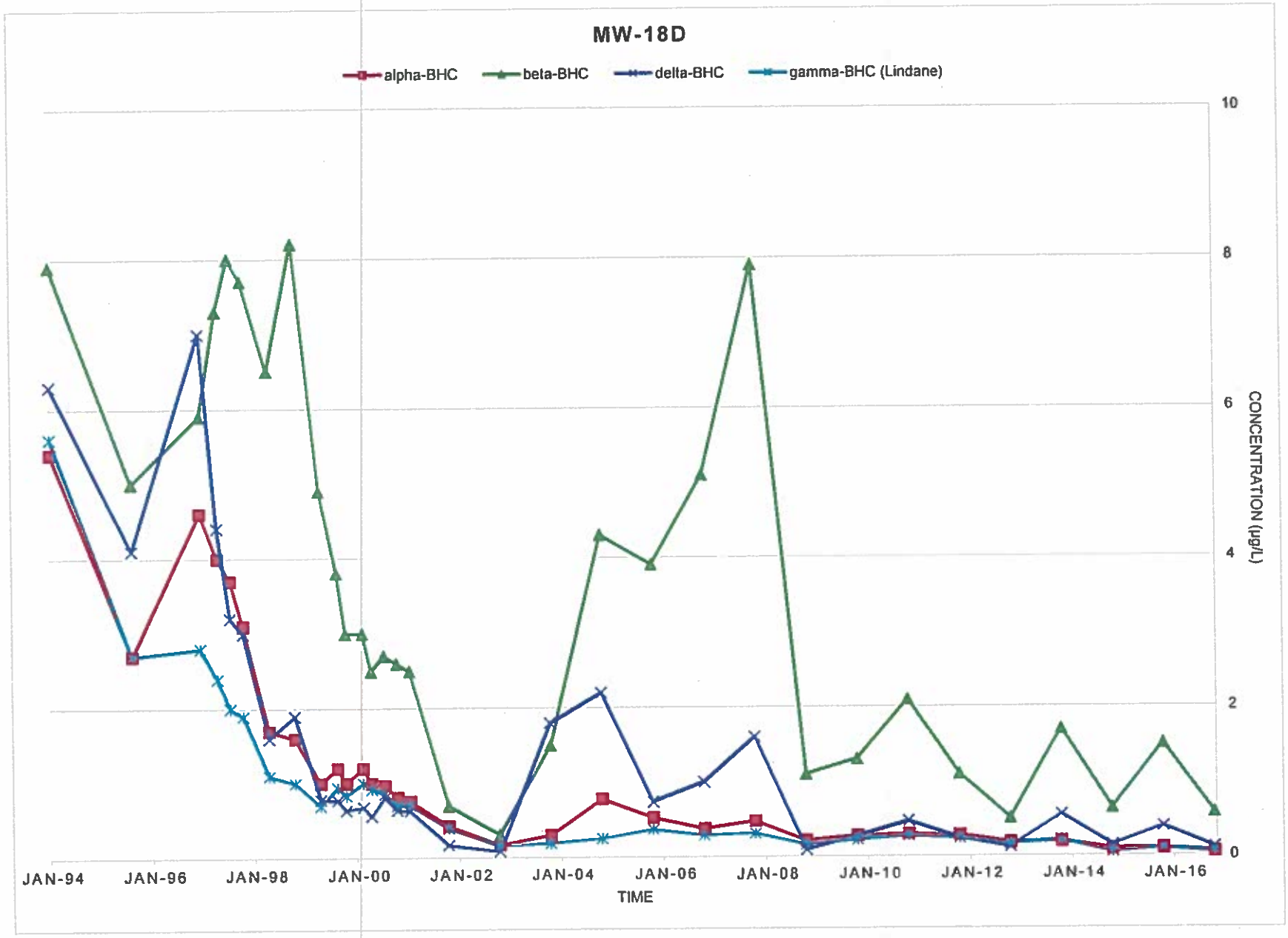
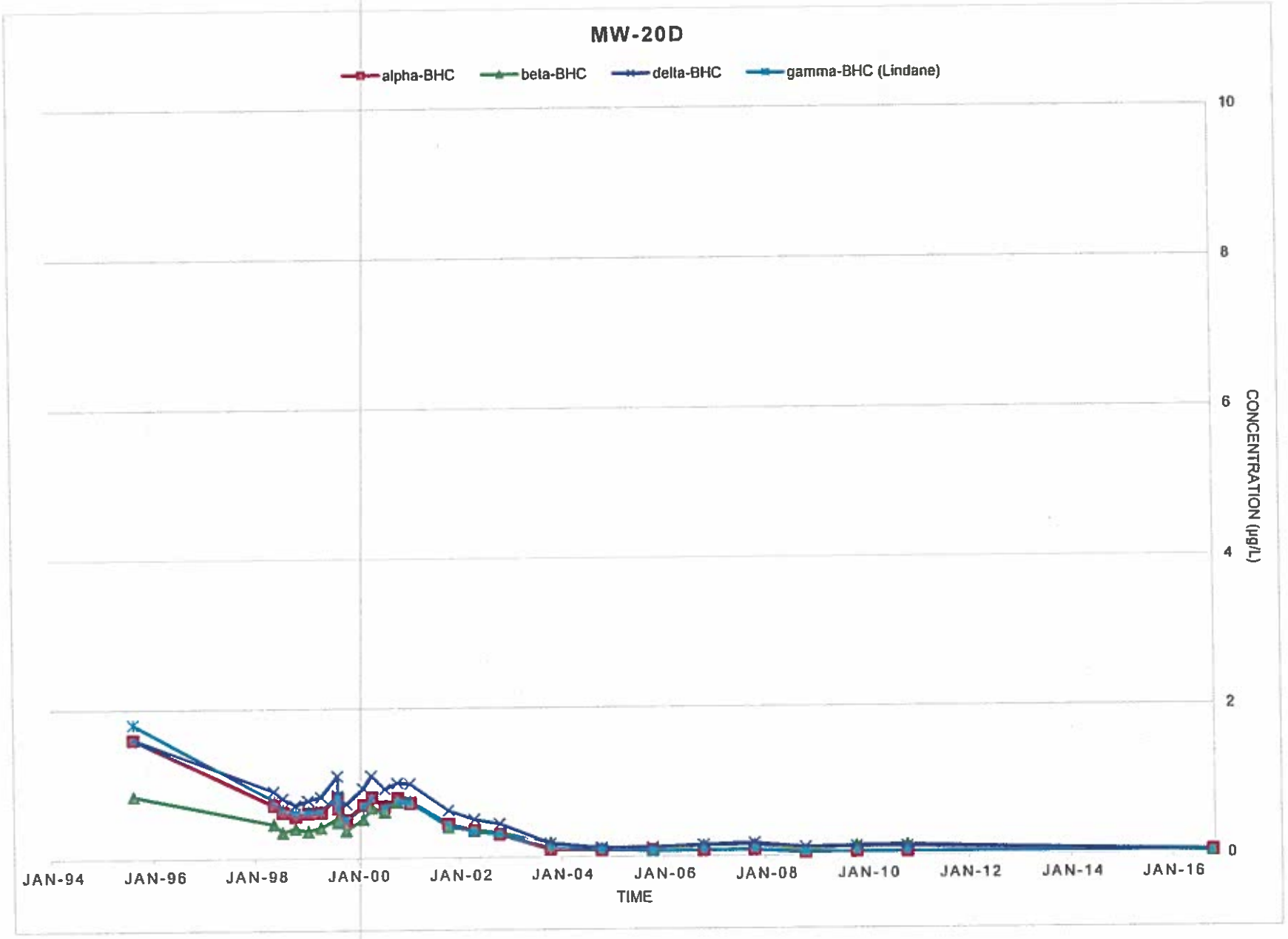
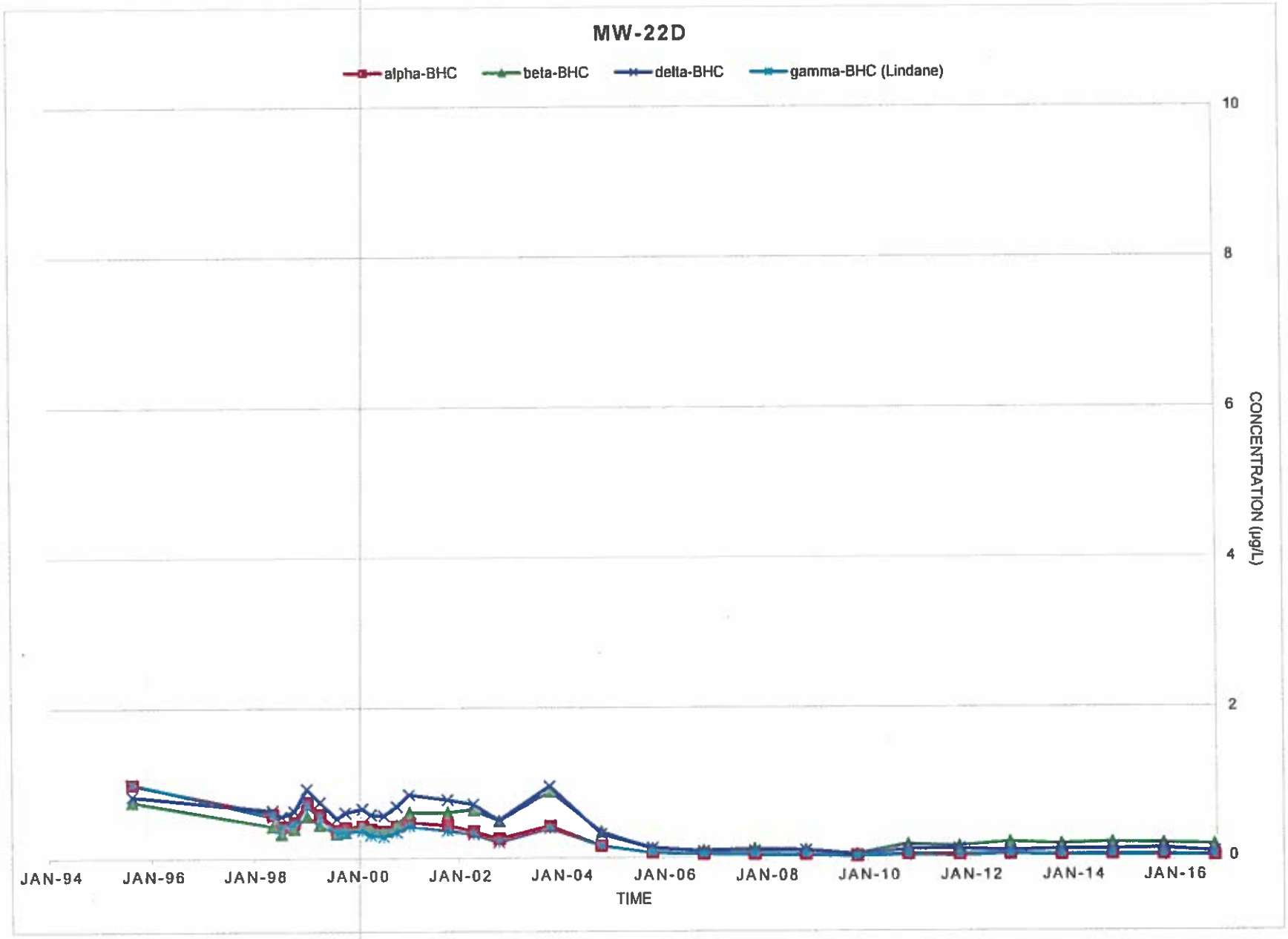
ATTACHMENT 4

