11228 Aurora Avenue
Des Moines, Iowa 50322-7905
United States
www.ghd.com

Our ref: 11156780-LTR-6

January 26, 2023

Mr. Matt Culp
Contaminated Sites Section
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319

Project Close-Out Activities
Albia Former Manufactured Gas Plant Site
Albia, Iowa

Dear Mr. Culp:

On behalf of Interstate Power and Light Company (IPL), GHD has prepared this letter to document project close-out activities that have been completed for the Albia, Iowa former manufactured gas plant (FMGP) site in accordance with the recommendations in the Request to Terminate Groundwater Monitoring and Proposed Close-Out Activities letter dated June 1, 2022 and approved by the Iowa Department of Natural Resources (IDNR) on July 11, 2022.

1. Summary of Close-Out Activities

To minimize the potential for future exposure to residual soil and groundwater impacts, IPL proposed to implement the institutional controls and activities described below during project close-out.

1.1 Updated Well Search

An updated the well search was conducted on July 22, 2022 in the vicinity of the site using the IDNR's Facility Explorer internet application. No active water wells were identified within a 1,000-foot radius of the site. A copy of the updated well search is included as part of Attachment A.

1.2 Notification of Contamination

A letter of notification describing the groundwater impact at the site was sent to the Appanoose, Davis, Lucas, and Monroe (ADLM) Counties Department of Environmental Public Health on July 29, 2022. A copy of the ADLM notification is included in Attachment A.

A letter of notification was sent to the City of Albia regarding soil and groundwater impacts which may extend beneath city streets and adjoining right of ways on July 29, 2022. Notification included data summary tables and figures depicting the extent and magnitude of site-related impacts. A copy of the City notification is included in Attachment B.

1.3 Monitoring Well Abandonment

On September 22, 2022, GHD mobilized to the site to oversee the abandonment of the 9 monitoring wells associated with the site. GHD contracted Below Ground Surface, Inc. (BGS) of Lenexa, Kansas, an Iowa licensed well driller, to plug the monitoring wells in accordance with Rule 567-39.8 of the Iowa Administrative Code (IAC). BGS removed the surface completions and the well materials, sealed the remaining void with bentonite chips, and restored the ground surface to match surrounding conditions. IDNR Form 542-1226 was completed for each of the abandoned wells and submitted to the ADLM Counties Department of Environmental Public Health and IDNR on October 3, 2022. A copy of the well plugging submittal is provided as Attachment C.

1.4 Environmental Covenant

On January 3, 2023, the Environmental Covenant for the Albia FMGP site was recorded by the Monroe County Recorder. The Environmental Covenant prohibits future residential land use and water well installation and use on the property, and requires any building or structure to be built on site to be reviewed and approved by IDNR for potential vapor intrusion concerns. A copy of the recorded Environmental Covenant is provided in Attachment D.

2. Closing

IPL requests your written acknowledgement of the site close-out activities and IDNR's written concurrence with site closure. If you have questions, or need additional information, please contact Jill Stevens of IPL at 608-458-0446 or me at 515-414-3935.

Sincerely,

Kevin G. Armstrong, C.P.G.
Project Manager

+1 515 414-3935
kevin.armstrong@ghd.com

KA/lg/LTR-6

Attachments

Attachment A – Notification of Impact to ADLM Counties (including Updated Water Well Search)
Attachment B – Notification of Impact to the City of Albia
Attachment C – Monitoring Well Plugging Letter
Attachment D – Environmental Covenant (Recorded, Book 2023 Page 3)

cc: Jill Stevens, IPL
Leilani Todd, Chariton Valley Electric Cooperative

Attachment A

Notification of Impact to ADLM Counties (including Updated Water Well Search)

11228 Aurora Avenue
Des Moines, Iowa 50322-7905
United States
www.ghd.com

GHD ref: 11156780

July 29, 2022

Ms. Dianna Daly-Husted , CP-FS, HHS
Environmental Public Health Director
Appanoose, Davis, Lucas, and Monroe Counties Department of Environmental Public Health
12307 Hwy 5, P.O. Box 399
Moravia, IA 52571

Notification of Groundwater Impact – Former Manufactured Gas Plant Site, Albia, Iowa

Dear Ms. Daly-Husted,

This letter has been prepared on behalf of Interstate Power and Light Company (IPL) to formally notify you of groundwater contamination in the vicinity of the Albia former manufactured gas plant (FMGP) site. The Albia FMGP site is located at 510 N Main Street, in Albia, Iowa. IPL has conducted an environmental assessment of the site under the oversight of the Iowa Department of Natural Resources (IDNR).

IPL has conducted a site investigation to identify the extent of contamination in the area (Figure 1). Residual FMGP-related soil and groundwater remain at the site. The chemicals of concern include volatile organic compounds, such as benzene, and polynuclear aromatic hydrocarbons, such as naphthalene. A summary of groundwater sample results from the site is attached (Table 1).

IPL is submitting this notification for reference when considering granting private well installation permits in the area. Contamination above the allowable levels for drinking water is present in shallow groundwater in the localized area. The impacted groundwater at this site is considered a nonprotected groundwater source (as defined in Iowa Administrative Code (IAC) 567—137.2). Caution and further evaluation should be used before allowing a drinking water well to be installed in this area. The IDNR suggests a 1,000-foot separation distance be maintained between the groundwater plume and any new water well, in accordance with Chapter 43 of the IAC, Table A. An online database search for water wells was completed on July 22, 2022; no active water wells were identified within a 1,000-foot radius of the site (Attachment 1).

The attached table provides the historical groundwater data collected at this site. The IDNR Statewide Standards for nonprotected groundwater are also provided in the table for your reference. The site location and groundwater results are illustrated in Figure 1.

If you have any questions, or need additional information, please contact Jill Stevens of IPL at 608-458-0466 or me at 515-414-3935.

Sincerely,

Kevin G Armstrong.

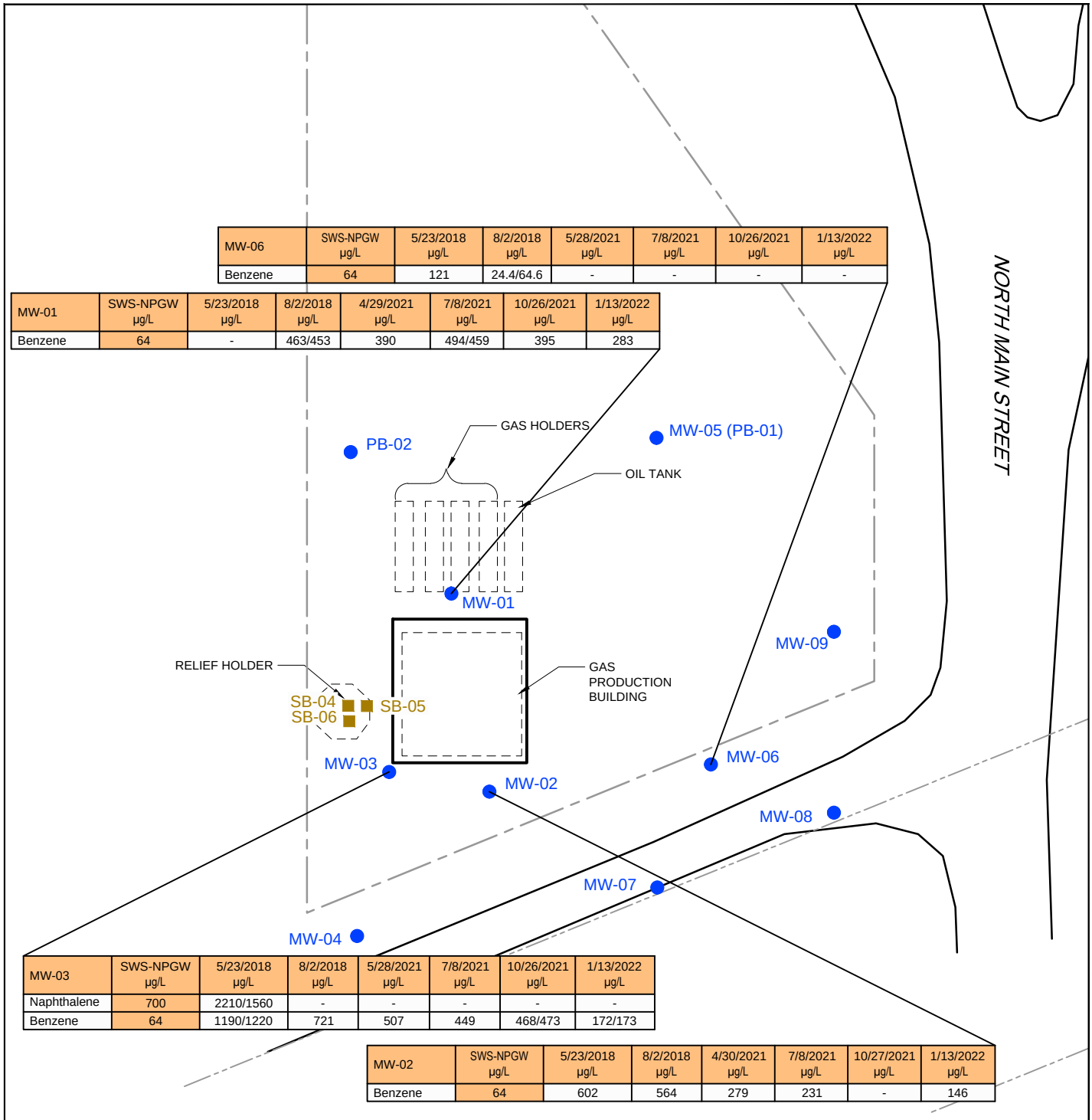
Kevin G. Armstrong, C.P.G.
Project Manager

+1 515 414-3935
kevin.armstrong@ghd.com

KA/lg/LTR-3

cc: Jill Stevens, IPL
Matt Culp, Iowa Departments of Natural Resources (Contaminated Sites Section)

Figure



MW-06	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	5/28/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Benzene	64	121	24.4/64.6	-	-	-	-

MW-01	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	4/29/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Benzene	64	-	463/453	390	494/459	395	283

MW-03	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	5/28/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Naphthalene	700	2210/1560	-	-	-	-	-
Benzene	64	1190/1220	721	507	449	468/473	172/173

MW-02	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	4/30/2021 µg/L	7/8/2021 µg/L	10/27/2021 µg/L	1/13/2022 µg/L
Benzene	64	602	564	279	231	-	146

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE RAILROAD R.O.W.
- APPROXIMATE LOCATION OF FORMER MGP STRUCTURES
- SOIL BORING
- SOIL BORING COMPLETED AS SHALLOW MONITORING WELL

MW-01	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L
Benzene	64	-	463/453

SAMPLE LOCATION
SAMPLE DATE
RESULT UNIT
RESULT
PARAMETER

NOTES:
µg/L = MICROGRAMS PER LITER
SWS-NPGW = STATEWIDE STANDARD FOR NON-PROTECTED GROUNDWATER
- = NO EXCEEDANCE
24.4/64.6 = DUPLICATE SAMPLE

0 25 50 ft
1" = 50 ft

Coordinate System:
IOWA SOUTH STATE PLANE
NAD83 FEET

N

GHD

INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

Project No. **11156780**
Date **July 2022**

GROUNDWATER EXCEEDANCE MAP

FIGURE 1

Filename: N:\US\Des Moines\Projects\563\11156780\Digital_Design\ACAD\Figures\LTR003\11156780-GHD-00-00-LTR-EN-D101_DE-003.DWG
Plot Date: 22 July 2022 1:25 PM

SOURCE: FORMER MGP STRUCTURES FROM SANBORN MAP CO. IMAGERY (1922). & PROPERTY BOUNDARY ESTIMATED FROM MONROE COUNTY GIS.

