

**CCR COMPLIANCE  
GROUNDWATER MONITORING AND CORRECTIVE ACTION  
ANNUAL REPORT  
HUNTLEY LANDFILL AND SOUTH SETTLING POND**

Prepared for:



Huntley Power LLC  
Huntley Generating Station  
Tonawanda, New York

Prepared by:



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## 1.0 Introduction

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Title 40 Code of Federal Regulations (CFR) §257.90 mandates that existing Coal Combustion Residuals (CCR) landfills and surface impoundments, also known as CCR units, be subject to groundwater monitoring and corrective action requirements as further detailed in §257.91 through §257.98. These requirements are part of the overall CCR Rule (or Rule) which was published in the Federal Register on April 17, 2015 and which became effective on October 19, 2015. Specific obligations for Owners and Operators of existing CCR units regarding the preparation of “Annual Groundwater Monitoring and Corrective Action Reports (Annual Report)” are outlined in §257.90(e)(1-5). The first of these Annual Reports must be completed no later than January 31, 2018, and provide information to address the following aspects for the preceding calendar year:

- Document the status of the groundwater monitoring and corrective action program for the respective CCR units;
- Summarize key actions completed;
- Describe any problems encountered and actions taken to resolve the problems; and
- Offer a projection of key activities for the upcoming year.

At a minimum, the Annual Report must contain the following information to the extent applicable and available:

- A map, aerial image, or diagram showing the CCR unit and all background/upgradient and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program;
- Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;
- In addition to all the monitoring data obtained under §257.90 through §257.98, a summary including the number of groundwater samples that were collected for analysis for each background/upgradient and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;
- A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and
- Any other information required to be included as specified in §257.90 through §257.98.

The Huntley Generating Station, owned by Huntley Power LLC, was a former coal-fired power plant located in Tonawanda, New York. The facility ceased electric generating operations on February 29, 2016, subsequent to the effective date of the Rule. The Rule applies to this facility due to the management/disposal of CCR materials resulting from the previous coal combustion activities. CCR units associated with station operations include the Huntley Landfill and the South Settling Pond. Each of these CCR units has a dedicated groundwater monitoring well network that meets the requirements of §257.91 with regard to number and appropriate locations of wells (certification provided under separate cover).

In summary, this Annual Report has been prepared to comply with the requirements of §257.90(e), addressing both of the Huntley Station's CCR Units with respect to the groundwater monitoring and corrective actions undertaken during Calendar Year 2017. This Annual Report and all subsequent reports thereto will be placed in the Station's operating record per §257.105(h)(1), noticed to the State Director per §257.106(h)(1), and posted to the publicly accessible internet site per §257.107(h)(1).

## **2.0 South Settling Pond**

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### **2.1 Groundwater Monitoring Network**

The CCR groundwater monitoring system for the Huntley South Settling Pond is comprised of four wells, including Well CCR-3 (upgradient), and Wells A-2, CCR-1, and CCR-2 (downgradient). The locations of the wells are shown on the attached Figure 1, along with depiction of the generalized groundwater flow direction in the area of the pond. Each of these wells was already existing, and no new wells were added nor were any existing wells abandoned/replaced during the 2017 reporting period.

### **2.2 2017 Data Collection**

Per the requirements of §257.94(b), Detection Monitoring was ongoing throughout 2017, including activities to ensure the collection of a minimum of eight independent samples from each of the background/upgradient and downgradient wells associated with the South Settling Pond. These samples were analyzed for the necessary Appendix III and Appendix IV constituents, with the results summarized in the attached Tables 1 and 2, respectively. In addition, a ninth round of samples was collected (October 5, 2017) and analyzed for Appendix III constituents only. The results from these samples (also shown in Table 1) will serve as the first point of comparison to determine if concentrations in any of the downgradient wells are at levels representing a statistically significant increase (SSI) over the background concentrations established in the upgradient well(s).

### **2.3 2017 Monitoring Program Transitions**

During 2017, there were no transitions between monitoring programs. Only activities in support of the Detection Monitoring program were conducted.

### **2.4 2017 Corrective Actions**

During 2017, there were no problems identified or corrective actions undertaken.

### **2.5 2018 Projected Activities**

No later than January 15, 2018, the results from the ninth round of Detection Monitoring sampling will be reviewed against the Appendix III background concentrations and preliminary identification of any SSIs completed. If SSIs are identified, subsequent activities could include performance of an Alternate Source Demonstration [per §257.94(e)(2)] to potentially negate the SSIs (and remain in Detection Monitoring), and/or entry into the Assessment Monitoring program [per §257.94(e)(1)] should the SSIs be deemed valid. Completion of the Alternate Source Demonstration or entry into the Assessment Monitoring program must be accomplished within 90 days, or no later than April 15, 2018.

## **3.0 Landfill**

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### **3.1 Groundwater Monitoring Network**

The CCR groundwater monitoring system for the Huntley Landfill is comprised of eight wells, including Well MW-12D (upgradient) and Wells CCR-4, CCR-5, CCR-6, MW-7D, MW-11D, MW-13D, and MW-14D (downgradient). The locations of the wells are shown on Figure 2, along with depiction of the generalized groundwater flow direction in the area of the disposal site. Each of these wells was already existing, and no new wells were added nor were any existing wells abandoned/replaced during the 2017 reporting period.