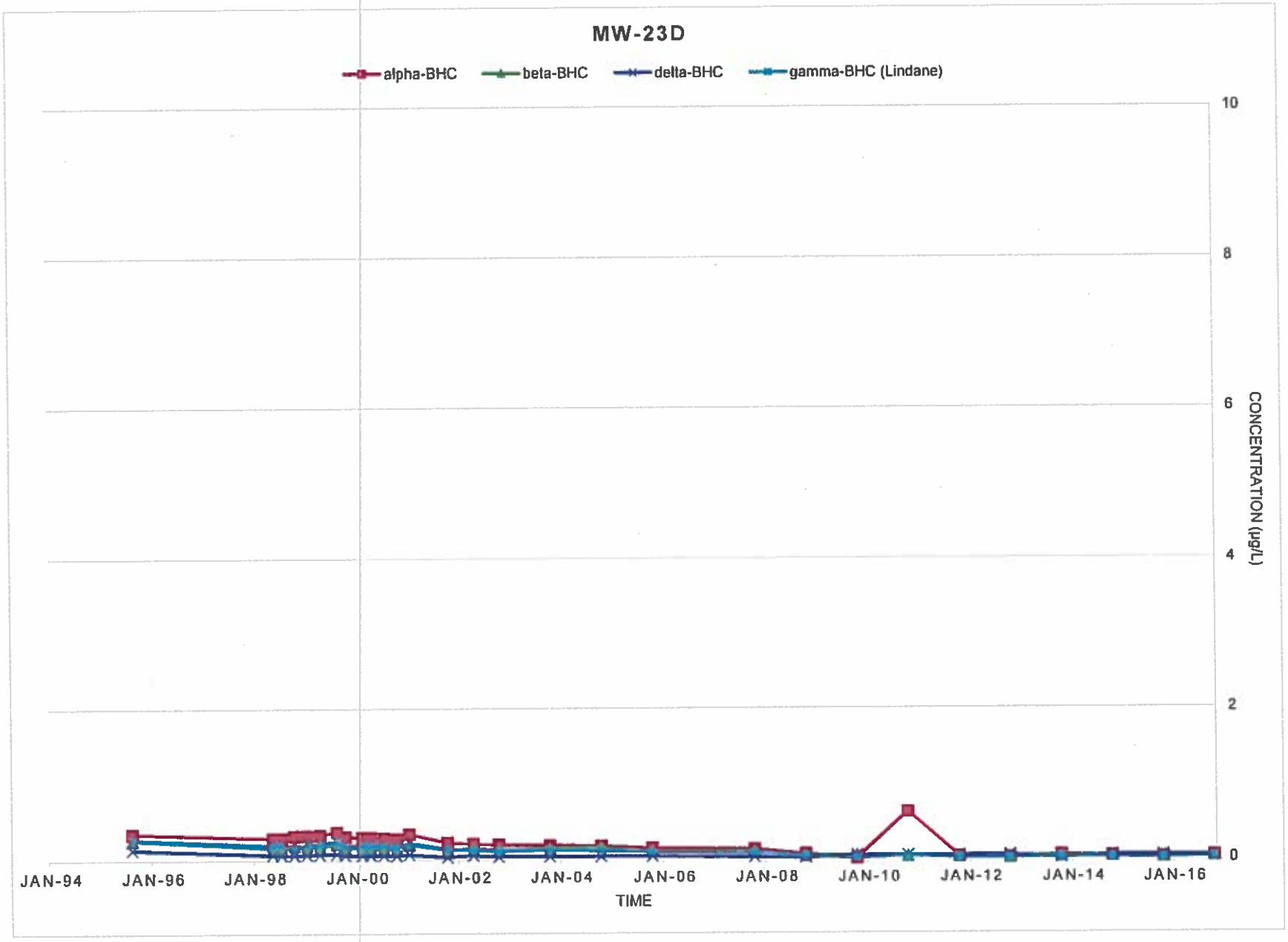
BHC ISOMER TREND GRAPHS AND FIGURES

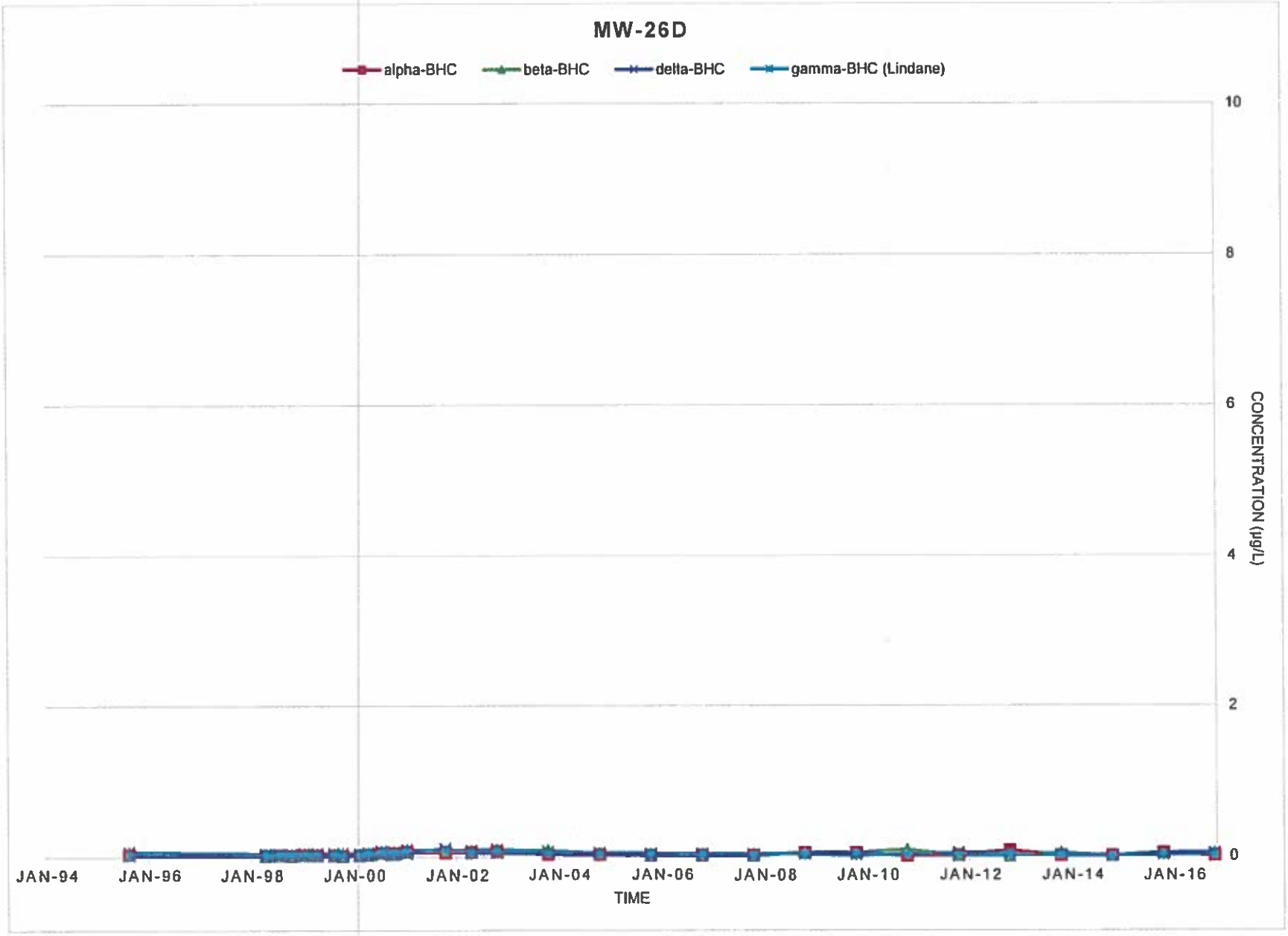

MW-11D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
CONCENTRATION (µg/L)
0
2
4
6
8
10
12
14
16
18
JAN-90
JAN-92
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