Table

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-01 MW01-GW-0518 5/23/2018	MW-01 MW01-GW-0818 8/2/2018	MW-01 DP01-GW-0818 8/2/2018	MW-01 MW01-GW-0421 4/29/2021	MW-01 MW01-GW-0721 7/8/2021	MW-01 DUP1-GW-0721 7/8/2021	MW-01 MW01-GW-1021 10/26/2021	MW-01 MW01-GW-0122 1/13/2022	MW-02 MW02-GW-0518 5/23/2018	MW-02 MW02-GW-0818 8/2/2018	MW-02 MW02-GW-0421 4/30/2021	MW-02 MW02-GW-0721 7/8/2021	MW-02 MW02-GW-1021 10/27/2021	MW-02 MW02-GW-0122 1/13/2022
Inorganics																	
Cyanide, Free	mg/L	-	-	<0.00500	<0.00500	<0.00500	-	-	-	-		<0.00500	<0.00500	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200	0.00677	0.00618	**0.0134**	0.00610	0.00598	**0.0124**	**0.0166**	0.00204	**0.0184**	**0.0147**	**0.0153**	**0.0228**	**0.0149**
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000664	0.000583	0.000590	0.000715	<0.000500	<0.000500	<0.000500	<0.000500	0.000533	<0.000500
Polynuclear Aromatic Hydrocarbons																	
2-Methylnaphthalene	µg/L	140	28	<0.200	<0.161	0.573	<0.200	0.280	0.259	<0.227	<0.200	**41.4**	6.64	1.74	1.03	<0.217	<0.238
Acenaphthene	µg/L	2100	420	<0.200	11.8	21.3	11.9	19.3	20.1	11.6	17.6	46.4	14.3	22.5	20.7	<0.217	13.9
Acenaphthylene	µg/L	1000	210	<0.200	0.511	4.39	2.63 F1	4.71	5.05	1.43	3.33	95.5	17.5	24.8	25.8	<0.217	9.58
Anthracene	µg/L	10000	2100	<0.200	1.61	4.74	0.844	1.83	1.98	1.04	1.43	5.43	2.07	1.57	1.33	<0.217	0.808
Benzo[a]anthracene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[a]pyrene	µg/L	3.5	0.18	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[g,h,i]perylene	µg/L	100	21	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[k]fluoranthene	µg/L	48	2.4	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Chrysene	µg/L	480	24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Fluoranthene	µg/L	1400	280	<0.200	2.91	4.47	0.579	1.65	1.68	1.05	0.924	1.24	1.18	0.896	0.799	<0.217	0.972
Fluorene	µg/L	1400	280	<0.200	19.6	42.3	9.01	15.4	17.2	10.0	13.9	37.5	11.3	16.8	16.7	<0.217	8.83
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Naphthalene	µg/L	700	100	<0.500	<0.403	0.660	13.6 F2	66.9	80.9	0.848 F1 F2	4.39	**178**	0.699	39.4	22.6	<0.543	0.909
Phenanthrene	µg/L	1000	210	<0.200	2.35	18.5	4.32	12.0	13.3	3.08 F1 F2	6.75	28.0	11.6	8.82	8.59	<0.217	2.9
Pyrene	µg/L	1000	210	<0.200	2.59	4.10	0.473	1.55	1.56	1.02	0.909	1.01	0.924	0.831	0.760	0.234	1.05
Volatile Organic Compounds																	
Benzene	µg/L	64	5	**51.2**	**463**	**453**	**390**	**494**	**459**	**395**	**283**	**602**	**564**	**279**	**231**	**38.6**	**146**
Ethylbenzene	µg/L	3500	700	126	**1270**	**1200**	407	565	562	531	384	126	180	89.5	81.5	12.4	27.6
Toluene	µg/L	5000	1000	<10.0	11.9	11.1	4.60	6.58	6.51	4.78	2.87	54.1	58.7	6.48	5.80	<1.00	1.31
Xylenes, Total	µg/L	50000	10000	70.5	773	740	49.5	57.5	55.2	41.9	29.6	284	300	58.1	51.7	10.1	24.8
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	17.7	**158**	**156**	**85.2**	**111**	**104**	**78.2**	69.6	44.8	47.3	45.9	41.5	10.3	21
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.61
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<10.0	63.5	60.1	<1.00	<1.00	<1.00	<1.00 F1 F2	<1.00	27.3	15.2	4.32	3.54	1.17	1.62
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-01 MW01-GW-0518 5/23/2018	MW-01 MW01-GW-0818 8/2/2018	MW-01 DP01-GW-0818 8/2/2018	MW-01 MW01-GW-0421 4/29/2021	MW-01 MW01-GW-0721 7/8/2021	MW-01 DUP1-GW-0721 7/8/2021	MW-01 MW01-GW-1021 10/26/2021	MW-01 MW01-GW-0122 1/13/2022	MW-02 MW02-GW-0518 5/23/2018	MW-02 MW02-GW-0818 8/2/2018	MW-02 MW02-GW-0421 4/30/2021	MW-02 MW02-GW-0721 7/8/2021	MW-02 MW02-GW-1021 10/27/2021	MW-02 MW02-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																	
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<100	<10.0	<10.0	<10.0 F1	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.15	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	9.54	9.24	4.30	6.17	6.17	4.78	4.62	<10.0	3.57	2.78	2.45	<1.00	1.18
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	2.47	2.42	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	1.20	1.14	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	23.7	22.4	6.43	11.0	10.8	7.84	7.91	<1.00	3.71	2.31	1.96	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	1.60	1.33	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	1.17	1.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols																	
2,4,5-Trichlorophenol	µg/L	3500	700	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	<206	-	-	-	-	-	-	-	<208	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2-Methylphenol	µg/L	-	35	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Phenol	µg/L	10000	2000	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Total Cresols	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-03 MW03-GW-0518 5/23/2018	MW-03 DP01-GW-0518 5/23/2018	MW-03 MW03-GW-0818 8/2/2018	MW-03 MW3-GW-0521 5/28/2021	MW-03 MW03-GW-0721 7/8/2021	MW-03 MW03-GW-1021 10/26/2021	MW-03 DUP1-GW-1021 10/26/2021	MW-03 MW03-GW-0122 1/13/2022	MW-03 DUP1-GW-0122 1/13/2022	MW-04 MW04-GW-0818 8/2/2018	MW-04 MW04-GW-0918 9/6/2018	MW-04 MW04-GW-0421 4/30/2021	MW-04 DP01-GW-0421 4/30/2021	MW-04 MW04-GW-0721 7/7/2021	MW-04 MW04-GW-1021 10/26/2021	MW-04 MW04-GW-0122 1/13/2022
Inorganics																			
Cyanide, Free	mg/L	-	-	<0.00500 F1	<0.00500	<0.00500 F1	-	-	-	-	-	-	<0.00500	-	-	-	-	-	
Arsenic, Total	mg/L	0.05	0.01	0.00593	0.00575	**0.0173**	0.00353	0.00416	0.00637	0.00673	**0.0111**	0.0069	0.00243	0.00351	0.00409	0.00448	0.00598	0.00394	0.00537
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000999	0.000571	0.000933	0.000558	0.000592	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000704	0.000799
Polynuclear Aromatic Hydrocarbons																			
2-Methylnaphthalene	µg/L	140	28	**72.2**	**39.2**	18.5	3.62 *1	1.29	0.295	0.238	0.273	0.266	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Acenaphthene	µg/L	2100	420	43.6	27.1	13.8	27.0 *1	18.7	21.6	21.1	18.3	20.9	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Acenaphthylene	µg/L	1000	210	180	122	67.1 F2	159 *1	129	130	114	70.4	96.1	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Anthracene	µg/L	10000	2100	7.60	4.98	2.65 F2 F1	6.09 *1	4.22	2.50	3.26	1.56	1.49	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[a]anthracene	µg/L	4.8	0.24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[a]pyrene	µg/L	3.5	0.18	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.177	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	0.219	<0.227	<0.200
Benzo[g,h,i]perylene	µg/L	100	21	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.356	<0.192 F2	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[k]fluoranthene	µg/L	48	2.4	<0.227	<0.200	<0.172	<0.200	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Chrysene	µg/L	480	24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	**0.352**	<0.192 F2	<0.208	<0.208	<0.200	<0.227	<0.200
Fluoranthene	µg/L	1400	280	5.41	3.60	1.70	5.37 *1	4.66	3.99	4.36	1.03	1.05	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Fluorene	µg/L	1400	280	29.2	18.7	9.95 F2	17.2 *1	12.2	11.5	11.1	8.64	9.23	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	**0.393**	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Naphthalene	µg/L	700	100	**2210**	**1560**	**618 F2**	**ing**	**266**	39.9	32.7	14	15.7	<0.417	<0.481	<0.521	<0.521	<0.500	<0.568	<0.500
Phenanthrene	µg/L	1000	210	90.8	64.2	24.2	66.4	54.3	27.8	22.3	15	16.3	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Pyrene	µg/L	1000	210	5.34	3.59	1.66	5.55 *1	5.07	4.09	4.48	0.959	1.03	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Volatile Organic Compounds																			
Benzene	µg/L	64	5	**1190**	**1220**	**721**	**507**	**449**	**468**	**473**	**172**	**173**	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	293	265	174	154	133	188	194	49.8	49.8	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	23.7	22.1	15.7	19.0	20.1	7.86	7.91	2.5	2.39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	309	281	158 F1	130	121	95.6	96.9	48.8	47.4	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	**122**	**111**	57.8	69.7	**72.1**	69.5	**71.5**	42.7	41.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	30.4	27.3	12.2	7.97	7.16	4.10	4.25	2.95	2.81	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-03 MW03-GW-0518 5/23/2018	MW-03 DP01-GW-0518 5/23/2018	MW-03 MW03-GW-0818 8/2/2018	MW-03 MW3-GW-0521 5/28/2021	MW-03 MW03-GW-0721 7/8/2021	MW-03 MW03-GW-1021 10/26/2021	MW-03 DUP1-GW-1021 10/26/2021	MW-03 MW03-GW-0122 1/13/2022	MW-03 DUP1-GW-0122 1/13/2022	MW-04 MW04-GW-0818 8/2/2018	MW-04 MW04-GW-0918 9/6/2018	MW-04 MW04-GW-0421 4/30/2021	MW-04 DP01-GW-0421 4/30/2021	MW-04 MW04-GW-0721 7/7/2021	MW-04 MW04-GW-1021 10/26/2021	MW-04 MW04-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																			
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	21.9	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	22.4	20.5	10.3	12.9	13.8	16.4	17.3	4.76	4.74	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	2.81	2.83	1.63	2.12	1.75	1.62	1.69	1.04	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	10.1	9.07	4.10	4.68	4.58	5.21	5.47	1.23	1.27	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	2.55	2.21	<1.00	1.02	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	1.23	1.09	<1.00	1.01	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols																			
2,4,5-Trichlorophenol	µg/L	3500	700	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	<211	<213	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-05 MW05-GW-0818 8/2/2018	MW-05 MW05-GW-0918 9/6/2018	MW-05 MW05-GW-0421 4/29/2021	MW-05 MW05-GW-0721 7/7/2021	MW-05 MW05-GW-1021 10/26/2021	MW-05 MW05-GW-0122 1/13/2022	MW-06 MW06-GW-0818 8/2/2018	MW-06 MW06-GW-0918 9/6/2018	MW-06 DP01-GW-0918 9/6/2018	MW-06 MW06-GW-0421 4/30/2021	MW-06 MW06-GW-0721 7/8/2021	MW-06 MW06-GW-1021 10/27/2021	MW-06 MW06-GW-0122 1/13/2022
Inorganics																
Cyanide, Free	mg/L	-	-	<0.00500	-	-	-	-	-	<0.00500	-	-	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200 ^	0.00242	0.00342	<0.00200	<0.00200	<0.00200	<0.00200 ^	0.00468	0.00470	**0.0422**	**0.0257**	**0.0193**	**0.0266**
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000737	<0.000500	<0.000500	<0.000500	<0.000500	0.000534	<0.000500	0.00127	0.00065
Polynuclear Aromatic Hydrocarbons																
2-Methylnaphthalene	µg/L	140	28	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	13.1	6.40	9.50	<0.200	0.319	<0.217	<0.208
Acenaphthene	µg/L	2100	420	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	8.80	3.59	4.08	1.53	2.06	<0.217	3.02
Acenaphthylene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	66.5	31.5	37.3	3.77	5.72	<0.217	4.9
Anthracene	µg/L	10000	2100	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	5.55	1.57	1.50	<0.200	0.544	<0.217	0.74
Benzo[a]anthracene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[a]pyrene	µg/L	3.5	0.18	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[g,h,i]perylene	µg/L	100	21	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[k]fluoranthene	µg/L	48	2.4	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Chrysene	µg/L	480	24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Fluoranthene	µg/L	1400	280	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	2.90	2.04	2.09	0.654	0.804	<0.217	1.28
Fluorene	µg/L	1400	280	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	27.7	11.5	12.9	0.744	1.63	<0.217	2.82
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Naphthalene	µg/L	700	100	0.432	<0.500	<0.543	<0.500	<0.543	<0.568	**226**	**121**	**342**	0.733	6.83	<0.543	0.933
Phenanthrene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	27.4	8.07	9.79	<0.200	4.07	<0.217	5.4
Pyrene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	3.26	3.14	3.21	0.914	0.927	<0.217	1.34
Volatile Organic Compounds																
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	**121**	**24.4**	**64.6**	**41.7**	**22.7**	**9.16**	**20.9**
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	20.0	<10.0	13.6	6.05	4.63	2.04	6.54
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	179	40.5	89.0	4.32	3.28	<1.00	1.25
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	169	<30.0	59.7	44.7	29.7	4.23	19.3
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	26.1	<10.0	11.4	17.4	14.6	2.71	15.2
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	10.5	<10.0	<10.0	<1.00	<1.00	<1.00	1.15
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-05 MW05-GW-0818 8/2/2018	MW-05 MW05-GW-0918 9/6/2018	MW-05 MW05-GW-0421 4/29/2021	MW-05 MW05-GW-0721 7/7/2021	MW-05 MW05-GW-1021 10/26/2021	MW-05 MW05-GW-0122 1/13/2022	MW-06 MW06-GW-0818 8/2/2018	MW-06 MW06-GW-0918 9/6/2018	MW-06 DP01-GW-0918 9/6/2018	MW-06 MW06-GW-0421 4/30/2021	MW-06 MW06-GW-0721 7/8/2021	MW-06 MW06-GW-1021 10/27/2021	MW-06 MW06-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.23	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.12	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Phenols																
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-07 MW07-GW-1018 10/18/2018	MW-07 MW07-GW-0119 1/15/2019	MW-07 MW7-GW-0521 5/28/2021	MW-07 MW07-GW-0721 7/7/2021	MW-07 MW07-GW-1021 10/29/2021	MW-07 MW07-GW-0122 1/13/2022	MW-08 MW08-GW-1018 10/18/2018	MW-08 MW08-GW-0119 1/15/2019	MW-08 DP01-GW-0119 1/15/2019	MW-08R MW8R-GW-0421 4/30/2021	MW-08R MW08R-GW-0721 7/7/2021	MW-08R MW08R-GW-1021 10/26/2021	MW-08R MW08R-GW-0122 1/13/2022
Inorganics																
Cyanide, Free	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arsenic, Total	mg/L	0.05	0.01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	**0.0133**	**0.0112**	**0.0110**	<0.00200
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000819	<0.000500	0.000695	0.000578	0.000614	0.000536	0.00577	<0.000500
Polynuclear Aromatic Hydrocarbons																
2-Methylnaphthalene	µg/L	140	28	<0.185	<0.192	1.02 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Acenaphthene	µg/L	2100	420	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	0.389	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Acenaphthylene	µg/L	1000	210	<0.185	<0.192	0.453 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Anthracene	µg/L	10000	2100	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[a]anthracene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[a]pyrene	µg/L	3.5	0.18	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[g,h,i]perylene	µg/L	100	21	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[k]fluoranthene	µg/L	48	2.4	<0.185	<0.192	<0.227	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Chrysene	µg/L	480	24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Fluoranthene	µg/L	1400	280	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Fluorene	µg/L	1400	280	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Naphthalene	µg/L	700	100	<0.463	<0.481	2.91 *1 *+	<0.568	<0.568	<0.500	<0.481	<0.481	<0.500	<0.500	<0.500	<0.568	<0.595
Phenanthrene	µg/L	1000	210	<0.185	<0.192	<0.227	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Pyrene	µg/L	1000	210	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Volatile Organic Compounds																
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-07 MW07-GW-1018 10/18/2018	MW-07 MW07-GW-0119 1/15/2019	MW-07 MW7-GW-0521 5/28/2021	MW-07 MW07-GW-0721 7/7/2021	MW-07 MW07-GW-1021 10/29/2021	MW-07 MW07-GW-0122 1/13/2022	MW-08 MW08-GW-1018 10/18/2018	MW-08 MW08-GW-0119 1/15/2019	MW-08 DP01-GW-0119 1/15/2019	MW-08R MW8R-GW-0421 4/30/2021	MW-08R MW08R-GW-0721 7/7/2021	MW-08R MW08R-GW-1021 10/26/2021	MW-08R MW08R-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 F2	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols																
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-09 MW09-GW-1018 10/18/2018	MW-09 DP01-GW-1018 10/18/2018	MW-09 MW09-GW-0119 1/15/2019	MW-09 MW09-GW-0421 4/29/2021	MW-09 MW09-GW-0721 7/7/2021	MW-09 MW09-GW-1021 10/27/2021	MW-09 MW09-GW-0122 1/13/2022	PB-02 PB02-GW-0718 7/12/2018
Inorganics											
Cyanide, Free	mg/L	-	-	-	-	-	-	-	-	-	<0.00500
Arsenic, Total	mg/L	0.05	0.01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	**0.0116**
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000509	<0.000500	**0.0158**
Polynuclear Aromatic Hydrocarbons											
2-Methylnaphthalene	µg/L	140	28	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Acenaphthene	µg/L	2100	420	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Acenaphthylene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Anthracene	µg/L	10000	2100	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[a]anthracene	µg/L	4.8	0.24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[a]pyrene	µg/L	3.5	0.18	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[g,h,i]perylene	µg/L	100	21	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[k]fluoranthene	µg/L	48	2.4	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Chrysene	µg/L	480	24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Fluoranthene	µg/L	1400	280	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Fluorene	µg/L	1400	280	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Naphthalene	µg/L	700	100	<0.481	<0.481	<0.500	<0.625	<0.500	<0.568	<0.500	<0.538
Phenanthrene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Pyrene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Volatile Organic Compounds											
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0 F2	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 1

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-09 MW09-GW-1018 10/18/2018	MW-09 DP01-GW-1018 10/18/2018	MW-09 MW09-GW-0119 1/15/2019	MW-09 MW09-GW-0421 4/29/2021	MW-09 MW09-GW-0721 7/7/2021	MW-09 MW09-GW-1021 10/27/2021	MW-09 MW09-GW-0122 1/13/2022	PB-02 PB02-GW-0718 7/12/2018
Volatile Organic Compounds (cont'd)											
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols											
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Attachment 1

Well Search Report

Well Search Report

Included in search	No. of wells	Database
X	0	IGS well database General well database maintained by IGS, location accuracy varies 3,730 to 25 ft., last updated 8/2005.
X	0	Public wells Muncipal and nonmunicipal public well databases maintained by IGS, location varies 3,730 to 25 ft., under development.
X	0	SDWIS public wells Public well database developed from the Safe Drinking Water Information System database maintained by IDNR, estimated locational accuracy varies from 15m. to 3300m. Created from 5/2005 data.
X	3	Private well tracking system IDNR database management system for Grants-to-counties-covered wells. Locational accuracy unknown, assumed to be +/- 17 m., Last update 7/2005.
X	0	Wells registered for testing Wells tested under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Permitted private wells Wells permitted under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	1	Registered abandoned wells Wells abandoned under Grant-to-Counties program. Locational accuracy varies 1150 to 150 m.; Last update 9/2001, no future updates planned.
X	0	Water use facilities Wells used by facilities permitted to withdraw >25,000 gallons per day, locational accuracy is +/-20m to 1150 m. Created from 7/2005 data.
X	0	Municipal wells and intakes Locational accuracy 220 m., last updated 8/96.
X	0	Ag drainage wells Locational accuracy 100 m., last updated 4/98.

Well Search Detail

Subject: XY UTM Coordinates: 516203/4542306
Search Radius (ft): 1000

IGS Well Database

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Public Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information

No records found from this data source

SDWIS public wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Private Well Tracking System

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
278220	2093700	T72N, R17W, S15	nom. +/- 25m.	220 (m)	25	1/1/1930	Shepard, Kenny	Status: Plugged
278207	2122072	T72N, R17W, S15	nom. +/- 25m.	233 (m)	28	5/14/1933	Sinnott, Steve	Status: Plugged
278425	2186678	T72N, R17W, S15	nom. +/- 25m.	217 (m)	35	1/1/1960	Suda, Don	Status: Plugged

Wells Registered For Testing

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Permitted Private Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Abandoned Wells (plugged)

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
278433	19147	T72N, R17W, Sec. 15, SW, SE, NE	Calc. +/- 285m.	183 (m)	10	n.a.	Steinbach, Wanda M., C/O Don Herteen	Well plugged: 3/18/1994; Well type: > 18" dia.

Water Use Facilities

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Municipal Wells And Intakes

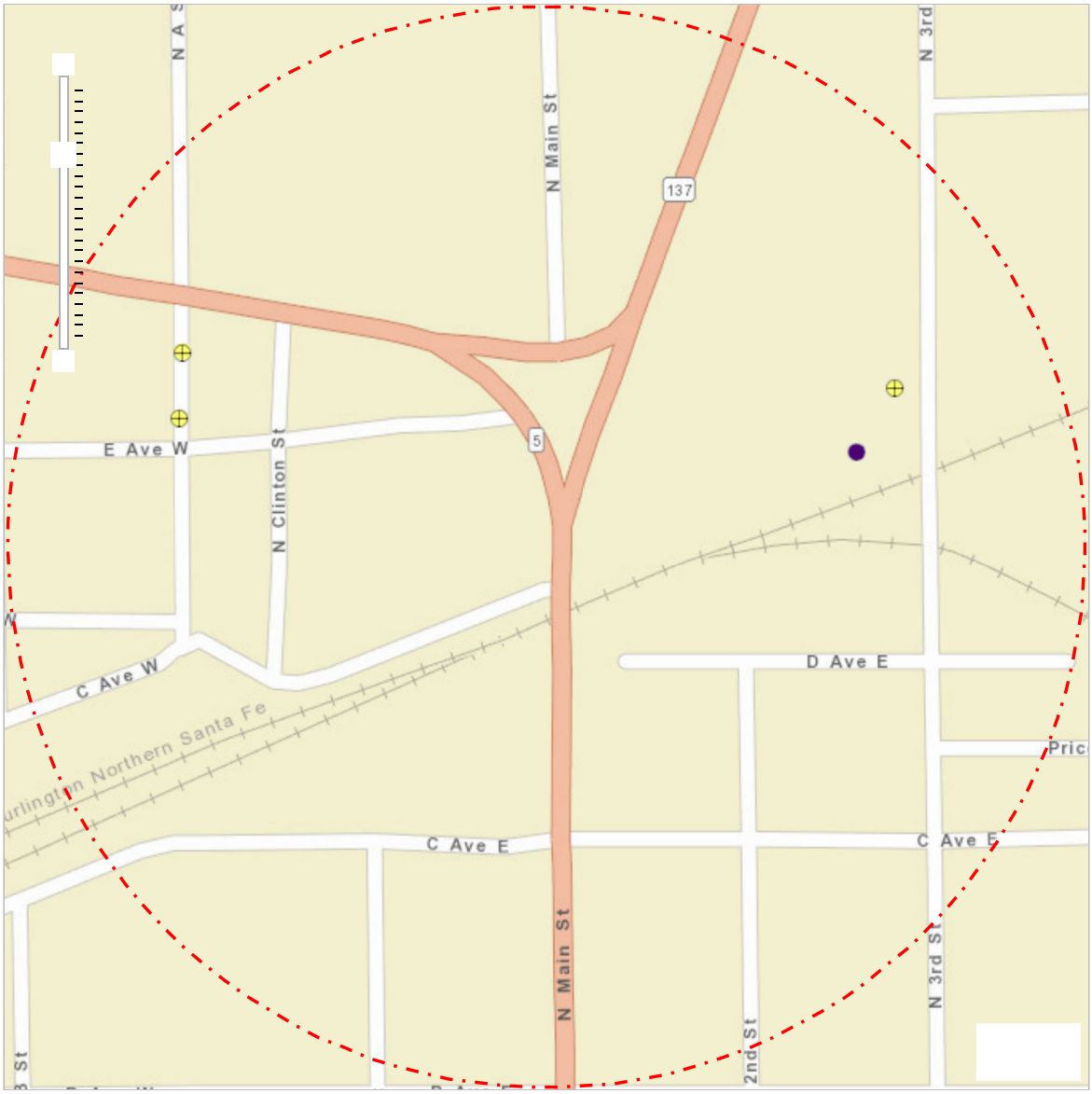
Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Ag Drainage Wells

Map ID	Well No.	Location	Accuracy	Dist. From Point	Well Depth	Construction/ Permit Date	Owner/Permittees	Other Information
No records found from this data source								

Well Search Buffered Map

Subject: XY UTM Coordinates: 516203/4542306
Search Radius (ft): 1000



Map Notes:
- UST
- LUST
- Wells

Please refer to the Accuracy column in Well Search Detail.
Since multiple points can be at the same spot (as those located to the center of a quarter section), points were randomly dispersed within 10 meters around that spot so all points can be seen.

Attachment B

Notification of Impact to the City of Albia

11228 Aurora Avenue
Des Moines, Iowa 50322-7905
United States
www.ghd.com

Our ref: 11156780-LTR-4

July 29, 2022

Mr. Sam Beaird
General Manager
Albia Municipal Waterworks
Albia City Hall
120 South A Street
Albia, Iowa 52531

Notification of Soil and Groundwater Impact – Former Manufactured Gas Plant, Albia, Iowa

Dear Mr. Beaird:

This letter has been prepared on behalf of Interstate Power and Light Company (IPL) to formally notify you of soil and groundwater contamination in the vicinity of the Albia former manufactured gas plant (FMGP) site. The Albia FMGP site is located at 510 N Main Street in Albia, Iowa. IPL has conducted an environmental assessment at the site under the oversight of the Iowa Department of Natural Resources (IDNR).

IPL has conducted a site investigation to identify the extent of contamination in the area (Figures 1 and 2). Residual FMGP-related soil and groundwater contamination remains in a very localized area at the site. The chemicals of concern in soil related to the FMGP site include volatile organic compounds, such as benzene, and polynuclear aromatic hydrocarbons, such as naphthalene. A summary of soil and groundwater sample results from the site are attached as Table 1 and Table 2, respectively. The IDNR's Statewide Standards are also provided in the tables for your reference. The site location and soil standard exceedances are illustrated in Figure 1 and the groundwater exceedances are illustrated in Figure 2.