### **3.2 2017 Data Collection**

Per the requirements of §257.94(b), Detection Monitoring was ongoing throughout 2017, including activities to ensure the collection of a minimum of eight independent samples from each of the background/upgradient and downgradient wells associated with the Landfill. These samples were analyzed for the necessary Appendix III and Appendix IV constituents, with the results summarized in the attached Tables 3 and 4, respectively. In addition, a ninth round of samples was collected (October 9, 2017) and analyzed for Appendix III constituents only. The results from these samples (also shown in Table 3) will serve as the first point of comparison to determine if concentrations in any of the downgradient wells are at levels representing an SSI over the background concentrations established in the upgradient well(s).

### **3.3 2017 Monitoring Program Transitions**

During 2017, there were no transitions between monitoring programs. Only activities in support of the Detection Monitoring program were conducted.

### **3.4 2017 Corrective Actions**

During 2017, there were no problems identified or corrective actions undertaken.

### **3.5 2018 Projected Activities**

No later than January 15, 2018, the results from the ninth round of Detection Monitoring sampling will be reviewed against the Appendix III background concentrations and preliminary identification of any SSIs completed. If SSIs are identified, subsequent activities could include performance of an Alternate Source Demonstration [per §257.94(e)(2)] to potentially negate the SSIs (and remain in Detection Monitoring), and/or entry into the Assessment Monitoring program [per §257.94(e)(1)] should the SSIs be deemed valid. Completion of the Alternate Source Demonstration or entry into the Assessment Monitoring program must be accomplished within 90 days, or no later than April 15, 2018.

*Tables*

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**Table 1**  
**Huntley Power LLC**  
**Huntley South Settling Pond--Groundwater Analytical Data**  
**CCR Appendix III Constituents**

Monitoring Well	Date Sampled	Total Boron (mg/L)	Total Calcium (mg/L)	Total Chloride (mg/L)	Total Fluoride (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	pH (S.U.)
CCR-3 (Upgradient)	9-Dec-15	1.09	405	229	0.19	2230	602	7.08
	11-Mar-16	1.22	442	262	0.21	2590	855	6.38
	24-May-16	1.05	564	247	< 0.20	2600	739	6.93
	23-Sep-16	1.30	465	254	< 0.20	2600	732	6.83
	30-Nov-16	1.28	545	254	0.24	2530	687	6.75
	28-Mar-17	1.16	569	260	< 0.20	2720	836	6.64
	19-May-17	1.80	454	< 2	0.20	2680	896	6.80
	21-Sep-17	1.72	458	246	< 0.20	2680	802	6.83
	5-Oct-17	1.00	318	219	< 0.20	2430	615	6.70
A-2 (Downgradient)	9-Dec-15	0.85	599	134	0.53	2830	1900	7.20
	11-Mar-16	0.86	558	139	0.41	2900	1790	6.99
	24-May-16	1.09	756	124	0.23	3000	1450	7.63
	23-Sep-16	0.75	498	121	< 0.20	2900	1480	6.77
	30-Nov-16	0.82	705	123	0.46	2770	1610	6.77
	28-Mar-17	0.58	705	109	< 0.20	2720	1510	6.88
	19-May-17	0.72	753	121	0.54	2740	1610	6.80
	21-Sep-17	0.78	624	115	0.28	2660	1560	6.91
	5-Oct-17	0.49	369	103	0.30	2790	1560	6.71
CCR-1 (Downgradient)	9-Dec-15	< 0.20	39	21	0.17	179	40	8.20
	11-Mar-16	< 0.20	35	36	0.11	217	40	8.38
	24-May-16	< 0.05	45	28	< 0.20	150	27	8.07
	23-Sep-16	0.07	40	23	< 0.20	200	16	8.05
	30-Nov-16	< 0.05	38	26	< 0.20	155	27	8.17
	28-Mar-17	< 0.05	46	37	< 0.20	240	32	8.28
	19-May-17	0.51	55	34	< 0.20	245	41	8.16
	21-Sep-17	0.55	75	92	< 0.20	375	83	8.19
	5-Oct-17	0.18	42	117	< 0.20	430	48	8.10
CCR-2 (Downgradient)	9-Dec-15	6.97	193	36	0.48	912	444	7.86
	11-Mar-16	6.66	191	34	0.42	974	471	7.74
	24-May-16	6.32	207	34	0.34	910	440	8.25
	23-Sep-16	6.98	152	32	0.45	815	326	8.00
	30-Nov-16	7.36	142	32	0.46	775	279	8.07
	28-Mar-17	7.05	220	29	0.31	835	343	7.93
	19-May-17	6.87	167	29	0.43	755	300	8.09
	21-Sep-17	7.92	174	28	0.47	645	237	8.22
	5-Oct-17	6.11	108	29	0.45	730	220	8.23

**Yellow background** = Data to be compared against calculated Background values from the upgradient well.

**Table 2**  
**Huntley Power LLC**  
**Huntley South Settling Pond--Groundwater Baseline Analytical Data**  
**CCR Appendix IV Constituents**