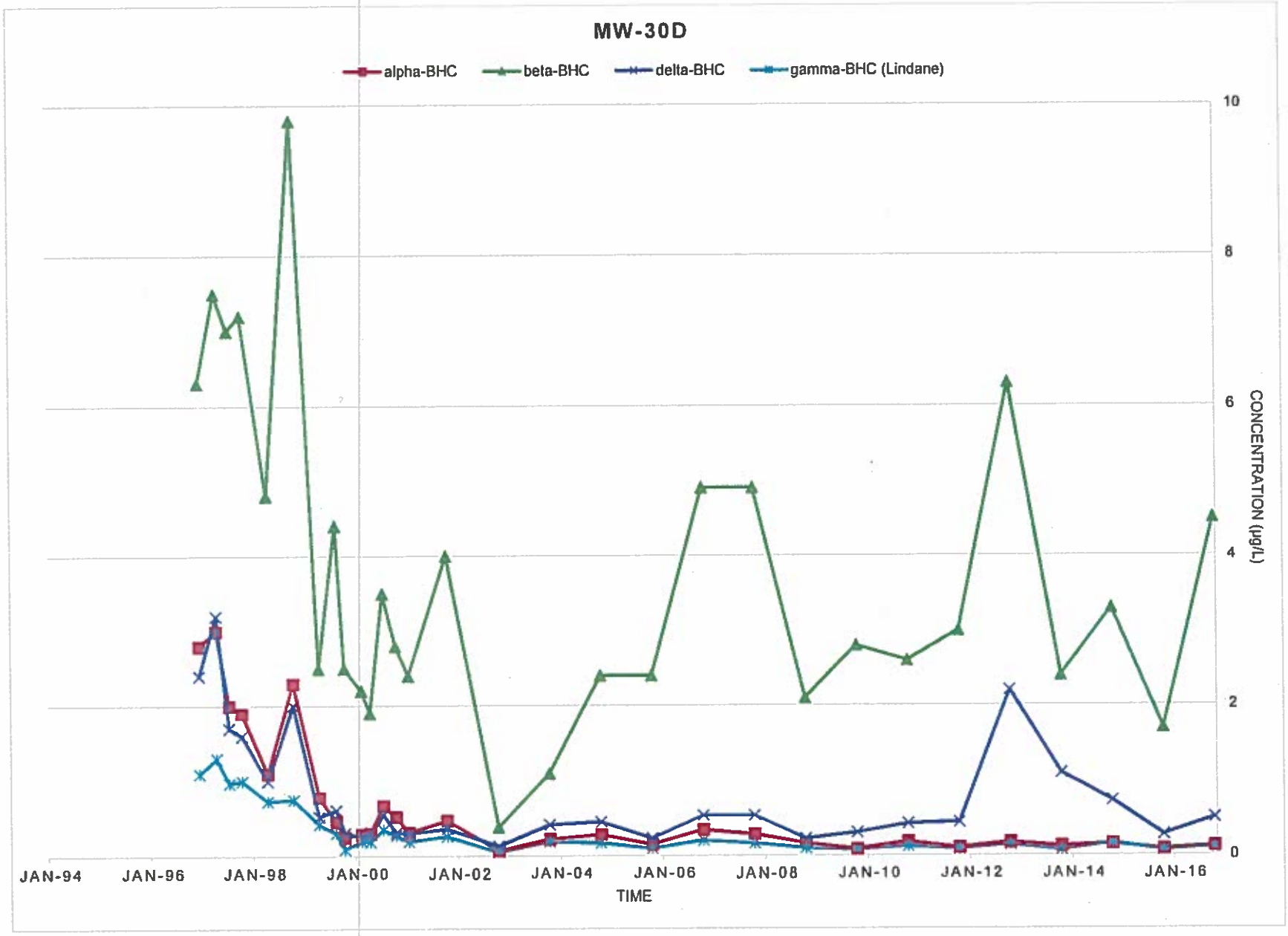

MW-18D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

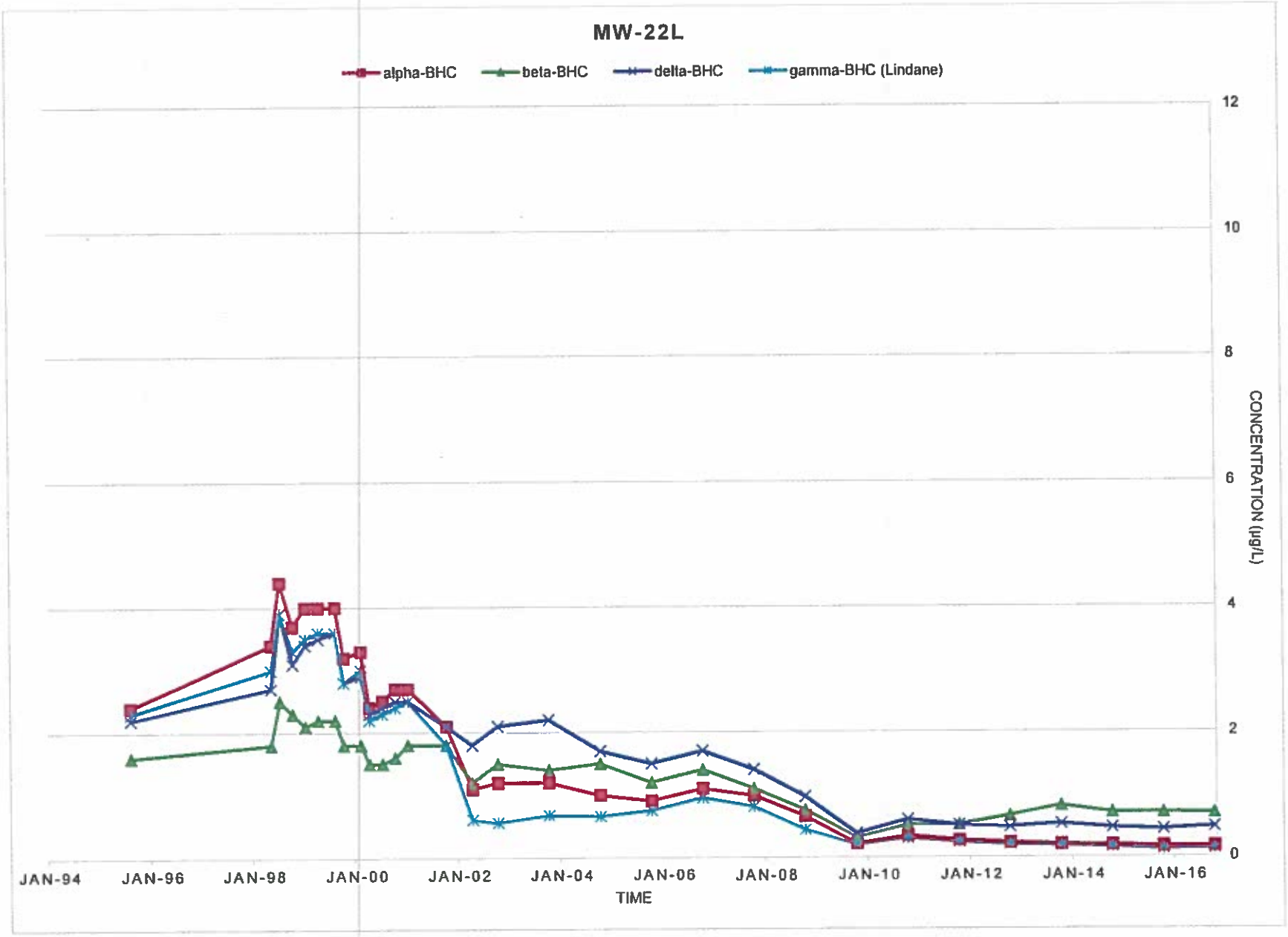

MW-20D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

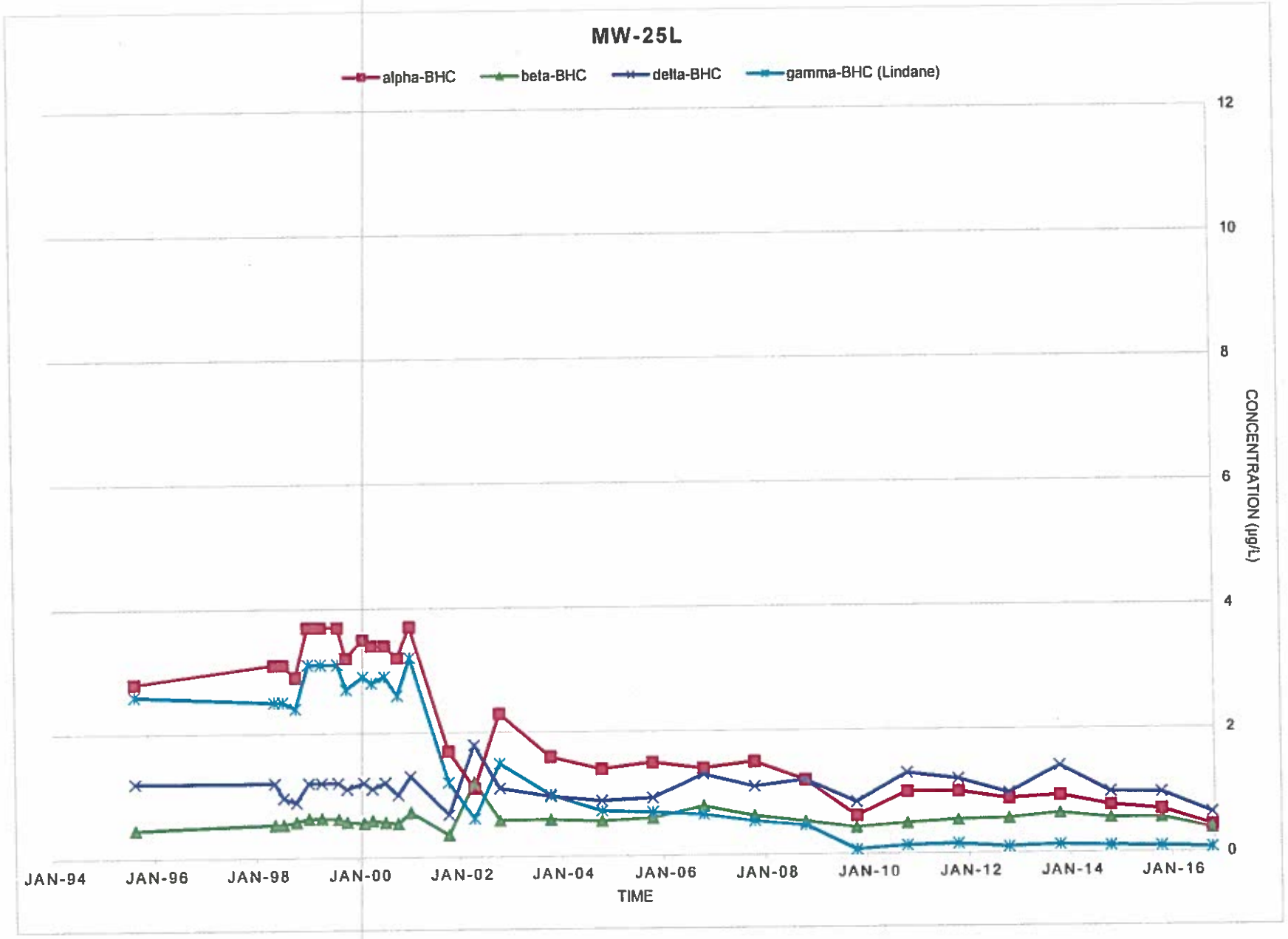

MW-22D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

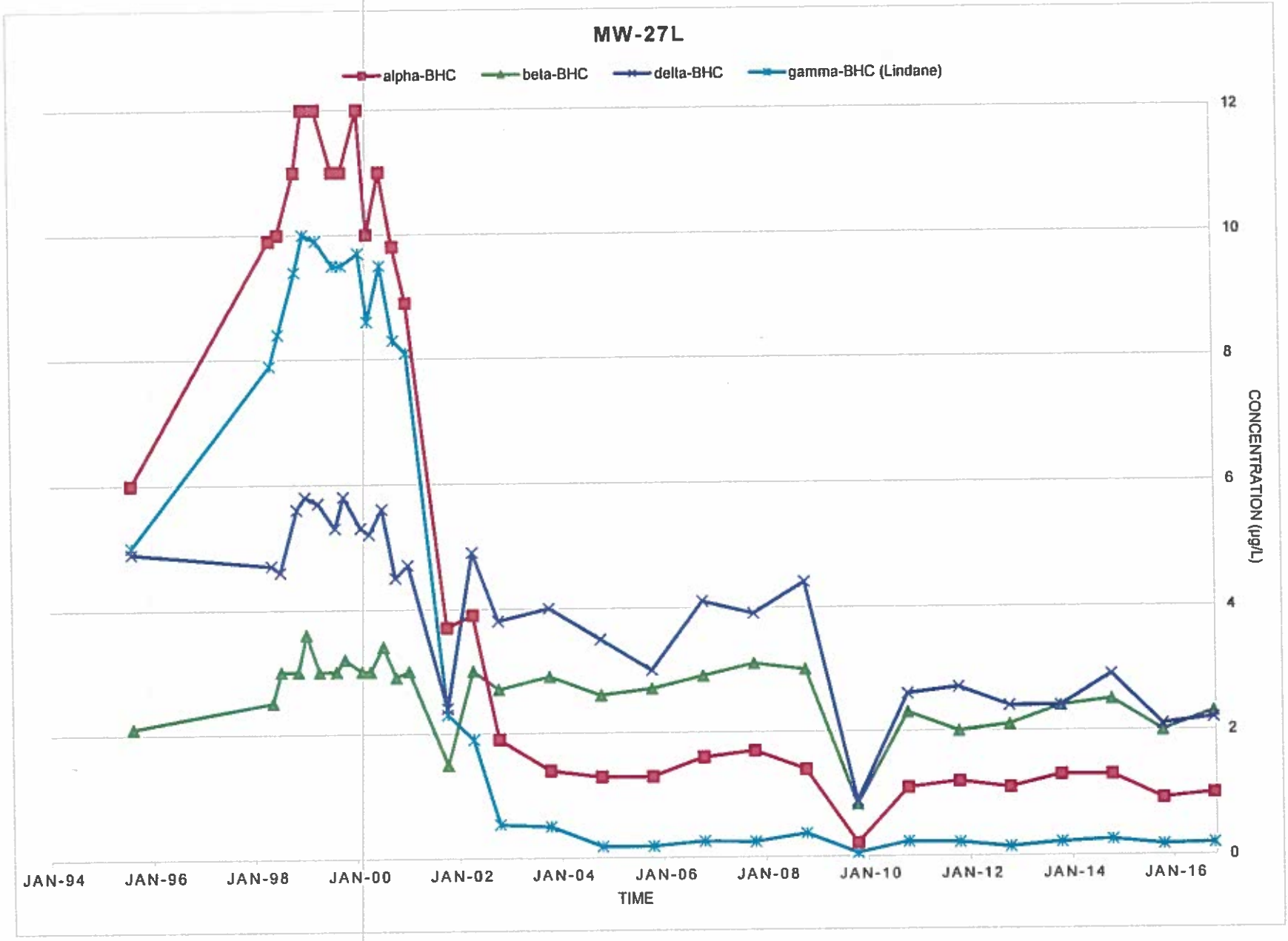

MW-23D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

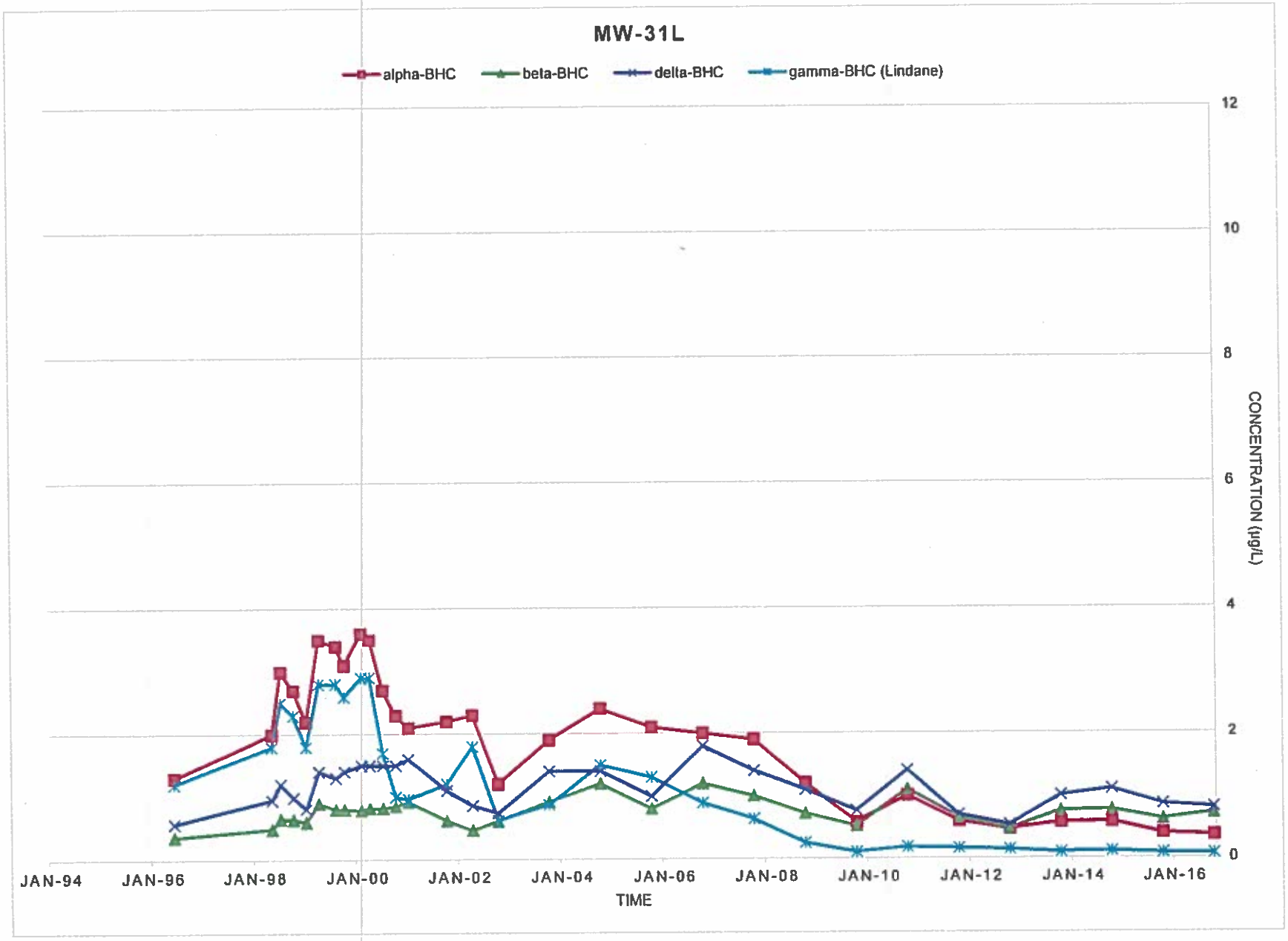

MW-26D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

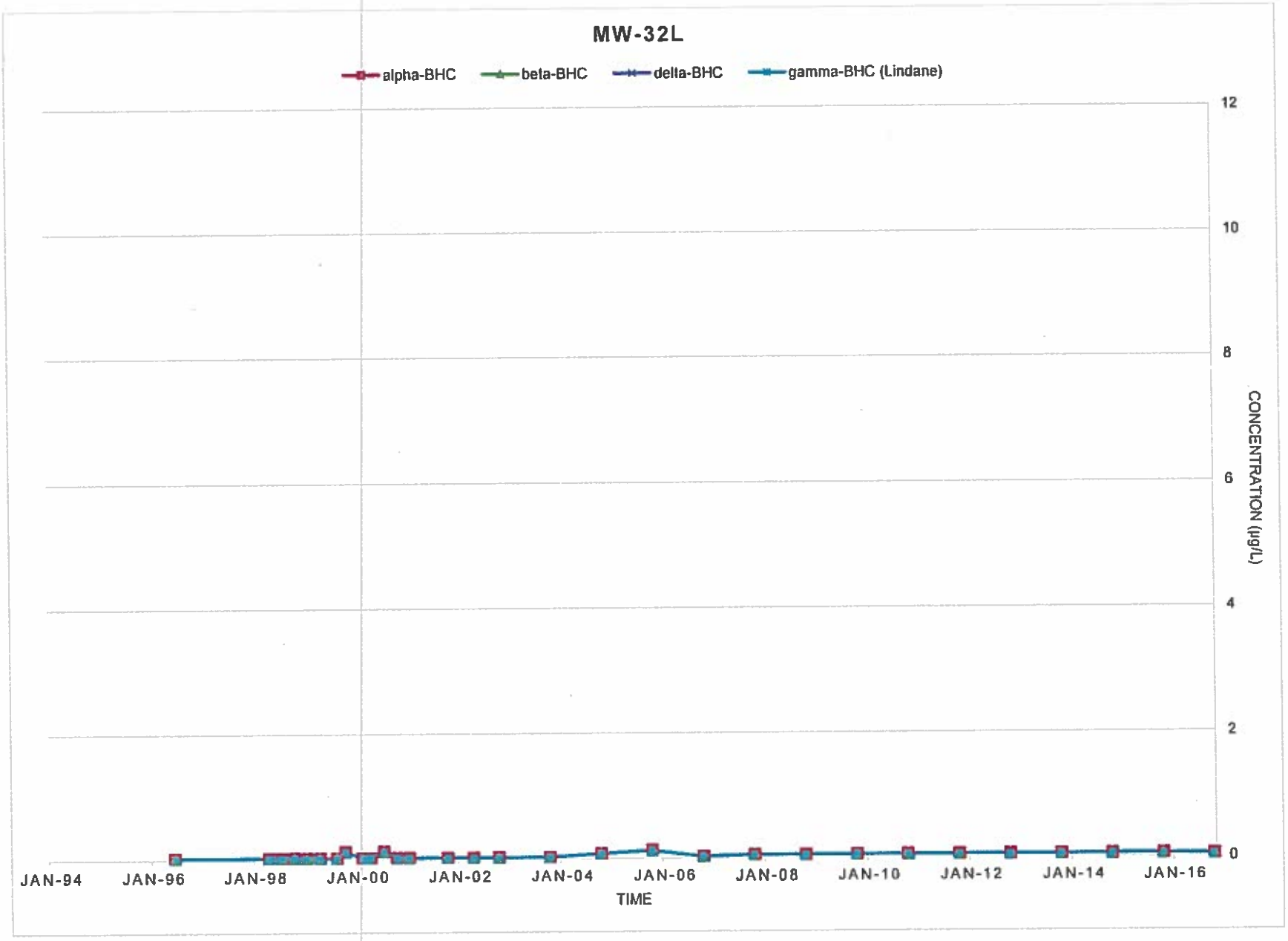

MW-30D
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

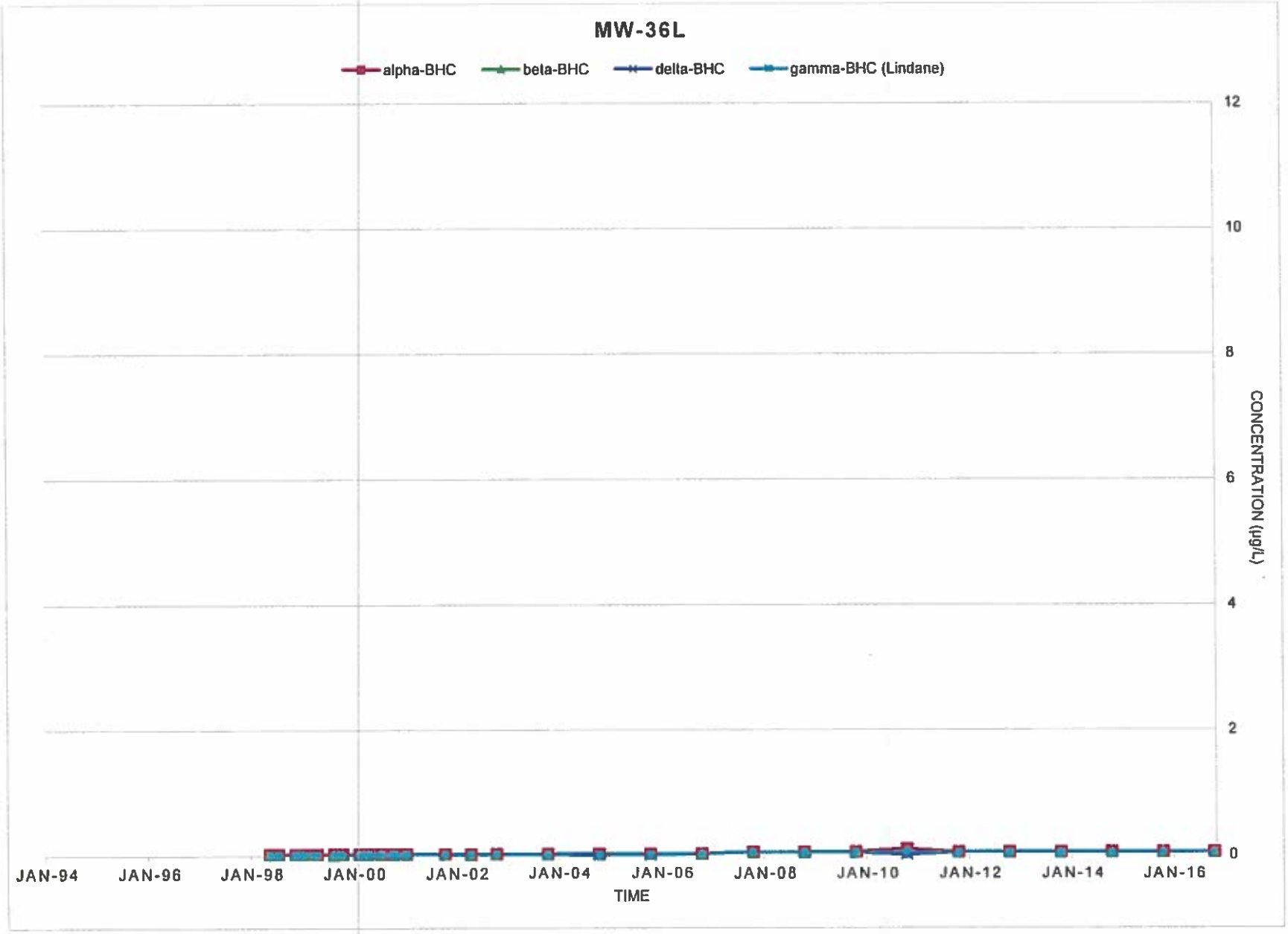

MW-22L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

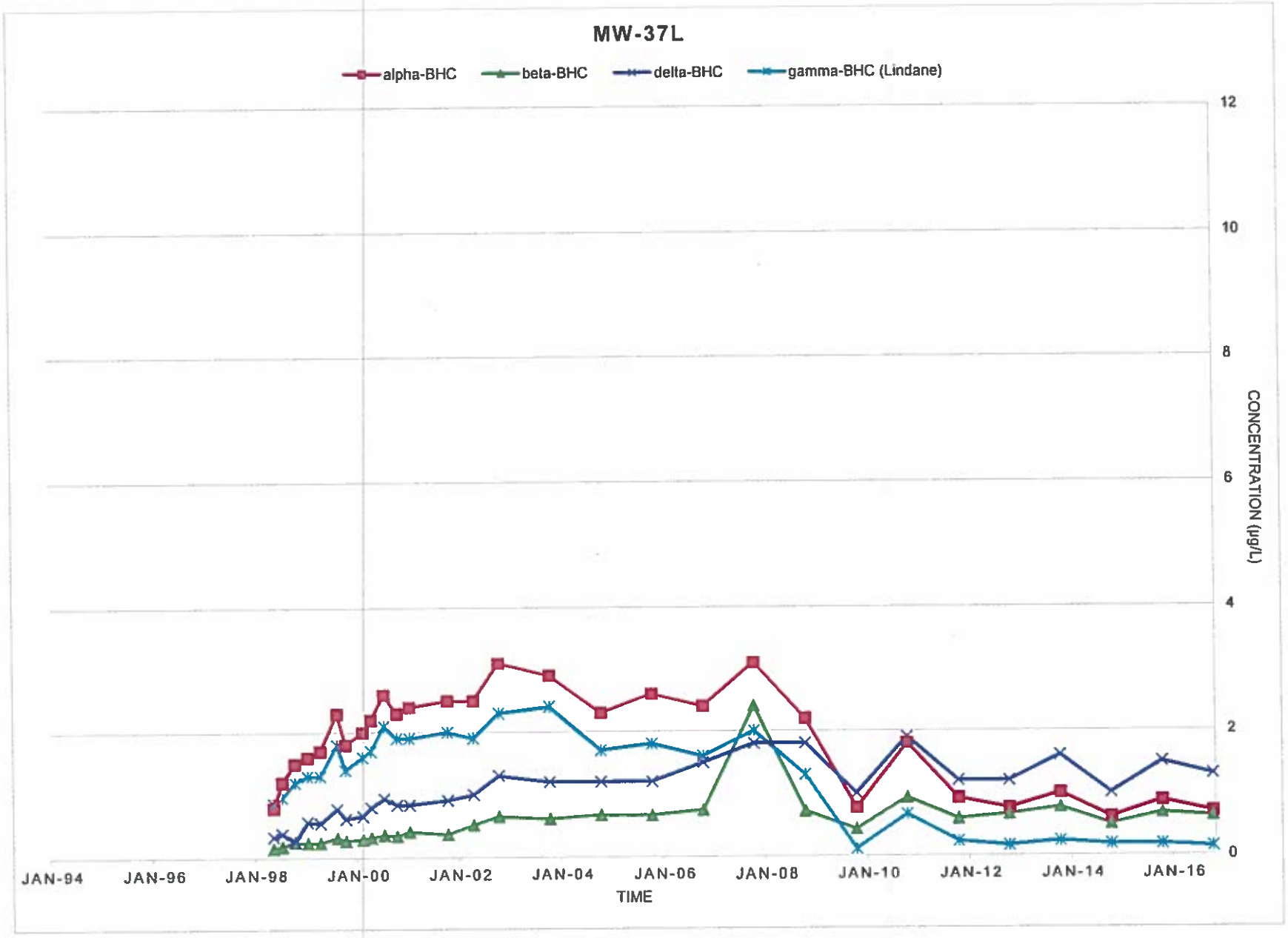

MW-25L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

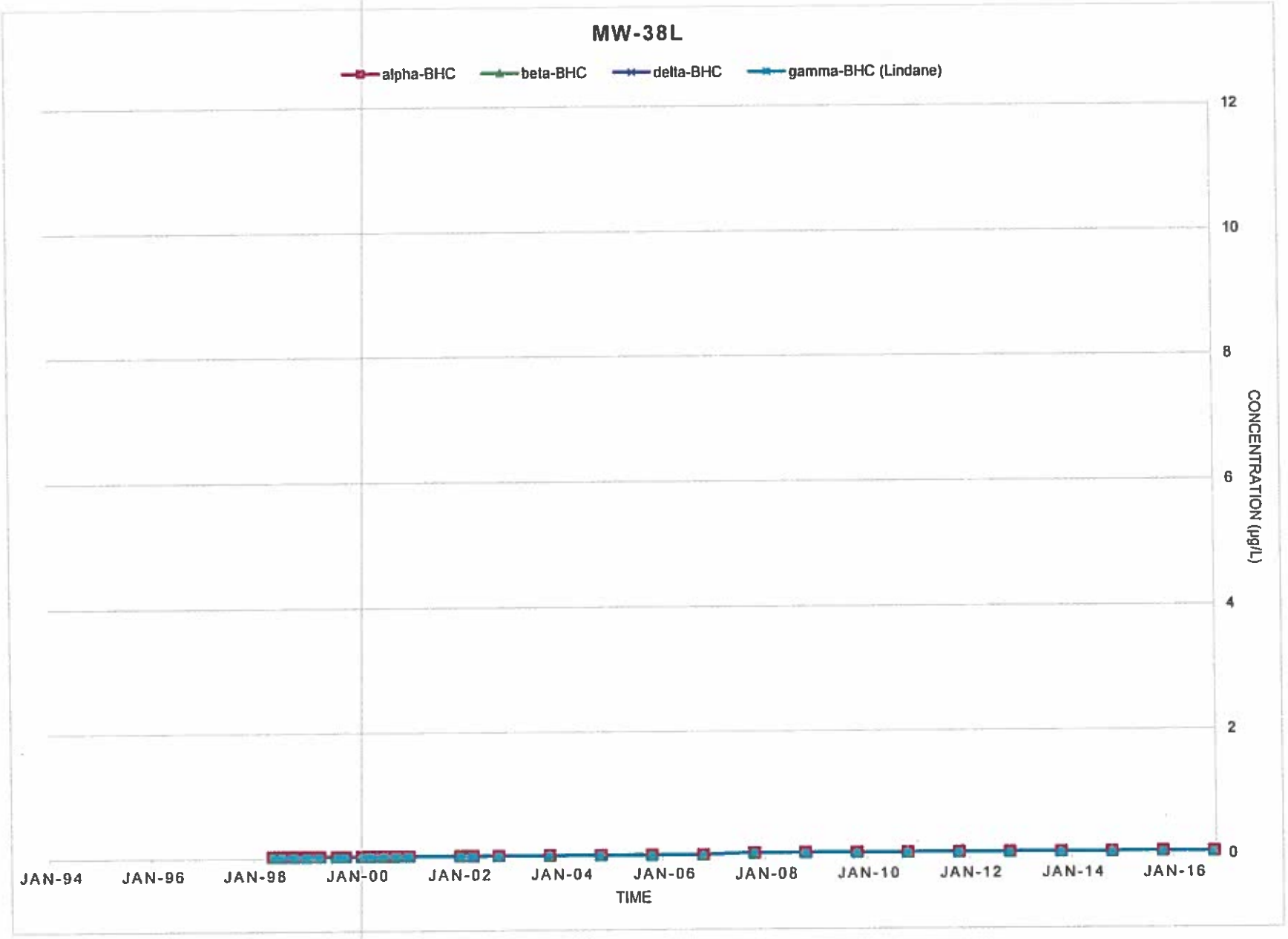

MW-27L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

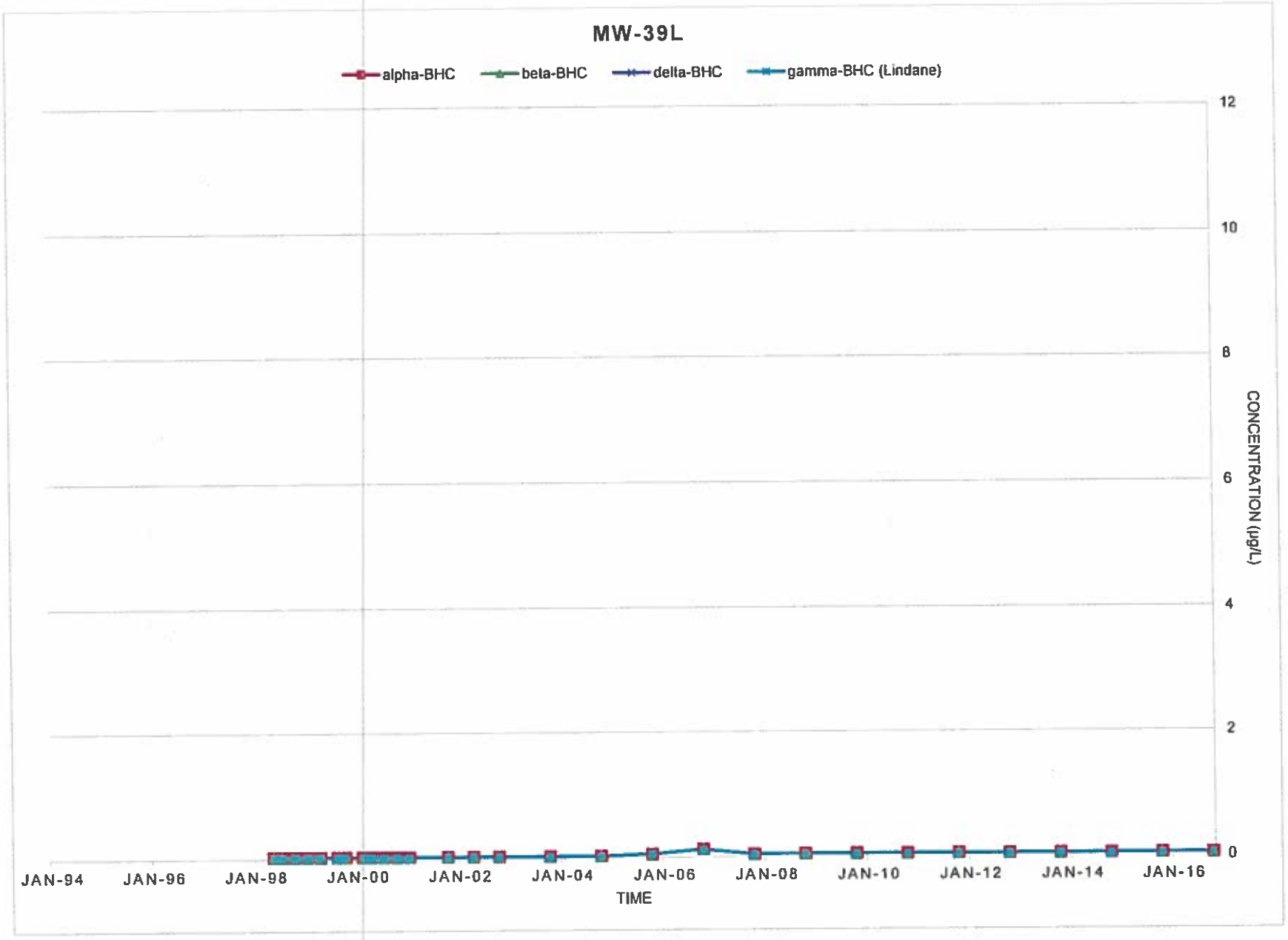

MW-31L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

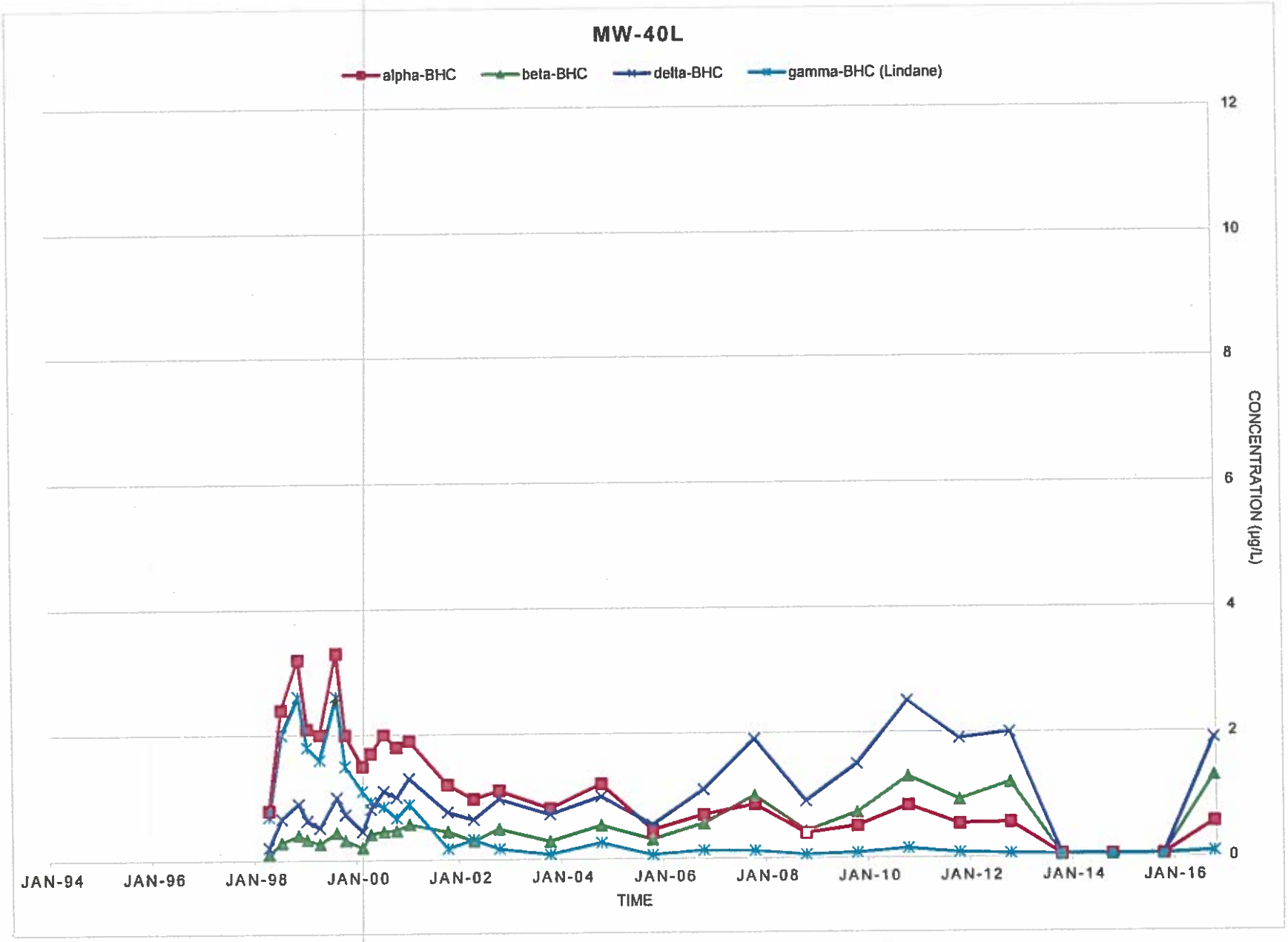

MW-32L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

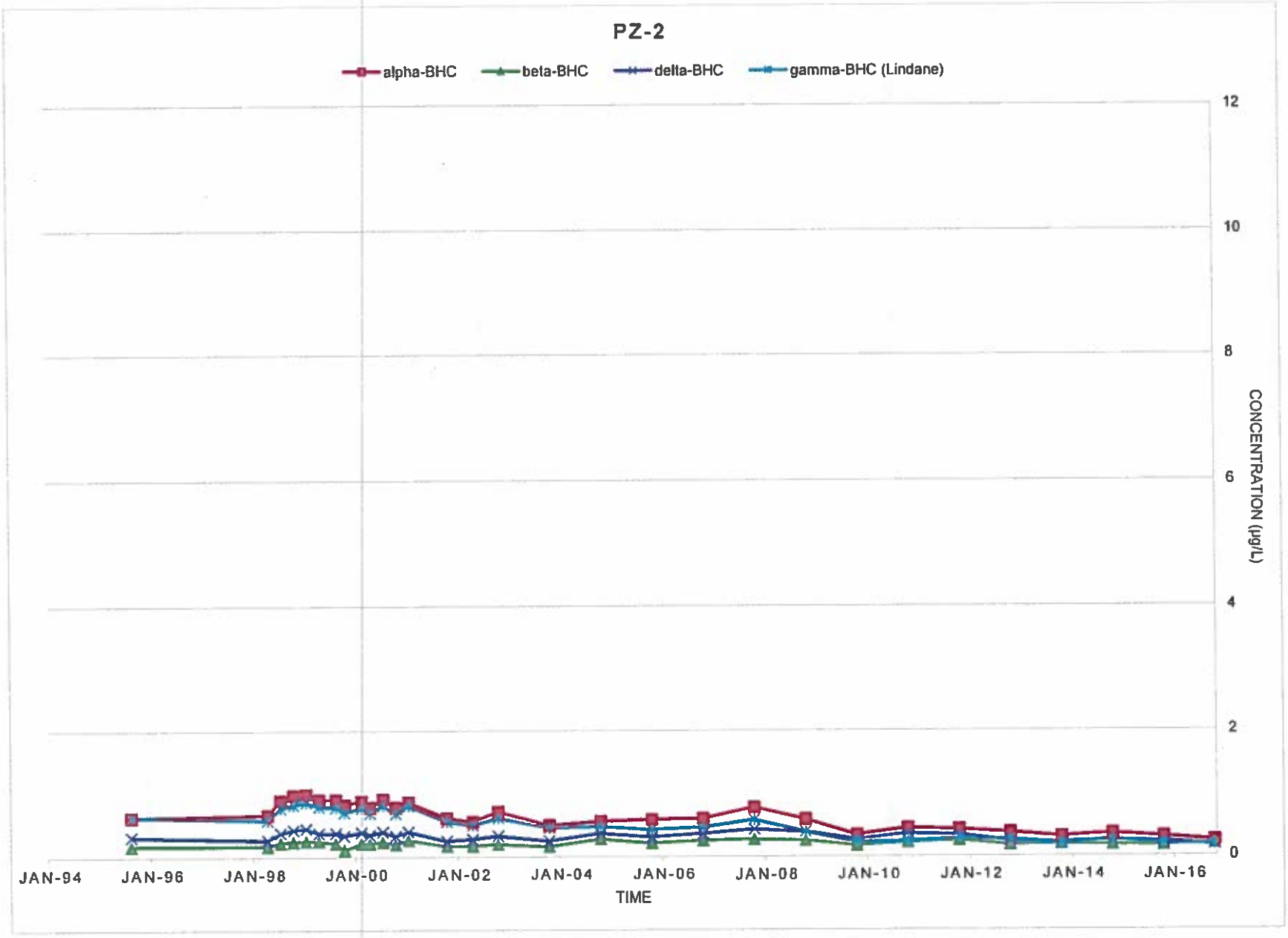

MW-36L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

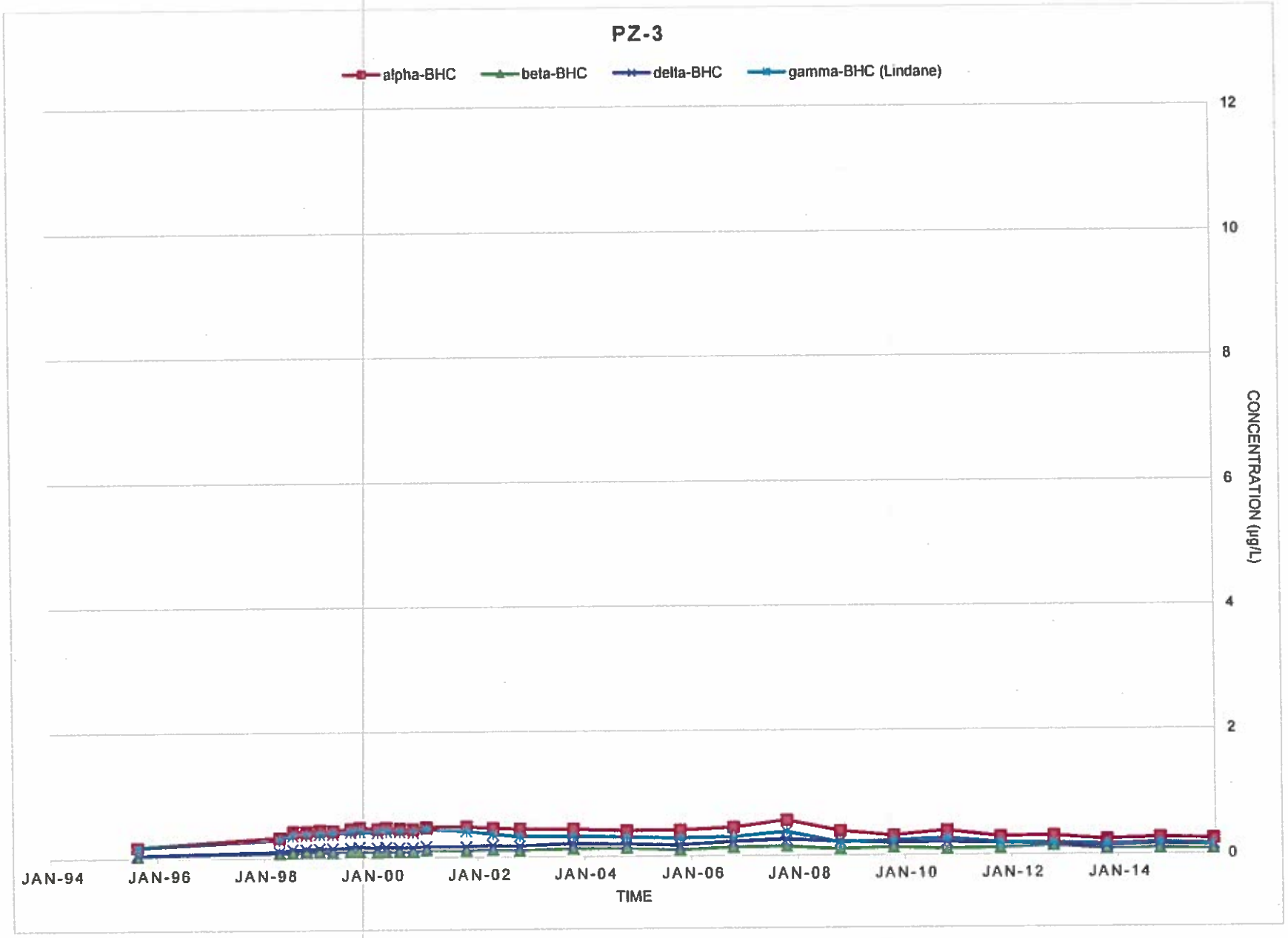

MW-37L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

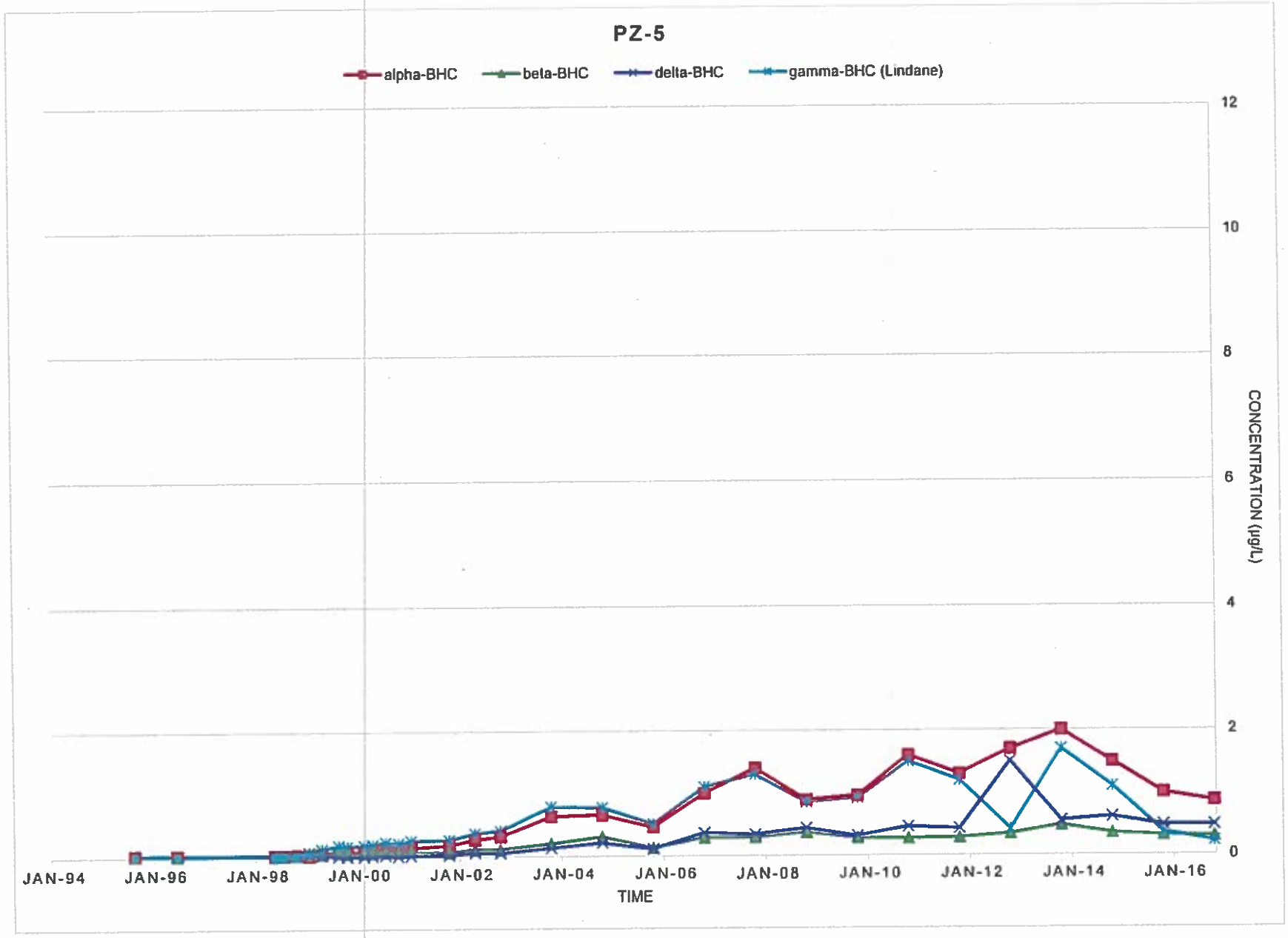

MW-38L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

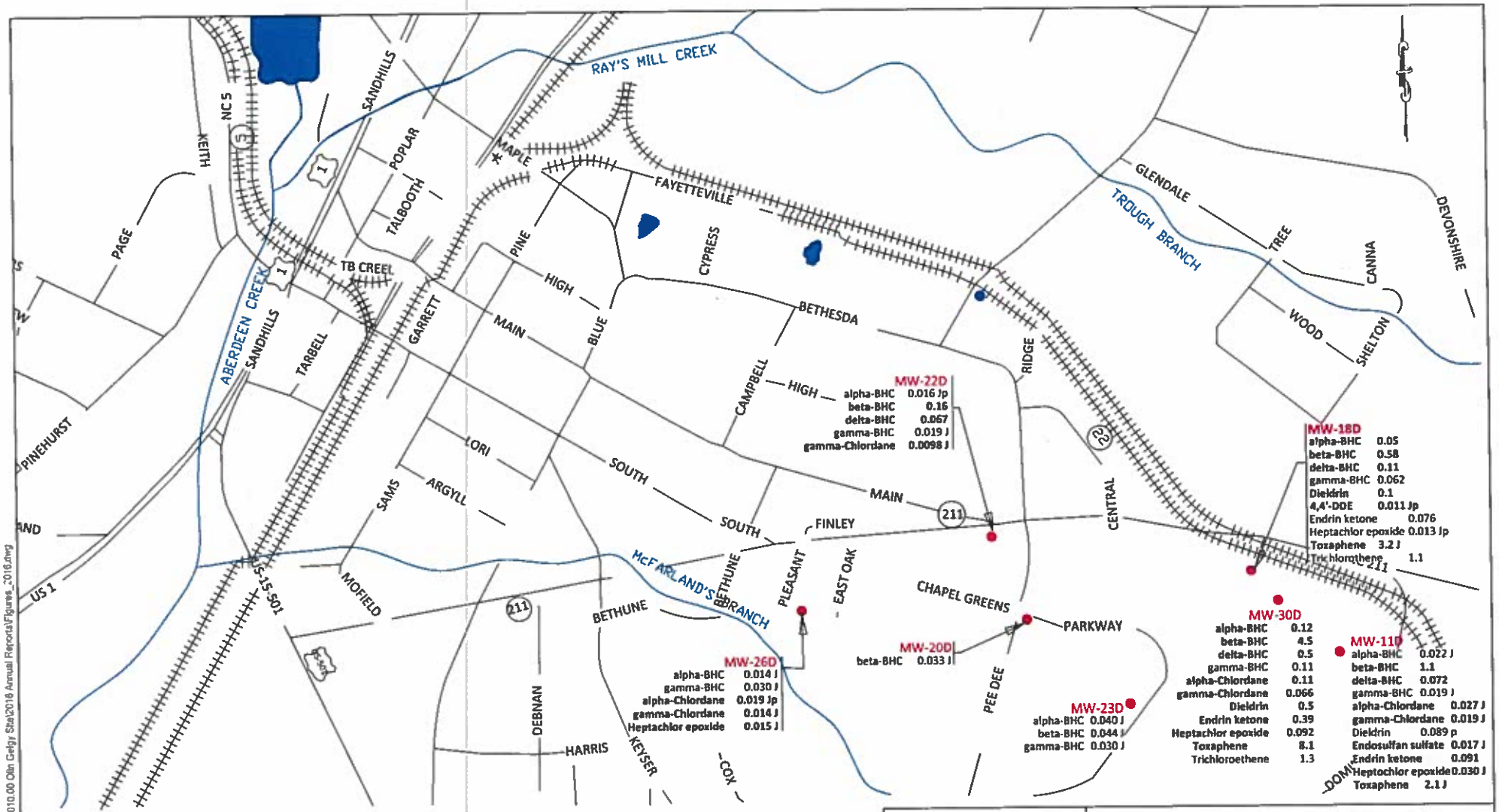

MW-39L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME

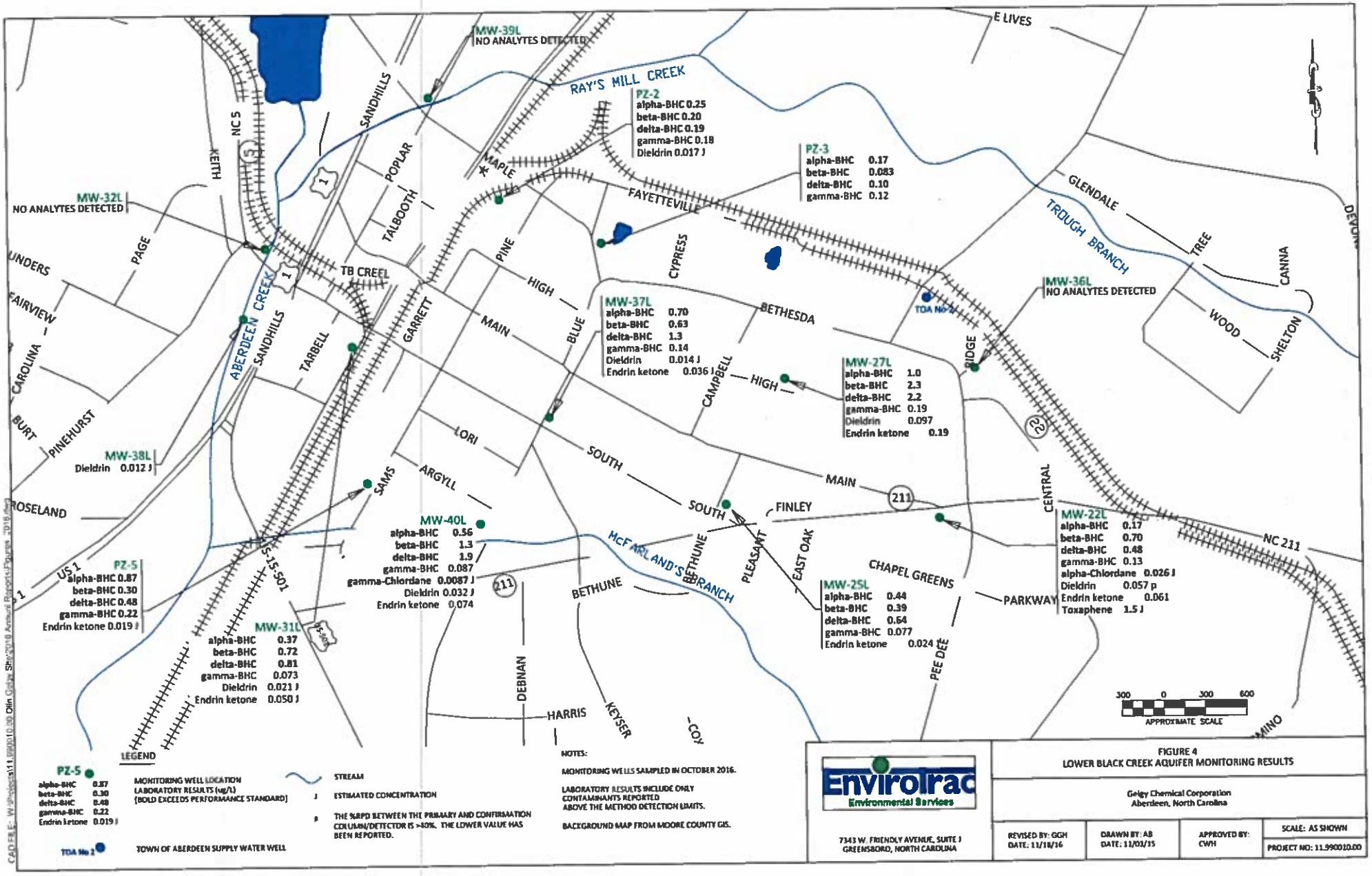

MW-40L
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME


PZ-2
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME


PZ-3
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
TIME


PZ-5
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
12
10
8
6
4
2
0
CONCENTRATION (µg/L)
JAN-94
JAN-96
JAN-98
JAN-00
JAN-02
JAN-04
JAN-06
JAN-08
JAN-10
JAN-12
JAN-14
JAN-16
TIME


RAY'S MILL CREEK
TROUGH BRANCH
ABERDEEN CREEK
McFARLAND'S BRANCH
SANDHILLS
POPLAR
TALBOOTH
MAPLE
FAYETTEVILLE
PAGE
KEITH
NC 5
TB CREEL
TARBELL
GARRETT
PINE
HIGH
MAIN
BLUE
CYPRESS
BETHESDA
CAMPBELL
LORI
ARGYLL
SAMS
SOUTH
FINLEY
MOFIELD
BETHUNE
PLEASANT
EAST OAK
CHAPEL GREENS
PARKWAY
PEE DEE
DEBNAN
HARRIS
KEYSER
COX
RIDGE
CENTRAL
GLENDALE
TREE
WOOD
SHELTON
CANNA
DEVONSHIRE
PINEHURST
US 1
US 501
211
MW-22D
alpha-BHC 0.016 Jp
beta-BHC 0.16
delta-BHC 0.067
gamma-BHC 0.019 J
gamma-Chlordane 0.0098 J
MW-18D
alpha-BHC 0.05
beta-BHC 0.58
delta-BHC 0.11
gamma-BHC 0.062
Dieldrin 0.1
4,4'-DDE 0.011 Jp
Endrin ketone 0.076
Heptachlor epoxide 0.013 Jp
Toxaphene 3.2 J
Trichloroethene 1.1
MW-30D
alpha-BHC 0.12
beta-BHC 4.5
delta-BHC 0.5
gamma-BHC 0.11
alpha-Chlordane 0.11
gamma-Chlordane 0.066
Dieldrin 0.5
Endrin ketone 0.39
Heptachlor epoxide 0.092
Toxaphene 8.1
Trichloroethene 1.3
MW-11D
alpha-BHC 0.022 J
beta-BHC 1.1
delta-BHC 0.072
gamma-BHC 0.019 J
alpha-Chlordane 0.027 J
gamma-Chlordane 0.019 J
Dieldrin 0.089 p
Endosulfan sulfate 0.017 J
Endrin ketone 0.091
Heptachlor epoxide 0.030 J
Toxaphene 2.1 J
MW-20D
beta-BHC 0.033 J
MW-26D
alpha-BHC 0.014 J
gamma-BHC 0.030 J
alpha-Chlordane 0.019 Jp
gamma-Chlordane 0.014 J
Heptachlor epoxide 0.015 J
MW-23D
alpha-BHC 0.040 J
beta-BHC 0.044 J
gamma-BHC 0.030 J
LEGEND
MW-23D
alpha-BHC 0.040 J
beta-BHC 0.044 J
gamma-BHC 0.030 J
MONITORING WELL LOCATION
LABORATORY RESULTS (ug/L)
[BOLD EXCEEDS PERFORMANCE STANDARD]