IPL is submitting this notification for reference when performing utility work in the area. Groundwater contamination remains at concentrations above the allowable levels for drinking water. Localized soil contamination remains at concentrations of possible concern. Caution and further evaluation should be used before performing soil excavation or utility work in the impacted area.

If you have questions, or need additional information, please contact Jill Stevens of IPL at 608-458-0446 or me at 515-414-3935.

Sincerely,

Kevin G Armstrong.

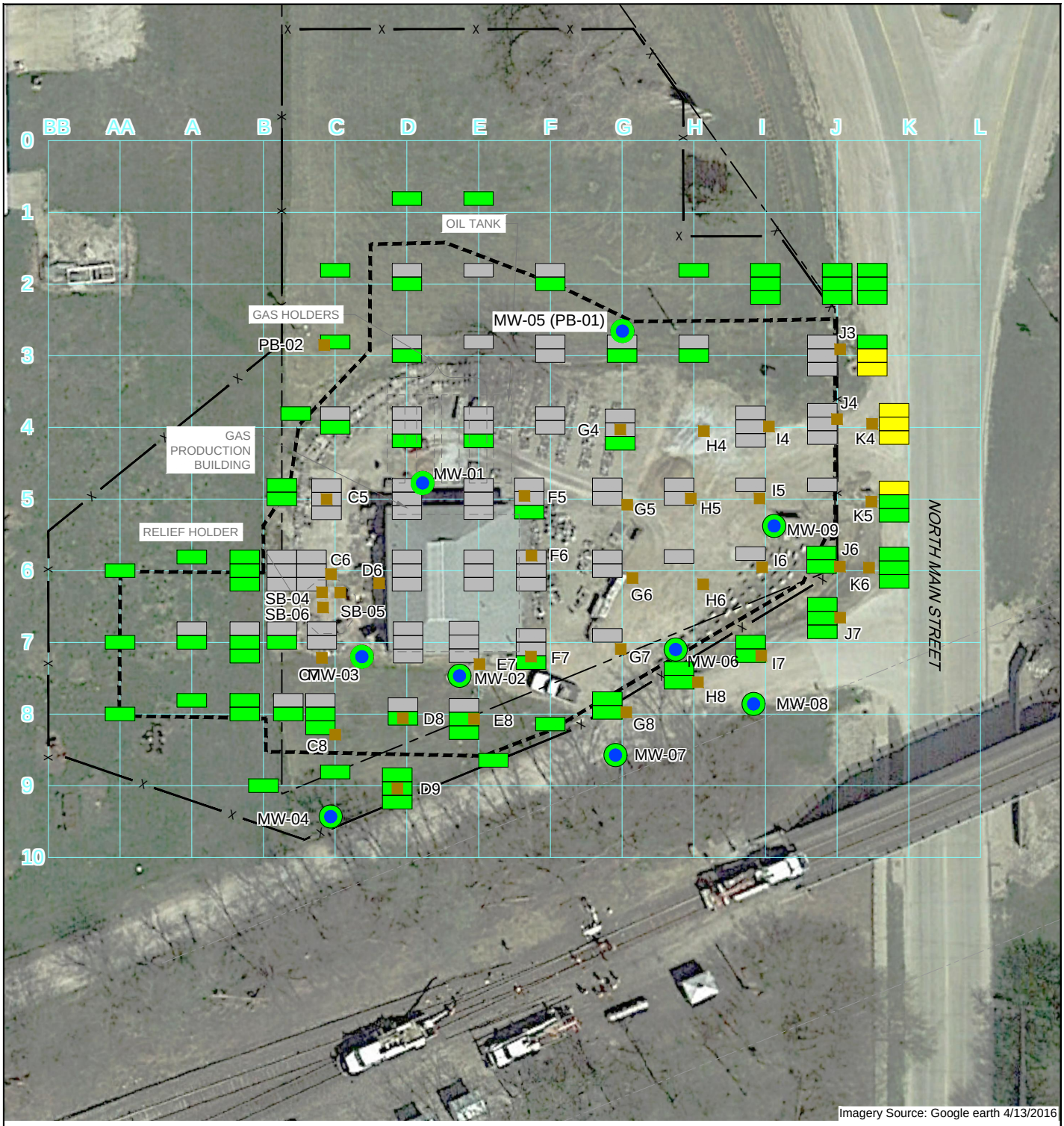
Kevin G. Armstrong, C.P.G.
Project Manager

+1 515 414-3935
kevin.armstrong@ghd.com

KA/lg/LTR-4

cc: Jill Stevens, IPL
Matt Culp, Iowa Department of Natural Resources (Contaminated Sites Section)

Figures



Imagery Source: Google earth 4/13/2016

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE RAILROAD R.O.W.
- APPROXIMATE LOCATION OF FORMER MGP STRUCTURES
- SOIL BORING COMPLETED AS SHALLOW MONITORING WELL
- SOIL BORING
- 1' DEPTH SAMPLE
- 3' DEPTH SAMPLE
- 5' DEPTH SAMPLE
- EXCAVATION EXTENT
- EXCAVATED/REMOVED
- MEETS SWS
- EXCEEDS SWS
- EXCEEDS SWS BY >10x

Source: FORMER MGP STRUCTURES FROM SANBORN MAP CO. IMAGERY (1922). & PROPERTY BOUNDARY ESTIMATED FROM MONROE COUNTY GIS.

0 25 50 ft
1" = 50 ft

Coordinate System:
IOWA SOUTH STATE PLANE
NAD83 FEET

N

GHD

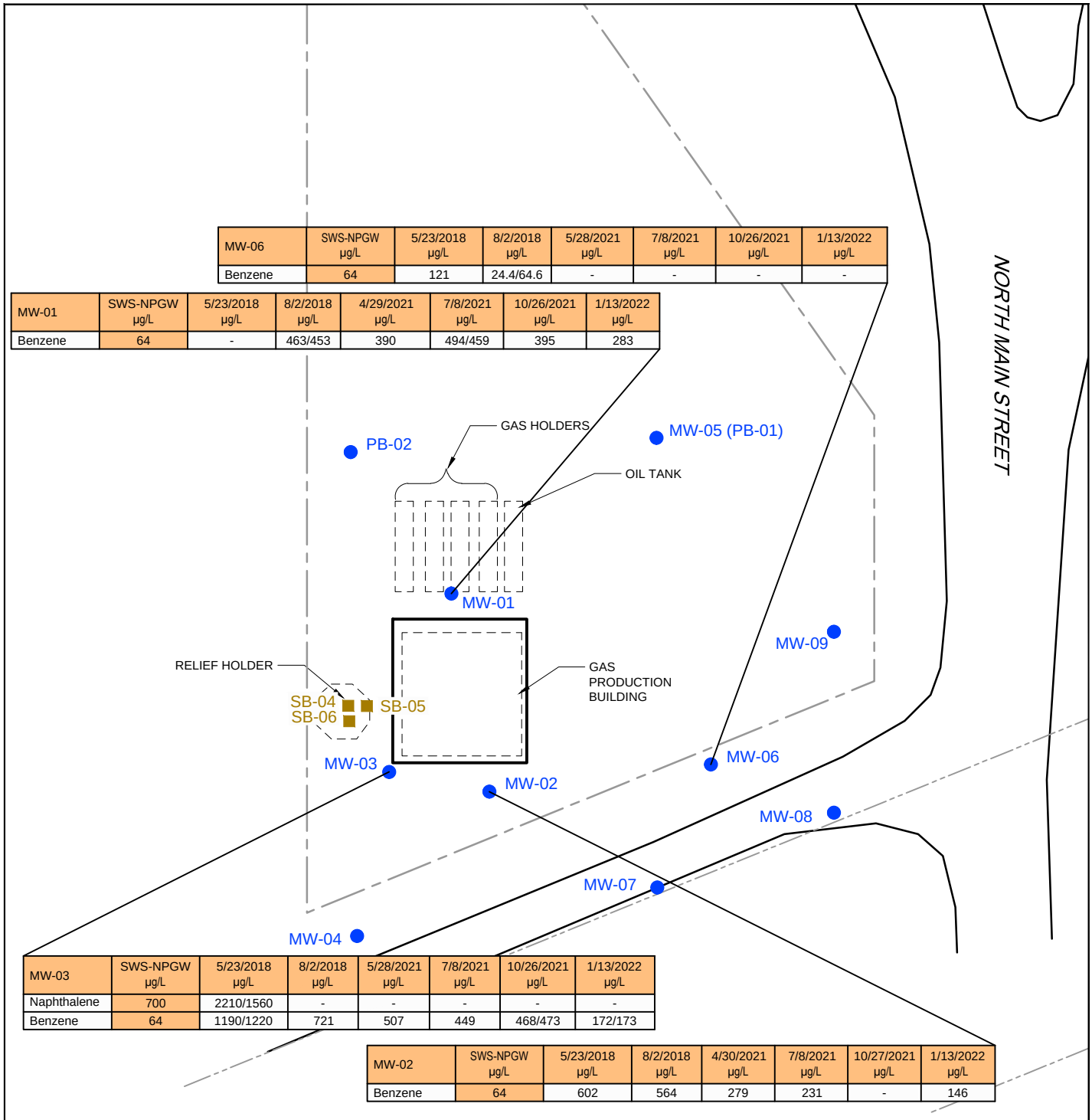
INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

SOIL SAMPLING LOCATIONS USED FOR RISK EVALUATION

Project No. **11156780**
Date **July 2022**

FIGURE 1

Filename: N:\US\Des Moines\Projects\563\11156780\Digital_Design\ACAD\Figures\LTR004\11156780-GHD-00-00-LTR-EN-D101_DE-004.DWG
Plot Date: 27 July 2022 6:02 PM



MW-06	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	5/28/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Benzene	64	121	24.4/64.6	-	-	-	-

MW-01	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	4/29/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Benzene	64	-	463/453	390	494/459	395	283

MW-03	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	5/28/2021 µg/L	7/8/2021 µg/L	10/26/2021 µg/L	1/13/2022 µg/L
Naphthalene	700	2210/1560	-	-	-	-	-
Benzene	64	1190/1220	721	507	449	468/473	172/173

MW-02	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L	4/30/2021 µg/L	7/8/2021 µg/L	10/27/2021 µg/L	1/13/2022 µg/L
Benzene	64	602	564	279	231	-	146

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE RAILROAD R.O.W.
- APPROXIMATE LOCATION OF FORMER MGP STRUCTURES
- SOIL BORING
- SOIL BORING COMPLETED AS SHALLOW MONITORING WELL

MW-01	SWS-NPGW µg/L	5/23/2018 µg/L	8/2/2018 µg/L
Benzene	64	-	463/453

SAMPLE LOCATION
SAMPLE DATE
RESULT UNIT
RESULT
PARAMETER

NOTES:
µg/L = MICROGRAMS PER LITER
SWS-NPGW = STATEWIDE STANDARD FOR NON-PROTECTED GROUNDWATER
- = NO EXCEEDANCE
24.4/64.6 = DUPLICATE SAMPLE

0 25 50 ft
1" = 50 ft

Coordinate System:
IOWA SOUTH STATE PLANE
NAD83 FEET

N

GHD

INTERSTATE POWER AND LIGHT COMPANY
ALBIA FORMER MANUFACTURED GAS PLANT SITE
ALBIA, IOWA

Project No. **11156780**
Date **July 2022**

GROUNDWATER EXCEEDANCE MAP

FIGURE 2

Filename: N:\US\Des Moines\Projects\563\11156780\Digital_Design\ACAD\Figures\LTR004\11156780-GHD-00-00-LTR-EN-D102_DE-004.DWG
Plot Date: 27 July 2022 5:38 PM

SOURCE: FORMER MGP STRUCTURES FROM SANBORN MAP CO. IMAGERY (1922). & PROPERTY BOUNDARY ESTIMATED FROM MONROE COUNTY GIS.

Tables

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	SB01-SL-0418-7.5-10' 4/23/2018	SB02-SL-0418-7.5-10' 4/23/2018	SB03-SL-0418-5-7.5' 4/23/2018	PB01-SL-0718-1.25' 7/11/2018	PB01-SL-0718-8.75' 7/11/2018	PB02-SL-0718-3.75' 7/11/2018	MW04-SL-0718-1.25' 7/11/2018	MW04-SL-0718-6.25' 7/11/2018	MW06-SL-0718-13.75' 7/12/2018	MW07-SL-0918-1.25' 9/19/2018	MW07-SL-0918-6.25' 9/19/2018	MW08-SL-0918-1.25' 9/19/2018
Inorganics														
Cyanide, Amenable	mg/kg	NA	<1.27	<1.33	<1.32	<1.22	<1.23	<1.29	<1.31	<1.28	<1.15	<1.25	<1.28	<1.27
Arsenic	mg/kg	17	<8.34	<6.19	<7.54	16.9	<7.36	<12.0	<7.79	<7.93	9.10	<7.26	<7.61	<7.59
Lead	mg/kg	400	16.6	11.9	15.5	15.3	<9.20	27.8	18.5	14.5	8.60	26.9	16.6	33.8
Polynuclear Aromatic Hydrocarbons														
2-Methylnaphthalene	mg/kg	230	<2.47 F1	<0.257	<0.254	<0.115	<0.0118	<0.0126	<0.0126	<0.0127	2.49	<0.121	<0.0127	<0.119
Acenaphthene	mg/kg	3400	<2.47 F1	<0.257	<0.254	<0.115	0.0503	<0.0126	<0.0126	<0.0127	0.722	<0.121	<0.0127	<0.119
Acenaphthylene	mg/kg	1700	<2.47 F1	<0.257	<0.254	0.342	<0.0118	<0.0126	<0.0126	<0.0127	3.86	<0.121	<0.0127	<0.119
Anthracene	mg/kg	17000	<2.47 F1 F2	<0.257	<0.254	0.192	0.0205	<0.0126	<0.0126	<0.0127	3.41	<0.121	<0.0127	<0.119
Benzo[a]anthracene	mg/kg	3.1	1.31 J F1 F2	<0.103	<0.102	0.481	0.0192	<0.0126	0.0159	<0.0127	2.28	<0.121	<0.0127	0.198
Benzo[a]pyrene	mg/kg	2.3	1.80 J F1	<0.126	<0.124	0.830	0.0191	<0.0126	0.0224	<0.0127	2.22	<0.121 F1	<0.0127	0.387
Benzo[b]fluoranthene	mg/kg	3.1	1.31 J F1	<0.0988	<0.0978	0.798	0.0180	<0.0126	0.0446	<0.0127	1.87	<0.121	<0.0127	0.291
Benzo[g,h,i]perylene	mg/kg	170	<2.47 F1	<0.257	<0.254	0.932	<0.0118	<0.0126	0.0289	<0.0127	1.32	<0.121	<0.0127	0.269
Benzo[k]fluoranthene	mg/kg	31	<2.47 F1	<0.257	<0.254	0.311	<0.0118	<0.0126	<0.0126	<0.0127	0.719	<0.121	<0.0127	0.124
Chrysene	mg/kg	310	<2.47 F1 F2	<0.257	<0.254	0.541	0.0211	<0.0126	0.0340	<0.0127	1.88	<0.121	<0.0127	0.196
Dibenz(a,h)anthracene	mg/kg	0.31	<0.900 F1	<0.0936	<0.0927	0.152	<0.0118	<0.0126	<0.0126	<0.0127	0.174	<0.121	<0.0127	<0.119
Fluoranthene	mg/kg	2300	4.38 F1 F2	<0.257	<0.254	0.598	0.0577	<0.0126	0.0373	<0.0127	8.77	<0.121	<0.0127	0.233
Fluorene	mg/kg	2300	<2.47	<0.257	<0.254	<0.115	0.0265	<0.0126	<0.0126	<0.0127	4.89	<0.121	<0.0127	<0.119
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	1.49 J F1	<0.101	<0.100	0.834	<0.0118	<0.0126	0.0301	<0.0127	1.23	<0.121	<0.0127	0.270
Naphthalene	mg/kg	1100	13.6 F1	<0.257	0.379	<0.115	<0.0118	<0.0126	<0.0126 F2	<0.0127	28.5	<0.121	<0.0127	<0.119
Phenanthrene	mg/kg	1700	9.75 F1 F2	<0.257	<0.254	0.389	0.0719	<0.0126	0.0223	<0.0127	21.1	<0.121	<0.0127	0.135
Pyrene	mg/kg	1700	6.37 F1 F2	<0.257	<0.254	1.02	0.0917	<0.0126	0.0329	<0.0127	11.1	<0.121	<0.0127	0.376
Volatile Organic Compounds														
Benzene	mg/kg	56	<0.121 F1 F2	<0.0140	0.0194	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Ethylbenzene	mg/kg	7600	2.00 F1 F2	<0.0140	0.0203	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Toluene	mg/kg	6100	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	0.212	<0.00250	<0.00256	<0.00254
Xylenes, Total	mg/kg	15000	1.07 F1 F2	<0.0420	<0.0411	<0.0354	<0.0431	<0.0434	<0.0428	<0.0403	1.20	<0.00500	<0.00512	<0.00507
1,1,1,2-Tetrachloroethane	mg/kg	230	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,1,1-Trichloroethane	mg/kg	150000	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,1,2,2-Tetrachloroethane	mg/kg	15	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,1,2-Trichloroethane	mg/kg	54	<0.121 F2	<0.0140 *	<0.0137 *	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,1-Dichloroethane	mg/kg	1500	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,1-Dichloroethene	mg/kg	380	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,1-Dichloropropene	mg/kg	NA	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,2,3-Trichlorobenzene	mg/kg	NA	<0.121	<0.0700	<0.0684	<0.0590	<0.0718	<0.0723	<0.0713 F2	<0.0671	<0.110	<0.00250	<0.00256	<0.00254
1,2,3-Trichloropropane	mg/kg	0.1	<0.121	<0.0140 *	<0.0137 *	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,2,4-Trichlorobenzene	mg/kg	760	<0.121	<0.0700	<0.0684	<0.0590	<0.0718	<0.0723	<0.0713 F2	<0.0671	<0.110	<0.00250	<0.00256	<0.00254
1,2,4-Trimethylbenzene	mg/kg	760	0.809	<0.0140	0.0201	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	2.22 F1 F2	<0.00250	<0.00256	<0.00254
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	<0.121	<0.140	<0.137	<0.118	<0.144	<0.145	<0.143	<0.134	<0.110	<0.00625	<0.00640	<0.00634
1,2-Dibromoethane (EDB)	mg/kg	1.5	<0.121 F2	<0.140 *	<0.137 *	<0.118	<0.144	<0.145	<0.143	<0.134	<0.110	<0.00250	<0.00256	<0.00254
1,2-Dichlorobenzene	mg/kg	5500	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,2-Dichloroethane	mg/kg	34	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00625	<0.00640	<0.00634
1,2-Dichloropropane	mg/kg	53	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,3,5-Trimethylbenzene	mg/kg	760	0.274 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	0.677 F1	<0.00250	<0.00256	<0.00254