Monitoring Well	Date Sampled	Total Antimony (mg/L)	Total Arsenic (mg/L)	Total Barium (mg/L)	Total Beryllium (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Cobalt (mg/L)	Total Fluoride (mg/L)	Total Lead (mg/L)	Total Lithium (mg/L)	Total Mercury (mg/L)	Total Molybdenum (mg/L)	Total Selenium (mg/L)	Total Thallium (mg/L)	Total Radium-226 and 228 (pCi/L)
CCR-3 (Upgradient)	9-Dec-15	< 0.060	0.013	0.07	< 0.003	< 0.005	< 0.010	< 0.050	0.19	< 0.050	< 0.10	0.0000053	< 0.025	< 0.010	< 0.010	1.18
	11-Mar-16	< 0.060	0.016	0.05	< 0.003	< 0.005	< 0.010	< 0.050	0.21	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.31
	24-May-16	< 0.060	0.010	0.05	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	0.016	0.19
	23-Sep-16	< 0.060	0.006	0.05	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.34
	30-Nov-16	< 0.060	0.008	0.05	< 0.005	< 0.005	< 0.005	< 0.050	0.24	0.011	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.25
	28-Mar-17	< 0.060	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	0.065	1.49
	19-May-17	0.0079	< 0.005	0.08	< 0.004	< 0.005	< 0.005	< 0.050	0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.33
21-Sep-17	0.0097	0.006	0.10	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.00	
A-2 (Downgradient)	9-Dec-15	< 0.060	< 0.010	0.04	< 0.003	< 0.005	< 0.010	< 0.050	0.53	< 0.050	0.11	< 0.0000010	< 0.025	< 0.010	< 0.010	1.42
	11-Mar-16	< 0.060	< 0.010	0.06	< 0.003	< 0.005	< 0.010	< 0.050	0.41	< 0.050	0.12	< 0.0000010	< 0.025	< 0.010	< 0.010	1.83
	24-May-16	< 0.060	0.009	0.04	< 0.005	< 0.005	< 0.005	< 0.050	0.23	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.63
	23-Sep-16	< 0.060	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.91
	30-Nov-16	< 0.060	0.006	0.03	< 0.005	< 0.005	< 0.005	< 0.050	0.46	0.019	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	2.00
	28-Mar-17	< 0.060	< 0.005	0.04	< 0.005	< 0.005	0.010	< 0.050	< 0.20	0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	0.037	2.15
	19-May-17	0.0047	< 0.005	0.04	< 0.004	< 0.005	< 0.005	< 0.050	0.54	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.79
21-Sep-17	0.0032	0.005	0.03	< 0.004	< 0.005	< 0.005	< 0.050	0.28	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.83	
CCR-1 (Downgradient)	9-Dec-15	< 0.060	< 0.010	0.06	< 0.003	< 0.005	< 0.010	< 0.050	0.17	< 0.050	< 0.10	0.0000012	< 0.025	< 0.010	< 0.010	0.00
	11-Mar-16	< 0.060	< 0.010	0.06	< 0.003	< 0.005	< 0.010	< 0.050	0.11	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	0.00
	24-May-16	< 0.060	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	0.024	0.194	0.00
	23-Sep-16	< 0.060	0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.11
	30-Nov-16	< 0.060	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.23
	28-Mar-17	< 0.060	0.010	0.06	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	0.0000010	< 0.010	< 0.005	0.012	0.00
	19-May-17	0.0032	< 0.005	0.16	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	0.087	< 0.05	0.0000005	< 0.010	< 0.005	< 0.0007	0.29
21-Sep-17	0.0028	0.010	0.21	< 0.004	< 0.005	0.008	< 0.050	< 0.20	0.080	< 0.05	0.0000005	< 0.010	< 0.005	< 0.0007	0.29	
CCR-2 (Downgradient)	9-Dec-15	< 0.060	0.021	0.07	< 0.003	< 0.005	< 0.010	< 0.050	0.48	< 0.050	0.23	0.0000128	< 0.025	< 0.010	< 0.010	0.00
	11-Mar-16	< 0.060	0.025	0.07	< 0.003	< 0.005	< 0.010	< 0.050	0.42	< 0.050	0.23	0.0000020	< 0.025	< 0.010	< 0.010	1.11
	24-May-16	< 0.060	0.023	0.06	< 0.005	< 0.005	< 0.005	< 0.050	0.34	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.16
	23-Sep-16	< 0.060	0.029	0.06	< 0.005	< 0.005	< 0.005	< 0.050	0.45	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.41
	30-Nov-16	< 0.060	0.026	0.07	< 0.005	< 0.005	< 0.005	< 0.050	0.46	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.13
	28-Mar-17	< 0.060	0.033	0.07	< 0.005	< 0.005	< 0.005	< 0.050	0.31	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.00
	19-May-17	0.0031	0.036	0.12	< 0.004	< 0.005	0.006	< 0.050	0.43	0.016	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	1.02
21-Sep-17	0.0026	0.061	0.14	< 0.004	< 0.005	0.016	< 0.050	0.47	0.019	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.29	


**Table 3**  
**Huntley Power LLC**  
**Huntley Landfill--Groundwater Analytical Data**  
**CCR Appendix III Constituents**

