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ANALYTICAL REPORT

Eurofins TestAmerica, Houston
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Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-185817-1
Client Project/Site: ITC Deer Park WW.20190520-002-DAY 18
Revision: 1

For:
Cardno, Inc
970 Wedgewood Drive
Crystal Lake, Illinois 60014

Attn: Ms. Cheryl Hennessy

Authorized for release by:
6/17/2019 10:07:34 AM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 600-185817-1

Laboratory: Eurofins TestAmerica, Houston

Narrative

Job Narrative
600-185817-1

Comments
This report was revised 6-17-19 updating the Dicofol limits for method 608 performed in TA Houston.

Receipt
The sample was received on 5/21/2019 3:55 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.7º C.

Receipt Exceptions

One of the amber glass containers for the following sample was received broken. This is just extra volume.WW.20190520-002-DAY 18 (600-185817-1).

The following sample was received at the laboratory outside the required temperature criteria: WW.20190520-002-DAY 18 (600-185817-1).

GC/MS Semi VOA
Method(s) 625: Requested RL for Hexachlorophene is at 0.01 mg/L, the lowest point on the initial calibration is 0.025 mg/L: WW.20190520-002-DAY 18 (600-185817-1)

Method(s) 625: The laboratory control sample (LCS) for preparation batch 490-597603 and analytical batch 490-597786 recovered outside control limits for the following analytes: Hexachlorophene. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. The original set of data has been reported.

Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-597603 and analytical batch 490-597786.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 608: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 600-265704 and analytical batch 600-265738 recovered outside control limits for the following analytes: Dicofol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with Nonylphenols aqueous in preparation batch 320-297813.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Method	Method Description	Protocol	Laboratory
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL NSH
EPA 625	Semivolatile Organic Compounds (GC/MS) - Low Levels	EPA	TAL PIT
Organotins/GCMS	Organotins (GC/MS)	TAL SOP	TAL BUR
WS-MS-0010	Nonylphenols	TAL SOP	TAL SAC
608	Organochlorine Pesticides in Water	40CFR136A	TAL HOU
EPA 608	Organochlorine Pesticides/PCBs in Water	40CFR136A	TAL PIT
EPA 608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL PIT
PCB	Total PCB Calculation	TAL SOP	TAL PIT
531.1	Carbamate Pesticides (HPLC)	EPA	TAL SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUR
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SAC
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL HOU
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL PIT
625	Liquid-Liquid Extraction	40CFR136A	TAL NSH
625	Liquid-Liquid Extraction	40CFR136A	TAL PIT

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444
TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177
TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600
TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-185817-1	WW.20190520-002-DAY 18	Water	05/20/19 11:30	05/21/19 15:55	

Client Sample Results

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Client Sample ID: WW.20190520-002-DAY 18

Lab Sample ID: 600-185817-1

Date Collected: 05/20/19 11:30
Date Received: 05/21/19 15:55

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorophene	0.00681	U *	0.0101	0.00681	mg/L		05/24/19 14:12	05/26/19 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*10 - 120*	*05/24/19 14:12*	*05/26/19 01:37*	*1*
2-Fluorophenol	*40*		*29 - 120*	*05/24/19 14:12*	*05/26/19 01:37*	*1*
Nitrobenzene-d5	*74*		*27 - 120*	*05/24/19 14:12*	*05/26/19 01:37*	*1*
Phenol-d5	*27*		*10 - 120*	*05/24/19 14:12*	*05/26/19 01:37*	*1*
Terphenyl-d14	*84*		*13 - 120*	*05/24/19 14:12*	*05/26/19 01:37*	*1*
2-Fluorobiphenyl (Surr)	*70*		*10 - 120*	*05/24/19 14:12*	*05/26/19 01:37*	*1*

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0000596	U	0.00101	0.0000596	mg/L		05/23/19 19:29	05/30/19 23:53	1
1,2,4,5-Tetrachlorobenzene	0.0000525	U	0.00101	0.0000525	mg/L		05/23/19 19:29	05/30/19 23:53	1
1,2-Diphenylhydrazine(as Azobenzene)	0.0000495	U	0.00101	0.0000495	mg/L		05/23/19 19:29	05/30/19 23:53	1
Methylnaphthalene	0.0000566	U	0.000192	0.0000566	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,2'-oxybis[1-chloropropane]	0.0000586	U	0.000192	0.0000586	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,4,5-Trichlorophenol	0.0000616	U	0.00101	0.0000616	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,4,6-Trichlorophenol	0.0000687	U	0.00101	0.0000687	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,4-Dichlorophenol	0.0000515	U	0.000192	0.0000515	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,4-Dimethylphenol	0.0000414	U	0.00101	0.0000414	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,4-Dinitrophenol	0.00155	U	0.0101	0.00155	mg/L		05/23/19 19:29	05/31/19 02:47	1
2,4-Dinitrotoluene	0.0000515	U	0.00101	0.0000515	mg/L		05/23/19 19:29	05/30/19 23:53	1
2,6-Dinitrotoluene	0.0000606	U	0.00101	0.0000606	mg/L		05/23/19 19:29	05/30/19 23:53	1
2-Chloronaphthalene	0.0000596	U	0.000192	0.0000596	mg/L		05/23/19 19:29	05/30/19 23:53	1
2-Chlorophenol	0.0000646	U	0.00101	0.0000646	mg/L		05/23/19 19:29	05/30/19 23:53	1
2-Methylnaphthalene	0.0000626	U	0.000192	0.0000626	mg/L		05/23/19 19:29	05/30/19 23:53	1
2-Methylphenol	0.000303	U	0.00101	0.000303	mg/L		05/23/19 19:29	05/30/19 23:53	1
2-Nitroaniline	0.000554	U	0.00505	0.000554	mg/L		05/23/19 19:29	05/30/19 23:53	1
2-Nitrophenol	0.0000616	U	0.00101	0.0000616	mg/L		05/23/19 19:29	05/30/19 23:53	1
3,3'-Dichlorobenzidine	0.000589	U	0.00101	0.000589	mg/L		05/23/19 19:29	05/30/19 23:53	1
3-Nitroaniline	0.0000677	U	0.00505	0.0000677	mg/L		05/23/19 19:29	05/30/19 23:53	1
4-Chloro-3-methylphenol	0.0000616	U	0.00101	0.0000616	mg/L		05/23/19 19:29	05/30/19 23:53	1
4-Chloroaniline	0.0000444	U	0.00101	0.0000444	mg/L		05/23/19 19:29	05/30/19 23:53	1
3-Methylphenol + 4-Methylphenol	0.000376	U	0.00101	0.000376	mg/L		05/23/19 19:29	05/30/19 23:53	1
4-Nitroaniline	0.0000586	U	0.00505	0.0000586	mg/L		05/23/19 19:29	05/30/19 23:53	1
4-Nitrophenol	0.000143	U	0.00505	0.000143	mg/L		05/23/19 19:29	05/30/19 23:53	1
Acenaphthene	0.0000657	U	0.000192	0.0000657	mg/L		05/23/19 19:29	05/30/19 23:53	1
Acenaphthylene	0.0000657	U	0.000192	0.0000657	mg/L		05/23/19 19:29	05/30/19 23:53	1
Acetophenone	0.0000626	U	0.00101	0.0000626	mg/L		05/23/19 19:29	05/30/19 23:53	1
Aniline	0.000375	U	0.00101	0.000375	mg/L		05/23/19 19:29	05/30/19 23:53	1
Anthracene	0.0000495	U	0.000192	0.0000495	mg/L		05/23/19 19:29	05/30/19 23:53	1
Atrazine	0.000639	U	0.00101	0.000639	mg/L		05/23/19 19:29	05/30/19 23:53	1
Benzaldehyde	0.000112	U	0.00101	0.000112	mg/L		05/23/19 19:29	05/30/19 23:53	1
Benzidine	0.00922	U	0.0202	0.00922	mg/L		05/23/19 19:29	05/30/19 23:53	1
Benzo[a]anthracene	0.0000758	U	0.000192	0.0000758	mg/L		05/23/19 19:29	05/30/19 23:53	1
Benzo[a]pyrene	0.0000535	U	0.000192	0.0000535	mg/L		05/23/19 19:29	05/30/19 23:53	1
3,4-Benzofluoranthene	0.0000980	U	0.000192	0.0000980	mg/L		05/23/19 19:29	05/30/19 23:53	1
Benzo[k]fluoranthene	0.0000889	U	0.000192	0.0000889	mg/L		05/23/19 19:29	05/30/19 23:53	1

Client Sample Results

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Client Sample ID: WW.20190520-002-DAY 18