STREAM
J ESTIMATED CONCENTRATION
p THE %RPD BETWEEN THE PRIMARY AND CONFIRMATION COLUMN/DETECTOR IS >40%. THE LOWER VALUE HAS BEEN REPORTED.
NOTES:
MONITORING WELLS SAMPLED IN OCTOBER 2016.
LABORATORY RESULTS INCLUDE ONLY CONTAMINANTS REPORTED ABOVE THE METHOD DETECTION LIMITS.
BACKGROUND MAP FROM MOORE COUNTY GIS.
300 0 300 600
APPROXIMATE SCALE
EnviroTrac
Environmental Services
7343 W. FRIENDLY AVENUE, SUITE J
GREENSBORO, NORTH CAROLINA
FIGURE 3
UPPER BLACK CREEK AQUIFER MONITORING RESULTS
Geigy Chemical Corporation
Aberdeen, North Carolina
REVISED BY: GGH
DATE: 11/18/16
DRAWN BY: AB
DATE: 11/03/15
APPROVED BY: CWH
SCALE: AS SHOWN
PROJECT NO: 11.990010.00
CAD FILE: W:\Projects\11.990010.00 Olin Geigy Site\2016 Annual Reports\Figures_2016.dwg


MW-39L
NO ANALYTES DETECTED
RAY'S MILL CREEK
PZ-2
alpha-BHC 0.25
beta-BHC 0.20
delta-BHC 0.19
gamma-BHC 0.18
Dieldrin 0.017 J
PZ-3
alpha-BHC 0.17
beta-BHC 0.083
delta-BHC 0.10
gamma-BHC 0.12
MW-32L
NO ANALYTES DETECTED
MW-36L
NO ANALYTES DETECTED
MW-37L
alpha-BHC 0.70
beta-BHC 0.63
delta-BHC 1.3
gamma-BHC 0.14
Dieldrin 0.014 J
Endrin ketone 0.036 J
MW-27L
alpha-BHC 1.0
beta-BHC 2.3
delta-BHC 2.2
gamma-BHC 0.19
Dieldrin 0.097
Endrin ketone 0.19
MW-38L
Dieldrin 0.012 J
MW-40L
alpha-BHC 0.56
beta-BHC 1.3
delta-BHC 1.9
gamma-BHC 0.087
gamma-Chlordane 0.0087 J
Dieldrin 0.032 J
Endrin ketone 0.074
MW-22L
alpha-BHC 0.17
beta-BHC 0.70
delta-BHC 0.48
gamma-BHC 0.13
alpha-Chlordane 0.026 J
Dieldrin 0.057 p
Endrin ketone 0.061
Toxaphene 1.5 J
MW-25L
alpha-BHC 0.44
beta-BHC 0.39
delta-BHC 0.64
gamma-BHC 0.077
Endrin ketone 0.024
PZ-5
alpha-BHC 0.87
beta-BHC 0.30
delta-BHC 0.48
gamma-BHC 0.22
Endrin ketone 0.019 J
MW-31L
alpha-BHC 0.37