Monitoring Well	Date Sampled	Total Boron (mg/L)	Total Calcium (mg/L)	Total Chloride (mg/L)	Total Fluoride (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	pH (S.U.)
12D (Upgradient)	9-Dec-15	0.58	46	4	0.61	718	171	7.74
	25-Jan-16	0.61	470	4	0.63	713	141	7.66
	25-Apr-16	0.65	63	4	0.53	910	163	7.45
	26-Jul-16	0.64	59	3	0.44	785	140	7.78
	27-Oct-16	0.65	48	3	0.41	730	150	7.58
	31-Jan-17	0.74	58	4	0.54	725	148	7.51
	24-Apr-17	0.52	67	4	0.58	760	167	6.19
	24-Jul-17	0.69	70	5	0.50	800	186	7.47
9-Oct-17	0.72	71	4	0.52	795	191	7.58	
7D (Downgradient)	9-Dec-15	1.36	475	5	0.95	2550	1780	7.65
	25-Jan-16	1.45	528	6	0.92	2600	1810	7.92
	25-Apr-16	1.33	595	5	0.55	2660	1720	7.77
	26-Jul-16	1.26	556	5	0.47	2750	1660	7.70
	24-Oct-16	1.56	712	5	0.77	2710	2000	7.60
	30-Jan-17	1.58	586	5	0.38	2740	1790	7.08
	24-Apr-17	1.42	421	5	0.34	2740	1750	7.98
	24-Jul-17	1.47	582	5	0.65	2780	1760	7.61
9-Oct-17	1.19	686	5	0.56	2780	1750	7.63	
11D (Downgradient)	9-Dec-15	1.23	290	9	0.60	1740	1170	7.72
	26-Jan-16	1.25	372	11	0.66	1750	1310	7.38
	25-Apr-16	1.19	390	9	0.45	1740	963	7.54
	26-Jul-16	1.14	310	9	0.33	1740	968	7.68
	24-Oct-16	1.49	452	13	0.62	2460	1710	7.31
	31-Jan-17	1.68	437	13	0.28	2420	1540	7.67
	25-Apr-17	1.22	338	14	0.24	2540	1520	7.42
	24-Jul-17	1.51	520	13	0.57	2490	1530	7.38
9-Oct-17	1.25	416	13	0.46	2420	1560	7.28	
13D (Downgradient)	9-Dec-15	1.86	495	35	0.74	2770	2060	7.56
	25-Jan-16	1.97	527	36	0.68	2720	1970	7.85
	25-Apr-16	1.89	657	36	0.41	2900	1880	7.55
	26-Jul-16	1.66	768	34	0.32	3000	1780	7.85
	25-Oct-16	2.10	480	36	0.29	3000	1840	7.87
	31-Jan-17	1.81	463	39	0.53	2940	2070	7.47
	25-Apr-17	1.60	349	43	0.63	2980	2130	7.40
	24-Jul-17	2.00	685	40	0.58	2950	1980	7.57
9-Oct-17	1.83	576	37	0.42	2940	1920	7.46	

     = Data to be compared against calculated Background values from the upgradient well.

**Table 3 (cont'd)**  
**Huntley Power LLC**  
**Huntley Landfill--Groundwater Analytical Data**  
**CCR Appendix III Constituents**

Monitoring Well	Date Sampled	Total Boron (mg/L)	Total Calcium (mg/L)	Total Chloride (mg/L)	Total Fluoride (mg/L)	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	pH (S.U.)
14D (Downgradient)	9-Dec-15	1.08	388	34	0.55	2340	1670	7.73
	25-Jan-16	1.13	393	37	0.48	2220	1580	7.74
	25-Apr-16	1.04	349	33	0.29	2260	1450	7.58
	26-Jul-16	0.91	364	30	0.20	2250	1340	7.92
	24-Oct-16	1.15	597	38	0.42	2480	1770	7.51
	30-Jan-17	1.13	488	41	0.41	2500	1800	7.55
	24-Apr-17	1.13	444	35	< 0.20	2400	1480	7.88
	24-Jul-17	1.40	613	37	0.44	2410	1560	7.74
	9-Oct-17	0.98	395	38	0.30	2470	1550	7.47
CCR-4 (Downgradient)	9-Dec-15	1.60	548	37	0.77	2590	1970	7.48
	25-Jan-16	1.56	556	33	0.85	2700	1910	8.96
	25-Apr-16	1.59	707	31	0.41	3000	1800	6.05
	25-Jul-16	1.70	714	33	0.32	2960	1740	5.79
	25-Oct-16	1.60	553	35	0.32	2890	1610	7.47
	31-Jan-17	1.45	549	36	0.53	2890	2020	7.78
	25-Apr-17	1.28	413	35	0.21	2920	1780	7.29
	24-Jul-17	1.63	733	36	0.61	2870	1840	7.53
	9-Oct-17	1.69	725	34	0.43	2890	1820	7.31
CCR-5 (Downgradient)	9-Dec-15	1.46	544	28	0.79	2590	1930	7.44
	25-Jan-16	1.39	537	27	0.79	2570	1860	7.72
	25-Apr-16	1.39	649	32	0.48	2690	1730	6.60
	25-Jul-16	1.55	847	28	0.36	2920	1740	6.27
	25-Oct-16	1.50	594	29	0.31	2880	1750	7.82
	31-Jan-17	1.25	603	31	0.57	2830	1970	7.62
	25-Apr-17	1.04	479	41	0.28	2860	1690	7.09
	24-Jul-17	1.43	592	34	0.65	2790	1820	7.09
	9-Oct-17	1.57	742	29	0.44	2850	1800	7.24
CCR-6 (Downgradient)	9-Dec-15	1.56	537	26	0.76	2740	1930	7.48
	25-Jan-16	1.50	539	26	0.76	2670	1880	7.46
	25-Apr-16	1.29	581	28	0.46	2830	1780	7.03
	25-Jul-16	1.57	770	27	0.32	2900	1780	7.46
	25-Oct-16	1.63	760	27	0.34	2900	1730	7.63
	31-Jan-17	1.12	464	30	0.46	2570	1860	8.61
	25-Apr-17	1.15	336	30	< 0.20	2860	1700	7.21
	24-Jul-17	1.56	693	31	0.66	2900	1820	7.16
	9-Oct-17	1.72	893	27	0.46	2880	1800	7.26