Lab Sample ID: 600-185817-1

Date Collected: 05/20/19 11:30
Date Received: 05/21/19 15:55

Matrix: Water

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	0.000932	U	0.00505	0.000932	mg/L		05/23/19 19:29	05/30/19 23:53	1
Benzyl alcohol	0.000165	U	0.00101	0.000165	mg/L		05/23/19 19:29	05/30/19 23:53	1
Bis(2-chloroethoxy)methane	0.0000677	U	0.00101	0.0000677	mg/L		05/23/19 19:29	05/30/19 23:53	1
Bis(2-chloroethyl)ether	0.0000404	U	0.000192	0.0000404	mg/L		05/23/19 19:29	05/30/19 23:53	1
Bis(2-ethylhexyl) phthalate	0.00629	U	0.0101	0.00629	mg/L		05/23/19 19:29	05/30/19 23:53	1
Butyl benzyl phthalate	0.000467	U	0.00101	0.000467	mg/L		05/23/19 19:29	05/30/19 23:53	1
Caprolactam	0.000475	U	0.00505	0.000475	mg/L		05/23/19 19:29	05/30/19 23:53	1
Carbazole	0.0000515	U	0.000192	0.0000515	mg/L		05/23/19 19:29	05/30/19 23:53	1
Chrysene	0.0000818	U	0.000192	0.0000818	mg/L		05/23/19 19:29	05/30/19 23:53	1
Dibenz(a,h)anthracene	0.0000727	U	0.000192	0.0000727	mg/L		05/23/19 19:29	05/30/19 23:53	1
Dibenzofuran	0.0000737	U	0.00101	0.0000737	mg/L		05/23/19 19:29	05/30/19 23:53	1
Diethyl phthalate	0.000573	U	0.00101	0.000573	mg/L		05/23/19 19:29	05/30/19 23:53	1
Dimethyl phthalate	0.0000566	U	0.00101	0.0000566	mg/L		05/23/19 19:29	05/30/19 23:53	1
4,6-Dinitro-2-methylphenol	0.00148	U	0.00505	0.00148	mg/L		05/23/19 19:29	05/30/19 23:53	1
Di-n-butyl phthalate	0.000751	U	0.00101	0.000751	mg/L		05/23/19 19:29	05/30/19 23:53	1
Fluoranthene	0.0000606	U	0.000192	0.0000606	mg/L		05/23/19 19:29	05/30/19 23:53	1
Fluorene	0.0000697	U	0.000192	0.0000697	mg/L		05/23/19 19:29	05/30/19 23:53	1
Hexachlorobenzene	0.0000566	U	0.000192	0.0000566	mg/L		05/23/19 19:29	05/30/19 23:53	1
Hexachlorobutadiene	0.0000697	U	0.000192	0.0000697	mg/L		05/23/19 19:29	05/30/19 23:53	1
Hexachlorocyclopentadiene	0.000502	U	0.00101	0.000502	mg/L		05/23/19 19:29	05/30/19 23:53	1
Hexachloroethane	0.0000626	U	0.00101	0.0000626	mg/L		05/23/19 19:29	05/30/19 23:53	1
Indeno[1,2,3-cd]pyrene	0.0000859	U	0.000192	0.0000859	mg/L		05/23/19 19:29	05/30/19 23:53	1
Isophorone	0.0000545	U	0.00101	0.0000545	mg/L		05/23/19 19:29	05/30/19 23:53	1
Cresols, Total	0.000782	U	0.00202	0.000782	mg/L		05/23/19 19:29	05/30/19 23:53	1
Naphthalene	0.0000596	U	0.000192	0.0000596	mg/L		05/23/19 19:29	05/30/19 23:53	1
Nitrobenzene	0.000505	U	0.00202	0.000505	mg/L		05/23/19 19:29	05/30/19 23:53	1
N-Nitrosodi-n-butylamine	0.000433	U	0.00101	0.000433	mg/L		05/23/19 19:29	05/30/19 23:53	1
N-Nitrosodiethylamine	0.000294	U	0.00101	0.000294	mg/L		05/23/19 19:29	05/30/19 23:53	1
N-Nitrosodimethylamine	0.0000677	U	0.00101	0.0000677	mg/L		05/23/19 19:29	05/31/19 02:47	1
N-Nitrosodiphenylamine	0.000120	U	0.00101	0.000120	mg/L		05/23/19 19:29	05/30/19 23:53	1
N-Nitrosodi-n-propylamine	0.0000717	U	0.000192	0.0000717	mg/L		05/23/19 19:29	05/30/19 23:53	1
Pentachlorobenzene	0.000360	U	0.00101	0.000360	mg/L		05/23/19 19:29	05/30/19 23:53	1
Pentachlorophenol	0.000856	U	0.00505	0.000856	mg/L		05/23/19 19:29	05/30/19 23:53	1
Phenanthrene	0.0000556	U	0.000192	0.0000556	mg/L		05/23/19 19:29	05/30/19 23:53	1
Phenol	0.000492	U	0.00101	0.000492	mg/L		05/23/19 19:29	05/30/19 23:53	1
Pyrene	0.0000545	U	0.000192	0.0000545	mg/L		05/23/19 19:29	05/30/19 23:53	1
Pyridine	0.000547	U	0.00202	0.000547	mg/L		05/23/19 19:29	05/30/19 23:53	1
n-Decane	0.000280	U	0.00101	0.000280	mg/L		05/23/19 19:29	05/30/19 23:53	1
n-Octadecane	0.000470	U	0.00101	0.000470	mg/L		05/23/19 19:29	05/30/19 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*45 - 106*	*05/23/19 19:29*	*05/30/19 23:53*	*1*
2-Fluorophenol (Surr)	*79*		*39 - 105*	*05/23/19 19:29*	*05/30/19 23:53*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*39 - 125*	*05/23/19 19:29*	*05/30/19 23:53*	*1*
Nitrobenzene-d5 (Surr)	*92*		*43 - 110*	*05/23/19 19:29*	*05/30/19 23:53*	*1*
Phenol-d5 (Surr)	*80*		*40 - 108*	*05/23/19 19:29*	*05/30/19 23:53*	*1*
Terphenyl-d14 (Surr)	*78*		*45 - 120*	*05/23/19 19:29*	*05/30/19 23:53*	*1*

Client Sample Results

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Client Sample ID: WW.20190520-002-DAY 18

Lab Sample ID: 600-185817-1

Date Collected: 05/20/19 11:30
Date Received: 05/21/19 15:55

Matrix: Water

Method: Organotins/GCMS - Organotins (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	0.0450	U	0.0450	0.0450	ug/L		05/27/19 09:25	05/30/19 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*66*		*15 - 150*	*05/27/19 09:25*	*05/30/19 22:08*	*1*

Method: WS-MS-0010 - Nonylphenols

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	1.63	U	5.11	1.63	ug/L		05/29/19 14:22	06/05/19 04:44	1
Bisphenol-A	0.327	U	1.02	0.327	ug/L		05/29/19 14:22	06/05/19 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-nonylphenol monoethoxylate (Surr)	*85*		*47 - 138*	*05/29/19 14:22*	*06/05/19 04:44*	*1*

Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicofol	0.0980	U *	0.0980	0.0980	ug/L		05/23/19 07:48	05/23/19 17:31	1
Mirex	0.00980	U	0.0980	0.00980	ug/L		05/23/19 07:48	05/23/19 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*96*		*32 - 143*	*05/23/19 07:48*	*05/23/19 17:31*	*1*
DCB Decachlorobiphenyl	*115*		*36 - 144*	*05/23/19 07:48*	*05/23/19 17:31*	*1*

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.000000205	U	0.00000129	0.000000205	mg/L		05/23/19 11:30	05/24/19 12:59	1
4,4'-DDE	0.000000107	U	0.00000129	0.000000107	mg/L		05/23/19 11:30	05/24/19 12:59	1
4,4'-DDT	0.000000294	U	0.00000129	0.000000294	mg/L		05/23/19 11:30	05/24/19 12:59	1
Aldrin	0.000000121	U	0.00000129	0.000000121	mg/L		05/23/19 11:30	05/24/19 12:59	1
Hexachlorocyclohexane, alpha-	0.000000119	U	0.00000129	0.000000119	mg/L		05/23/19 11:30	05/24/19 12:59	1
Hexachlorocyclohexane, beta-	0.000000150	U	0.00000129	0.000000150	mg/L		05/23/19 11:30	05/24/19 12:59	1
Dieldrin	0.000000128	U	0.00000129	0.000000128	mg/L		05/23/19 11:30	05/24/19 12:59	1
Endosulfan I	0.000000149	U	0.00000129	0.000000149	mg/L		05/23/19 11:30	05/24/19 12:59	1
Endosulfan II	0.000000116	U	0.00000129	0.000000116	mg/L		05/23/19 11:30	05/24/19 12:59	1
Endosulfan sulfate	0.000000287	U	0.00000129	0.000000287	mg/L		05/23/19 11:30	05/24/19 12:59	1
Endrin	0.000000226	U	0.00000129	0.000000226	mg/L		05/23/19 11:30	05/24/19 12:59	1
Hexachlorocyclohexane, gamma-	0.000000118	U	0.00000129	0.000000118	mg/L		05/23/19 11:30	05/24/19 12:59	1
Heptachlor	0.000000448	U	0.00000129	0.000000448	mg/L		05/23/19 11:30	05/24/19 12:59	1
Heptachlor epoxide	0.000000138	U	0.00000129	0.000000138	mg/L		05/23/19 11:30	05/24/19 12:59	1
Methoxychlor	0.000000341	U	0.00000129	0.000000341	mg/L		05/23/19 11:30	05/24/19 12:59	1

Client Sample Results

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Client Sample ID: WW.20190520-002-DAY 18