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	SB01-SL-0418-7.5-10' 4/23/2018	SB02-SL-0418-7.5-10' 4/23/2018	SB03-SL-0418-5-7.5' 4/23/2018	PB01-SL-0718-1.25' 7/11/2018	PB01-SL-0718-8.75' 7/11/2018	PB02-SL-0718-3.75' 7/11/2018	MW04-SL-0718-1.25' 7/11/2018	MW04-SL-0718-6.25' 7/11/2018	MW06-SL-0718-13.75' 7/12/2018	MW07-SL-0918-1.25' 9/19/2018	MW07-SL-0918-6.25' 9/19/2018	MW08-SL-0918-1.25' 9/19/2018
Volatile Organic Compounds (cont'd)														
1,3-Dichlorobenzene	mg/kg	6800	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,3-Dichloropropane	mg/kg	NA	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
1,4-Dichlorobenzene	mg/kg	760	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
2,2-Dichloropropane	mg/kg	NA	<0.121 F2	<0.0560	<0.0548	<0.0472	<0.0574	<0.0578	<0.0571	<0.0537	<0.110	<0.0250	<0.0256	<0.0254
2-Butanone (MEK)	mg/kg	46000	<0.302 F2	<0.140	<0.137	<0.118	<0.144	<0.145	<0.143	<0.134	<0.275	<0.00625	<0.00640	<0.00634
2-Chlorotoluene	mg/kg	1500	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
4-Chlorotoluene	mg/kg	1500	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Acetone	mg/kg	68000	<0.604 F1	<0.140	<0.137	<0.118	<0.144	<0.145	<0.143 F1	<0.134	<0.550	<0.0250	<0.0256	<0.0254
Bromobenzene	mg/kg	NA	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Bromochloromethane	mg/kg	760	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Bromodichloromethane	mg/kg	50	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Bromoform	mg/kg	390	<0.121	<0.0280	<0.0274	<0.0236	<0.0287	<0.0289	<0.0285	<0.0268	<0.110	<0.00250	<0.00256	<0.00254
Bromomethane	mg/kg	110	<0.604	<0.0560	<0.0548	<0.0472	<0.0574	<0.0578	<0.0571	<0.0537	<0.550	<0.00625	<0.00640	<0.00634
Carbon disulfide	mg/kg	7600	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00625	<0.00640	<0.00634
Carbon tetrachloride	mg/kg	44	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Chlorobenzene	mg/kg	1500	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Chlorodibromomethane	mg/kg	150	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Chloroethane	mg/kg	30000	<0.121	<0.0560	<0.0548	<0.0472	<0.0574	<0.0578	<0.0571	<0.0537	<0.110	<0.00625 *	<0.00640 *	<0.00634 *
Chloroform	mg/kg	NA	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Chloromethane	mg/kg	NA	<0.302	<0.0560	<0.0548	<0.0472	<0.0574	<0.0578	<0.0571	<0.0537	<0.275	<0.00625	<0.00640	<0.00634
cis-1,2-Dichloroethene	mg/kg	150	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
cis-1,3-Dichloropropene	mg/kg	NA	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Dibromomethane	mg/kg	760	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Dichlorodifluoromethane	mg/kg	15000	<0.121	<0.0420	<0.0411	<0.0354	<0.0431	<0.0434	<0.0428	<0.0403	<0.110	<0.00625	<0.00640	<0.00634
Hexachlorobutadiene	mg/kg	40	<0.121	<0.0700	<0.0684	<0.0590	<0.0718	<0.0723	<0.0713	<0.0671	<0.110	<0.00625	<0.00640	<0.00634
Hexane	mg/kg	4600	<0.121	<0.0700	<0.0684	<0.0590	<0.0718	<0.0723	<0.0713	<0.0671	<0.110	<0.00250	<0.00256	<0.00254
Isopropylbenzene	mg/kg	7600	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Methyl tert-butyl ether	mg/kg	2300	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Methylene Chloride	mg/kg	1500	<0.302	<0.140	<0.137	<0.118	<0.144	<0.145	<0.143	<0.134	<0.275	<0.00625	<0.00640	<0.00634
n-Butylbenzene	mg/kg	3800	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	0.201	<0.00250	<0.00256	<0.00254
N-Propylbenzene	mg/kg	7600	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	0.173	<0.00250	<0.00256	<0.00254
p-Isopropyltoluene	mg/kg	NA	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
sec-Butylbenzene	mg/kg	NA	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Styrene	mg/kg	15000	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
tert-Butylbenzene	mg/kg	NA	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Tetrachloroethene	mg/kg	1500	<0.121 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
trans-1,2-Dichloroethene	mg/kg	1500	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
trans-1,3-Dichloropropene	mg/kg	NA	<0.121 F1 F2	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250	<0.00256	<0.00254
Trichloroethene	mg/kg	67	<0.121	<0.0140	<0.0137	<0.0118	<0.0144	<0.0145	<0.0143	<0.0134	<0.110	<0.00250 *	<0.00256 *	<0.00254 *
Trichlorofluoromethane	mg/kg	23000	<0.121	<0.0560	<0.0548	<0.0472	<0.0574	<0.0578	<0.0571	<0.0537	<0.110	<0.00625	<0.00640	<0.00634
Vinyl chloride	mg/kg	2.1	<0.121	<0.0420	<0.0411	<0.0354	<0.0431	<0.0434	<0.0428	<0.0403	<0.110	<0.00250	<0.00256	<0.00254