beta-BHC 0.72
delta-BHC 0.81
gamma-BHC 0.073
Dieldrin 0.021 J
Endrin ketone 0.050 J
ABERDEEN CREEK
McFARLAND'S BRANCH
TROUGH BRANCH
TB CREEL
E LIVES
GLENDALE
TREE
CANNA
WOOD
SHELTON
DEVON
FAYETTEVILLE
CYPRESS
BETHESDA
RIDGE
CAMPBELL
HIGH
MAIN
BLUE
PINE
MAPLE
POPLAR
TALBOOTH
SANDHILLS
TARBELL
GARRETT
LORI
ARGYLL
SAMS
SOUTH
FINLEY
CENTRAL
NC 211
CHAPEL GREENS
PARKWAY
PEE DEE
EAST OAK
PLEASANT
BETHUNE
DEBNAN
HARRIS
KEYSER
COY
MINO
US 1
US-15-501
NC 5
KEITH
PAGE
UNDERS
FAIRVIEW
CAROLINA
BURT
PINEHURST
ROSELAND
TDA No 2
300 0 300 600
APPROXIMATE SCALE
LEGEND
PZ-5
alpha-BHC 0.87
beta-BHC 0.30
delta-BHC 0.48
gamma-BHC 0.22
Endrin ketone 0.019 J
MONITORING WELL LOCATION
LABORATORY RESULTS (ug/L)
(BOLD EXCEEDS PERFORMANCE STANDARD)
TDA No 2
TOWN OF ABERDEEN SUPPLY WATER WELL
STREAM
J ESTIMATED CONCENTRATION
p THE %RPD BETWEEN THE PRIMARY AND CONFIRMATION COLUMN/DETECTOR IS >40%. THE LOWER VALUE HAS BEEN REPORTED.
NOTES:
MONITORING WELLS SAMPLED IN OCTOBER 2016.
LABORATORY RESULTS INCLUDE ONLY CONTAMINANTS REPORTED ABOVE THE METHOD DETECTION LIMITS.
BACKGROUND MAP FROM MOORE COUNTY GIS.
EnviroTrac
Environmental Services
7343 W. FRIENDLY AVENUE, SUITE J
GREENSBORO, NORTH CAROLINA
FIGURE 4
LOWER BLACK CREEK AQUIFER MONITORING RESULTS
Geigy Chemical Corporation
Aberdeen, North Carolina
REVISED BY: GGH
DATE: 11/18/16
DRAWN BY: AB
DATE: 11/03/15
APPROVED BY: CWH
SCALE: AS SHOWN
PROJECT NO: 11.990010.00

ATTACHMENT 5

GW-59 FORMS
AND
LABORATORY REPORTS AND CHAIN-OF-CUSTODY

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

Please Print Clearly or Type

FACILITY INFORMATION

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent

Date sample collected: 1/27/16

Well Depth: ft.

Well Diameter: in.