Lab Sample ID: 600-185817-1

Date Collected: 05/20/19 11:30
Date Received: 05/21/19 15:55

Matrix: Water

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	0.00000149	U	0.0000129	0.00000149	mg/L		05/23/19 11:30	05/24/19 12:59	1
Toxaphene	0.0000112	U	0.0000990	0.0000112	mg/L		05/23/19 11:30	05/24/19 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*38 - 146*	*05/23/19 11:30*	*05/24/19 12:59*	*1*
DCB Decachlorobiphenyl (Surr)	*90*		*42 - 150*	*05/23/19 11:30*	*05/24/19 12:59*	*1*

Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.00000471	U	0.00000990	0.00000471	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1221	0.00000566	U	0.00000990	0.00000566	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1232	0.00000516	U	0.00000990	0.00000516	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1242	0.00000904	U	0.00000990	0.00000904	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1248	0.00000296	U	0.00000990	0.00000296	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1254	0.00000943	U	0.00000990	0.00000943	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1260	0.00000388	U	0.00000990	0.00000388	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1262	0.00000703	U	0.00000990	0.00000703	mg/L		05/23/19 11:30	05/24/19 08:13	1
PCB-1268	0.00000450	U	0.00000990	0.00000450	mg/L		05/23/19 11:30	05/24/19 08:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*79*		*38 - 146*	*05/23/19 11:30*	*05/24/19 08:13*	*1*
DCB Decachlorobiphenyl (Surr)	*78*		*42 - 150*	*05/23/19 11:30*	*05/24/19 08:13*	*1*

Method: PCB - Total PCB Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.00000943	U	0.00000990	0.00000943	mg/L			05/23/19 11:30	1

Method: 531.1 - Carbamate Pesticides (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	0.250	U	2.50	0.250	ug/L			05/29/19 00:16	1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	2FP	NBZ	PHL	TPHL	FBP
Lab Sample ID	Client Sample ID	(10-120)	(29-120)	(27-120)	(10-120)	(13-120)	(10-120)
600-185817-1	WW.20190520-002-DAY 18	84	40	74	27	84	70
LCS 490-597603/7-A	Lab Control Sample	88	45	79	32	90	79
MB 490-597603/1-A	Method Blank	48	42	72	28	90	69

Surrogate Legend

TBP = 2,4,6-Tribromophenol
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(45-106)	(39-105)	(39-125)	(43-110)	(40-108)	(45-120)
600-185817-1	WW.20190520-002-DAY 18	83	79	85	92	80	78
LCS 180-279581/2-A	Lab Control Sample	77	81	68	86	78	81
MB 180-279581/1-A	Method Blank	97	92	70	88	92	91

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: Organotins/GCMS - Organotins (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		TPTT
Lab Sample ID	Client Sample ID	(15-150)
600-185817-1	WW.20190520-002-DAY 18	66
LCS 200-143460/2-A	Lab Control Sample	73
LCSD 200-143460/3-A	Lab Control Sample Dup	72
MB 200-143460/1-A	Method Blank	70

Surrogate Legend

TPTT = Tripentyltin

Method: WS-MS-0010 - Nonylphenols

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		4NPME
Lab Sample ID	Client Sample ID	(47-138)
600-185817-1	WW.20190520-002-DAY 18	85
LCS 320-297813/2-A	Lab Control Sample	104

Surrogate Summary

Client: Cardno, Inc
Job ID: 600-185817-1
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Method: WS-MS-0010 - Nonylphenols (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	4NPME (47-138)							
LCSD 320-297813/3-A	Lab Control Sample Dup	112							
MB 320-297813/1-A	Method Blank	79							

Surrogate Legend

4NPME = 4-nonylphenol monoethoxylate (Surr)

Method: 608 - Organochlorine Pesticides in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCX1 (32-143)	DCBP1 (36-144)						
600-185817-1	WW.20190520-002-DAY 18	96	115						
LCS 600-265704/2-A	Lab Control Sample	83	100						
LCS 600-265704/4-A	Lab Control Sample	76	80						
LCSD 600-265704/3-A	Lab Control Sample Dup	90	97						
LCSD 600-265704/5-A	Lab Control Sample Dup	92	112						
MB 600-265704/1-A	Method Blank	73	90						

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCX1 (38-146)	TCX2 (38-146)	DCB1 (42-150)	DCB2 (42-150)				
600-185817-1	WW.20190520-002-DAY 18	69	71	86	90				
LCS 180-279596/2-A	Lab Control Sample	67	66	84	86				
MB 180-279596/1-A	Method Blank	67	69	90	92				

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCX1 (38-146)	TCX2 (38-146)	DCB1 (42-150)	DCB2 (42-150)				
600-185817-1	WW.20190520-002-DAY 18	79	79	78	75				
LCS 180-279596/3-A	Lab Control Sample	97	96	85	85				
MB 180-279596/1-A	Method Blank	90	90	84	81				

Surrogate Legend

TCX = Tetrachloro-m-xylene (Surr)
DCB = DCB Decachlorobiphenyl (Surr)

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-597603/1-A
Matrix: Water
Analysis Batch: 597786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorophene	0.00676	U	0.0100	0.00676	mg/L		05/24/19 14:11	05/26/19 00:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*48*		*10 - 120*	*05/24/19 14:11*	*05/26/19 00:21*	*1*
2-Fluorophenol	*42*		*29 - 120*	*05/24/19 14:11*	*05/26/19 00:21*	*1*
Nitrobenzene-d5	*72*		*27 - 120*	*05/24/19 14:11*	*05/26/19 00:21*	*1*
Phenol-d5	*28*		*10 - 120*	*05/24/19 14:11*	*05/26/19 00:21*	*1*
Terphenyl-d14	*90*		*13 - 120*	*05/24/19 14:11*	*05/26/19 00:21*	*1*
2-Fluorobiphenyl (Surr)	*69*		*10 - 120*	*05/24/19 14:11*	*05/26/19 00:21*	*1*

Lab Sample ID: LCS 490-597603/7-A
Matrix: Water
Analysis Batch: 597786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorophene	0.250	0.05667	*	mg/L		23	27 - 118

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*88*		*10 - 120*
2-Fluorophenol	*45*		*29 - 120*
Nitrobenzene-d5	*79*		*27 - 120*
Phenol-d5	*32*		*10 - 120*
Terphenyl-d14	*90*		*13 - 120*
2-Fluorobiphenyl (Surr)	*79*		*10 - 120*

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels

Lab Sample ID: MB 180-279581/1-A
Matrix: Water
Analysis Batch: 280155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.0000590	U	0.00100	0.0000590	mg/L		05/23/19 12:39	05/30/19 14:48	1
1,2,4,5-Tetrachlorobenzene	0.0000520	U	0.00100	0.0000520	mg/L		05/23/19 12:39	05/30/19 14:48	1
1,2-Diphenylhydrazine(as Azobenzene)	0.0000490	U	0.00100	0.0000490	mg/L		05/23/19 12:39	05/30/19 14:48	1
Methylnaphthalene	0.0000560	U	0.000190	0.0000560	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,2'-oxybis[1-chloropropane]	0.0000580	U	0.000190	0.0000580	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,4,5-Trichlorophenol	0.0000610	U	0.00100	0.0000610	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,4,6-Trichlorophenol	0.0000680	U	0.00100	0.0000680	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,4-Dichlorophenol	0.0000510	U	0.000190	0.0000510	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,4-Dimethylphenol	0.0000410	U	0.00100	0.0000410	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,4-Dinitrotoluene	0.0000510	U	0.00100	0.0000510	mg/L		05/23/19 12:39	05/30/19 14:48	1
2,6-Dinitrotoluene	0.0000600	U	0.00100	0.0000600	mg/L		05/23/19 12:39	05/30/19 14:48	1
2-Chloronaphthalene	0.0000590	U	0.000190	0.0000590	mg/L		05/23/19 12:39	05/30/19 14:48	1
2-Chlorophenol	0.0000640	U	0.00100	0.0000640	mg/L		05/23/19 12:39	05/30/19 14:48	1
2-Methylnaphthalene	0.0000620	U	0.000190	0.0000620	mg/L		05/23/19 12:39	05/30/19 14:48	1
2-Methylphenol	0.000300	U	0.00100	0.000300	mg/L		05/23/19 12:39	05/30/19 14:48	1

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels (Continued)