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	SB01-SL-0418 -7.5-10' 4/23/2018	SB02-SL-0418- 7.5-10' 4/23/2018	SB03-SL-0418- 5-7.5' 4/23/2018	PB01-SL-0718- 1.25' 7/11/2018	PB01-SL-0718- 8.75' 7/11/2018	PB02-SL-0718- 3.75' 7/11/2018	MW04-SL-0718- 1.25' 7/11/2018	MW04-SL-0718- 6.25' 7/11/2018	MW06-SL-0718- 13.75' 7/12/2018	MW07-SL-0918- 1.25' 9/19/2018	MW07-SL-0918- 6.25' 9/19/2018	MW08-SL-0918- 1.25' 9/19/2018
Phenols														
2,4,5-Trichlorophenol	mg/kg	6100	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	<4.93 F1 *	<0.513 *	<0.508 *	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	<2.47 F1	<0.257	<0.254	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	MW08-SL-0918-3.75' 9/19/2018	MW09-SL-0918-6.25' 9/19/2018	C5-SL-0819-5' 8/13/2019	C8-SL-0819-3' 8/13/2019	C8-SL-0819-5' 8/13/2019	D8-SL-0819-3' 8/13/2019	DP02-SL-0819 8/13/2019	D9-SL-0819-1' 8/13/2019	D9-SL-0819-3' 8/13/2019	D9-SL-0819-5' 8/13/2019	E8-SL-0819-3' 8/13/2019	E8-SL-0819-5' 8/13/2019
Inorganics														
Cyanide, Amenable	mg/kg	NA	<1.22	<1.26	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	17	<3.65	16.7	-	-	-	<4.20	7.42 J	-	-	-	-	-
Lead	mg/kg	400	8.33	22.8	-	-	-	19.0	33.2	-	-	-	-	-
Polynuclear Aromatic Hydrocarbons														
2-Methylnaphthalene	mg/kg	230	<0.117	<0.0595	<0.0622	<0.0634 F1 F2	0.0146 B	<0.127	<0.126	0.129 B	<0.127	0.331 B	<0.133	<0.0632
Acenaphthene	mg/kg	3400	<0.117	<0.0595	<0.0622	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Acenaphthylene	mg/kg	1700	<0.117	<0.0595	0.227	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Anthracene	mg/kg	17000	<0.117	<0.0595	0.351	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Benzo[a]anthracene	mg/kg	3.1	<0.117	<0.0595	0.179	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Benzo[a]pyrene	mg/kg	2.3	0.201	<0.0595	0.136	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Benzo[b]fluoranthene	mg/kg	3.1	0.182	<0.0595	0.120	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Benzo[g,h,i]perylene	mg/kg	170	0.138	<0.0595	0.0959	<0.0634	<0.0133	0.139	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Benzo[k]fluoranthene	mg/kg	31	<0.117	<0.0595	<0.0622	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Chrysene	mg/kg	310	<0.117	<0.0595	0.153	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Dibenz(a,h)anthracene	mg/kg	0.31	<0.117	<0.0595	<0.0622	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Fluoranthene	mg/kg	2300	0.162	<0.0595	2.23	<0.0634	0.0142	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Fluorene	mg/kg	2300	<0.117	<0.0595	0.325	<0.0634	<0.0133	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	0.144	<0.0595	0.0880	<0.0634	<0.0133	0.128	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Naphthalene	mg/kg	1100	<0.117	<0.0595	<0.0622	<0.0634 F1 F2	0.0166	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Phenanthrene	mg/kg	1700	<0.117	<0.0595	0.0837	<0.0634	0.0359	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Pyrene	mg/kg	1700	0.230	<0.0595	2.65	<0.0634	0.0193	<0.127	<0.126	<0.121	<0.127	<0.0645	<0.133	<0.0632
Volatile Organic Compounds														
Benzene	mg/kg	56	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	<0.00489	<0.00502	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	MW08-SL-0918-3.75' 9/19/2018	MW09-SL-0918-6.25' 9/19/2018	C5-SL-0819-5' 8/13/2019	C8-SL-0819-3' 8/13/2019	C8-SL-0819-5' 8/13/2019	D8-SL-0819-3' 8/13/2019	DP02-SL-0819 8/13/2019	D9-SL-0819-1' 8/13/2019	D9-SL-0819-3' 8/13/2019	D9-SL-0819-5' 8/13/2019	E8-SL-0819-3' 8/13/2019	E8-SL-0819-5' 8/13/2019
Volatile Organic Compounds (cont'd)														
1,3-Dichlorobenzene	mg/kg	6800	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	<0.0244	<0.0251	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	<0.0244	<0.0251	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	<0.00611 *	<0.00628 *	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	<0.00244 *	<0.00251 *	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	<0.00611	<0.00628	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	<0.00244	<0.00251	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	MW08-SL-0918-3.75' 9/19/2018	MW09-SL-0918-6.25' 9/19/2018	C5-SL-0819-5' 8/13/2019	C8-SL-0819-3' 8/13/2019	C8-SL-0819-5' 8/13/2019	D8-SL-0819-3' 8/13/2019	DP02-SL-0819 8/13/2019	D9-SL-0819-1' 8/13/2019	D9-SL-0819-3' 8/13/2019	D9-SL-0819-5' 8/13/2019	E8-SL-0819-3' 8/13/2019	E8-SL-0819-5' 8/13/2019
Phenols														
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	F5-SL-0819-5' 8/13/2019	F7-SL-0819-5' 8/13/2019	G4-SL-0819-5' 8/13/2019	G8-SL-0819-1' 8/13/2019	G8-SL-0819-3' 8/13/2019	H8-SL-0819-1' 8/13/2019	H8-SL-0819-3' 8/13/2019	I7-SL-0819-1' 8/13/2019	I7-SL-0819-3' 8/13/2019	J6-SL-0819-1' 8/13/2019	J6-SL-0819-3' 8/13/2019	DP04-SL-0819 8/13/2019
Inorganics														
Cyanide, Amenable	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	17	-	-	-	10.0	<4.31	4.89 J	<3.78	6.15 J	8.37	9.23	<3.26	-
Lead	mg/kg	400	-	-	-	214	12.7	16.1	12.1	15.4	16.4	42.3	23.9	-
Polynuclear Aromatic Hydrocarbons														
2-Methylnaphthalene	mg/kg	230	<0.125	0.319 B	<0.120	<0.0989	<0.0263	<0.122	<0.131	<0.113	<0.0125	<0.114	<0.117	<0.116
Acenaphthene	mg/kg	3400	<0.125	0.135	<0.120	<0.0989	<0.0263	<0.122	<0.131	<0.113	<0.0125	<0.114	<0.117	<0.116
Acenaphthylene	mg/kg	1700	<0.125	<0.135	1.25	0.146	<0.0263	<0.122	<0.131	<0.113	<0.0125	<0.114	<0.117	<0.116
Anthracene	mg/kg	17000	<0.125	<0.135	0.277	0.159	<0.0263	0.169	<0.131	<0.113	<0.0125	<0.114	<0.117	<0.116
Benzo[a]anthracene	mg/kg	3.1	<0.125	<0.135	0.131	0.564	<0.0263	0.888	<0.131	<0.113	<0.0125	0.244	<0.117	0.120
Benzo[a]pyrene	mg/kg	2.3	0.149	<0.135	0.699	0.969	<0.0263	0.883	<0.131 F2	<0.113	<0.0125	0.353	<0.117	0.181
Benzo[b]fluoranthene	mg/kg	3.1	0.190	<0.135	0.584	0.975	<0.0263	1.32	<0.131 F2	<0.113	<0.0125	0.417	<0.117	0.231
Benzo[g,h,i]perylene	mg/kg	170	0.226	<0.135	1.27	0.918	<0.0263	0.646	<0.131 F2	<0.113	<0.0125	0.392	<0.117	0.220
Benzo[k]fluoranthene	mg/kg	31	<0.125	<0.135	0.190	0.370	<0.0263	0.409	<0.131 F2	<0.113	<0.0125	0.141	<0.117	<0.116
Chrysene	mg/kg	310	0.241	<0.135	0.510	0.760	<0.0263	1.15	<0.131 F2	<0.113	<0.0125	0.312	<0.117	0.167
Dibenz(a,h)anthracene	mg/kg	0.31	<0.125	<0.135	0.185	0.161	<0.0263	0.185	<0.131	<0.113	<0.0125	<0.114	<0.117	<0.116
Fluoranthene	mg/kg	2300	0.146	<0.135	0.172	0.652	<0.0263	1.16	<0.131 F2	<0.113	<0.0125	0.336	<0.117	0.157
Fluorene	mg/kg	2300	<0.125	<0.135	<0.120	<0.0989	<0.0263	<0.122	<0.131	<0.113	<0.0125	<0.114	<0.117	<0.116
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	0.197	<0.135	1.25	0.832	<0.0263	0.705	<0.131 F2	<0.113	<0.0125	0.330	<0.117	0.192
Naphthalene	mg/kg	1100	<0.125	0.165	<0.120	<0.0989	<0.0263	<0.122	<0.131	<0.113	<0.0125	0.150	<0.117	<0.116
Phenanthrene	mg/kg	1700	0.237	0.160	<0.120	0.563	<0.0263	0.720	<0.131	<0.113	<0.0125	0.315	<0.117	<0.116
Pyrene	mg/kg	1700	0.375	0.158	0.893	0.910	<0.0263	1.09	<0.131 F2	<0.113	<0.0125	0.510	<0.117	0.250
Volatile Organic Compounds														
Benzene	mg/kg	56	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	F5-SL-0819-5' 8/13/2019	F7-SL-0819-5' 8/13/2019	G4-SL-0819-5' 8/13/2019	G8-SL-0819-1' 8/13/2019	G8-SL-0819-3' 8/13/2019	H8-SL-0819-1' 8/13/2019	H8-SL-0819-3' 8/13/2019	I7-SL-0819-1' 8/13/2019	I7-SL-0819-3' 8/13/2019	J6-SL-0819-1' 8/13/2019	J6-SL-0819-3' 8/13/2019	DP04-SL-0819 8/13/2019
Volatile Organic Compounds (cont'd)														
1,3-Dichlorobenzene	mg/kg	6800	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	F5-SL-0819-5' 8/13/2019	F7-SL-0819-5' 8/13/2019	G4-SL-0819-5' 8/13/2019	G8-SL-0819-1' 8/13/2019	G8-SL-0819-3' 8/13/2019	H8-SL-0819-1' 8/13/2019	H8-SL-0819-3' 8/13/2019	I7-SL-0819-1' 8/13/2019	I7-SL-0819-3' 8/13/2019	J6-SL-0819-1' 8/13/2019	J6-SL-0819-3' 8/13/2019	DP04-SL-0819 8/13/2019
Phenols														
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	J7-SL-0819-1' 8/13/2019	J7-SL-0819-3' 8/13/2019	J7-SL-0819-5' 8/13/2019	K4-SL-0819-1' 8/13/2019	K4-SL-0819-3' 8/13/2019	K4-SL-0819-5' 8/13/2019	K5-SL-0819-1' 8/13/2019	K5-SL-0819-3' 8/13/2019	K5-SL-0819-5' 8/13/2019	K6-SL-0819-1' 8/13/2019	K6-SL-0819-3' 8/13/2019	K6-SL-0819-5' 8/13/2019	B6-SL-0720-1' 7/27/2020
Inorganics															
Cyanide, Amenable	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	17	-	-	-	-	-	-	12.6	6.01 J	-	-	-	-	5.31
Lead	mg/kg	400	-	-	-	-	-	-	86.0	18.5	-	-	-	-	67.6
Polynuclear Aromatic Hydrocarbons															
2-Methylnaphthalene	mg/kg	230	0.441 B	<0.0114	<0.0113	0.138	0.452	<0.133	0.272	<0.123	<0.0117	<0.112	<0.0115	<0.0116	0.084
Acenaphthene	mg/kg	3400	<0.113	<0.0114	<0.0113	<0.108	0.591	12.5	0.425	<0.123	<0.0117	<0.112	<0.0115	<0.0116	<0.0638
Acenaphthylene	mg/kg	1700	<0.113	<0.0114	<0.0113	0.889	2.93	7.02	0.512	0.139	<0.0117	<0.112	<0.0115	<0.0116	1.06
Anthracene	mg/kg	17000	<0.113	<0.0114	<0.0113	0.483	1.73	7.35	0.897	<0.123	<0.0117	<0.112	<0.0115	<0.0116	0.241 F1
Benzo[a]anthracene	mg/kg	3.1	0.141	<0.0114	<0.0113	1.26	**4.41**	2.92	2.79	0.483	<0.0117	0.417	<0.0115	<0.0116	0.788
Benzo[a]pyrene	mg/kg	2.3	0.265	<0.0114	<0.0113	1.77	**6.34**	**2.52**	**3.47**	0.868	<0.0117	0.675	<0.0115	<0.0116	1.32
Benzo[b]fluoranthene	mg/kg	3.1	0.283	<0.0114	<0.0113	2.01	**5.68**	2.14	**4.10**	0.949	<0.0117	0.807	<0.0115	<0.0116	1.83
Benzo[g,h,i]perylene	mg/kg	170	0.321	<0.0114	<0.0113	2.18	6.13	1.41	3.39	1.08	<0.0117	0.713	<0.0115	<0.0116	1.51
Benzo[k]fluoranthene	mg/kg	31	<0.113	<0.0114	<0.0113	0.650	1.83	0.743	1.70	0.307	<0.0117	0.252	<0.0115	<0.0116	0.704
Chrysene	mg/kg	310	0.162	<0.0114	<0.0113	1.69	5.24	2.99	3.36	0.664	<0.0117	0.533	<0.0115	<0.0116	0.974
Dibenz(a,h)anthracene	mg/kg	0.31	<0.113	<0.0114	<0.0113	**0.360**	**1.05**	0.279	**0.693**	0.149	<0.0117	0.134	<0.0115	<0.0116	0.259 F1
Fluoranthene	mg/kg	2300	0.160	<0.0114	<0.0113	2.08	8.12	9.69	4.86	0.594	<0.0117	0.466	<0.0115	<0.0116	0.766
Fluorene	mg/kg	2300	<0.113	<0.0114	<0.0113	0.142	0.574	8.28	0.357	<0.123	<0.0117	<0.112	<0.0115	<0.0116	<0.0638
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	0.265	<0.0114	<0.0113	1.77	**5.17**	1.34	3.08	0.875	<0.0117	0.608	<0.0115	<0.0116	1.16
Naphthalene	mg/kg	1100	0.190	<0.0114	<0.0113	0.236	0.983	0.213	0.524	<0.123	<0.0117	<0.112	<0.0115	<0.0116	0.124 F1
Phenanthrene	mg/kg	1700	<0.113	<0.0114	<0.0113	1.45	3.79	26.7	3.56	0.398	<0.0117	0.245	<0.0115	<0.0116	0.370 F1
Pyrene	mg/kg	1700	0.276	<0.0114	<0.0113	3.32	12.7	13.5	5.27	0.908	<0.0117	0.669	<0.0115	<0.0116	1.34
Volatile Organic Compounds															
Benzene	mg/kg	56	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	J7-SL-0819-1' 8/13/2019	J7-SL-0819-3' 8/13/2019	J7-SL-0819-5' 8/13/2019	K4-SL-0819-1' 8/13/2019	K4-SL-0819-3' 8/13/2019	K4-SL-0819-5' 8/13/2019	K5-SL-0819-1' 8/13/2019	K5-SL-0819-3' 8/13/2019	K5-SL-0819-5' 8/13/2019	K6-SL-0819-1' 8/13/2019	K6-SL-0819-3' 8/13/2019	K6-SL-0819-5' 8/13/2019	B6-SL-0720-1' 7/27/2020
Volatile Organic Compounds (cont'd)															
1,3-Dichlorobenzene	mg/kg	6800	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	J7-SL-0819-1' 8/13/2019	J7-SL-0819-3' 8/13/2019	J7-SL-0819-5' 8/13/2019	K4-SL-0819-1' 8/13/2019	K4-SL-0819-3' 8/13/2019	K4-SL-0819-5' 8/13/2019	K5-SL-0819-1' 8/13/2019	K5-SL-0819-3' 8/13/2019	K5-SL-0819-5' 8/13/2019	K6-SL-0819-1' 8/13/2019	K6-SL-0819-3' 8/13/2019	K6-SL-0819-5' 8/13/2019	B6-SL-0720-1' 7/27/2020
Phenols									-						
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Notes:
Concentrations above the Iowa Statewide Standard are in bold red font.
* - LCS or LCSD is outside acceptance limits.
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits.
"-" - Not analyzed.
NA - Not applicable.
H - Sample prepped or analyzed outside holding time.
J - Result is an approximate value.
X - Surrogate is outside control limits.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	B6-SL-0720-3' 7/27/2020	B6-SL-0720-5' 7/27/2020	B7-SL-0720-3' 7/27/2020	B7-SL-0720-5' 7/27/2020	C9-SL-0720-1' 7/27/2020	E8.7-SL-0720-1' 7/27/2020	F8.3-SL-0720-1' 7/27/2020	BC5-SL-0720-1' 7/27/2020	BC5-SL-0720-3' 7/27/2020	C4-SL-0720-3' 7/27/2020	G3-SL-0720-3' 7/27/2020	H3-SL-0720-3' 7/27/2020
Inorganics														
Cyanide, Amenable	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	17	1.79 J	<2.09	<2.65	<2.05	2.00 J	<1.12	<2.13	1.43 J	<1.88	3.55 J	<2.03	2.54 J
Lead	mg/kg	400	18.7	16.6	74	18.9	18.7	18.2	25.5	13.8	14	17.4	16.7	18.6
Polynuclear Aromatic Hydrocarbons														
2-Methylnaphthalene	mg/kg	230	<0.309	<0.0623	<0.0720	<0.0126	0.0678	<0.0137	<0.0656	0.127	0.0694	0.151	<0.0127	<0.0125
Acenaphthene	mg/kg	3400	<0.309	<0.0623	<0.0720	<0.0126	<0.0124	<0.0137	<0.0656	0.0226	0.0223	0.0631	<0.0127	<0.0125
Acenaphthylene	mg/kg	1700	0.672	0.2	0.276	<0.0126	0.181	<0.0137	<0.0656	0.256	0.527	0.673	<0.0127	0.0212
Anthracene	mg/kg	17000	<0.309	<0.0623	0.0784	<0.0126	0.0477	<0.0137	<0.0656	0.0759	0.0567	0.344	<0.0127	<0.0125
Benzo[a]anthracene	mg/kg	3.1	0.521	<0.0623	0.237	<0.0126	0.0573	<0.0137	<0.0656	0.0292	0.0791	0.48	<0.0127	0.024
Benzo[a]pyrene	mg/kg	2.3	0.896	0.0793	0.4	<0.0126	0.128	<0.0137	0.0969	0.0808	0.121	0.565	0.0159	0.0403
Benzo[b]fluoranthene	mg/kg	3.1	1.45	<0.0623	0.591	<0.0126	0.159	0.0212	0.108	0.181	0.303	0.526	0.0216	0.0602
Benzo[g,h,i]perylene	mg/kg	170	1.32	0.238	0.451	<0.0126	0.247	<0.0137	0.105	0.207	0.145	0.3	0.0205	0.0558
Benzo[k]fluoranthene	mg/kg	31	0.485	<0.0623	0.147	<0.0126	0.0441	<0.0137	<0.0656	0.0522	0.0991	0.219	<0.0127	0.0165
Chrysene	mg/kg	310	0.807	<0.0623	0.381	<0.0126	0.0808	<0.0137	<0.0656	0.0621	0.157	0.479	0.0143	0.036
Dibenz(a,h)anthracene	mg/kg	0.31	<0.309	<0.0623	<0.0720	<0.0126	0.0337	<0.0137	<0.0656	0.0298	0.0329	0.0406	<0.0127	<0.0125
Fluoranthene	mg/kg	2300	0.53	<0.0623	0.4	<0.0126	0.0645	<0.0137	<0.0656	0.0816	0.0713	1.83	<0.0127	0.0277
Fluorene	mg/kg	2300	<0.309	<0.0623	<0.0720	<0.0126	<0.0124	<0.0137	<0.0656	0.0541	0.0701	0.604	<0.0127	<0.0125
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	0.953	0.163	0.37	<0.0126	0.196	<0.0137	0.0805	0.156	0.148	0.258	0.0163	0.0425
Naphthalene	mg/kg	1100	<0.309	<0.0623	<0.0720	<0.0126	0.169	<0.0137	0.231	0.185	0.158	0.202	<0.0127	<0.0125
Phenanthrene	mg/kg	1700	<0.309	<0.0623	0.182	<0.0126	0.0764	<0.0137	<0.0656	0.214	0.0801	3.61	<0.0127	0.0194
Pyrene	mg/kg	1700	1.01	<0.0623	0.594	<0.0126	0.0913	<0.0137	0.0959	0.122	0.168	2.34	0.0178	0.0474
Volatile Organic Compounds														
Benzene	mg/kg	56	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	B6-SL-0720-3' 7/27/2020	B6-SL-0720-5' 7/27/2020	B7-SL-0720-3' 7/27/2020	B7-SL-0720-5' 7/27/2020	C9-SL-0720-1' 7/27/2020	E8.7-SL-0720-1' 7/27/2020	F8.3-SL-0720-1' 7/27/2020	BC5-SL-0720-1' 7/27/2020	BC5-SL-0720-3' 7/27/2020	C4-SL-0720-3' 7/27/2020	G3-SL-0720-3' 7/27/2020	H3-SL-0720-3' 7/27/2020
Volatile Organic Compounds (cont'd)														
1,3-Dichlorobenzene	mg/kg	6800	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	B6-SL-0720-3' 7/27/2020	B6-SL-0720-5' 7/27/2020	B7-SL-0720-3' 7/27/2020	B7-SL-0720-5' 7/27/2020	C9-SL-0720-1' 7/27/2020	E8.7-SL-0720-1' 7/27/2020	F8.3-SL-0720-1' 7/27/2020	BC5-SL-0720-1' 7/27/2020	BC5-SL-0720-3' 7/27/2020	C4-SL-0720-3' 7/27/2020	G3-SL-0720-3' 7/27/2020	H3-SL-0720-3' 7/27/2020
Phenols														
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	I2-SL-0720-1' 7/27/2020	I2-SL-0720-3' 7/27/2020	I2-SL-0720-5' 7/27/2020	J2-SL-0720-1' 7/27/2020	J2-SL-0720-3' 7/27/2020	J2-SL-0720-5' 7/27/2020	JK3-SL-0720-1' 7/27/2020	JK3-SL-0720-3' 7/27/2020	JK3-SL-0720-5' 7/27/2020	A7-SL-0720-3' 7/27/2020	A6-SL-0720-1' 7/27/2020	A8-SL-0720-1' 7/27/2020
Inorganics														
Cyanide, Amenable	mg/kg	NA	-	-	-	-	-	-	-	-	-	-		
Arsenic	mg/kg	17	5.77	<1.85	2.88 J	6.67 J	<2.01	2.53 J	<6.67	3.99 J	4.23 J	-		
Lead	mg/kg	400	53.1	18.1	19.3	124	24.4	22	26.3 J	93.5	113	-	-	-
Polynuclear Aromatic Hydrocarbons														
2-Methylnaphthalene	mg/kg	230	<0.0602	<0.0122	<0.0127	<0.0597	<0.0127	<0.0123	<0.0505	0.248	0.189	<0.0634	<0.0583	<0.0575
Acenaphthene	mg/kg	3400	<0.0602	<0.0122	<0.0127	<0.0597	<0.0127	<0.0123	<0.0505	<0.0582	0.0804	<0.0634	<0.0583	<0.0575
Acenaphthylene	mg/kg	1700	0.384	0.0292	<0.0127	0.0988	<0.0127	<0.0123	<0.0505	1.09	0.882	0.167	<0.0583 F1	<0.0575
Anthracene	mg/kg	17000	0.0967	<0.0122	<0.0127	0.101	<0.0127	<0.0123	<0.0505	0.487	0.604	0.0745	<0.0583	<0.0575
Benzo[a]anthracene	mg/kg	3.1	0.991	0.0391	0.0298	0.57	<0.0127	<0.0123	0.0925	2.27	1.8	0.276	0.0689 F1 F2	0.112
Benzo[a]pyrene	mg/kg	2.3	1.61	0.0687	0.0477	0.775	0.0127	<0.0123	0.18	**3.79**	**2.71**	0.44	0.0722 F1	0.166
Benzo[b]fluoranthene	mg/kg	3.1	1.9	0.0891	0.0609	0.933	0.0184	<0.0123	0.212	**3.8**	**3.25**	0.644	0.109 F1	0.264
Benzo[g,h,i]perylene	mg/kg	170	1.2	0.049	0.0387	0.516	<0.0127	<0.0123	0.149	2.37	1.58	0.463	0.0691 F1	0.151
Benzo[k]fluoranthene	mg/kg	31	0.632	0.0254	0.0168	0.265	<0.0127	<0.0123	0.0579	1.36	0.973	0.195	<0.0583 F1	0.0640
Chrysene	mg/kg	310	1.28	0.0522	0.0382	0.653	<0.0127	<0.0123	0.115	2.53	1.99	0.439	0.104 F1 F2	0.174
Dibenz(a,h)anthracene	mg/kg	0.31	0.188	<0.0122	<0.0127	0.101	<0.0127	<0.0123	<0.0505	**0.384**	**0.321**	0.0734	<0.0583	<0.0575
Fluoranthene	mg/kg	2300	1.45	0.0599	0.0429	0.553	0.0131	<0.0123	0.0982	3.17	2.39	0.442	0.160 F1	0.151
Fluorene	mg/kg	2300	<0.0602	<0.0122	<0.0127	<0.0597	<0.0127	<0.0123	<0.0505	0.164	0.14	<0.0634	<0.0583	<0.0575
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	1.03	0.0415	0.0311	0.45	<0.0127	<0.0123	0.116	2.05	1.45	0.364	<0.0583 F1	0.123
Naphthalene	mg/kg	1100	0.07	<0.0122	<0.0127	0.101	<0.0127	<0.0123	<0.0505	0.438	0.279	<0.0634	<0.0583	<0.0575
Phenanthrene	mg/kg	1700	0.407	0.0179	<0.0127	0.404	0.0155	<0.0123	<0.0505	1.97	2.08	0.296	0.130	0.107
Pyrene	mg/kg	1700	2.43	0.112	0.0723	0.803	0.0159	<0.0123	0.162	5.53	3.61	0.617	0.246 F1 F2	0.187
Volatile Organic Compounds														
Benzene	mg/kg	56	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	I2-SL-0720-1' 7/27/2020	I2-SL-0720-3' 7/27/2020	I2-SL-0720-5' 7/27/2020	J2-SL-0720-1' 7/27/2020	J2-SL-0720-3' 7/27/2020	J2-SL-0720-5' 7/27/2020	JK3-SL-0720-1' 7/27/2020	JK3-SL-0720-3' 7/27/2020	JK3-SL-0720-5' 7/27/2020	A7-SL-0720-3' 7/27/2020	A6-SL-0720-1' 7/27/2020	A8-SL-0720-1' 7/27/2020
Volatile Organic Compounds (cont'd)														
1,3-Dichlorobenzene	mg/kg	6800	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	I2-SL-0720-1' 7/27/2020	I2-SL-0720-3' 7/27/2020	I2-SL-0720-5' 7/27/2020	J2-SL-0720-1' 7/27/2020	J2-SL-0720-3' 7/27/2020	J2-SL-0720-5' 7/27/2020	JK3-SL-0720-1' 7/27/2020	JK3-SL-0720-3' 7/27/2020	JK3-SL-0720-5' 7/27/2020	A7-SL-0720-3' 7/27/2020	A6-SL-0720-1' 7/27/2020	A8-SL-0720-1' 7/27/2020
Phenols														
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	B8-SL-0720-1' 7/27/2020	B8-SL-0720-3' 7/27/2020	BC4-SL-0720-1' 7/27/2020	BC8-SL-0720-3' 7/27/2020	C3-SL-0720-1' 7/27/2020	D3-SL-0720-3' 7/27/2020	D4-SL-0720-5' 7/27/2020	E4-SL-0720-5' 7/27/2020	F2-SL-0720-1' 7/27/2020	F2-SL-0720-3' 7/27/2020	H2-SL-0720-1' 7/27/2020	JK2-SL-0720-1' 7/27/2020
Inorganics														
Cyanide, Amenable	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	mg/kg	17	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	400	-	-	-	-	-	-	-	-	-	-	-	-
Polynuclear Aromatic Hydrocarbons														
2-Methylnaphthalene	mg/kg	230	<0.0659	<0.0688	0.133	<0.0131	<0.0602	<0.0126	<0.0127	<0.0126	<0.0596	<0.0124	<0.0592	<0.0613
Acenaphthene	mg/kg	3400	<0.0659	<0.0688	<0.0625	<0.0131	<0.0602	<0.0126	<0.0127	<0.0126	<0.0596	<0.0124	<0.0592	<0.0613
Acenaphthylene	mg/kg	1700	0.482	0.311	0.492 F1	<0.0131	0.2	<0.0126	<0.0127	0.0682	0.133	<0.0124	0.106	<0.0613
Anthracene	mg/kg	17000	0.081	<0.0688	0.141	<0.0131	<0.0602	<0.0126	<0.0127	<0.0126	0.0674	<0.0124	0.0617	<0.0613
Benzo[a]anthracene	mg/kg	3.1	0.203	0.143	0.640 F1	<0.0131	0.323	<0.0126	<0.0127	<0.0126	0.464	<0.0124	0.453	0.0924
Benzo[a]pyrene	mg/kg	2.3	0.883	0.542	0.909	0.0326	0.455	<0.0126	<0.0127	0.0473	0.868	<0.0124	0.709	0.108
Benzo[b]fluoranthene	mg/kg	3.1	0.812	0.533	1.27	0.0339	0.67	<0.0126	0.0143	0.041	1.11	<0.0124	0.9	0.136
Benzo[g,h,i]perylene	mg/kg	170	0.888	0.567	1.06	0.027	0.468	<0.0126	<0.0127	0.0996	0.862	<0.0124	0.67	0.0781
Benzo[k]fluoranthene	mg/kg	31	0.207	0.136	0.411 F1	<0.0131	0.22	<0.0126	<0.0127	<0.0126	0.363	<0.0124	0.236	<0.0613
Chrysene	mg/kg	310	0.319	0.248	0.861	0.0133	0.446	<0.0126	<0.0127	<0.0126	0.691	<0.0124	0.605	0.107
Dibenz(a,h)anthracene	mg/kg	0.31	0.117	0.0701	0.168 F1	<0.0131	0.0671	<0.0126	<0.0127	0.0358	0.128	<0.0124	0.101	<0.0613
Fluoranthene	mg/kg	2300	0.223	0.169	0.902	<0.0131	0.466	<0.0126	0.0208	<0.0126	0.665	<0.0124	0.624	0.107
Fluorene	mg/kg	2300	<0.0659	<0.0688	<0.0625	<0.0131	<0.0602	<0.0126	<0.0127	<0.0126	<0.0596	<0.0124	<0.0592	<0.0613
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	0.67	0.424	0.78	0.021	0.338	<0.0126	<0.0127	0.0761	0.68	<0.0124	0.531	<0.0613
Naphthalene	mg/kg	1100	<0.0659	<0.0688	0.360 F1	<0.0131	<0.0602	<0.0126	<0.0127	<0.0126	<0.0596	<0.0124	<0.0592	<0.0613
Phenanthrene	mg/kg	1700	0.0842	<0.0688	0.500 F1	<0.0131	0.126	<0.0126	0.0284	<0.0126	0.372	<0.0124	0.35	0.0661
Pyrene	mg/kg	1700	0.414	0.316	1.45	0.0251	0.803	<0.0126	0.0301	0.0131	0.936	<0.0124	0.937	0.143
Volatile Organic Compounds														
Benzene	mg/kg	56	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	-	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	B8-SL-0720-1' 7/27/2020	B8-SL-0720-3' 7/27/2020	BC4-SL-0720-1' 7/27/2020	BC8-SL-0720-3' 7/27/2020	C3-SL-0720-1' 7/27/2020	D3-SL-0720-3' 7/27/2020	D4-SL-0720-5' 7/27/2020	E4-SL-0720-5' 7/27/2020	F2-SL-0720-1' 7/27/2020	F2-SL-0720-3' 7/27/2020	H2-SL-0720-1' 7/27/2020	JK2-SL-0720-1' 7/27/2020
Volatile Organic Compounds (cont'd)														
1,3-Dichlorobenzene	mg/kg	6800	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	-	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	-	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	-	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	-	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	B8-SL-0720-1' 7/27/2020	B8-SL-0720-3' 7/27/2020	BC4-SL-0720-1' 7/27/2020	BC8-SL-0720-3' 7/27/2020	C3-SL-0720-1' 7/27/2020	D3-SL-0720-3' 7/27/2020	D4-SL-0720-5' 7/27/2020	E4-SL-0720-5' 7/27/2020	F2-SL-0720-1' 7/27/2020	F2-SL-0720-3' 7/27/2020	H2-SL-0720-1' 7/27/2020	JK2-SL-0720-1' 7/27/2020
Phenols														
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	JK2-SL-0720-3' 7/27/2020	JK2-SL-0720-5' 7/27/2020	AA8-SL-0920-1' 9/11/2020	AA7-SL-0920-1' 9/11/2020	AA6-SL-0920-1' 9/11/2020	B9-SL-0920-1' 9/11/2020	C2-SL-0920-1' 9/11/2020	D2-SL-1020-2.5' 10/22/2020	D1-SL-1020-1' 10/22/2020	E1-SL-1020-1' 10/22/2020	DP01-SL-1020 10/22/2020
Inorganics													
Cyanide, Amenable	mg/kg	NA	-	-	-	-	-	-	-				
Arsenic	mg/kg	17	-	-	-	-	-	-	-				
Lead	mg/kg	400	-	-	-	-	-	-	-				
Polynuclear Aromatic Hydrocarbons													
2-Methylnaphthalene	mg/kg	230	<0.0628	<0.0641	<0.0623	<0.0590	<0.0113	<0.0619	<0.0657	<0.0121	<0.0115	<0.0118	<0.0118
Acenaphthene	mg/kg	3400	<0.0628	<0.0641	<0.0623	<0.0590	<0.0113	<0.0619	<0.0657	<0.0121	<0.0115	<0.0118	<0.0118
Acenaphthylene	mg/kg	1700	0.132	<0.0641	0.0963	0.192	0.0359	0.237	0.184	<0.0121	<0.0115	<0.0118	<0.0118
Anthracene	mg/kg	17000	0.0774	<0.0641	<0.0623	0.0666	0.0129	<0.0619	<0.0657	<0.0121	<0.0115	<0.0118	<0.0118
Benzo[a]anthracene	mg/kg	3.1	0.432	0.105	0.251	0.242	0.0527	0.260	0.396	<0.0121	<0.0115	<0.0118	<0.0118
Benzo[a]pyrene	mg/kg	2.3	0.532	0.124	0.347	0.420	0.0881	0.725	0.643	<0.0121	<0.0115	<0.0118	<0.0118
Benzo[b]fluoranthene	mg/kg	3.1	0.687	0.156	0.484	0.519	0.131	0.856	0.885	<0.0121	0.0150	<0.0118	0.0143
Benzo[g,h,i]perylene	mg/kg	170	0.459	0.0886	0.319	0.436	0.103	0.796	0.728	<0.0121	<0.0115	<0.0118	<0.0118
Benzo[k]fluoranthene	mg/kg	31	0.201	<0.0641	0.151	0.152	0.0378	0.235	0.262	<0.0121	<0.0115	<0.0118	<0.0118
Chrysene	mg/kg	310	0.521	0.134	0.344	0.293	0.0755	0.405	0.527	<0.0121	<0.0115	<0.0118	<0.0118
Dibenz(a,h)anthracene	mg/kg	0.31	0.0849	<0.0641	<0.0623	0.0739	0.0187	0.113	0.0863	<0.0121	<0.0115	<0.0118	<0.0118
Fluoranthene	mg/kg	2300	0.58	0.114	0.369	0.343	0.0630	0.375	0.868	<0.0121	<0.0115	<0.0118	<0.0118
Fluorene	mg/kg	2300	<0.0628	<0.0641	<0.0623	<0.0590	<0.0113	<0.0619	<0.0657	<0.0121	<0.0115	<0.0118	<0.0118
Indeno[1,2,3-cd]pyrene	mg/kg	3.1	0.368	0.0764	0.285	0.376	0.0875	0.674	0.633	<0.0121	<0.0115	<0.0118	<0.0118
Naphthalene	mg/kg	1100	<0.0628	<0.0641	0.0740	0.0642	0.0113	<0.0619	<0.0657	<0.0121	<0.0115	<0.0118	<0.0118
Phenanthrene	mg/kg	1700	0.337	0.0854	0.268	0.205	0.0320	0.176	0.260	<0.0121	<0.0115	<0.0118	<0.0118
Pyrene	mg/kg	1700	0.77	0.15	0.455	0.510	0.0945	0.604	1.29	<0.0121	<0.0115	<0.0118	<0.0118
Volatile Organic Compounds													
Benzene	mg/kg	56	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-
Toluene	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane	mg/kg	230	-	-	-	-	-	-	-	-	-	-	-
1,1,1-Trichloroethane	mg/kg	150000	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	mg/kg	15	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	mg/kg	54	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	mg/kg	380	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichlorobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
1,2,3-Trichloropropane	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromo-3-Chloropropane	mg/kg	2.6	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane (EDB)	mg/kg	1.5	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	5500	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	mg/kg	34	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	mg/kg	53	-	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	JK2-SL-0720-3' 7/27/2020	JK2-SL-0720-5' 7/27/2020	AA8-SL-0920-1' 9/11/2020	AA7-SL-0920-1' 9/11/2020	AA6-SL-0920-1' 9/11/2020	B9-SL-0920-1' 9/11/2020	C2-SL-0920-1' 9/11/2020	D2-SL-1020-2.5' 10/22/2020	D1-SL-1020-1' 10/22/2020	E1-SL-1020-1' 10/22/2020	DP01-SL-1020 10/22/2020
Volatile Organic Compounds (cont'd)													
1,3-Dichlorobenzene	mg/kg	6800	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-
2,2-Dichloropropane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
2-Butanone (MEK)	mg/kg	46000	-	-	-	-	-	-	-	-	-	-	-
2-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
4-Chlorotoluene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/kg	68000	-	-	-	-	-	-	-	-	-	-	-
Bromobenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
Bromochloromethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	50	-	-	-	-	-	-	-	-	-	-	-
Bromoform	mg/kg	390	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	mg/kg	110	-	-	-	-	-	-	-	-	-	-	-
Carbon disulfide	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	mg/kg	44	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
Chlorodibromomethane	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	mg/kg	30000	-	-	-	-	-	-	-	-	-	-	-
Chloroform	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	mg/kg	150	-	-	-	-	-	-	-	-	-	-	-
cis-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	mg/kg	760	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	40	-	-	-	-	-	-	-	-	-	-	-
Hexane	mg/kg	4600	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	mg/kg	2300	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
n-Butylbenzene	mg/kg	3800	-	-	-	-	-	-	-	-	-	-	-
N-Propylbenzene	mg/kg	7600	-	-	-	-	-	-	-	-	-	-	-
p-Isopropyltoluene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
sec-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
Styrene	mg/kg	15000	-	-	-	-	-	-	-	-	-	-	-
tert-Butylbenzene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
trans-1,2-Dichloroethene	mg/kg	1500	-	-	-	-	-	-	-	-	-	-	-
trans-1,3-Dichloropropene	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	mg/kg	67	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	23000	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/kg	2.1	-	-	-	-	-	-	-	-	-	-	-