 = Data to be compared against calculated Background values from the upgradient well.

**Table 4**  
**Huntley Power LLC**  
**Huntley Landfill--Groundwater Baseline Analytical Data**  
**CCR Appendix IV Constituents**

Monitoring Well	Date Sampled	Total Antimony (mg/L)	Total Arsenic (mg/L)	Total Barium (mg/L)	Total Beryllium (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Cobalt (mg/L)	Total Fluoride (mg/L)	Total Lead (mg/L)	Total Lithium (mg/L)	Total Mercury (mg/L)	Total Molybdenum (mg/L)	Total Selenium (mg/L)	Total Thallium (mg/L)	Total Radium-226 and 228 (pCi/L)
12D (Upgradient)	9-Dec-15	< 0.010	< 0.010	0.06	< 0.003	< 0.005	< 0.010	< 0.050	0.61	< 0.050	< 0.10	0.0000015	< 0.025	< 0.010	< 0.010	1.01
	25-Jan-16	< 0.060	< 0.010	0.06	< 0.003	< 0.005	< 0.010	< 0.050	0.63	< 0.050	< 0.10	0.0000036	< 0.025	< 0.010	< 0.010	1.03
	25-Apr-16	< 0.060	< 0.005	0.07	< 0.005	< 0.005	< 0.005	< 0.050	0.53	< 0.005	< 0.05	0.0000006	0.011	< 0.005	< 0.010	0.00
	26-Jul-16	< 0.060	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.050	0.44	< 0.005	< 0.05	0.0000006	0.013	< 0.005	0.019	0.26
	27-Oct-16	< 0.060	< 0.005	0.06	< 0.005	< 0.005	< 0.005	< 0.050	0.41	< 0.005	< 0.05	0.0000020	0.011	< 0.005	0.013	0.19
	31-Jan-17	< 0.060	0.006	0.06	< 0.005	< 0.005	< 0.005	< 0.050	0.54	< 0.005	< 0.05	< 0.0000005	0.013	< 0.005	0.019	0.33
	24-Apr-17	0.0112	< 0.005	0.06	< 0.004	< 0.005	< 0.005	< 0.050	0.58	0.006	< 0.05	0.0000005	< 0.010	< 0.005	< 0.0007	0.33
24-Jul-17	0.0053	< 0.005	0.07	< 0.004	< 0.005	< 0.005	< 0.050	0.50	< 0.005	< 0.05	< 0.0000005	0.013	< 0.005	< 0.0007	0.35	
7D (Downgradient)	9-Dec-15	< 0.010	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.95	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.24
	25-Jan-16	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.92	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	0.25
	25-Apr-16	< 0.060	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.55	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.28
	26-Jul-16	< 0.060	0.006	0.03	< 0.005	< 0.005	< 0.005	< 0.050	0.47	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.12
	24-Oct-16	< 0.060	0.010	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.77	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.46
	30-Jan-17	< 0.060	0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.38	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.53
	24-Apr-17	< 0.060	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.34	< 0.005	< 0.05	< 0.0000005	< 0.010	0.010	< 0.010	0.48
24-Jul-17	0.008	< 0.005	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.65	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.34	
11D (Downgradient)	9-Dec-15	< 0.010	< 0.010	0.06	< 0.003	< 0.005	< 0.010	< 0.050	0.60	< 0.050	< 0.10	0.0000021	< 0.025	< 0.010	< 0.010	0.29
	26-Jan-16	< 0.060	0.016	0.14	< 0.003	< 0.005	0.014	< 0.050	0.66	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.24
	25-Apr-16	< 0.060	0.015	0.02	< 0.005	< 0.005	< 0.005	< 0.050	0.45	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.00
	26-Jul-16	< 0.060	0.024	0.02	< 0.005	< 0.005	< 0.005	< 0.050	0.33	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	0.012	0.26
	24-Oct-16	< 0.060	0.015	0.03	< 0.005	< 0.005	0.012	< 0.050	0.62	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.13
	31-Jan-17	< 0.060	0.008	0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.28	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.00
	25-Apr-17	0.0040	< 0.005	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.24	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	1.30
24-Jul-17	0.0068	< 0.005	0.02	< 0.004	< 0.005	< 0.005	< 0.050	0.57	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.24	
13D (Downgradient)	9-Dec-15	< 0.010	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.74	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	0.56
	25-Jan-16	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.68	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	0.45
	25-Apr-16	< 0.060	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.41	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.61
	26-Jul-16	< 0.060	0.007	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.32	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.51
	25-Oct-16	< 0.060	0.011	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.29	< 0.005	< 0.05	< 0.0000005	0.010	< 0.005	< 0.010	0.79
	31-Jan-17	< 0.060	0.007	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.53	< 0.005	< 0.05	< 0.0000005	0.010	< 0.005	< 0.010	0.70
	25-Apr-17	0.0042	< 0.005	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.63	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	2.13
24-Jul-17	0.0045	< 0.005	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.58	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.72	