Lab Sample ID: MB 180-279581/1-A
Matrix: Water
Analysis Batch: 280155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	0.000548	U	0.00500	0.000548	mg/L		05/23/19 12:39	05/30/19 14:48	1
2-Nitrophenol	0.0000610	U	0.00100	0.0000610	mg/L		05/23/19 12:39	05/30/19 14:48	1
3,3'-Dichlorobenzidine	0.000583	U	0.00100	0.000583	mg/L		05/23/19 12:39	05/30/19 14:48	1
3-Nitroaniline	0.0000670	U	0.00500	0.0000670	mg/L		05/23/19 12:39	05/30/19 14:48	1
4-Chloro-3-methylphenol	0.0000610	U	0.00100	0.0000610	mg/L		05/23/19 12:39	05/30/19 14:48	1
4-Chloroaniline	0.0000440	U	0.00100	0.0000440	mg/L		05/23/19 12:39	05/30/19 14:48	1
3-Methylphenol + 4-Methylphenol	0.000372	U	0.00100	0.000372	mg/L		05/23/19 12:39	05/30/19 14:48	1
4-Nitroaniline	0.0000580	U	0.00500	0.0000580	mg/L		05/23/19 12:39	05/30/19 14:48	1
4-Nitrophenol	0.000142	U	0.00500	0.000142	mg/L		05/23/19 12:39	05/30/19 14:48	1
Acenaphthene	0.0000650	U	0.000190	0.0000650	mg/L		05/23/19 12:39	05/30/19 14:48	1
Acenaphthylene	0.0000650	U	0.000190	0.0000650	mg/L		05/23/19 12:39	05/30/19 14:48	1
Acetophenone	0.0000620	U	0.00100	0.0000620	mg/L		05/23/19 12:39	05/30/19 14:48	1
Aniline	0.000371	U	0.00100	0.000371	mg/L		05/23/19 12:39	05/30/19 14:48	1
Anthracene	0.0000490	U	0.000190	0.0000490	mg/L		05/23/19 12:39	05/30/19 14:48	1
Atrazine	0.000633	U	0.00100	0.000633	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzaldehyde	0.000111	U	0.00100	0.000111	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzidine	0.00913	U	0.0200	0.00913	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzo[a]anthracene	0.0000750	U	0.000190	0.0000750	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzo[a]pyrene	0.0000530	U	0.000190	0.0000530	mg/L		05/23/19 12:39	05/30/19 14:48	1
3,4-Benzofluoranthene	0.0000970	U	0.000190	0.0000970	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzo[k]fluoranthene	0.0000880	U	0.000190	0.0000880	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzoic acid	0.000923	U	0.00500	0.000923	mg/L		05/23/19 12:39	05/30/19 14:48	1
Benzyl alcohol	0.000163	U	0.00100	0.000163	mg/L		05/23/19 12:39	05/30/19 14:48	1
Bis(2-chloroethoxy)methane	0.0000670	U	0.00100	0.0000670	mg/L		05/23/19 12:39	05/30/19 14:48	1
Bis(2-chloroethyl)ether	0.0000400	U	0.000190	0.0000400	mg/L		05/23/19 12:39	05/30/19 14:48	1
Bis(2-ethylhexyl) phthalate	0.00623	U	0.0100	0.00623	mg/L		05/23/19 12:39	05/30/19 14:48	1
Butyl benzyl phthalate	0.000462	U	0.00100	0.000462	mg/L		05/23/19 12:39	05/30/19 14:48	1
Caprolactam	0.000470	U	0.00500	0.000470	mg/L		05/23/19 12:39	05/30/19 14:48	1
Carbazole	0.0000510	U	0.000190	0.0000510	mg/L		05/23/19 12:39	05/30/19 14:48	1
Chrysene	0.0000810	U	0.000190	0.0000810	mg/L		05/23/19 12:39	05/30/19 14:48	1
Dibenz(a,h)anthracene	0.0000720	U	0.000190	0.0000720	mg/L		05/23/19 12:39	05/30/19 14:48	1
Dibenzofuran	0.0000730	U	0.00100	0.0000730	mg/L		05/23/19 12:39	05/30/19 14:48	1
Diethyl phthalate	0.000567	U	0.00100	0.000567	mg/L		05/23/19 12:39	05/30/19 14:48	1
Dimethyl phthalate	0.0000560	U	0.00100	0.0000560	mg/L		05/23/19 12:39	05/30/19 14:48	1
4,6-Dinitro-2-methylphenol	0.00147	U	0.00500	0.00147	mg/L		05/23/19 12:39	05/30/19 14:48	1
Di-n-butyl phthalate	0.000743	U	0.00100	0.000743	mg/L		05/23/19 12:39	05/30/19 14:48	1
Fluoranthene	0.0000600	U	0.000190	0.0000600	mg/L		05/23/19 12:39	05/30/19 14:48	1
Fluorene	0.0000690	U	0.000190	0.0000690	mg/L		05/23/19 12:39	05/30/19 14:48	1
Hexachlorobenzene	0.0000560	U	0.000190	0.0000560	mg/L		05/23/19 12:39	05/30/19 14:48	1
Hexachlorobutadiene	0.0000690	U	0.000190	0.0000690	mg/L		05/23/19 12:39	05/30/19 14:48	1
Hexachlorocyclopentadiene	0.000497	U	0.00100	0.000497	mg/L		05/23/19 12:39	05/30/19 14:48	1
Hexachloroethane	0.0000620	U	0.00100	0.0000620	mg/L		05/23/19 12:39	05/30/19 14:48	1
Indeno[1,2,3-cd]pyrene	0.0000850	U	0.000190	0.0000850	mg/L		05/23/19 12:39	05/30/19 14:48	1
Isophorone	0.0000540	U	0.00100	0.0000540	mg/L		05/23/19 12:39	05/30/19 14:48	1
Cresols, Total	0.000774	U	0.00200	0.000774	mg/L		05/23/19 12:39	05/30/19 14:48	1
Naphthalene	0.0000590	U	0.000190	0.0000590	mg/L		05/23/19 12:39	05/30/19 14:48	1
Nitrobenzene	0.000500	U	0.00200	0.000500	mg/L		05/23/19 12:39	05/30/19 14:48	1
N-Nitrosodi-n-butylamine	0.000429	U	0.00100	0.000429	mg/L		05/23/19 12:39	05/30/19 14:48	1
N-Nitrosodiethylamine	0.000291	U	0.00100	0.000291	mg/L		05/23/19 12:39	05/30/19 14:48	1

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels (Continued)

Lab Sample ID: MB 180-279581/1-A
Matrix: Water
Analysis Batch: 280155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	0.000119	U	0.00100	0.000119	mg/L		05/23/19 12:39	05/30/19 14:48	1
N-Nitrosodi-n-propylamine	0.0000710	U	0.000190	0.0000710	mg/L		05/23/19 12:39	05/30/19 14:48	1
Pentachlorobenzene	0.000356	U	0.00100	0.000356	mg/L		05/23/19 12:39	05/30/19 14:48	1
Pentachlorophenol	0.000847	U	0.00500	0.000847	mg/L		05/23/19 12:39	05/30/19 14:48	1
Phenanthrene	0.0000550	U	0.000190	0.0000550	mg/L		05/23/19 12:39	05/30/19 14:48	1
Phenol	0.000487	U	0.00100	0.000487	mg/L		05/23/19 12:39	05/30/19 14:48	1
Pyrene	0.0000540	U	0.000190	0.0000540	mg/L		05/23/19 12:39	05/30/19 14:48	1
Pyridine	0.000542	U	0.00200	0.000542	mg/L		05/23/19 12:39	05/30/19 14:48	1
n-Decane	0.000277	U	0.00100	0.000277	mg/L		05/23/19 12:39	05/30/19 14:48	1
n-Octadecane	0.000465	U	0.00100	0.000465	mg/L		05/23/19 12:39	05/30/19 14:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*45 - 106*	*05/23/19 12:39*	*05/30/19 14:48*	*1*
2-Fluorophenol (Surr)	*92*		*39 - 105*	*05/23/19 12:39*	*05/30/19 14:48*	*1*
2,4,6-Tribromophenol (Surr)	*70*		*39 - 125*	*05/23/19 12:39*	*05/30/19 14:48*	*1*
Nitrobenzene-d5 (Surr)	*88*		*43 - 110*	*05/23/19 12:39*	*05/30/19 14:48*	*1*
Phenol-d5 (Surr)	*92*		*40 - 108*	*05/23/19 12:39*	*05/30/19 14:48*	*1*
Terphenyl-d14 (Surr)	*91*		*45 - 120*	*05/23/19 12:39*	*05/30/19 14:48*	*1*

Lab Sample ID: MB 180-279581/1-A
Matrix: Water
Analysis Batch: 280180

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	0.00153	U	0.0100	0.00153	mg/L		05/23/19 12:39	05/31/19 02:20	1
N-Nitrosodimethylamine	0.0000670	U	0.00100	0.0000670	mg/L		05/23/19 12:39	05/31/19 02:20	1

Lab Sample ID: LCS 180-279581/2-A
Matrix: Water
Analysis Batch: 280155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279581

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	0.0100	0.007092		mg/L		71	49 - 100
1,2,4,5-Tetrachlorobenzene	0.0100	0.007825		mg/L		78	45 - 100
1,2-Diphenylhydrazine(as Azobenzene)	0.0100	0.008485		mg/L		85	46 - 112
Methylnaphthalene	0.0100	0.007705		mg/L		77	47 - 100
2,2'-oxybis[1-chloropropane]	0.0100	0.007278		mg/L		73	36 - 150
2,4,5-Trichlorophenol	0.0100	0.007777		mg/L		78	44 - 101
2,4,6-Trichlorophenol	0.0100	0.008221		mg/L		82	37 - 144
2,4-Dichlorophenol	0.0100	0.007634		mg/L		76	39 - 135
2,4-Dimethylphenol	0.0100	0.008143		mg/L		81	32 - 119
2,4-Dinitrotoluene	0.0100	0.007404		mg/L		74	39 - 139
2,6-Dinitrotoluene	0.0100	0.007156		mg/L		72	50 - 150
2-Chloronaphthalene	0.0100	0.007282		mg/L		73	60 - 118
2-Chlorophenol	0.0100	0.007916		mg/L		79	23 - 134
2-Methylnaphthalene	0.0100	0.007773		mg/L		78	48 - 100
2-Methylphenol	0.0100	0.007510		mg/L		75	49 - 100
2-Nitroaniline	0.0100	0.008205		mg/L		82	44 - 119