Depth to Water Level: ft. below measuring point

Screened Interval: ft. to ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 2/1/16 TCE, 2/2/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
TCE 0.93J, alpha-BHC 0.055, beta-BHC 2.8, delta-BHC 0.44, gamma-BHC 0.037Jp, Dieldrin 0.32, Endrin ketone 0.28, Toxaphene 5.7 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260
Pest & Biphenyls, method # 8081B/8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00093J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) (Date)

GW-59 Rev. 1/2007

ATTACHMENT 6

2016 MONTHLY WINDSHIELD SURVEY

Reconnaissance for New Construction within Area of Plume

Project: Geigy Superfund Site
Location: Aberdeen, NC
Project No.: 11.990010.00

Date: January to December 2016
Data Collected by: CWH

Date	Address	Property Description
01/27/16		No observed change
02/18/16		No observed change
03/30/16		No observed change
04/28/16		No observed change
05/17/16		No observed change
06/14/16		No observed change
06/24/16		No observed change
07/12/16		No observed change
08/03/16		No observed change
09/13/16		No observed change
10/04/16	Campbell	New homes on Campbell between High and Bethesda
11/17/16		No observed change
12/21/16		No observed change

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent Date sample collected: 1/27/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 2/1/16 TCE, 2/2/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
TCE 0.93J, alpha-BHC 0.055, beta-BHC 2.8, delta-BHC 0.44, gamma-BHC 0.037Jp, Dieldrin 0.32, Endrin ketone 0.28, Toxaphene 5.7 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B/8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00093J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

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Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent Date sample collected: 2/19/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 3/1/16 TCE, 2/26/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
TCE 0.77J, alpha-BHC 0.053, beta-BHC 2.6, delta-BHC 0.37, gamma-BHC 0.037Jp, Dieldrin 0.33, Endrin ketone 0.35, Heptachlor epoxide 0.086, Toxaphene 6.3 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC	method # 8260
Pest & Biphenyls	method # 8081B/8082A
	method #
	method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00077J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

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GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent Date sample collected: 4/28/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/9/16 TCE, 5/3/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
alpha-BHC 0.042J, beta-BHC 2.3, delta-BHC 0.45, gamma-BHC 0.032Jp, Dieldrin 0.33B, Endrin ketone 0.23, Heptachlor epoxide 0.055pB, Toxaphene 7.3 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260
Pest & Biphenyls, method # 8081B/8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent Date sample collected: 5/17/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/25/16 TCE, 5/24/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE 0.73J ug/L	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B/8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00073J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent Date sample collected: 6/24/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 6/29/16 TCE, 7/8/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
Aldrin 0.0479, alpha-BHC 0.0385, beta-BHC 1.94, delta-BHC 0.301, gamma-BHC 0.0498, 4,4'-DDE 0.0885, Dieldrin 0.284, Endosulfan II 0.178, Endrin ketone 0.186 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B/8082A
, method #
, method #

For RemediationSystemsOnly (AttachLabReports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent
Date sample collected: 7/12/16
Well Depth: ft.
Well Diameter: in.
Depth to Water Level: ft. below measuring point
Screened Interval: ft. to ft.
Measuring Point is ft. above land surface
Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 7/15/16 TCE, 7/20/16 PEST
Laboratory Name: Test America
Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
TCE 0.66J, beta-BHC 2.1, delta-BHC 0.37, 4,4'-DDE 0.069J, Dieldrin 0.24p, Endrin ketone 0.16 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B/8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00066J mg/L Effluent Total VOCs: <0.00020 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Influent

Date sample collected: 10/4/16

Well Depth: ft.

Well Diameter: in.

Depth to Water Level: ft. below measuring point

Screened Interval: ft. to ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/13/16 TCE, 10/12/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
TCE 0.53J, Aldrin 0.018Jp, alpha-BHC 0.072, beta-BHC 3.2, delta-BHC 0.46, gamma-BHC 0.083, alpha-Chlordane 0.094, Dieldrin 0.36, Endrin ketone 0.22, Heptachlor epoxide 0.054p, Toxaphene 6.7 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260
Pest & Biphenyls, method # 8081B/8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00053J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent Date sample collected: 1/27/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 2/1/16 TCE, 2/2/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	beta-BHC 0.059 ug/L	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen: NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00093J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent

Date sample collected: 2/19/16

Well Depth: ft.

Well Diameter: in.

Depth to Water Level: ft. below measuring point

Screened Interval: ft. to ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here. ☐

LABORATORY INFORMATION

Date sample analyzed: 3/1/16 TCE, 2/26/16 PEST

Laboratory Name: Test America

Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00077J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17 (Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent

Date sample collected: 4/28/16

Well Depth: ft.

Well Diameter: in.

Depth to Water Level: ft. below measuring point

Screened Interval: ft. to ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/9/16 TCE, 5/3/16 PEST

Laboratory Name: Test America

Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
beta-BHC 0.057, Dieldrin 0.032JB, Endrin ketone 0.024J (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC	, method #	8260	
Pest & Biphenyls	, method #	8081B | 8082A	
	, method #		
	, method #		

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent Date sample collected: 5/17/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/25/16 TCE, 5/24/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):

beta-BHC 0.12, delta-BHC 0.017J, gamma-Chlordane 0.0059 Jp, Dieldrin 0.076, Endrin ketone 0.043J, Toxaphene 1.1J (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)

(Specify test and method #. ATTACH LAB REPORT.)

Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260

Pest & Biphenyls, method # 8081B | 8082A

, method #

, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00073J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17

(Date)

GW-59 Rev. 1/2007

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent Date sample collected: 6/24/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 6/29/16 TCE, 7/11/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
beta-BHC 0.0849, Dieldrin 0.0303p, Endrin ketone 0.0226

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B | 8082A
, method #
, method #

For Remediation Systems Only(Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent

Date sample collected: 7/12/16

Well Depth: ft.

Well Diameter: in.

Depth to Water Level: ft. below measuring point

Screened Interval: ft. to ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 7/15/16 TCE, 7/20/16 PEST

Laboratory Name: Test America

Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen: NH_3 as N; Ammonia Nitrogen: Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00066J mg/L Effluent Total VOCs: <0.00020 mg/L VOC Removal% 100

I certify that to the best of my knowledge and belief the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17 (Date)

GW-59 Rev. 1/2007

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Effluent Date sample collected: 10/4/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/13/16 TCE, 10/12/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units): beta-BHC 0.20, delta-BHC 0.017Jp, alpha-Chlordane 0.014J, gamma-Chlordane 0.013J, Dieldrin 0.074, Endrin ketone 0.051, Toxaphene 1.1J (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)

(Specify test and method #. ATTACH LAB REPORT.)

Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260

Pest & Biphenyls, method # 8081B | 8082A

, method #

, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00053J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-1 Date sample collected: 1/27/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 2/1/16 TCE, 2/2/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00093J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-2 Date sample collected: 2/19/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 3/1/16 TCE, 2/26/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00077J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-1 Date sample collected: 4/28/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/9/16 TCE, 5/3/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen: NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

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Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-2 Date sample collected: 5/17/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/25/16 TCE, 5/24/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen: NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
beta-BHC 0.025J, Dieldrin 0.0083J, Endrin ketone 0.0075J (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260
Pest & Biphenyls, method # 8081B | 8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00073J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-2 Date sample collected: 6/24/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 6/29/16 TCE, 7/7/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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2/13/17
(Date)

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-1 Date sample collected: 7/12/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 7/15/16 TCE, 7/19/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00066J mg/L Effluent Total VOCs: <0.00020 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon A-1 Date sample collected: 10/4/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/13/16 TCE, 10/12/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
beta-BHC 0.076, Dieldrin 0.018J, Endrin
ketone 0.010Jp (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B | 8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00053J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-2 Date sample collected: 1/27/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 2/1/16 TCE, 2/2/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00093J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-3 Date sample collected: 2/19/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 3/1/16 TCE, 2/26/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	beta-BHC 0.085, delta-BHC 0.015J (all in ug/L)	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen: NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00077J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation

Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17

(Date)

GW-59 Rev. 1/2007

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-2 Date sample collected: 4/28/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/9/16 TCE, 5/3/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen: NH_3 as N, Ammonia Nitrogen: Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
beta-BHC 0.085, delta-BHC 0.011J, Dieldrin 0.062B, Endrin ketone 0.043J, Heptachlor epoxide 0.0055JpB, Toxaphene 0.92J (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)

VOC	, method #	8260	
Pest & Biphenyls	, method #	8081B | 8082A	
	, method #		
	, method #		

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-3 Date sample collected: 5/17/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 5/25/16 TCE, 5/24/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units): alpha-BHC 0.062, beta-BHC 2.9, delta-BHC 0.56, gamma-BHC 0.043Jp, Dieldrin 0.48, Endrin ketone 0.29, Toxaphene 9.9 (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B | 8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00073J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-3 Date sample collected: 6/24/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 6/29/16 TCE, 7/7/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE, PEST - all BQL	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: <0.001 mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-2 Date sample collected: 7/12/16

Well Depth: ft. Well Diameter: in.

Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: ft.

Volume of water pumped/bailed before sampling: gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH units Temp. °C

Spec. Cond. µMhos

Odor

Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 7/15/16 TCE, 7/20/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE 0.42J, beta-BHC 1.1, delta-BHC 0.18,	
pH (when analyzed)	units	Ba - Barium	mg/l	Dieldrin 0.12p, Endrin ketone 0.083J (all ug/L)	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B | 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00066J mg/L Effluent Total VOCs: <0.00020 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): Carbon B-2 Date sample collected: 10/4/16
Well Depth: ft. Well Diameter: in.
Depth to Water Level: ft. below measuring point Screened Interval: ft. to ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: ft.
Volume of water pumped/bailed before sampling: gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH units Temp. °C
Spec. Cond. µMhos
Odor
Appearance

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/13/16 TCE, 10/12/16 PEST Laboratory Name: Test America Certification No.

PARAMETERS **NOTE: Values should reflect dissolved and colloidal concentrations.**

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
Aldrin 0.0084Jp, alpha-BHC 0.046J, alpha-Chlordane 0.049, beta-BHC 1.8, delta-BHC 0.30, Dieldrin 0.23, Endrin ketone 0.16, gamma-BHC 0.048, Heptachlor epoxide 0.033J, Toxaphene 3.9J (all ug/L)

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
VOC, method # 8260
Pest & Biphenyls, method # 8081B | 8082A
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: 0.00053J mg/L Effluent Total VOCs: <0.001 mg/L VOC Removal% 100

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to:

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DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-4S

Date sample collected: 10/5/16

Well Depth: 41.97 ft.

Well Diameter: 2 in.

Depth to Water Level: 34.95 ft. below measuring point

Screened Interval: 31.9 ft. to 41.9 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 473.49 ft.

Volume of water pumped/bailed before sampling: 0.5 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.68 units Temp. 17.89 °C

Spec. Cond. 97 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8085A	
Total Ammonia (Ammonia Nitrogen: NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Please Print Clearly or Type

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Permit Name (if different):

Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-5S

Date sample collected: 10/5/16

Well Depth: 47.44 ft.

Well Diameter: 2 in.

Depth to Water Level: 38.89 ft. below measuring point

Screened Interval: 37.4 ft. to 47.4 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 471.36 ft.

Volume of water pumped/bailed before sampling: 0.5 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.22 units Temp. 17.68 °C

Spec. Cond. 48 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B /8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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2/13/17

(Date)

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Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-6S
Date sample collected: 10/5/16
Well Depth: 47.01 ft.
Well Diameter: 2 in.
Depth to Water Level: 41.15 ft. below measuring point
Screened Interval: 37. ft. to 47.0 ft.
Measuring Point is ft. above land surface
Relative M.P. Elevation: 464.73 ft.
Volume of water pumped/bailed before sampling: 0.75 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 3.88 units Temp. 18.80 °C
Spec. Cond. 145 µMhos
Odor None
Appearance Slightly Cloudy

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenlys, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

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FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-10S
Date sample collected: 10/5/16
Well Depth: 41.36 ft.
Well Diameter: 2 in.
Depth to Water Level: 25.53 ft. below measuring point
Screened Interval: 31.3 ft. to 41.3 ft.
Measuring Point is ft. above land surface
Relative M.P. Elevation: 461.50 ft.
Volume of water pumped/bailed before sampling: 10.5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 4.64 units Temp. 17.44 °C
Spec. Cond. 29 µMhos
Odor None
Appearance Slightly Cloudy

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 PEST, 10/13/16 TCE
Laboratory Name: Test America
Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l	TCE - Results attached	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenlys, method # 8081B / 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-16S Date sample collected: 10/4/16

Well Depth: 68.04 ft. Well Diameter: 2 in.

Depth to Water Level: 46.02 ft. below measuring point Screened Interval: 58. ft. to 68. ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: 484.58 ft.

Volume of water pumped/bailed before sampling: 5.0 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.31 units Temp. 17.50 °C

Spec. Cond. 63 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 PEST, 10/13/16 TCE Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l	TCE - Results attached	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenlys, method # 8081B / 8082B	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-17S
Date sample collected: 10/4/16
Well Depth: 59.42 ft.
Well Diameter: 2 in.
Depth to Water Level: 46.37 ft. below measuring point
Screened Interval: 49.4 ft. to 59.4 ft.
Measuring Point is ft. above land surface
Relative M.P. Elevation: 480.22 ft.
Volume of water pumped/bailed before sampling: 5.25 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 4.46 units Temp. 17.61 °C
Spec. Cond. 66 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 PEST, 10/13/16 TCE
Laboratory Name: Test America
Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l	TCE - Results attached	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenlys, method # 8081B / 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) (Street) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-18S

Date sample collected: 10/4/16

Well Depth: 49.75 ft.

Well Diameter: 2 in.

Depth to Water Level: 47.63 ft. below measuring point

Screened Interval: 39.7 ft. to 49.7 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 467.83 ft.

Volume of water pumped/bailed before sampling: 0.4 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.03 units Temp. 20.21 °C

Spec. Cond. 94 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 PEST, 10/13/16 TCE

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):

TCL Pesticides - Results attached

TCE - Results attached

ORGANICS: (by GC, GC/MS, HPLC)

(Specify test and method #. ATTACH LAB REPORT.)

Report Attached? ☒ Yes (1) ☐ No (0)

VOC, method # 8260

Pest & Biphenlys, method # 8081B / 8082A

, method #

, method #

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FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-11D Date sample collected: 10/4/16
Well Depth: 75.39 ft. Well Diameter: 2 in.
Depth to Water Level: 69.31 ft. below measuring point Screened Interval: 65 ft. to 75 ft.
Measuring Point is ____ ft. above land surface Relative M.P. Elevation: 463.41 ft.
Volume of water pumped/bailed before sampling: 2.5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 3.98 units Temp. 17.35 °C
Spec. Cond. 16 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 PEST, 10/13/16 TCE Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l	TCE - Results attached	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☐ Yes (1) ☒ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenlys, method # 8081B / 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-16D

Date sample collected: 10/4/16

Well Depth: 123.57 ft.

Well Diameter: 2 in.

Depth to Water Level: 92.82 ft. below measuring point

Screened Interval: 113 ft. to 123 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 487.55 ft.

Volume of water pumped/bailed before sampling: 0.75 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.24 units Temp. 18.52 °C

Spec. Cond. 38 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/13/16

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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FACILITY INFORMATION

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Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-17D

Date sample collected: 10/4/16

Well Depth: 123.17 ft.

Well Diameter: 2 in.

Depth to Water Level: 94.65 ft. below measuring point

Screened Interval: 113 ft. to 123 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 489.60 ft.

Volume of water pumped/bailed before sampling: 4 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.39 units Temp. 17.65 °C

Spec. Cond. 27 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/14/16

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen: NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-18D Date sample collected: 10/5/16

Well Depth: 72.36 ft. Well Diameter: 2 in.

Depth to Water Level: 56.20 ft. below measuring point Screened Interval: 62.6 ft. to 72.3 ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: 447.41 ft.