**Table 4 (cont'd)**  
**Huntley Power LLC**  
**Huntley Landfill--Groundwater Baseline Analytical Data**  
**CCR Appendix IV Constituents**

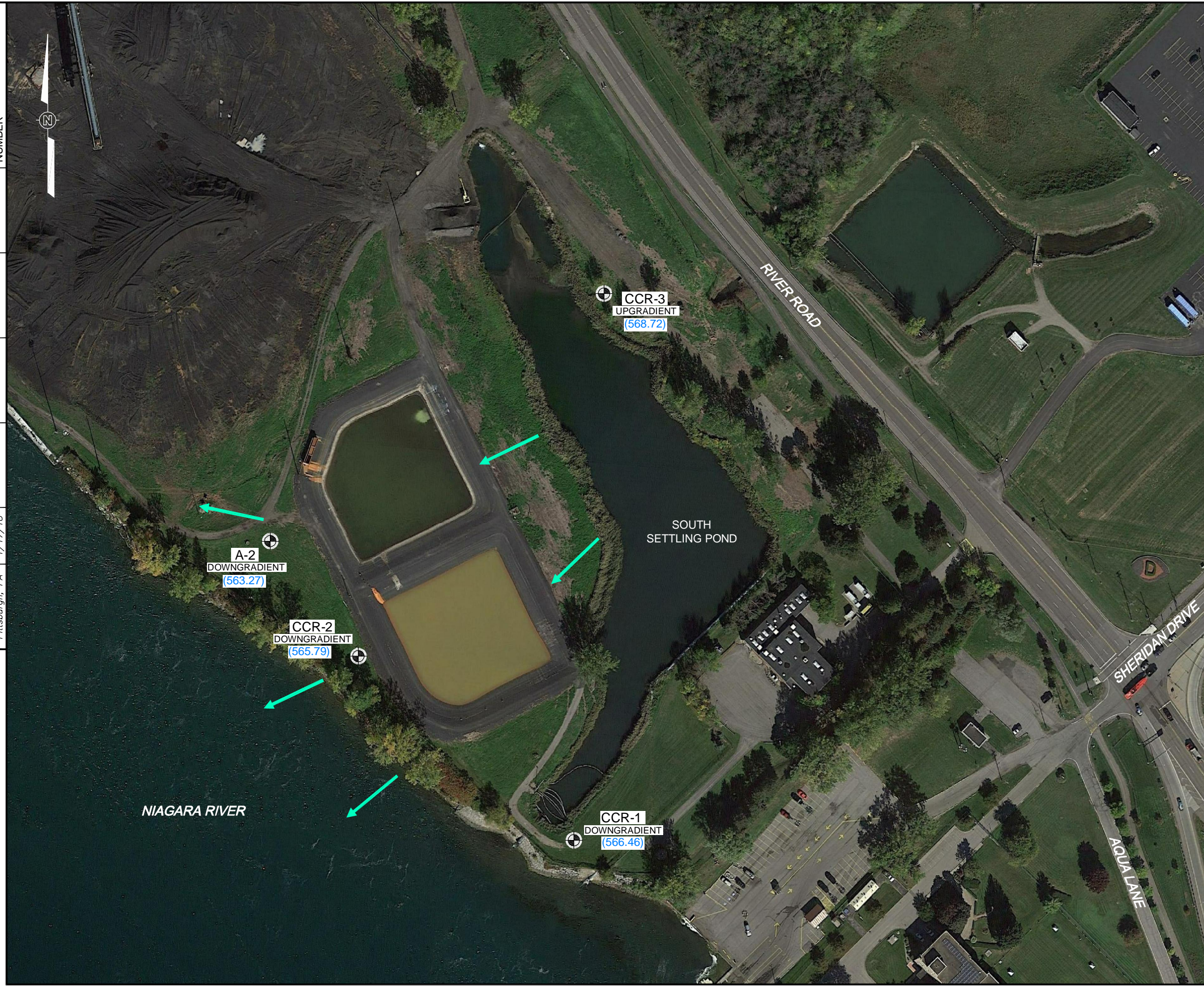
Monitoring Well	Date Sampled	Total Antimony (mg/L)	Total Arsenic (mg/L)	Total Barium (mg/L)	Total Beryllium (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Cobalt (mg/L)	Total Fluoride (mg/L)	Total Lead (mg/L)	Total Lithium (mg/L)	Total Mercury (mg/L)	Total Molybdenum (mg/L)	Total Selenium (mg/L)	Total Thallium (mg/L)	Total Radium-226 and 228 (pCi/L)
14D (Downgradient)	9-Dec-15	< 0.010	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.55	< 0.050	< 0.10	0.0000010	< 0.025	< 0.010	< 0.010	0.36
	25-Jan-16	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.48	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.14
	25-Apr-16	< 0.060	0.009	0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.29	< 0.005	< 0.05	< 0.0000005	0.011	< 0.005	< 0.010	0.00
	26-Jul-16	< 0.060	0.010	0.02	< 0.005	< 0.005	< 0.005	< 0.050	0.20	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.54
	24-Oct-16	< 0.060	0.023	0.01	< 0.005	< 0.005	0.015	< 0.050	0.42	< 0.005	< 0.05	< 0.0000005	0.010	< 0.005	< 0.010	0.56
	30-Jan-17	< 0.060	0.023	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.41	< 0.005	< 0.05	< 0.0000005	0.012	< 0.005	< 0.010	0.44
	24-Apr-17	< 0.060	0.008	0.01	< 0.005	< 0.005	< 0.005	< 0.050	< 0.20	< 0.005	< 0.05	< 0.0000005	0.011	0.006	< 0.010	1.98
24-Jul-17	0.0075	0.012	0.02	< 0.004	< 0.005	< 0.005	< 0.050	0.44	< 0.005	< 0.05	< 0.0000005	0.014	< 0.005	< 0.0007	0.61	
CCR-4 (Downgradient)	9-Dec-15	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.77	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.43
	25-Jan-16	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.85	< 0.050	< 0.10	0.0000019	< 0.025	< 0.010	< 0.010	1.39
	25-Apr-16	< 0.060	0.011	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.41	< 0.005	< 0.05	< 0.0000005	0.010	< 0.005	< 0.010	0.52
	25-Jul-16	< 0.060	0.009	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.32	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.58
	25-Oct-16	< 0.060	0.006	< 0.01	< 0.005	< 0.005	0.005	< 0.050	0.32	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.51
	31-Jan-17	< 0.060	0.018	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.53	< 0.005	< 0.05	< 0.0000005	0.010	< 0.005	< 0.010	0.67
	25-Apr-17	0.0034	0.006	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.21	0.006	< 0.05	< 0.0000005	0.011	0.008	< 0.0007	1.99
24-Jul-17	0.0066	< 0.005	0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.61	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.67	