Table 1

Soil Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard	JK2-SL-0720-3' 7/27/2020	JK2-SL-0720-5' 7/27/2020	AA8-SL-0920-1' 9/11/2020	AA7-SL-0920-1' 9/11/2020	AA6-SL-0920-1' 9/11/2020	B9-SL-0920-1' 9/11/2020	C2-SL-0920-1' 9/11/2020	D2-SL-1020-2.5' 10/22/2020	D1-SL-1020-1' 10/22/2020	E1-SL-1020-1' 10/22/2020	DP01-SL-1020 10/22/2020
Phenols													
2,4,5-Trichlorophenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	220	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	180	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	1200	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/kg	120	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	310	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	3100	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	mg/kg	6100	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/kg	490	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/kg	4.5	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	18000	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	mg/kg	NA	-	-	-	-	-	-	-	-	-	-	-

Notes:
mg/kg = miligram per kilogram.
Cells with red outlines exceed the statewide standard.
Shaded columns indicate soil which has been excavated.

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-01 MW01-GW-0518 5/23/2018	MW-01 MW01-GW-0818 8/2/2018	MW-01 DP01-GW-0818 8/2/2018	MW-01 MW01-GW-0421 4/29/2021	MW-01 MW01-GW-0721 7/8/2021	MW-01 DUP1-GW-0721 7/8/2021	MW-01 MW01-GW-1021 10/26/2021	MW-01 MW01-GW-0122 1/13/2022	MW-02 MW02-GW-0518 5/23/2018	MW-02 MW02-GW-0818 8/2/2018	MW-02 MW02-GW-0421 4/30/2021	MW-02 MW02-GW-0721 7/8/2021	MW-02 MW02-GW-1021 10/27/2021	MW-02 MW02-GW-0122 1/13/2022
Inorganics																	
Cyanide, Free	mg/L	-	-	<0.00500	<0.00500	<0.00500	-	-	-	-		<0.00500	<0.00500	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200	0.00677	0.00618	**0.0134**	0.00610	0.00598	**0.0124**	**0.0166**	0.00204	**0.0184**	**0.0147**	**0.0153**	**0.0228**	**0.0149**
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000664	0.000583	0.000590	0.000715	<0.000500	<0.000500	<0.000500	<0.000500	0.000533	<0.000500
Polynuclear Aromatic Hydrocarbons																	
2-Methylnaphthalene	µg/L	140	28	<0.200	<0.161	0.573	<0.200	0.280	0.259	<0.227	<0.200	**41.4**	6.64	1.74	1.03	<0.217	<0.238
Acenaphthene	µg/L	2100	420	<0.200	11.8	21.3	11.9	19.3	20.1	11.6	17.6	46.4	14.3	22.5	20.7	<0.217	13.9
Acenaphthylene	µg/L	1000	210	<0.200	0.511	4.39	2.63 F1	4.71	5.05	1.43	3.33	95.5	17.5	24.8	25.8	<0.217	9.58
Anthracene	µg/L	10000	2100	<0.200	1.61	4.74	0.844	1.83	1.98	1.04	1.43	5.43	2.07	1.57	1.33	<0.217	0.808
Benzo[a]anthracene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[a]pyrene	µg/L	3.5	0.18	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[g,h,i]perylene	µg/L	100	21	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Benzo[k]fluoranthene	µg/L	48	2.4	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Chrysene	µg/L	480	24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Fluoranthene	µg/L	1400	280	<0.200	2.91	4.47	0.579	1.65	1.68	1.05	0.924	1.24	1.18	0.896	0.799	<0.217	0.972
Fluorene	µg/L	1400	280	<0.200	19.6	42.3	9.01	15.4	17.2	10.0	13.9	37.5	11.3	16.8	16.7	<0.217	8.83
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.200	<0.161	<0.172	<0.200	<0.227	<0.238	<0.227	<0.200	<0.238	<0.172	<0.200	<0.208	<0.217	<0.238
Naphthalene	µg/L	700	100	<0.500	<0.403	0.660	13.6 F2	66.9	80.9	0.848 F1 F2	4.39	**178**	0.699	39.4	22.6	<0.543	0.909
Phenanthrene	µg/L	1000	210	<0.200	2.35	18.5	4.32	12.0	13.3	3.08 F1 F2	6.75	28.0	11.6	8.82	8.59	<0.217	2.9
Pyrene	µg/L	1000	210	<0.200	2.59	4.10	0.473	1.55	1.56	1.02	0.909	1.01	0.924	0.831	0.760	0.234	1.05
Volatile Organic Compounds																	
Benzene	µg/L	64	5	**51.2**	**463**	**453**	**390**	**494**	**459**	**395**	**283**	**602**	**564**	**279**	**231**	**38.6**	**146**
Ethylbenzene	µg/L	3500	700	126	**1270**	**1200**	407	565	562	531	384	126	180	89.5	81.5	12.4	27.6
Toluene	µg/L	5000	1000	<10.0	11.9	11.1	4.60	6.58	6.51	4.78	2.87	54.1	58.7	6.48	5.80	<1.00	1.31
Xylenes, Total	µg/L	50000	10000	70.5	773	740	49.5	57.5	55.2	41.9	29.6	284	300	58.1	51.7	10.1	24.8
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	17.7	**158**	**156**	**85.2**	**111**	**104**	**78.2**	69.6	44.8	47.3	45.9	41.5	10.3	21
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	3.61
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<10.0	63.5	60.1	<1.00	<1.00	<1.00	<1.00 F1 F2	<1.00	27.3	15.2	4.32	3.54	1.17	1.62
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-01 MW01-GW-0518 5/23/2018	MW-01 MW01-GW-0818 8/2/2018	MW-01 DP01-GW-0818 8/2/2018	MW-01 MW01-GW-0421 4/29/2021	MW-01 MW01-GW-0721 7/8/2021	MW-01 DUP1-GW-0721 7/8/2021	MW-01 MW01-GW-1021 10/26/2021	MW-01 MW01-GW-0122 1/13/2022	MW-02 MW02-GW-0518 5/23/2018	MW-02 MW02-GW-0818 8/2/2018	MW-02 MW02-GW-0421 4/30/2021	MW-02 MW02-GW-0721 7/8/2021	MW-02 MW02-GW-1021 10/27/2021	MW-02 MW02-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																	
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<100	<10.0	<10.0	<10.0 F1	<10.0	<10.0	<10.0	<10.0	<100	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.15	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	9.54	9.24	4.30	6.17	6.17	4.78	4.62	<10.0	3.57	2.78	2.45	<1.00	1.18
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	2.47	2.42	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	1.20	1.14	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	23.7	22.4	6.43	11.0	10.8	7.84	7.91	<1.00	3.71	2.31	1.96	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	1.60	1.33	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	1.17	1.10	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols																	
2,4,5-Trichlorophenol	µg/L	3500	700	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	<206	-	-	-	-	-	-	-	<208	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2-Methylphenol	µg/L	-	35	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Phenol	µg/L	10000	2000	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-
Total Cresols	µg/L	-	-	<103	-	-	-	-	-	-	-	<104	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-03 MW03-GW-0518 5/23/2018	MW-03 DP01-GW-0518 5/23/2018	MW-03 MW03-GW-0818 8/2/2018	MW-03 MW3-GW-0521 5/28/2021	MW-03 MW03-GW-0721 7/8/2021	MW-03 MW03-GW-1021 10/26/2021	MW-03 DUP1-GW-1021 10/26/2021	MW-03 MW03-GW-0122 1/13/2022	MW-03 DUP1-GW-0122 1/13/2022	MW-04 MW04-GW-0818 8/2/2018	MW-04 MW04-GW-0918 9/6/2018	MW-04 MW04-GW-0421 4/30/2021	MW-04 DP01-GW-0421 4/30/2021	MW-04 MW04-GW-0721 7/7/2021	MW-04 MW04-GW-1021 10/26/2021	MW-04 MW04-GW-0122 1/13/2022
Inorganics																			
Cyanide, Free	mg/L	-	-	<0.00500 F1	<0.00500	<0.00500 F1	-	-	-	-	-	-	<0.00500	-	-	-	-	-	
Arsenic, Total	mg/L	0.05	0.01	0.00593	0.00575	**0.0173**	0.00353	0.00416	0.00637	0.00673	**0.0111**	0.0069	0.00243	0.00351	0.00409	0.00448	0.00598	0.00394	0.00537
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000999	0.000571	0.000933	0.000558	0.000592	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000704	0.000799
Polynuclear Aromatic Hydrocarbons																			
2-Methylnaphthalene	µg/L	140	28	**72.2**	**39.2**	18.5	3.62 *1	1.29	0.295	0.238	0.273	0.266	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Acenaphthene	µg/L	2100	420	43.6	27.1	13.8	27.0 *1	18.7	21.6	21.1	18.3	20.9	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Acenaphthylene	µg/L	1000	210	180	122	67.1 F2	159 *1	129	130	114	70.4	96.1	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Anthracene	µg/L	10000	2100	7.60	4.98	2.65 F2 F1	6.09 *1	4.22	2.50	3.26	1.56	1.49	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[a]anthracene	µg/L	4.8	0.24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[a]pyrene	µg/L	3.5	0.18	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.177	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	0.219	<0.227	<0.200
Benzo[g,h,i]perylene	µg/L	100	21	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	0.356	<0.192 F2	<0.208	<0.208	<0.200	<0.227	<0.200
Benzo[k]fluoranthene	µg/L	48	2.4	<0.227	<0.200	<0.172	<0.200	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Chrysene	µg/L	480	24	<0.227	<0.200	<0.172	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	**0.352**	<0.192 F2	<0.208	<0.208	<0.200	<0.227	<0.200
Fluoranthene	µg/L	1400	280	5.41	3.60	1.70	5.37 *1	4.66	3.99	4.36	1.03	1.05	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Fluorene	µg/L	1400	280	29.2	18.7	9.95 F2	17.2 *1	12.2	11.5	11.1	8.64	9.23	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.227	<0.200	<0.172 F2	<0.200 *1	<0.217	<0.208	<0.227	<0.200	<0.200	**0.393**	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Naphthalene	µg/L	700	100	**2210**	**1560**	**618 F2**	**ing**	**266**	39.9	32.7	14	15.7	<0.417	<0.481	<0.521	<0.521	<0.500	<0.568	<0.500
Phenanthrene	µg/L	1000	210	90.8	64.2	24.2	66.4	54.3	27.8	22.3	15	16.3	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Pyrene	µg/L	1000	210	5.34	3.59	1.66	5.55 *1	5.07	4.09	4.48	0.959	1.03	<0.167	<0.192	<0.208	<0.208	<0.200	<0.227	<0.200
Volatile Organic Compounds																			
Benzene	µg/L	64	5	**1190**	**1220**	**721**	**507**	**449**	**468**	**473**	**172**	**173**	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	293	265	174	154	133	188	194	49.8	49.8	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	23.7	22.1	15.7	19.0	20.1	7.86	7.91	2.5	2.39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	309	281	158 F1	130	121	95.6	96.9	48.8	47.4	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	**122**	**111**	57.8	69.7	**72.1**	69.5	**71.5**	42.7	41.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	30.4	27.3	12.2	7.97	7.16	4.10	4.25	2.95	2.81	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-03 MW03-GW-0518 5/23/2018	MW-03 DP01-GW-0518 5/23/2018	MW-03 MW03-GW-0818 8/2/2018	MW-03 MW3-GW-0521 5/28/2021	MW-03 MW03-GW-0721 7/8/2021	MW-03 MW03-GW-1021 10/26/2021	MW-03 DUP1-GW-1021 10/26/2021	MW-03 MW03-GW-0122 1/13/2022	MW-03 DUP1-GW-0122 1/13/2022	MW-04 MW04-GW-0818 8/2/2018	MW-04 MW04-GW-0918 9/6/2018	MW-04 MW04-GW-0421 4/30/2021	MW-04 DP01-GW-0421 4/30/2021	MW-04 MW04-GW-0721 7/7/2021	MW-04 MW04-GW-1021 10/26/2021	MW-04 MW04-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																			
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	21.9	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	22.4	20.5	10.3	12.9	13.8	16.4	17.3	4.76	4.74	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	2.81	2.83	1.63	2.12	1.75	1.62	1.69	1.04	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	10.1	9.07	4.10	4.68	4.58	5.21	5.47	1.23	1.27	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	2.55	2.21	<1.00	1.02	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	1.23	1.09	<1.00	1.01	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols																			
2,4,5-Trichlorophenol	µg/L	3500	700	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	<211	<213	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	<105	<106	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-05 MW05-GW-0818 8/2/2018	MW-05 MW05-GW-0918 9/6/2018	MW-05 MW05-GW-0421 4/29/2021	MW-05 MW05-GW-0721 7/7/2021	MW-05 MW05-GW-1021 10/26/2021	MW-05 MW05-GW-0122 1/13/2022	MW-06 MW06-GW-0818 8/2/2018	MW-06 MW06-GW-0918 9/6/2018	MW-06 DP01-GW-0918 9/6/2018	MW-06 MW06-GW-0421 4/30/2021	MW-06 MW06-GW-0721 7/8/2021	MW-06 MW06-GW-1021 10/27/2021	MW-06 MW06-GW-0122 1/13/2022
Inorganics																
Cyanide, Free	mg/L	-	-	<0.00500	-	-	-	-	-	<0.00500	-	-	-	-	-	-
Arsenic, Total	mg/L	0.05	0.01	<0.00200 ^	0.00242	0.00342	<0.00200	<0.00200	<0.00200	<0.00200 ^	0.00468	0.00470	**0.0422**	**0.0257**	**0.0193**	**0.0266**
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	0.000737	<0.000500	<0.000500	<0.000500	<0.000500	0.000534	<0.000500	0.00127	0.00065
Polynuclear Aromatic Hydrocarbons																
2-Methylnaphthalene	µg/L	140	28	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	13.1	6.40	9.50	<0.200	0.319	<0.217	<0.208
Acenaphthene	µg/L	2100	420	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	8.80	3.59	4.08	1.53	2.06	<0.217	3.02
Acenaphthylene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	66.5	31.5	37.3	3.77	5.72	<0.217	4.9
Anthracene	µg/L	10000	2100	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	5.55	1.57	1.50	<0.200	0.544	<0.217	0.74
Benzo[a]anthracene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[a]pyrene	µg/L	3.5	0.18	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[g,h,i]perylene	µg/L	100	21	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Benzo[k]fluoranthene	µg/L	48	2.4	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Chrysene	µg/L	480	24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Fluoranthene	µg/L	1400	280	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	2.90	2.04	2.09	0.654	0.804	<0.217	1.28
Fluorene	µg/L	1400	280	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	27.7	11.5	12.9	0.744	1.63	<0.217	2.82
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	<0.167	<0.200	<0.192	<0.200	<0.227	<0.217	<0.208
Naphthalene	µg/L	700	100	0.432	<0.500	<0.543	<0.500	<0.543	<0.568	**226**	**121**	**342**	0.733	6.83	<0.543	0.933
Phenanthrene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	27.4	8.07	9.79	<0.200	4.07	<0.217	5.4
Pyrene	µg/L	1000	210	<0.167	<0.200	<0.217	<0.200	<0.217	<0.227	3.26	3.14	3.21	0.914	0.927	<0.217	1.34
Volatile Organic Compounds																
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	**121**	**24.4**	**64.6**	**41.7**	**22.7**	**9.16**	**20.9**
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	20.0	<10.0	13.6	6.05	4.63	2.04	6.54
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	179	40.5	89.0	4.32	3.28	<1.00	1.25
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	169	<30.0	59.7	44.7	29.7	4.23	19.3
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	26.1	<10.0	11.4	17.4	14.6	2.71	15.2
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	10.5	<10.0	<10.0	<1.00	<1.00	<1.00	1.15
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-05 MW05-GW-0818 8/2/2018	MW-05 MW05-GW-0918 9/6/2018	MW-05 MW05-GW-0421 4/29/2021	MW-05 MW05-GW-0721 7/7/2021	MW-05 MW05-GW-1021 10/26/2021	MW-05 MW05-GW-0122 1/13/2022	MW-06 MW06-GW-0818 8/2/2018	MW-06 MW06-GW-0918 9/6/2018	MW-06 DP01-GW-0918 9/6/2018	MW-06 MW06-GW-0421 4/30/2021	MW-06 MW06-GW-0721 7/8/2021	MW-06 MW06-GW-1021 10/27/2021	MW-06 MW06-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00 *	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<30.0	<30.0	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.23	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.12	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<40.0	<40.0	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00 *	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Phenols																
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-07 MW07-GW-1018 10/18/2018	MW-07 MW07-GW-0119 1/15/2019	MW-07 MW7-GW-0521 5/28/2021	MW-07 MW07-GW-0721 7/7/2021	MW-07 MW07-GW-1021 10/29/2021	MW-07 MW07-GW-0122 1/13/2022	MW-08 MW08-GW-1018 10/18/2018	MW-08 MW08-GW-0119 1/15/2019	MW-08 DP01-GW-0119 1/15/2019	MW-08R MW8R-GW-0421 4/30/2021	MW-08R MW08R-GW-0721 7/7/2021	MW-08R MW08R-GW-1021 10/26/2021	MW-08R MW08R-GW-0122 1/13/2022
Inorganics																
Cyanide, Free	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arsenic, Total	mg/L	0.05	0.01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	**0.0133**	**0.0112**	**0.0110**	<0.00200
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000819	<0.000500	0.000695	0.000578	0.000614	0.000536	0.00577	<0.000500
Polynuclear Aromatic Hydrocarbons																
2-Methylnaphthalene	µg/L	140	28	<0.185	<0.192	1.02 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Acenaphthene	µg/L	2100	420	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	0.389	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Acenaphthylene	µg/L	1000	210	<0.185	<0.192	0.453 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Anthracene	µg/L	10000	2100	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[a]anthracene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[a]pyrene	µg/L	3.5	0.18	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[g,h,i]perylene	µg/L	100	21	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Benzo[k]fluoranthene	µg/L	48	2.4	<0.185	<0.192	<0.227	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Chrysene	µg/L	480	24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Fluoranthene	µg/L	1400	280	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Fluorene	µg/L	1400	280	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192 F2	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Naphthalene	µg/L	700	100	<0.463	<0.481	2.91 *1 *+	<0.568	<0.568	<0.500	<0.481	<0.481	<0.500	<0.500	<0.500	<0.568	<0.595
Phenanthrene	µg/L	1000	210	<0.185	<0.192	<0.227	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Pyrene	µg/L	1000	210	<0.185	<0.192	<0.227 *1	<0.227	<0.227	<0.200	<0.192	<0.192	<0.200	<0.200	<0.200	<0.227	<0.238
Volatile Organic Compounds																
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-07 MW07-GW-1018 10/18/2018	MW-07 MW07-GW-0119 1/15/2019	MW-07 MW7-GW-0521 5/28/2021	MW-07 MW07-GW-0721 7/7/2021	MW-07 MW07-GW-1021 10/29/2021	MW-07 MW07-GW-0122 1/13/2022	MW-08 MW08-GW-1018 10/18/2018	MW-08 MW08-GW-0119 1/15/2019	MW-08 DP01-GW-0119 1/15/2019	MW-08R MW8R-GW-0421 4/30/2021	MW-08R MW08R-GW-0721 7/7/2021	MW-08R MW08R-GW-1021 10/26/2021	MW-08R MW08R-GW-0122 1/13/2022
Volatile Organic Compounds (cont'd)																
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00 F2	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols																
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-09 MW09-GW-1018 10/18/2018	MW-09 DP01-GW-1018 10/18/2018	MW-09 MW09-GW-0119 1/15/2019	MW-09 MW09-GW-0421 4/29/2021	MW-09 MW09-GW-0721 7/7/2021	MW-09 MW09-GW-1021 10/27/2021	MW-09 MW09-GW-0122 1/13/2022	PB-02 PB02-GW-0718 7/12/2018
Inorganics											
Cyanide, Free	mg/L	-	-	-	-	-	-	-	-	-	<0.00500
Arsenic, Total	mg/L	0.05	0.01	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	**0.0116**
Lead, Total	mg/L	0.075	0.015	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	0.000509	<0.000500	**0.0158**
Polynuclear Aromatic Hydrocarbons											
2-Methylnaphthalene	µg/L	140	28	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Acenaphthene	µg/L	2100	420	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Acenaphthylene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Anthracene	µg/L	10000	2100	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[a]anthracene	µg/L	4.8	0.24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[a]pyrene	µg/L	3.5	0.18	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[b]fluoranthene	µg/L	4.8	0.24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[g,h,i]perylene	µg/L	100	21	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Benzo[k]fluoranthene	µg/L	48	2.4	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Chrysene	µg/L	480	24	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Dibenz(a,h)anthracene	µg/L	0.48	0.024	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Fluoranthene	µg/L	1400	280	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Fluorene	µg/L	1400	280	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Indeno[1,2,3-cd]pyrene	µg/L	4.8	0.24	<0.192	<0.192	<0.200 F2	<0.250	<0.200	<0.227	<0.200	<0.108
Naphthalene	µg/L	700	100	<0.481	<0.481	<0.500	<0.625	<0.500	<0.568	<0.500	<0.538
Phenanthrene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Pyrene	µg/L	1000	210	<0.192	<0.192	<0.200	<0.250	<0.200	<0.227	<0.200	<0.108
Volatile Organic Compounds											
Benzene	µg/L	64	5	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Ethylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	µg/L	5000	1000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	µg/L	50000	10000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
1,1,1,2-Tetrachloroethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-Trichloroethane	µg/L	70000	200	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	µg/L	18	0.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	µg/L	61	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	µg/L	700	140	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	µg/L	180	7	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1-Dichloropropene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,3-Trichlorobenzene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,3-Trichloropropane	µg/L	0.12	0.0058	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	µg/L	350	70	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2,4-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	µg/L	2.9	0.2	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,2-Dibromoethane (EDB)	µg/L	1.8	0.05	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	µg/L	38	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	µg/L	60	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3,5-Trimethylbenzene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	µg/L	3200	600	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichloropropane	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	µg/L	650	75	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2,2-Dichloropropane	µg/L	-	-	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
2-Butanone (MEK)	µg/L	21000	4000	<10.0	<10.0	<10.0 F2	<10.0	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Table 2