Volume of water pumped/bailed before sampling: 3 gallons

Samples for **metals** were collected **unfiltered**: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.09 units Temp. 16.93 °C

Spec. Cond. 73 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 PEST, 10/13/16 TCE Laboratory Name: Test America Certification No. 269

PARAMETERS **NOTE: Values should reflect dissolved and colloidal concentrations.**

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCE - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l	TCL Pesticides - Results Attached	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	**ORGANICS:** (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	**(Specify test and method #. ATTACH LAB REPORT.)**	
Sulfate	mg/l	Hg - Mercury	mg/l	**Report Attached?** ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenlys, method # 8081B / 8082 A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-20D

Date sample collected: 10/4/16

Well Depth: 47.44 ft.

Well Diameter: 2 in.

Depth to Water Level: 37.29 ft. below measuring point

Screened Interval: 37.4 ft. to 47.4 ft.

Measuring Point is ____ ft. above land surface

Relative M.P. Elevation: 421.24 ft.

Volume of water pumped/bailed before sampling: 2 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.23 units Temp. 17.79 °C

Spec. Cond. 31 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☐ Yes (1) ☒ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: ____ mg/L Effluent Total VOCs: ____ mg/L VOC Removal% ____

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Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-22D Date sample collected: 10/4/16
Well Depth: 85.73 ft. Well Diameter: 2 in.
Depth to Water Level: 66.47 ft. below measuring point Screened Interval: 75.7 ft. to 85.7 ft.
Measuring Point is ____ ft. above land surface Relative M.P. Elevation: 449.23 ft.
Volume of water pumped/bailed before sampling: 4.5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 4.29 units Temp. 17.83 °C
Spec. Cond. 31 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: ____ mg/L Effluent Total VOCs: ____ mg/L VOC Removal% ____

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-23D

Date sample collected: 10/4/16

Well Depth: 87.96 ft.

Well Diameter: 2 in.

Depth to Water Level: 66.95 ft. below measuring point

Screened Interval: 77.9 ft. to 87.9 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 455.22 ft.

Volume of water pumped/bailed before sampling: 4.5 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.41 units Temp. 17.24 °C

Spec. Cond. 26 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-26D

Date sample collected: 10/4/16

Well Depth: 27.35 ft.

Well Diameter: 2 in.

Depth to Water Level: 6.66 ft. below measuring point

Screened Interval: 17.3 ft. to 27.3 ft.

Measuring Point is ____ ft. above land surface

Relative M.P. Elevation: 378.95 ft.

Volume of water pumped/bailed before sampling: 4 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.35 units Temp. 17.69 °C

Spec. Cond. 46 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: ____ mg/L Effluent Total VOCs: ____ mg/L VOC Removal% ____

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Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive (Street)
Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-30D Date sample collected: 10/4/16
Well Depth: 75.38 ft. Well Diameter: 2 in.
Depth to Water Level: 58.45 ft. below measuring point Screened Interval: 65.3 ft. to 75.3 ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: 451.25 ft.
Volume of water pumped/bailed before sampling: 3.5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 3.53 units Temp. 16.92 °C
Spec. Cond. 76 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: PEST 10/12/16, TCE 10/13/16 Laboratory Name: Test America Certification No. 269

PARAMETERS **NOTE: Values should reflect dissolved and colloidal concentrations.**

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l	TCE - Results attached	
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	**ORGANICS:** (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	**(Specify test and method #. ATTACH LAB REPORT.)**	
Sulfate	mg/l	Hg - Mercury	mg/l	**Report Attached?** ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	VOC, method # 8260	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-22L

Date sample collected: 10/4/16

Well Depth: 145.20 ft.

Well Diameter: 2 in.

Depth to Water Level: 68.34 ft. below measuring point

Screened Interval: 135 ft. to 145 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 449.51 ft.

Volume of water pumped/bailed before sampling: 12.5 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 3.89 units Temp. 19.54 °C

Spec. Cond. 49 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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FACILITY INFORMATION

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Facility Address: Domino Drive (Street)

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-25L

Date sample collected: 10/5/16

Well Depth: 74.60 ft.

Well Diameter: 2 in.

Depth to Water Level: 25.00 ft. below measuring point

Screened Interval: 64.6 ft. to 74.6 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 384.63 ft.

Volume of water pumped/bailed before sampling: 6 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.59 units Temp. 17.54 °C

Spec. Cond. 26 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenlys, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Permit Name (if different):

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Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-27L

Date sample collected: 10/19/16

Well Depth: 86.54 ft.

Well Diameter: 2 in.

Depth to Water Level: 31.60 ft. below measuring point

Screened Interval: 76.5 ft. to 86.5 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 397.13 ft.

Volume of water pumped/bailed before sampling: 9 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 3.09 units Temp. 17.06 °C

Spec. Cond. 75 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/26/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l		
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l		
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l		
Phenol	mg/l	Fe - Iron	mg/l		
Sulfate	mg/l	Hg - Mercury	mg/l		
Specific Conductance	µMhos	K - Potassium	mg/l		
Total Ammonia (Ammonia Nitrogen: NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		
		Mn - Manganese	mg/l		
TKN as N	mg/l	Ni - Nickel	mg/l		

Other (Specify Compounds and Concentration Units):
TCL Pesticides - Results attached

ORGANICS: (by GC, GC/MS, HPLC)
(Specify test and method #. ATTACH LAB REPORT.)
Report Attached? ☒ Yes (1) ☐ No (0)
Pest & Biphenyls, method # 8081B / 8082A
, method #
, method #
, method #

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to:

DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION

Please Print Clearly or Type

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-31L

Date sample collected: 10/19/16

Well Depth: 22.0 ft.

Well Diameter: 2 in.

Depth to Water Level: 1.74 ft. below measuring point

Screened Interval: 12.0 ft. to 22. ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 332.68 ft.

Volume of water pumped/bailed before sampling: 4 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 3.44 units Temp. 23.91 °C

Spec. Cond. 65 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/26/16

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs mg/L Effluent Total VOCs mg/L VOC Removal%

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Permit Name (if different):
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Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-32L Date sample collected: 10/19/16
Well Depth: 26.99 ft. Well Diameter: 2 in.
Depth to Water Level: 3.97 ft. below measuring point Screened Interval: 16.9 ft. to 26.9 ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: 322.45 ft.
Volume of water pumped/bailed before sampling: 4.5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 3.82 units Temp. 19.53 °C
Spec. Cond. 32 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/26/16 Laboratory Name: Test America Certification No. 269

PARAMETERS **NOTE: Values should reflect dissolved and colloidal concentrations.**

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-36L

Date sample collected: 10/4/16

Well Depth: 106.0 ft.

Well Diameter: 2 in.

Depth to Water Level: 36.40 ft. below measuring point

Screened Interval: 96.0 ft. to 106 ft.

Measuring Point is ft. above land surface

Relative M.P. Elevation: 414.18 ft.

Volume of water pumped/bailed before sampling: 10 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.40 units Temp. 17.06 °C

Spec. Cond. 19 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16

Laboratory Name: Test America

Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached?	☒ Yes (1) ☐ No (0)
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls	, method # 8081B / 8082A
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l		, method #
		Mn - Manganese	mg/l		, method #
TKN as N	mg/l	Ni - Nickel	mg/l		, method #

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Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive (Street)
Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-37L
Date sample collected: 10/5/16
Well Depth: 46.18 ft.
Well Diameter: 2 in.
Depth to Water Level: 11.00 ft. below measuring point
Screened Interval: 36.1 ft. to 46.1 ft.
Measuring Point is ft. above land surface
Relative M.P. Elevation: 354.86 ft.
Volume of water pumped/bailed before sampling: 6 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 4.39 units Temp. 16.89 °C
Spec. Cond. 32 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16
Laboratory Name: Test America
Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Permit Name (if different):
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Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-38L
Date sample collected: 10/19/16
Well Depth: 28.14 ft.
Well Diameter: 2 in.
Depth to Water Level: 9.58 ft. below measuring point
Screened Interval: 18.1 ft. to 28.1 ft.
Measuring Point is ft. above land surface
Relative M.P. Elevation: 327.30 ft.
Volume of water pumped/bailed before sampling: 4 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 4.25 units Temp. 20.05 °C
Spec. Cond. 51 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/26/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8081A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-39L
Date sample collected: 10/19/16
Well Depth: 20.29 ft.
Well Diameter: 2 in.
Depth to Water Level: 3.97 ft. below measuring point
Screened Interval: 10.2 ft. to 20.2 ft.
Measuring Point is ____ ft. above land surface
Relative M.P. Elevation: 389.86 ft.
Volume of water pumped/bailed before sampling: 3 gallons
Samples for **metals** were collected **unfiltered:** ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 3.99 units Temp. 23.16 °C
Spec. Cond. 62 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/26/16 Laboratory Name: Test America Certification No. 269

PARAMETERS **NOTE: Values should reflect dissolved and colloidal concentrations.**

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen: NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): MW-40L Date sample collected: 10/19/16

Well Depth: 27.76 ft. Well Diameter: 2 in.

Depth to Water Level: 1.75 ft. below measuring point Screened Interval: 17.7 ft. to 27.7 ft.

Measuring Point is ____ ft. above land surface Relative M.P. Elevation: 334.45 ft.

Volume of water pumped/bailed before sampling: 12.5 gallons

Samples for **metals** were collected **unfiltered:** ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 3.41 units Temp. 18.72 °C

Spec. Cond. 38 µMhos

Odor None

Appearance Cloudy

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/26/16 Laboratory Name: Test America Certification No. 269

PARAMETERS **NOTE: Values should reflect dissolved and colloidal concentrations.**

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: ____ mg/L Effluent Total VOCs: ____ mg/L VOC Removal% ____

I certify that, to the best of my knowledge and belief, the information submitted in this report is true, accurate, and complete, and that the laboratory analytical data was produced using approved methods of analysis by a DWQ-certified laboratory. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Garland Hilliard - Director, Environmental Remediation
Permittee (or Authorized Agent) Name and Title - Please print or type

Signature of Permittee (or Authorized Agent)

2/13/17
(Date)

GW-59 Rev. 1/2007

SUBMIT FORM ON YELLOW PAPER ONLY

GROUNDWATER QUALITY MONITORING: COMPLIANCE REPORT FORM

Mail original and 1 copy to: DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
DIVISION OF WATER QUALITY-INFORMATION PROCESSING UNIT
1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site
Permit Name (if different):
Facility Address: Domino Drive (Street)
Aberdeen (City) NC (State) 28315 (Zip) County Moore
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): PZ-2 Date sample collected: 10/5/16
Well Depth: 36.18 ft. Well Diameter: 2 in.
Depth to Water Level: 5.15 ft. below measuring point Screened Interval: 26.1 ft. to 36.1 ft.
Measuring Point is ft. above land surface Relative M.P. Elevation: 343.79 ft.
Volume of water pumped/bailed before sampling: 5.5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 4.50 units Temp. 18.81 °C
Spec. Cond. 30 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total	/100ml	Phosphorus: Total as P	mg/l		
(Note: Use MPN method for highly turbid samples)		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen, NH_3 as N, Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Signature of Permittee (or Authorized Agent) 2/13/17 (Date)

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1617 MAIL SERVICE CENTER, RALEIGH, NC 27699-1617 Phone: (919) 733-3221

FACILITY INFORMATION *Please Print Clearly or Type*

Facility Name: Geigy Chemical Corporation Site

Permit Name (if different):

Facility Address: Domino Drive

Aberdeen (City) NC (State) 28315 (Zip) County Moore

Contact Person: Garland Hilliard Telephone#: 423.336.4479

Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18

Non-Discharge WQ0009949 UIC

NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED

- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): PZ-3 Date sample collected: 10/5/16

Well Depth: 61.54 ft. Well Diameter: 2 in.

Depth to Water Level: 35.69 ft. below measuring point Screened Interval: 51.5 ft. to 61.5 ft.

Measuring Point is ft. above land surface Relative M.P. Elevation: 381.02 ft.

Volume of water pumped/bailed before sampling: 4 gallons

Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:

pH 4.40 units Temp. 16.90 °C

Spec. Cond. 20 µMhos

Odor None

Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/12/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☒ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

For Remediation Systems Only (Attach Lab Reports): Influent Total VOCs: mg/L Effluent Total VOCs: mg/L VOC Removal%

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Permit Name (if different):
Facility Address: Domino Drive
Aberdeen (Street) NC 28315 County Moore
(City) (State) (Zip)
Contact Person: Garland Hilliard Telephone#: 423.336.4479
Well Location/Site Name: No. of wells to be sampled: (from Permit)

PERMIT Number: Expiration Date: 05/31/18
Non-Discharge WQ0009949 UIC
NPDES Other

TYPE OF PERMITTED OPERATION BEING MONITORED
- ☐ Lagoon
- ☐ Spray Field
- ☐ Rotary Distributor
- ☐ Water Source Heat Pump
- ☐ Remediation: Infiltration Gallery
- ☒ Remediation: Groundwater
- ☐ Land Application of Sludge
- ☐ Other:

SAMPLING INFORMATION

WELL ID NUMBER (from Permit): PZ-5 Date sample collected: 10/19/16
Well Depth: 30.12 ft. Well Diameter: 2 in.
Depth to Water Level: 4.62 ft. below measuring point Screened Interval: 20.1 ft. to 30.1 ft.
Measuring Point is ____ ft. above land surface Relative M.P. Elevation: 335.98 ft.
Volume of water pumped/bailed before sampling: 5 gallons
Samples for metals were collected unfiltered: ☐ YES ☐ NO and field acidified: ☐ YES ☐ NO

FIELD ANALYSES:
pH 3.19 units Temp. 21.60 °C
Spec. Cond. 66 µMhos
Odor None
Appearance Clear

If WELL WAS DRY at time of sampling, check here: ☐

LABORATORY INFORMATION

Date sample analyzed: 10/27/16 Laboratory Name: Test America Certification No. 269

PARAMETERS NOTE: Values should reflect dissolved and colloidal concentrations.

COD	mg/l	Nitrite (NO_2) as N	mg/l	Pb - Lead	mg/l
Coliform: MF Fecal	/100ml	Nitrate (NO_3) as N	mg/l	Zn - Zinc	mg/l
Coliform: MF Total (Note: Use MPN method for highly turbid samples)	/100ml	Phosphorus: Total as P	mg/l		
		Orthophosphate	mg/l	Other (Specify Compounds and Concentration Units):	
Dissolved Solids: Total	mg/l	Al - Aluminum	mg/l	TCL Pesticides - Results attached	
pH (when analyzed)	units	Ba - Barium	mg/l		
TOC	mg/l	Ca - Calcium	mg/l		
Chloride	mg/l	Cd - Cadmium	mg/l		
Arsenic	mg/l	Chromium: Total	mg/l		
Grease and Oils	mg/l	Cu - Copper	mg/l	ORGANICS: (by GC, GC/MS, HPLC)	
Phenol	mg/l	Fe - Iron	mg/l	(Specify test and method #. ATTACH LAB REPORT.)	
Sulfate	mg/l	Hg - Mercury	mg/l	Report Attached? ☐ Yes (1) ☐ No (0)	
Specific Conductance	µMhos	K - Potassium	mg/l	Pest & Biphenyls, method # 8081B / 8082A	
Total Ammonia (Ammonia Nitrogen; NH_3 as N; Ammonia Nitrogen, Total)	mg/l	Mg - Magnesium	mg/l	, method #	
		Mn - Manganese	mg/l	, method #	
TKN as N	mg/l	Ni - Nickel	mg/l	, method #	

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