CCR-5 (Downgradient)	9-Dec-15	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.79	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.89
	25-Jan-16	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.79	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.35
	25-Apr-16	< 0.060	0.008	0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.48	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.47
	25-Jul-16	< 0.060	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.050	0.36	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.85
	25-Oct-16	< 0.060	0.009	0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.31	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.54
	31-Jan-17	< 0.060	0.022	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.57	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	2.02
	25-Apr-17	0.004	< 0.005	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.28	0.006	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	0.69
24-Jul-17	0.0092	0.005	0.02	< 0.004	< 0.005	< 0.005	< 0.050	0.65	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	1.74	
CCR-6 (Downgradient)	9-Dec-15	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.76	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	1.20
	25-Jan-16	< 0.060	< 0.010	< 0.02	< 0.003	< 0.005	< 0.010	< 0.050	0.76	< 0.050	< 0.10	< 0.0000010	< 0.025	< 0.010	< 0.010	0.25
	25-Apr-16	< 0.060	0.008	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.46	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.32
	25-Jul-16	< 0.060	0.007	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.32	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	1.48
	25-Oct-16	< 0.060	0.010	< 0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.34	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.39
	31-Jan-17	< 0.060	0.024	0.01	< 0.005	< 0.005	< 0.005	< 0.050	0.46	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.010	0.36
	25-Apr-17	0.0046	0.007	< 0.01	< 0.004	< 0.005	< 0.005	< 0.050	< 0.20	0.008	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	1.26
24-Jul-17	0.0089	0.006	0.01	< 0.004	< 0.005	< 0.005	< 0.050	0.66	< 0.005	< 0.05	< 0.0000005	< 0.010	< 0.005	< 0.0007	1.38	

*Figures*



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OFFICE Pittsburgh, PA  
 DATE 1/17/18  
 DESIGNED BY  
 DRAWN BY  
 CHECKED BY  
 APPROVED BY  
 DRAWING NUMBER 631229737-B3

File: O:\PROJECT\NRG-HUNTLY\631229737-B3.dwg Xref:  
 Plot Date/Time: Jan 17, 2018 - 1:26pm  
 Plotted By: Evan.Schlegel  
 Image: photo\_3.jpg



**LEGEND:**

- 
 A-2  
 (563.27) CCR GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION MEASURED ON OCTOBER 5, 2017
- 
 GROUNDWATER FLOW DIRECTION

**REFERENCE:**

GOOGLE AERIAL PHOTOGRAPH, DATED 10/2016.