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels (Continued)

Lab Sample ID: LCS 180-279581/2-A
Matrix: Water
Analysis Batch: 280155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279581

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Nitrophenol	0.0100	0.007870		mg/L		79	29 - 150
3,3'-Dichlorobenzidine	0.0100	0.006793		mg/L		68	10 - 150
3-Nitroaniline	0.0100	0.007259		mg/L		73	52 - 101
4-Chloro-3-methylphenol	0.0100	0.007456		mg/L		75	22 - 147
4-Chloroaniline	0.0100	0.007390		mg/L		74	47 - 100
3-Methylphenol + 4-Methylphenol	0.0100	0.007722		mg/L		77	48 - 100
4-Nitroaniline	0.0100	0.007218		mg/L		72	49 - 106
4-Nitrophenol	0.0200	0.01758		mg/L		88	10 - 132
Acenaphthene	0.0100	0.007156		mg/L		72	47 - 145
Acenaphthylene	0.0100	0.007359		mg/L		74	33 - 145
Acetophenone	0.0100	0.007529		mg/L		75	40 - 100
Aniline	0.0100	0.007216		mg/L		72	37 - 100
Anthracene	0.0100	0.007419		mg/L		74	27 - 133
Atrazine	0.0100	0.008069		mg/L		81	10 - 102
Benzaldehyde	0.0100	0.001348		mg/L		13	10 - 100
Benzidine	0.0100	0.00913	U	mg/L		15	5 - 100
Benzo[a]anthracene	0.0100	0.008057		mg/L		81	33 - 143
Benzo[a]pyrene	0.0100	0.007742		mg/L		77	17 - 150
3,4-Benzofluoranthene	0.0100	0.008030		mg/L		80	24 - 150
Benzo[k]fluoranthene	0.0100	0.009121		mg/L		91	11 - 150
Benzoic acid	0.0100	0.008150		mg/L		81	10 - 111
Benzyl alcohol	0.0100	0.006839		mg/L		68	39 - 102
Bis(2-chloroethoxy)methane	0.0100	0.007536		mg/L		75	33 - 150
Bis(2-chloroethyl)ether	0.0100	0.007390		mg/L		74	12 - 150
Bis(2-ethylhexyl) phthalate	0.0100	0.007656	J	mg/L		77	10 - 150
Butyl benzyl phthalate	0.0100	0.008305		mg/L		83	10 - 150
Caprolactam	0.0100	0.008167		mg/L		82	42 - 119
Carbazole	0.0100	0.007495		mg/L		75	55 - 101
Chrysene	0.0100	0.007533		mg/L		75	17 - 150
Dibenz(a,h)anthracene	0.0100	0.009006		mg/L		90	10 - 150
Dibenzofuran	0.0100	0.007227		mg/L		72	52 - 100
Diethyl phthalate	0.0100	0.007668		mg/L		77	10 - 114
Dimethyl phthalate	0.0100	0.007479		mg/L		75	10 - 112
4,6-Dinitro-2-methylphenol	0.0200	0.01310		mg/L		65	10 - 150
Di-n-butyl phthalate	0.0100	0.007638		mg/L		76	10 - 118
Fluoranthene	0.0100	0.008167		mg/L		82	26 - 137
Fluorene	0.0100	0.007083		mg/L		71	59 - 121
Hexachlorobenzene	0.0100	0.007412		mg/L		74	10 - 150
Hexachlorobutadiene	0.0100	0.008519		mg/L		85	24 - 116
Hexachlorocyclopentadiene	0.0100	0.007135		mg/L		71	12 - 115
Hexachloroethane	0.0100	0.007845		mg/L		78	40 - 113
Indeno[1,2,3-cd]pyrene	0.0100	0.008737		mg/L		87	10 - 150
Isophorone	0.0100	0.008209		mg/L		82	21 - 150
Cresols, Total	0.0200	0.01523		mg/L		76	49 - 100
Naphthalene	0.0100	0.007403		mg/L		74	21 - 133
Nitrobenzene	0.0100	0.008331		mg/L		83	35 - 150
N-Nitrosodiphenylamine	0.0100	0.007468		mg/L		75	52 - 103
N-Nitrosodi-n-propylamine	0.0100	0.008105		mg/L		81	10 - 150
Pentachlorophenol	0.0200	0.01295		mg/L		65	14 - 150

Method: EPA 625 - Semivolatile Organic Compounds (GC/MS) - Low Levels (Continued)

Lab Sample ID: LCS 180-279581/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 280155 — **Prep Batch: 279581**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenanthrene	0.0100	0.007204		mg/L		72	54 - 120
Phenol	0.0100	0.007378		mg/L		74	10 - 112
Pyrene	0.0100	0.007737		mg/L		77	52 - 115
Pyridine	0.0200	0.01800		mg/L		90	19 - 117
n-Decane	0.0100	0.007674		mg/L		77	24 - 107
n-Octadecane	0.0100	0.007057		mg/L		71	35 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*45 - 106*
2-Fluorophenol (Surr)	*81*		*39 - 105*
2,4,6-Tribromophenol (Surr)	*68*		*39 - 125*
Nitrobenzene-d5 (Surr)	*86*		*43 - 110*
Phenol-d5 (Surr)	*78*		*40 - 108*
Terphenyl-d14 (Surr)	*81*		*45 - 120*

Lab Sample ID: LCS 180-279581/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 280180 — **Prep Batch: 279581**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrophenol	0.0200	0.01383		mg/L		69	10 - 150
N-Nitrosodimethylamine	0.0100	0.007677		mg/L		77	38 - 105

Method: Organotins/GCMS - Organotins (GC/MS)

Lab Sample ID: MB 200-143460/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143571 — **Prep Batch: 143460**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyltin	0.0450	U	0.0450	0.0450	ug/L		05/27/19 09:25	05/30/19 21:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tripentyltin	*70*		*15 - 150*	*05/27/19 09:25*	*05/30/19 21:46*	*1*

Lab Sample ID: LCS 200-143460/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143571 — **Prep Batch: 143460**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tributyltin	0.445	0.4681		ug/L		105	30 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tripentyltin	*73*		*15 - 150*

Method: Organotins/GCMS - Organotins (GC/MS) (Continued)

Lab Sample ID: LCSD 200-143460/3-A
Matrix: Water
Analysis Batch: 143571

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 143460

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tributyltin			0.445	0.4525		ug/L		102	30 - 150	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tripentyltin	*72*		*15 - 150*

Method: WS-MS-0010 - Nonylphenols

Lab Sample ID: MB 320-297813/1-A
Matrix: Water
Analysis Batch: 299198

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 297813

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	1.60	U	5.00	1.60	ug/L		05/29/19 14:22	06/04/19 23:32	1
Bisphenol-A	0.320	U	1.00	0.320	ug/L		05/29/19 14:22	06/04/19 23:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-nonylphenol monoethoxylate (Surr)	*79*		*47 - 138*	*05/29/19 14:22*	*06/04/19 23:32*	*1*

Lab Sample ID: LCS 320-297813/2-A
Matrix: Water
Analysis Batch: 299198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 297813

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nonylphenol			24.0	20.90		ug/L		87	35 - 133		
Bisphenol-A			4.80	4.245		ug/L		88	42 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-nonylphenol monoethoxylate (Surr)	*104*		*47 - 138*

Lab Sample ID: LCSD 320-297813/3-A
Matrix: Water
Analysis Batch: 299198

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 297813

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nonylphenol			24.0	22.31		ug/L		93	35 - 133	7	35
Bisphenol-A			4.80	4.677		ug/L		97	42 - 120	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-nonylphenol monoethoxylate (Surr)	*112*		*47 - 138*

QC Sample Results

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Method: 608 - Organochlorine Pesticides in Water

Lab Sample ID: MB 600-265704/1-A
Matrix: Water
Analysis Batch: 265738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 265704

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicofol	0.100	U	0.100	0.100	ug/L		05/23/19 07:48	05/23/19 13:20	1
Mirex	0.0100	U	0.100	0.0100	ug/L		05/23/19 07:48	05/23/19 13:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*32 - 143*	*05/23/19 07:48*	*05/23/19 13:20*	*1*
DCB Decachlorobiphenyl	*90*		*36 - 144*	*05/23/19 07:48*	*05/23/19 13:20*	*1*

Lab Sample ID: LCS 600-265704/2-A
Matrix: Water
Analysis Batch: 265738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.500	0.5181		ug/L		104	42 - 122
Dieldrin	0.500	0.5689		ug/L		114	36 - 146

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*83*		*32 - 143*
DCB Decachlorobiphenyl	*100*		*36 - 144*

Lab Sample ID: LCS 600-265704/4-A
Matrix: Water
Analysis Batch: 265738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 265704

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dicofol	2.00	2.748	*	ug/L		137	70 - 130
Mirex	2.00	1.545		ug/L		77	