Groundwater Analytical Results
Interstate Power and Light Company
Former Manufactured Gas Plant - Albia, Iowa

Analyte	Units	Iowa Statewide Standard (Non-Protected)	Iowa Statewide Standard (Protected)	MW-09 MW09-GW-1018 10/18/2018	MW-09 DP01-GW-1018 10/18/2018	MW-09 MW09-GW-0119 1/15/2019	MW-09 MW09-GW-0421 4/29/2021	MW-09 MW09-GW-0721 7/7/2021	MW-09 MW09-GW-1021 10/27/2021	MW-09 MW09-GW-0122 1/13/2022	PB-02 PB02-GW-0718 7/12/2018
Volatile Organic Compounds (cont'd)											
4-Chlorotoluene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Acetone	µg/L	32000	6300	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Bromobenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromochloromethane	µg/L	450	90	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromodichloromethane	µg/L	400	80	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	µg/L	440	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Bromomethane	µg/L	50	10	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Carbon disulfide	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	µg/L	50	5	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Chlorobenzene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	µg/L	400	80	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Chloroethane	µg/L	14000	2800	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloroform	µg/L	-	80	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Chloromethane	µg/L	-	-	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
cis-1,2-Dichloroethene	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Dibromomethane	µg/L	350	70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	µg/L	7000	1000	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00	<3.00
Hexachlorobutadiene	µg/L	45	1	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Hexane	µg/L	2100	420	<1.00	<1.00	<1.00 F2	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	µg/L	3500	700	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl tert-butyl ether	µg/L	1000	210	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylene Chloride	µg/L	1800	5	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
n-Butylbenzene	µg/L	1800	350	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
N-Propylbenzene	µg/L	17000	3400	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
p-Isopropyltoluene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
sec-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	µg/L	-	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
tert-Butylbenzene	µg/L	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	µg/L	1700	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	µg/L	700	100	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	µg/L	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Trichloroethene	µg/L	76	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	µg/L	10000	2000	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Vinyl chloride	µg/L	10	2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Phenols											
2,4,5-Trichlorophenol	µg/L	3500	700	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	µg/L	320	16	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	µg/L	100	20	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	µg/L	700	100	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	µg/L	70	14	-	-	-	-	-	-	-	-
2-Chlorophenol	µg/L	200	40	-	-	-	-	-	-	-	-
2-Methylphenol	µg/L	-	35	-	-	-	-	-	-	-	-
2-Nitrophenol	µg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	µg/L	3500	700	-	-	-	-	-	-	-	-
4-Methylphenol (and/or 3-Methylphenol)	µg/L	-	70	-	-	-	-	-	-	-	-
4-Nitrophenol	µg/L	300	60	-	-	-	-	-	-	-	-
Pentachlorophenol	µg/L	8.8	1	-	-	-	-	-	-	-	-
Phenol	µg/L	10000	2000	-	-	-	-	-	-	-	-
Total Cresols	µg/L	-	-	-	-	-	-	-	-	-	-

Notes:

Concentrations above Statewide Standard for a Protected Water Source are in bold font.
Concentrations above Statewide Standard for a Non-Protected Water Source are in bold red font with red outline.
F1 - MS and/or MSD Recovery is outside acceptance limits.
*1 - LCS/LCSD RPD exceeds control limits.
+ - LCS and/or LCSD is outside acceptance limit, high biased.

Attachment C

Monitoring Well Plugging Letter

11228 Aurora Avenue
Des Moines, Iowa 50322-7905
United States
www.ghd.com

GHD ref: 11156780-LTR-5

October 03, 2022

Ms. Dianna Daly-Husted , CP-FS, HHS
Environmental Public Health Director
Appanoose, Davis, Lucas, and Monroe Counties Department of Environmental Public Health
12307 Hwy 5, P.O. Box 399
Moravia, IA 52571

Monitoring Well Plugging
Former Manufactured Gas Plant Site
Albia, Iowa

Dear Ms. Daly-Husted:

During September 2021, nine monitoring wells associated with the former manufactured gas plant site in Albia, Iowa were plugged in accordance with Rule 567—39.8 of the Iowa Administrative Code. Completed plugging records (DNR Form 542-1226) are attached for your files.

If you have any questions or need additional information, please contact Ms. Jills Stevens of Interstate Power and Light Company at 608-458-0446 or me.

Sincerely,

Kevin G Armstrong.

Kevin G. Armstrong, C.P.G., P.M.P.
Project Manager

+1 515-414-3935
kevin.armstrong@ghd.com

KA/mg/LTR-5

Encl.

Copy to: Jill Stevens, Interstate Power and Light Company (electronic copy only)
Matt Culp, Iowa Department of Natural Resources (electronic copy only)

Attachments

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.03174971 Longitude: -92.80783425

3. Well Description:

Well depth: 15 ft

Depth to water 0.89 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-01

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner Jill Stein (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: Michael Olson Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

	OR, only if no county agent is available, to:
Monroe County Health Sanitarian; c/o Dianna Daly-Husted 12307 Hwy 5; PO Box 389 Moravia, IA 52571	**Water Supply Section** **Iowa Department of Natural Resources** **502 E 9th St** **Des Moines IA 50319-0034**

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.03156417 Longitude: -92.80779031

3. Well Description:

Well depth: 15 ft

Depth to water 1.27 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-02

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner [signature] (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: Michael T Ocsy Cert No: 6494

OR, if plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.031583 Longitude: -92.80791228

3. Well Description:

Well depth: 15 ft

Depth to water 0.5 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-03

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner Jill Stevens (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: Michael T Ouz Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.03143021 Longitude: -92.80795336

3. Well Description:

Well depth: 15 ft

Depth to water 0.78 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-04

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner _____ (for IAL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: _____ Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.03189267 Longitude: -92.8075797

3. Well Description:

Well depth: 15 ft

Depth to water 4.06 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-05

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner _____ (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: Michael T Olson Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.03158753 Longitude: -92.8075158

3. Well Description:

Well depth: 15 ft

Depth to water 1.29 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-06

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner [signature] (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: [signature] Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 15 ☐ East ☒ West

County: Monroe Describe well location on property: Located on south side of C Avenue West

GPS Well Location: Latitude: 41.0314988 Longitude: -92.8075926

3. Well Description:

Well depth: 15 ft

Depth to water 1.65 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-07

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner Jill Stein (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: Michael T Ossy Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☐ West

County: Monroe Describe well location on property: Located on south side of C Avenue West

GPS Well Location: Latitude: 41.03155247 Longitude: -92.80741754

3. Well Description:

Well depth: 15 ft

Depth to water 3.33 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2021 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-08R

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner _____ (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: _____ Cert No: 6494

OR, if plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

IOWA DEPARTMENT OF NATURAL RESOURCES

Abandoned Water Well
Plugging Record

1. Owner:

Name: Interstate Power and Light Company (IPL) Phone: 608-458-0446

Address: 4902 North Biltmore Lane

City: Madison State: WI Zip: 53718

If this was a Public Water Supply Well, please provide:

PWSID Name: _____ PWSID Number: _____

2. Location of Well (Cistern):

SE ¼ of, SW ¼ of, SW ¼ of, Section 15, T 72 N, R 17 ☐ East ☒ West

County: Monroe Describe well location on property: 510 Main Street N. Albia, IA

GPS Well Location: Latitude: 41.03170502 Longitude: -92.80739001

3. Well Description:

Well depth: 15 ft

Depth to water 2.45 ft.

Casing depth: 5 ft. Casing Material: ☐ Steel ☒ Plastic ☐ Concrete ☐ Clay ☐ Brick ☐ Stone

Casing diameter: 2 in.

Year or decade constructed: 2018 Type of Construction: ☐ Drilled ☐ Driven ☐ Bored ☒ Augured ☐ Dug

Is this a Monitoring Well? ☒ Yes ☐ No Well ID: MW-09

Check if Cistern ☐ Depth: _____ ft. Diameter: _____ ft.

I certify this well has been plugged as required by rule 567-39.8 of the Iowa Administrative Code (IAC). I agree to provide any additional information the county or department may need concerning this well.

Signature of Owner _____ (for IPL) Date Plugged: 09/22/2022

If plugged by certified well contractor, complete this box:

I have plugged this well as required by rule 567-39.8 of the Iowa Administrative Code (IAC).

Signature of Contractor: _____ Cert No: 6494

OR, If plugged by well owner, complete this box:

The property owner has plugged this well following requirements in rule 567-39.8 of the Iowa Administrative Code (IAC) with the oversight and assistance of the designated county agent.

Signature of County Agent: _____ Date Approved: _____

Eligible for Grants-to-Counties cost share: ☐ Yes ☐ No (Determined by County Agent)

Complete one form for each well plugged and submit within 30 days to the local county agent:

Monroe County Health Sanitarian; c/o Dianna Daly-Husted
12307 Hwy 5; PO Box 389
Moravia, IA 52571

OR, only if no county agent is available, to:

Water Supply Section
Iowa Department of Natural Resources
502 E 9th St
Des Moines IA 50319-0034

Attachment D

Environmental Covenant (Recorded, Book 2023 Page 3)

Document 3
Book 2023 Page 3 Type 06 17 Pages 9
Date 1/03/2023 Time 11:21:35AM
Rec Amt $47.00

TRACY CASADY, RECORDER
MONROE COUNTY IOWA

Type / Title of Document: Environmental Covenant

Return Document to:
Kevin Armstrong
GHD
11228 Aurora Avenue
Des Moines IA 50322
515-414-3935

Preparer Information:
Kevin Armstrong
GHD
11228 Aurora Avenue
Des Moines IA 50322
515-414-3935

Taxpayer Information:
Chariton Valley Electric Cooperative Inc.
2090 Hwy 5 S
Albia, IA 52531
641-932-7126

Grantor(s): Chariton Valley Electric Cooperative, Inc.

Holder(s) / Grantee(s): Chariton Valley Electric Cooperative, Inc.