	500 Penn Center Boulevard, Suite 1000 Pittsburgh, Pennsylvania 15235
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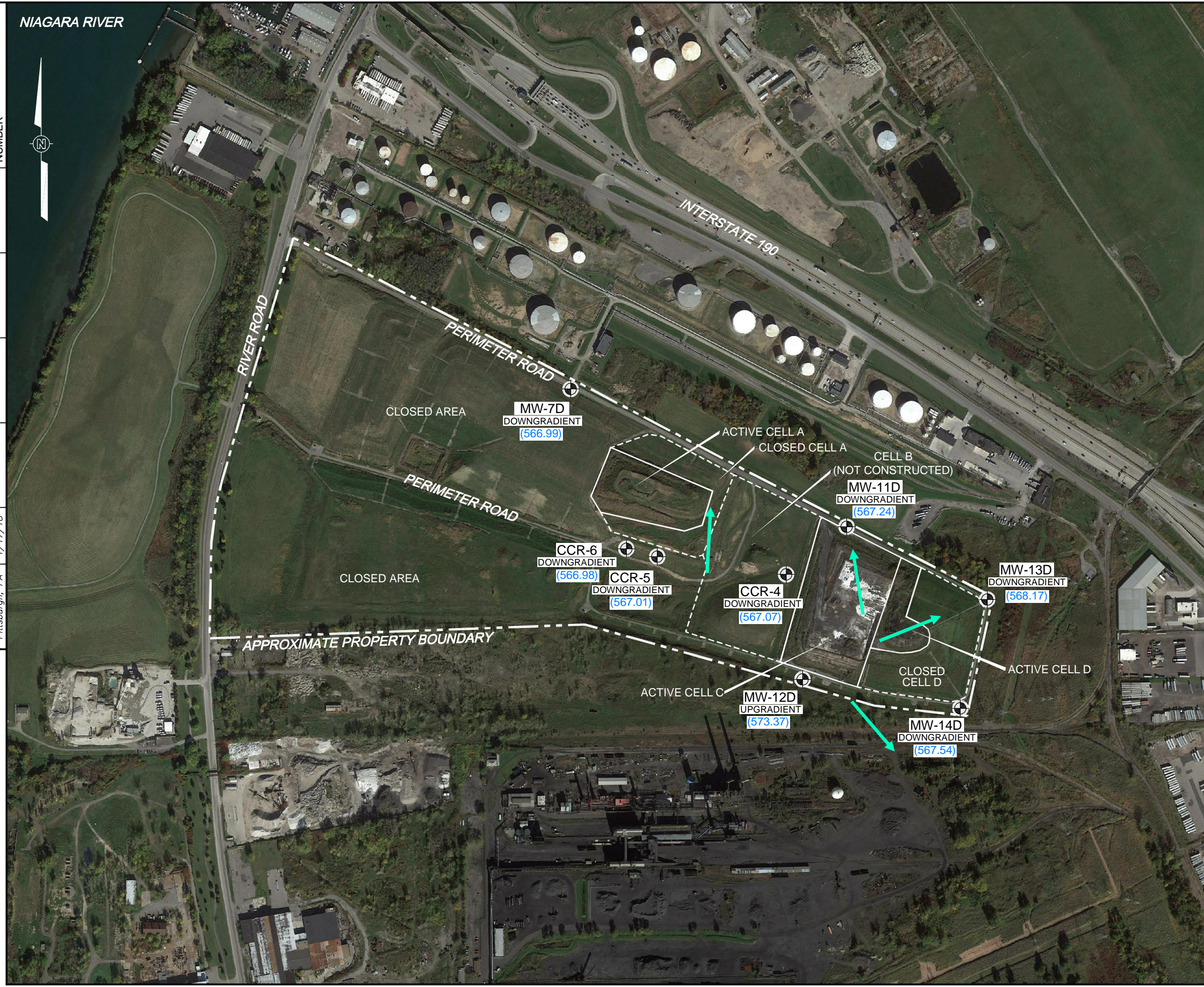
**FIGURE 1**  
 CCR COMPLIANCE GROUNDWATER MONITORING WELL LOCATION MAP  
 SOUTH SETTLING POND  
 HUNTLEY GENERATING STATION  
 TONAWANDA, NEW YORK

OFFICE: Pittsburgh, PA  
 DATE: 1/17/18  
 DESIGNED BY: ---  
 DRAWN BY: ---  
 CHECKED BY: ---  
 APPROVED BY: ---  
 DRAWING NUMBER: 631229737-B4

NIAGARA RIVER



File: O:\PROJECT\NRG-HUNTLY\631229737-B4.dwg Xref: ---  
 Plot Date/Time: Jan 17, 2018 - 2:24pm  
 Plotted By: Evan.Schlegel



**LEGEND:**

- MW-12D (573.37) CCR GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION MEASURED ON OCTOBER 9, 2017
- GROUNDWATER FLOW DIRECTION

REFERENCE:  
 GOOGLE AERIAL PHOTOGRAPH, DATED 10/2016.



	500 Penn Center Boulevard, Suite 1000 Pittsburgh, Pennsylvania 15235
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**FIGURE 2**  
**CCR COMPLIANCE GROUNDWATER MONITORING WELL LOCATION MAP**  
**HUNTLEY LANDFILL**  
**HUNTLEY GENERATING STATION**  
**TONAWANDA, NEW YORK**