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*32 - 143*
DCB Decachlorobiphenyl	*80*		*36 - 144*

Lab Sample ID: LCSD 600-265704/3-A
Matrix: Water
Analysis Batch: 265738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 265704

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.500	0.5622		ug/L		112	42 - 122	8	20
Dieldrin	0.500	0.5932		ug/L		119	36 - 146	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*90*		*32 - 143*
DCB Decachlorobiphenyl	*97*		*36 - 144*

Method: 608 - Organochlorine Pesticides in Water (Continued)

Lab Sample ID: LCSD 600-265704/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 265738 — **Prep Batch: 265704**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dicofol			2.00	3.242	*	ug/L		162	70 - 130	16	20
Mirex			2.00	1.646		ug/L		82		6	

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*92*		*32 - 143*
DCB Decachlorobiphenyl	*112*		*36 - 144*

Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 180-279596/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 279626 — **Prep Batch: 279596**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.00000476	U	0.0000100	0.00000476	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1221	0.00000572	U	0.0000100	0.00000572	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1232	0.00000521	U	0.0000100	0.00000521	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1242	0.00000913	U	0.0000100	0.00000913	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1248	0.00000299	U	0.0000100	0.00000299	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1254	0.00000952	U	0.0000100	0.00000952	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1260	0.00000392	U	0.0000100	0.00000392	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1262	0.00000710	U	0.0000100	0.00000710	mg/L		05/23/19 09:30	05/24/19 07:17	1
PCB-1268	0.00000455	U	0.0000100	0.00000455	mg/L		05/23/19 09:30	05/24/19 07:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr)	*90*		*38 - 146*	*05/23/19 09:30*	*05/24/19 07:17*	*1*
DCB Decachlorobiphenyl (Surr)	*84*		*42 - 150*	*05/23/19 09:30*	*05/24/19 07:17*	*1*

Lab Sample ID: LCS 180-279596/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 279626 — **Prep Batch: 279596**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			0.00100	0.0009019		mg/L		90	50 - 140		
PCB-1260			0.00100	0.0008600		mg/L		86	10 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene (Surr)	*97*		*38 - 146*
DCB Decachlorobiphenyl (Surr)	*85*		*42 - 150*

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water

Lab Sample ID: MB 180-279596/1-A
Matrix: Water
Analysis Batch: 279668

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 279596

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.000000207	U	0.00000130	0.000000207	mg/L		05/23/19 09:30	05/24/19 12:26	1
4,4'-DDE	0.000000108	U	0.00000130	0.000000108	mg/L		05/23/19 09:30	05/24/19 12:26	1
4,4'-DDT	0.000000297	U	0.00000130	0.000000297	mg/L		05/23/19 09:30	05/24/19 12:26	1
Aldrin	0.000000122	U	0.00000130	0.000000122	mg/L		05/23/19 09:30	05/24/19 12:26	1
Hexachlorocyclohexane, alpha-	0.000000120	U	0.00000130	0.000000120	mg/L		05/23/19 09:30	05/24/19 12:26	1
Hexachlorocyclohexane, beta-	0.000000152	U	0.00000130	0.000000152	mg/L		05/23/19 09:30	05/24/19 12:26	1
Dieldrin	0.000000129	U	0.00000130	0.000000129	mg/L		05/23/19 09:30	05/24/19 12:26	1
Endosulfan I	0.000000150	U	0.00000130	0.000000150	mg/L		05/23/19 09:30	05/24/19 12:26	1
Endosulfan II	0.000000117	U	0.00000130	0.000000117	mg/L		05/23/19 09:30	05/24/19 12:26	1
Endosulfan sulfate	0.000000290	U	0.00000130	0.000000290	mg/L		05/23/19 09:30	05/24/19 12:26	1
Endrin	0.000000228	U	0.00000130	0.000000228	mg/L		05/23/19 09:30	05/24/19 12:26	1
Hexachlorocyclohexane, gamma-	0.000000119	U	0.00000130	0.000000119	mg/L		05/23/19 09:30	05/24/19 12:26	1
Heptachlor	0.000000452	U	0.00000130	0.000000452	mg/L		05/23/19 09:30	05/24/19 12:26	1
Heptachlor epoxide	0.000000139	U	0.00000130	0.000000139	mg/L		05/23/19 09:30	05/24/19 12:26	1
Methoxychlor	0.000000344	U	0.00000130	0.000000344	mg/L		05/23/19 09:30	05/24/19 12:26	1
Chlordane (technical)	0.00000150	U	0.0000130	0.00000150	mg/L		05/23/19 09:30	05/24/19 12:26	1
Toxaphene	0.0000113	U	0.000100	0.0000113	mg/L		05/23/19 09:30	05/24/19 12:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*38 - 146*	*05/23/19 09:30*	*05/24/19 12:26*	*1*
DCB Decachlorobiphenyl (Surr)	*92*		*42 - 150*	*05/23/19 09:30*	*05/24/19 12:26*	*1*

Lab Sample ID: LCS 180-279596/2-A
Matrix: Water
Analysis Batch: 279668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.0000250	0.00001830		mg/L		73	31 - 141
4,4'-DDE	0.0000250	0.00001841		mg/L		74	30 - 145
4,4'-DDT	0.0000250	0.00001649		mg/L		66	25 - 150
Aldrin	0.0000250	0.00001826		mg/L		73	42 - 140
Hexachlorocyclohexane, alpha-	0.0000250	0.00001612		mg/L		64	37 - 140
Hexachlorocyclohexane, beta-	0.0000250	0.00001605		mg/L		64	17 - 147
Dieldrin	0.0000250	0.00001815		mg/L		73	36 - 146
Endosulfan I	0.0000250	0.00001897		mg/L		76	45 - 150
Endosulfan II	0.0000250	0.00001990		mg/L		80	10 - 150

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: LCS 180-279596/2-A
Matrix: Water
Analysis Batch: 279668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 279596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan sulfate	0.0000250	0.00001519		mg/L		61	26 - 144
Endrin	0.0000250	0.00001835		mg/L		73	30 - 147
Hexachlorocyclohexane, gamma-	0.0000250	0.00001664		mg/L		67	32 - 140
Heptachlor	0.0000250	0.00001786		mg/L		71	34 - 140
Heptachlor epoxide	0.0000250	0.00001838		mg/L		74	37 - 142
Methoxychlor	0.0000250	0.00001693		mg/L		68	42 - 119

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*67*		*38 - 146*
DCB Decachlorobiphenyl (Surr)	*84*		*42 - 150*

Method: 531.1 - Carbamate Pesticides (HPLC)

Lab Sample ID: MB 680-571970/4
Matrix: Water
Analysis Batch: 571970

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbaryl	0.250	U	2.50	0.250	ug/L			05/28/19 14:16	1

Lab Sample ID: LCS 680-571970/5
Matrix: Water
Analysis Batch: 571970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbaryl	10.0	11.46		ug/L		115	80 - 120

Lab Sample ID: LCSD 680-571970/6
Matrix: Water
Analysis Batch: 571970

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbaryl	10.0	11.59		ug/L		116	80 - 120	1	20

QC Association Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

GC/MS Semi VOA

Prep Batch: 143460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	3510C	
MB 200-143460/1-A	Method Blank	Total/NA	Water	3510C	
LCS 200-143460/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 200-143460/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 143571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	Organotins/GCMS	143460
MB 200-143460/1-A	Method Blank	Total/NA	Water	Organotins/GCMS	143460
LCS 200-143460/2-A	Lab Control Sample	Total/NA	Water	Organotins/GCMS	143460
LCSD 200-143460/3-A	Lab Control Sample Dup	Total/NA	Water	Organotins/GCMS	143460

Prep Batch: 279581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	625	
MB 180-279581/1-A	Method Blank	Total/NA	Water	625	
LCS 180-279581/2-A	Lab Control Sample	Total/NA	Water	625	

Analysis Batch: 280155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	EPA 625	279581
MB 180-279581/1-A	Method Blank	Total/NA	Water	EPA 625	279581
LCS 180-279581/2-A	Lab Control Sample	Total/NA	Water	EPA 625	279581

Analysis Batch: 280180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	EPA 625	279581
MB 180-279581/1-A	Method Blank	Total/NA	Water	EPA 625	279581
LCS 180-279581/2-A	Lab Control Sample	Total/NA	Water	EPA 625	279581

Prep Batch: 297813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	3510C	
MB 320-297813/1-A	Method Blank	Total/NA	Water	3510C	
LCS 320-297813/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 320-297813/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 299198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	WS-MS-0010	297813
MB 320-297813/1-A	Method Blank	Total/NA	Water	WS-MS-0010	297813
LCS 320-297813/2-A	Lab Control Sample	Total/NA	Water	WS-MS-0010	297813
LCSD 320-297813/3-A	Lab Control Sample Dup	Total/NA	Water	WS-MS-0010	297813

Prep Batch: 597603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	625	
MB 490-597603/1-A	Method Blank	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 597603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-597603/7-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 597786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	625	597603
MB 490-597603/1-A	Method Blank	Total/NA	Water	625	597603
LCS 490-597603/7-A	Lab Control Sample	Total/NA	Water	625	597603