Legal Description:

Lot 1 of the Southeast Quarter of the Southwest Quarter of Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, Monroe County, Iowa except 32 feet in width off the entire south side thereof; also a strip of ground 1 rod wide immediately east of and adjoining said Lot 1 and extending along its entire length north and south, except the south 32 feet thereof, said strip being a part of the Southeast Quarter of the Southwest Quarter of said Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, excepting public highway as shown by warranty deed dated August 19, 1939, recorded in Deed Record 113 page 549 of the Deed Records of Monroe County, Iowa.

Lot 8 of the Southwest Quarter of the Southwest Quarter of Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, excepting therefrom subdivision 1 of said Lot 8 and also excepting therefrom that portion of said Lot 8 conveyed to the State of Iowa for highway purposes by warranty deed dated August 19, 1939 and recorded in Deed Record 113 page 549 of the Deed Records of Monroe County, Iowa and subject to the right of way of Wabash Railway Company.

IOWA CONTAMINATED SITE
ENVIRONMENTAL COVENANT

This environmental covenant is established pursuant to Iowa Code (IC) chapter 455I entitled Uniform Environmental Covenants Act.

Chariton Valley Electric Cooperative, Inc., hereafter "grantor/holder", and the Iowa Department of Natural Resources (Department) in its capacity as an agency of Iowa state government enter into this environmental covenant for the purpose of subjecting the affected property described below to certain activity and use limitations in accordance with the terms and conditions as specified and the authorities granted the Department in IC chapter 455I, § 455B.103(7), and Department rules in chapter 567 Iowa Administrative Code (IAC) 133.

1. Affected Property. The grantor is the fee title owner of the property located at 510 North Main Street, Albia, Iowa. The property is shown in Exhibit A and legally described as:

> Lot 1 of the Southeast Quarter of the Southwest Quarter of Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, Monroe County, Iowa except 32 feet in width off the entire south side thereof; also a strip of ground 1 rod wide immediately east of and adjoining said Lot 1 and extending along its entire length north and south, except the south 32 feet thereof, said strip being a part of the Southeast Quarter of the Southwest Quarter of said Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, excepting public highway as shown by warranty deed dated August 19, 1939, recorded in Deed Record 113 page 549 of the Deed Records of Monroe County, Iowa.
>
> Lot 8 of the Southwest Quarter of the Southwest Quarter of Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, excepting therefrom subdivision 1 of said Lot 8 and also excepting therefrom that portion of said Lot 8 conveyed to the State of Iowa for highway purposes by warranty deed dated August 19, 1939 and recorded in Deed Record 113 page 549 of the Deed Records of Monroe County, Iowa and subject to the right of way of Wabash Railway Company.

Hereinafter, the affected property will be referred to as "the property."

2. Risk Management and Institutional Controls. A soil and groundwater investigation and risk assessment has been completed in accordance with 567 IAC 133. The site assessment identified contaminated conditions on the property which may present an unreasonable risk to public health and the environment if certain activities occur on the property. As such, the Director of the Department, pursuant to his authority under IC § 455B.103(7), has determined that an environment covenant is necessary to manage the risk of future exposure to the contamination by limiting specified activities at this property and establishing certain affirmative obligations.

3. Reopening. The signatories acknowledge that in the event that the activity and use limitations provided below fail to serve their intended purpose—including the prevention of exposure to contamination—could result in the Department reopening its review and regulatory oversight of the contaminant condition on the property as provided under the terms of this covenant, IC chapter 455I, and applicable Department administrative rules.

4. Identity of Grantor(s) and Holder(s).

GRANTOR(S): Chariton Valley Electric Cooperative, Inc.

HOLDERS: Chariton Valley Electric Cooperative, Inc.

AGENCY: Iowa Department of Natural Resources

5. Representations and Warranties. The grantor warrants to the other signatories to this covenant the following:

a. The grantor is the sole fee title owner of the property;
b. The grantor holds sufficient fee title to the property to grant the rights and interests described in this covenant free of any conflicting legal and equitable claims;
c. The grantor has identified all other persons holding legal or equitable interests, including, but not limited to, contract buyers, mortgage holders, other consensual lienholders and lessees, and none were identified.

6. Running with the Land. This environmental covenant is perpetual and runs with the land as provided in IC § 455I.9 until modified or terminated. The terms of this environmental covenant are binding on the grantors and all successors in interest, assigns and all transferees acquiring or owning any right, title, lien or interest in the property and their heirs, successors, assigns, grantees, executors, administrators and devisees. The term "transferee," as used in this environmental covenant, shall mean any future owner of any interest in the property or any portion thereof, including, but not limited to, owners of an interest in fee simple, contract buyers, mortgagees, easement holders and/or lessees.

7. Activity and Use Limitations and Terms. The property is subject to the following activity and use limitations:

a) No Residential Land Use: The Property shall only be used for industrial or commercial purposes, and the Property specifically shall not be used for residential purposes.
b) Well Installation Prohibition: Unless approved by IDNR, no person may construct, install, maintain, or use any well on the Property except as necessary for the purpose of environmental investigation, monitoring, or environmental remediation.
c) No building or structure may be constructed on the Property unless the Owner, with the review and approval of the Department, has considered the potential for vapor intrusion, and has taken steps to address such potential, if necessary, as may be required by the Department.
d) The activity and use limitations provided herein may be modified or removed if the IDNR requires such modification or if it can be shown to IDNR's satisfaction that the environmental contamination is no longer a threat or that unacceptable exposures have been addressed.

8. Notice of Non-Compliance. Any property owner or subsequent transferee of an interest in the property shall notify the Department as soon as possible of conditions which would constitute a breach of the activity and use limitations in paragraph seven (7) if they have actual knowledge of these conditions or would reasonably be deemed to have knowledge within the normal course of administration of their property interest.

9. Notice to Lessees. Grantor, any holder with a property interest sufficient to grant a lease of the property, and any subsequent transferee shall incorporate the activity and use limitations of this covenant either in full or by reference to this instrument in any lease, license, or other instrument granting a right to possession of the property.

10. Access to Property. Reasonable access to the property is granted the Department or any authorized representative of the Department, public or private, for the purpose of implementation, monitoring and enforcement of the terms of this environmental covenant. The Department, its authorized representatives or other persons entitled to access shall provide the current owner of the property with reasonable notice, an explanation of the reasons for entry and the scope of onsite activities prior to access. Right of access includes, but is not limited to, the following activities:

a. repair and maintenance of remedial action equipment, soil caps, groundwater monitoring wells and associated aboveground or subsurface structures,
b. fencing and other technological controls,
c. groundwater sampling and monitoring,
d. additional drilling,
e. construction of soil boring and/or groundwater monitoring wells, and,
f. other activities authorized or otherwise directed by the Department.

11. Groundwater Hazard Statement Notice. IC § 558.69 requires submission of a groundwater hazard statement and disclosure if "hazardous waste" exists on the property as defined in IC § 455B.411(3) or if the Department determines that solid waste exists on the property that is potentially hazardous. If hazardous waste is present, the groundwater hazard statement must state that the condition is being managed in accordance with Department rules. The signatories and all subsequent transferees required to submit a groundwater hazard statement under IC § 558.69 shall make reference to this environmental covenant in substantially the following form:

> THE INTEREST CONVEYED IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED *(date)*, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE MONROE COUNTY RECORDER ON *(date)* IN *(document, book and page, or parcel number)*.
>
> THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS:
>
> a) No Residential Land Use: The Property shall only be used for industrial or commercial purposes, and the Property specifically shall not be used for residential purposes.

b) Well Installation Prohibition: Unless approved by IDNR, no person may construct, install, maintain, or use any well on the Property except as necessary for the purpose of environmental investigation, monitoring, or environmental remediation.
c) No building or structure may be constructed on the Property unless the Owner, with the review and approval of the Department, has considered the potential for vapor intrusion, and has taken steps to address such potential, if necessary, as may be required by the Department.
d) The activity and use limitations provided herein may be modified or removed if the IDNR requires such modification or if it can be shown to IDNR's satisfaction that the environmental contamination is no longer a threat or that unacceptable exposures have been addressed.

12. Modification and Termination. Modification or termination of the terms of this covenant shall comply with the standards in IC chapter 455I and applicable Department administrative rules. The terms of this environmental covenant may be modified or terminated by written consent of the Director of the Department, the then current fee simple title owner and all original signatories (unless exempted under the provisions of IC § 455I.10(1)"c" in accordance with and subject to the provisions of IC § 455I.10). The termination or modification is not effective until the document evidencing consent of all necessary persons is properly recorded. If not by consent, any modification or termination of this environmental covenant shall be in accordance with IC § 455I.9 and such additional terms as specified in this covenant.

13. Enforcement. The terms of this environmental covenant may be enforced in a civil action for injunctive or other equitable relief by the signatories and those persons authorized by and in accordance with IC § 455I.11.

14. Severability. If any provision of this environmental covenant is found to be unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.

15. Governing Law. This environmental covenant shall be governed by and interpreted in accordance with the laws of the State of Iowa.

16. Recordation. Within thirty (30) days after Department approval of this environmental covenant, the grantor[s] shall record the environmental covenant in the same manner as a deed to the property with the Monroe County Recorder's Office.

17. Effective Date. The effective date of this environmental covenant shall be the date upon which the fully executed environmental covenant has been properly recorded with the Monroe County Recorder's Office.

18. Notice. Unless otherwise notified in writing by the Department, any document or communication required by this environmental covenant shall be submitted to:

Agency:

Iowa Department of Natural Resources
Contaminated Sites Section Supervisor
Wallace State Office Building
502 E 9th Street
Des Moines, IA 50319

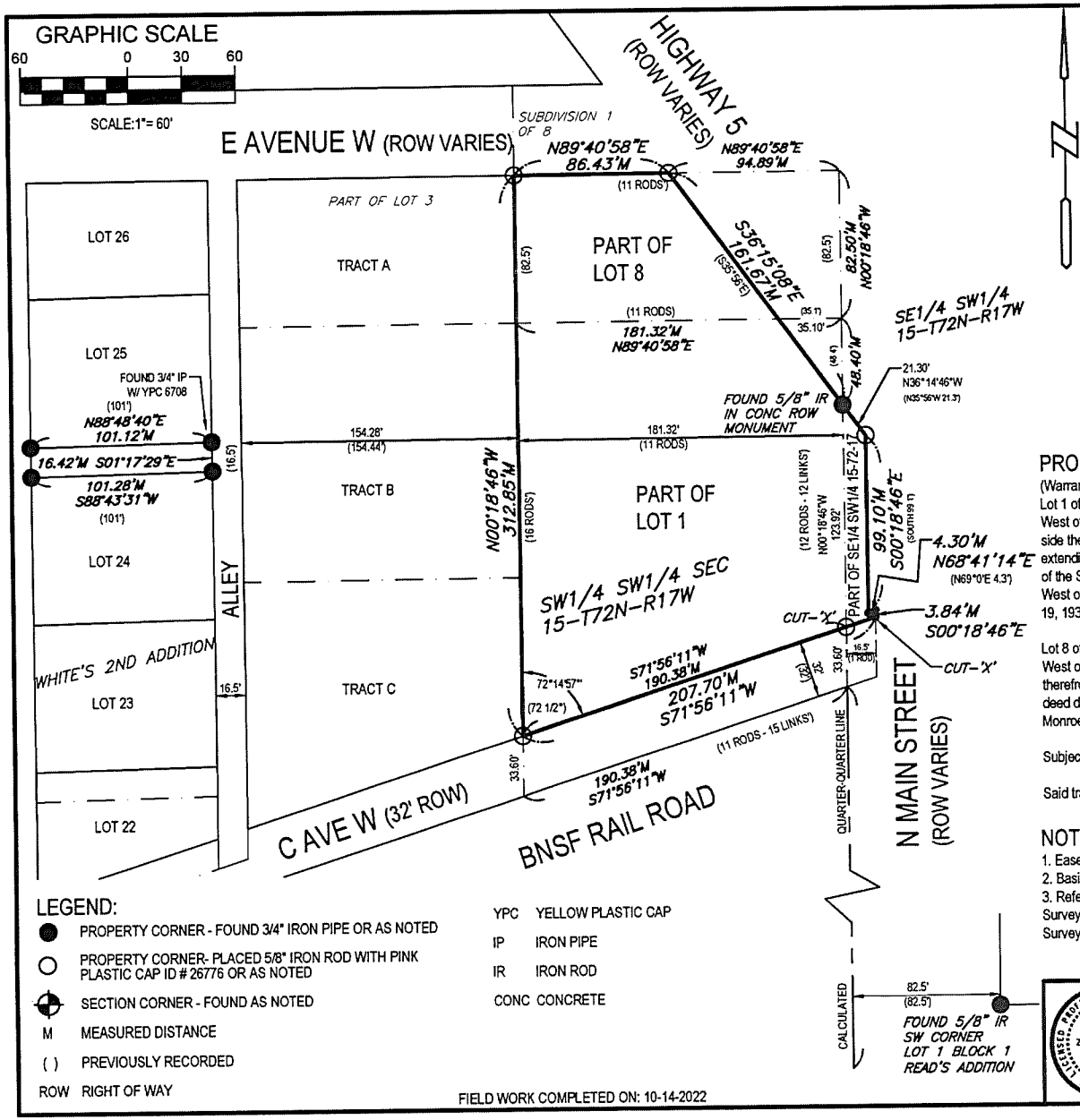
Grantor/Holder:

Chariton Valley Electric Cooperative, Inc.
2090 Hwy 5 South
PO Box 486
Albia, IA 52531

19. Subordination and Consent. By signing this environmental covenant, the signatories knowingly and intelligently acknowledge their consent to the terms of this agreement and agree to subordinate their interest in the property. The following persons have expressly consented and subordinated interests:

No subordinated interests.

20. Notice of Change in Ownership. Grantor and holder with sufficient property interest to convey a possessory interest in the property and any subsequent transferee with sufficient interest shall reference and incorporate the terms of this agreement into any subsequent instrument which conveys a possessory interest in the property.



Unique Doc ID: 2022_1108___1583
Recorded: 11/8/2022 at 10:18:39.0 AM
County Recording Fee: $7.00
Iowa E-Filing Fee: $3.00
Combined Fee: $10.00
Revenue Tax:
Number: 1583
Monroe County, Iowa
TRACY CASADY RECORDER
BK: 2022 PG: 1583

EXHIBIT A

INDEX LEGEND
Location: Lot 1 & Lot 8, SW1/4 SW1/4, & Part of SE1/4 SW1/4, Section 15-T72N-R17W, 5th P.M., Monroe County, Iowa
Requestor: GHD
Owner : Chariton Valley Electric Cooperative, Inc.
Surveyor: Stephen L. Zimmerman II, PLS
Company: Bishop Engineering, 3501 104th St. Urbandale, IA 50322 (Ph) 515-204-3430

PROPERTY DESCRIPTION:

(Warranty Deed Book 215, Page 88)
Lot 1 of the Southeast Quarter of the Southwest Quarter of Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, Monroe County, Iowa except 32 feet in width off the entire south side thereof; also a strip of ground 1 rod wide immediately east of and adjoining said Lot 1 and extending along its entire length north and south, except the south 32 feet thereof, said strip being a part of the Southeast Quarter of the Southwest Quarter of said Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, excepting public highway as shown by warranty deed dated August 19, 1939, recorded in Deed Record 113 page 549 of the Deed Records of Monroe County, Iowa.

Lot 8 of the Southwest Quarter of the Southwest Quarter of Section 15, Township 72 North, Range 17 West of the Fifth Principal Meridian, excepting therefrom subdivision 1 of said Lot 8 and also excepting therefrom that portion of said Lot 8 conveyed to the State of Iowa for highway purposes by warranty deed dated August 19, 1939 and recorded in Deed Record 113 page 549 of the Deeds of Monroe County, Iowa and subject to the right of way of Wabash Railway Company.

Subject to and together with any and all easements and restrictions of record.

Said tract contains 1.04 acres (42,253 square feet)

NOTE:

1. Easements shown per "Iowa Environmental Covenant Property Interest Form", dated 9/7/2022.
2. Basis of bearing obtained from GPS observations, datum = IARCS Zone 12
3. Reference documents: Highway Deed - Book 113 Page 549
Survey Certificate of Lot 1 - Book 1 Page 43,
Survey Certificate of Lot 8 - Book 2 Page 158

LEGEND:

- ● PROPERTY CORNER - FOUND 3/4" IRON PIPE OR AS NOTED
- ○ PROPERTY CORNER- PLACED 5/8" IRON ROD WITH PINK PLASTIC CAP ID # 26776 OR AS NOTED
- ⊕ SECTION CORNER - FOUND AS NOTED
- M MEASURED DISTANCE
- ( ) PREVIOUSLY RECORDED
- ROW RIGHT OF WAY
- YPC YELLOW PLASTIC CAP
- IP IRON PIPE
- IR IRON ROD
- CONC CONCRETE

FIELD WORK COMPLETED ON: 10-14-2022

LICENSED PROFESSIONAL LAND SURVEYOR STEPHEN L. ZIMMERMAN II No. 26776 IOWA

I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED SURVEY WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.
SIGNED: Stephen L Zimmerman DATE: 11/7/2022
STEPHEN L. ZIMMERMAN II, P.L.S. 26776
LICENSE RENEWAL DATE: DEC. 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL: 1 OF 1

Bishop Engineering
"Planning Your Successful Development"
3501 104th Street
Des Moines, Iowa 50322-3825
Phone: (515)276-0467 Fax: (515)276-0217
Civil Engineering & Land Surveying Established 1959

510 NORTH MAIN STREET
ALBIA, IOWA
RETRACEMENT PLAT OF SURVEY

REFERENCE NUMBER:
DRAWN BY: SLZ
PROJECT NUMBER: 220380
SHEET NUMBER: 1 OF 1

ACKNOWLEDGMENTS

GRANTOR/HOLDER

L. P. Todd Signed this 7th day of December 2022.

Leilani Todd, CEO/General Manager
Chariton Valley Electric Cooperative, Inc.
Authorized Representative

STATE OF IOWA

COUNTY OF Monroe

On this 7 day of December, 2022, before me, a Notary Public, in and for said county, personally appeared Leilani Todd, to me personally known, who being by me duly (sworn or affirmed) did say that that person is CEO/General Manager (Insert title of executing officer) of said Chariton Valley Electric Coop. (corporation or association) and that said instrument was signed on behalf of the said Chariton Valley Electric Coop. (corporation or association) by authority of its board of directors (directors or trustees) and the said directors acknowledged the execution of said instrument to be the voluntary act and deed of said Chariton Valley Electric Coop. (corporation or association) by it voluntarily executed.

Lance Henderson

Notary Public

LANCE HENDERSON
Commission Number 783072
My Commission Expires
March 12 2023

Print Name: Lance Henderson

(Seal, if any)

My commission expires: March 12, 2023

AGENCY:

_____ Signed this 16th day of Nov ,2022.
Kayla Lyon
Director, Iowa Department of Natural Resources

State of Iowa)
County of Polk) ss.

On this 16th day of November, 2022, before me personally appeared Kayla Lyon, known to me to be the Director of the Iowa Department of Natural Resources or the lawful designee of the Director who executed the foregoing instrument, and acknowledge that this person executed the same as his/her/their voluntary act and deed.

_____,
Notary Public for State of Iowa

NOTARIAL SEAL IOWA
JENNIFER MILLER
Commission Number 839456
My Commission Expires
May 17, 2025