GC Semi VOA

Prep Batch: 265704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	608	
MB 600-265704/1-A	Method Blank	Total/NA	Water	3510C	
LCS 600-265704/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 600-265704/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 600-265704/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 600-265704/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 265738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	608	265704
MB 600-265704/1-A	Method Blank	Total/NA	Water	608	265704
LCS 600-265704/2-A	Lab Control Sample	Total/NA	Water	608	265704
LCS 600-265704/4-A	Lab Control Sample	Total/NA	Water	608	265704
LCSD 600-265704/3-A	Lab Control Sample Dup	Total/NA	Water	608	265704
LCSD 600-265704/5-A	Lab Control Sample Dup	Total/NA	Water	608	265704

Prep Batch: 279596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	608	
MB 180-279596/1-A	Method Blank	Total/NA	Water	608	
LCS 180-279596/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 180-279596/3-A	Lab Control Sample	Total/NA	Water	608	

Analysis Batch: 279626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	EPA 608	279596
MB 180-279596/1-A	Method Blank	Total/NA	Water	EPA 608	279596
LCS 180-279596/3-A	Lab Control Sample	Total/NA	Water	EPA 608	279596

Analysis Batch: 279668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	EPA 608	279596
MB 180-279596/1-A	Method Blank	Total/NA	Water	EPA 608	279596
LCS 180-279596/2-A	Lab Control Sample	Total/NA	Water	EPA 608	279596

Analysis Batch: 279722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	PCB	

QC Association Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

HPLC/IC

Analysis Batch: 571970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-185817-1	WW.20190520-002-DAY 18	Total/NA	Water	531.1	
MB 680-571970/4	Method Blank	Total/NA	Water	531.1	
LCS 680-571970/5	Lab Control Sample	Total/NA	Water	531.1	
LCSD 680-571970/6	Lab Control Sample Dup	Total/NA	Water	531.1	

Lab Chronicle

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Client Sample ID: WW.20190520-002-DAY 18

Date Collected: 05/20/19 11:30
Date Received: 05/21/19 15:55

Lab Sample ID: 600-185817-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			992.1 mL	1 mL	597603	05/24/19 14:12	KWS	TAL NSH
Total/NA	Analysis	625		1			597786	05/26/19 01:37	T1C	TAL NSH
Total/NA	Prep	625			990 mL	1.0 mL	279581	05/23/19 19:29	BJT	TAL PIT
Total/NA	Analysis	EPA 625		1	1 mL	1 mL	280180	05/31/19 02:47	VVP	TAL PIT
Total/NA	Prep	625			990 mL	1.0 mL	279581	05/23/19 19:29	BJT	TAL PIT
Total/NA	Analysis	EPA 625		1			280155	05/30/19 23:53	VVP	TAL PIT
Total/NA	Prep	3510C			1000 mL	5 mL	143460	05/27/19 09:25	HCK	TAL BUR
Total/NA	Analysis	Organotins/GCMS		1			143571	05/30/19 22:08	DJB	TAL BUR
Total/NA	Prep	3510C			979.1 mL	.5 mL	297813	05/29/19 14:22	SJC	TAL SAC
Total/NA	Analysis	WS-MS-0010		1			299198	06/05/19 04:44	M1A	TAL SAC
Total/NA	Prep	608			1020 mL	10.0 mL	265704	05/23/19 07:48	LER	TAL HOU
Total/NA	Analysis	608		1			265738	05/23/19 17:31	JAL	TAL HOU
Total/NA	Prep	608			1010 mL	1.0 mL	279596	05/23/19 11:30	CBY	TAL PIT
Total/NA	Analysis	EPA 608		1			279626	05/24/19 08:13	JMO	TAL PIT
Total/NA	Prep	608			1010 mL	1.0 mL	279596	05/23/19 11:30	CBY	TAL PIT
Total/NA	Analysis	EPA 608		1			279668	05/24/19 12:59	DFE	TAL PIT
Total/NA	Analysis	PCB		1			279722	05/23/19 11:30	SAB	TAL PIT
Total/NA	Analysis	531.1		1	1 mL	1 mL	571970	05/29/19 00:16	UI	TAL SAV

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990
TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444
TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177
TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058
TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600
TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Cardno, Inc
Job ID: 600-185817-1
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Laboratory: Eurofins TestAmerica, Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704223-18-23	10-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
608	608	Water	Dicofol
608	608	Water	Mirex

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-20
Florida	NELAP	4	E87467	06-30-19 *
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-19
New Jersey	NELAP	2	VT972	06-30-19 *
New York	NELAP	2	10391	04-01-20
Pennsylvania	NELAP	3	68-00489	04-30-20
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Laboratory: Eurofins TestAmerica, Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-19
Arizona	State Program	9	AZ0473	05-05-20
Arkansas DEQ	State Program	6	88-0737	04-25-20
California	State Program	9	2938	06-30-19
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-19
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-19
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-19
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-20
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-20
Massachusetts	State Program	1	M-TN032	06-30-19
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19
Nevada	State Program	9	TN00032	07-31-19
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-19
New York	NELAP	2	11342	03-31-20
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19
Oklahoma	State Program	6	9412	08-31-19
Oregon	NELAP	10	TN200001	04-26-19 *
Pennsylvania	NELAP	3	68-00585	07-31-19
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	04-10-20
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-20
Washington	State Program	10	C789	07-19-19
West Virginia DEP	State Program	3	219	02-28-20
Wisconsin	State Program	5	998020430	08-31-19
Wyoming (UST)	A2LA	8	453.07	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Cardno, Inc
Project/Site: ITC Deer Park WW.20190520-002-DAY 18

Job ID: 600-185817-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-20
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Kentucky (DW)	Kentucky UST	4	162013	04-30-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-20
South Carolina	State Program	4	89014	04-30-20
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

Laboratory: Eurofins TestAmerica, Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704399	05-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
WS-MS-0010	3510C	Water	Bisphenol-A
WS-MS-0010	3510C	Water	Nonylphenol

Laboratory: Eurofins TestAmerica, Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704185-19-13	11-30-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
531.1		Water	Carbaryl

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: R. Nakamura V. Phipps	Lab PM: Joiner, Dean A	Carrier Tracking No(s):	COC No: 600-68698-18746.1
Client Contact: Ms. Cheryl Hennessy	Phone:	E-Mail: dean.joiner@testamericainc.com		Page: Page 1 of 1
Company: Cardno, Inc				Job #:
Address: 970 Wedgewood Drive	Due Date Requested:			
City: Crystal Lake	TAT Requested (days): 5 WD TAT Level 3e			
State, Zip: IL, 60014				
Phone:	PO #: Purchase Order Requested			
Email: cheryl.randle@cardno.com	WO #:			
Project Name: ITC Deer Park Water Samples - Full List	Project #: 60010840 Analytical Grp: Active List 2019			
Site: OUTFALL-002	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate
Other:

600-185817 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	531.1 - Carbaryl	608_Pest - Mirex/Dicofol (Houston)	Nonylphenols - (MOD) Project List	608, 608_PCB, - Pesticides/PCBs - (Pittsburgh)	625 - Hexachlorphene (Nashville)	Organotins_GCMS - (MOD) TBT Only	625_LL - Custom 625 Semivolatile List (Pittsburgh)	Total Number of containers	Spec
			Preservation Code:				VR	N	S	N	N	N	N		
WW-20190520-002-DAY 18	5/21/19	1130	C	Water	N	N	X	X	X	X	X	X	X	15	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 5/21/19 1455	Company: Cardno	Received by: #358	Date/Time: 5-21-19	Company: Superior
Relinquished by:	Date/Time: 5-21-19 1555	Company:	Received by:	Date/Time: 5-21-19 1555	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

TestAmerica Houston

Loc: 600
185817

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt

Date/Time Received: '19 MAY 21 15:55

JOB NUMBER: 817

CLIENT: Curdn2

UNPACKED BY: YR

CARRIER/DRIVER: PC

Custody Seal Present: ☐ YES ☒ NO

Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (℃)	Therm ID	Them CF	Corrected Temp (℃)
B4	Y / N	Y / N	4.9	620	-.2	4.7
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☒ YES ☐ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒	☐

COMMENTS:

HS-SA-WI-013 Rev. 3; 07/01/2014

Joiner, Dean

From: Cheryl Hennessy <Cheryl.Randle@cardno.com>
Sent: Thursday, May 23, 2019 5:12 PM
To: Joiner, Dean
Subject: Day 17 and 18 COC Discrepancies

-External Email-

Dean –

As I mentioned on the phone - here are the COC discrepancies that we noted for Days 17 and 18:

Day 17

WW-20190519-002-Day17 -
The collection date submitted on the COC is 05/20/2019.
The correct collection date should be 05/19/2019.

Day 18

WW-20190520-002-Day18 -

The collection date submitted on the COC is 05/21/2019.
The correction collection date should be 05/20/2019

Please make note of these and make the corrections prior to releasing your report.

Thank you!
Cheryl

Cheryl Hennessy MBA
SR. PROJECT SCIENTIST | QUALITY ASSURANCE MANAGER
CARDNO

Mobile +1 815 893 9433
Address 301 E Congress Pkwy #761, Crystal Lake, Illinois 60014
Email cheryl.randle@cardno.com Web www.cardno.com

CONNECT WITH CARDNO

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TestAme

THE LEADER IN ENVIRONMENTAL TESTING

600-185817 Waybill

600-185759 Waybill

ORIGIN ID:LKSA (713) 358-2413
SAMPLE RECEIVING
TESTAMERICA INC
6310 RI[illegible]Y ST

HOUSTON, [illegible] 77040
UNITED STATES US

SHIP D
ACTWGT
CAD: 0

BILL RE[illegible]

TO **SHIPPING/RECEIVING**
TESTAMERICA LABORATORIES, INC.
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 963-7058 REF: S600-68756
PO: YES

FedEx Express

TRK# 0201 4840 2906 2733

THU - 23 MAY 3:00P
STANDARD OVERNIGHT

NA AGCA

15238
PA-US PIT

Uncorrected temp 4.1 °C
Thermometer ID 10

CF 0 Initials JB

PT-WI-SR-001 effective 11/8/18

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

ofins | Environment Testing TestAmerica

600-185817 Chain of Custody

524.1

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A		
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-185817-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 5/29/2019			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: ITC Deer Park Water Samples	Project #: 60010840			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	608/608_Prep (MOD) Copy Analytes	625_LL/625_LL_Prep (MOD) Special List	608_PCB/608_Prep_PCB (MOD) Priority Pollutant PCB's	Total_PCB	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X	X	X	X	4	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5/22 1600	Company: TA	Received by: [signature]	Date/Time: 5/22/19 600	Company: TAHOU
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 01/16/2019

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

600-185817 Chain of Custody

rofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A	9628.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas	Job #: 600-185817-1
Address: 30 Community Drive, Suite 11,	Due Date Requested: 5/29/2019		
City: South Burlington	TAT Requested (days):		
State, Zip: VT, 05403			
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO #:		
Email:	WO #:		
Project Name: ITC Deer Park Water Samples	Project #: 60010840		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Organotins_GCMS/3510C (MOD) TBT Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X		

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Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5/22 1100	Company: TA	Received by: Taylor Johnson	Date/Time: 5/23/19 1220	Company: TABCI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 731635		Cooler Temperature(s) °C and Other Remarks: 3.1		

Ver: 01/16/2019

ORIGIN ID:LKSA (713) 358-2413
SAMPLE RECEIVING
TESTAMERICA INC
6310 ROTHWAY ST

HOUSTON, TX 77040
UNITED STATES US

SHIP DATE: 22MAY19
ACTWGT: 10.00 LB MAN
CAD: 0758523/CAFE3211

BILL RECIPIENT

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990 REF: 8600-68760
PO: YES

FedEx Express

TRK# 0201 4840 2906 2711

THU - 23 MAY 3:00P
STANDARD OVERNIGHT

NC BTVA

05403
VT-US BTV

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A	Carrier Tracking No(s):	COC No: 600-39630.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-185817-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 5/29/2019			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: ITC Deer Park Water Samples	Project #: 60010840			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Nonylphenols/3510C_28Day (MOD) Project List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5/22 1100	Company: TA	Received by: [signature]	Date/Time: 5/23/19 905	Company: ETA-SAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 731626		Cooler Temperature(s) °C and Other Remarks: 3.3°C		

Ver: 01/16/2019

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A	Carrier Tracking No(s):	COC No: 600-39695.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-185817-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 5/28/2019			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: ITC Deer Park WW.20190520-002-DAY 18	Project #: 60010840			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Nonylphenols/3510C_28Day (MOD) Project List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X	2	

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Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 5/23/19 1400	Company: FTA	Received by:	Date/Time: 5/24/19 930	Company: ETA-SAC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 73/6/5 | Cooler Temperature(s) °C and Other Remarks: 2.2

Containers received on 2/23/19

Ver: 01/16/2019

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

600-185817 Chain of Custody

Cooler Received/Opened On 5/23/2019 @ 9:50

Time Samples Removed From Cooler 1444 Time Samples Placed In Storage 1447 (2 Hour Window)

1. Tracking # 2700 (last 4 digits, FedEx) Courier: Fedex

   IR Gun ID 97310166 pH Strip Lot _____ Chlorine Strip Lot _____ 149-0456

2. Temperature of rep. sample or temp blank when opened: 13.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 1 side

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) TR

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None water only

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) GH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) GH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) GH

I certify that I attached a label with the unique LIMS number to each container (intial) GH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

6/17/2019 (Rev. 1)

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

Loc: 600
185817

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A	COC No: 600-39631.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Texas	Job #: 600-185817-1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 5/29/2019		
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: ITC Deer Park Water Samples	Project #: 60010840		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625/625_Prep (MOD) Custom 625 Semivolatile List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X	3	

Loc: 600
185817

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

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Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 5/22 1600	Company: TA	Received by:	Date/Time: 5-23-19 / 0950	Company: KA-NAS	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 13-1			

Ver: 01/16/2019

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A	Carrier Tracking No(s):	COC No: 600-39629.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-185817-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 5/29/2019			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: ITC Deer Park Water Samples	Project #: 60010840			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	531.1/ Carbaryl	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:	
Relinquished by: Frayne	Date/Time: 5/22 1600	Company: TA	Received by: [illegible]		Date/Time: 5-23-19	Company: TASV
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 5.3/5.2			

Ver: 01/16/2019

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone: 713-690-4444 Fax: 713-690-5646

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Joiner, Dean A	Carrier Tracking No(s):	COC No: 600-39688.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dean.joiner@testamericainc.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 600-185817-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 5/29/2019			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: ITC Deer Park WW.20190520-002-DAY 18	Project #: 60010840			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	531.1/ Carbaryl	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
WW.20190520-002-DAY 18 (600-185817-1)	5/21/19	11:30 Central		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 5/23/19 1600	Company: TTI	Received by: [signature]	Date/Time: 5-24-19 0908	Company: TASAV
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.7/2.4		

Ver: 01/16/2019

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600-185817 Field Sheet

Job:

Tracking # 4840 2906 2696

SO / PO / FO / 2-Day / Ground / UPS / Courier / GSO / OnTrac / Goldstreak / USPS / Other

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes:

Therm. ID: AK8 Corr. Factor: +0.2°C

Ice ✓ Wet ✓ Gel ____ Other ____

Cooler Custody Seal: 731626

Sample Custody Seal: —

Cooler ID: —

Temp Observed: 3.1°C Corrected: 3.3°C

From: Temp Blank ☐ Sample ☑

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
CoC is complete w/o discrepancies?	☑	☐	☐
Samples received within holding time?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Cooler compromised/tampered with?	☐	☑	☐
Samples compromised/tampered with?	☐	☑	☐
Samples w/o discrepancies?	☑	☐	☐
Sample containers have legible labels?	☑	☐	☐
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided.	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐
Sample temp OK?	☑	☐	☐
Sample out of temp?	☐	☑	☐

Initials: MAN Date: 5/23/19

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

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Job: 600-185817 Field Sheet

Tracking # 4840 2906 2961 SO / PO / FO / 2-Day / Ground / UPS / Courier / GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Notes:

Therm. ID: HACCP Corr. Factor: —

Ice ✓ Wet ✓ Gel ____ Other ____

Cooler Custody Seal: 731615

Sample Custody Seal: —

Cooler ID: —

Temp Observed: 2.2°C Corrected: 2.2°C

From: Temp Blank ☐ Sample ☑

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☑
Alkalinity has no headspace?	☐	☐	☑
CoC is complete w/o discrepancies?	☑	☐	☐
Samples received within holding time?	☑	☐	☐
Sample preservatives verified?	☐	☐	☑
Cooler compromised/tampered with?	☐	☑	☐
Samples compromised/tampered with?	☐	☑	☐
Samples w/o discrepancies?	☑	☐	☐
Sample containers have legible labels?	☑	☐	☐
Containers are not broken or leaking?	☑	☐	☐
Sample date/times are provided.	☑	☐	☐
Appropriate containers are used?	☑	☐	☐
Sample bottles are completely filled?	☑	☐	☐
Zero headspace?*	☐	☐	☑
Multiphasic samples are not present?	☑	☐	☐
Sample temp OK?	☑	☐	☐
Sample out of temp?	☐	☑	☐

Initials: MAN Date: 5/24/19

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Login Sample Receipt Checklist

Client: Cardno, Inc

Job Number: 600-185817-1

Login Number: 185817
List Number: 1
Creator: Crafton, Tommie S

List Source: Eurofins TestAmerica, Houston

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Cardno, Inc

Job Number: 600-185817-1

Login Number: 185817
List Number: 3
Creator: Mohn, Taylor J

List Source: Eurofins TestAmerica, Burlington
List Creation: 05/23/19 02:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	731635
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Cardno, Inc

Job Number: 600-185817-1

Login Number: 185817
List Number: 2
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh
List Creation: 05/23/19 11:36 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Cardno, Inc

Job Number: 600-185817-1

Login Number: 185817
List Number: 6
Creator: Rosas, Jaime

List Source: Eurofins TestAmerica, Sacramento
List Creation: 05/23/19 04:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	731626
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Cardno, Inc

Job Number: 600-185817-1

Login Number: 185817
List Number: 5
Creator: Nobles, Terry G

List Source: Eurofins TestAmerica, Savannah
List Creation: 05/23/19 04:40 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	