

EXHIBIT FOUR
GROUNDWATER IMPACT MAP
CLOSED COLLINSVILLE LANDFILL
COLLINSVILLE, ILLINOIS

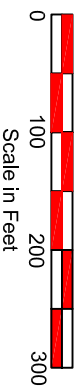
EXHIBIT 4-1

Source and Extent of Impacted Groundwater



Legend

- Boundary of Waste
- Landfill Property Boundary
- Extent Area 1 Coal/Gob Storage
- Creeks/Tributary
- + Monitoring Well
- + Peizometer
- Impacted groundwater from gob storage. Low pH, manganese, TDS, Iron, Chloride, exceed Class I and II groundwater quality standards. Sulfate, arsenic and barium above background but not Class I standards.
- Impacted groundwater from the landfill. High pH, barium and phenol exceed Class I groundwater quality standards. Pentachlorophenol detected but not above Class I standards.
- Impacted groundwater from possible widespread use of picloram or from the landfill. Picloram detected but not above Class I groundwater quality standards.
- Approximate direction of groundwater flow



Lines representing impacted areas are based on interpolation between widely spaced sample locations, and are an estimate only and do not represent the same level of accuracy as directly measured data.



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Drawing Description
Current Sources and Extent of
Groundwater Contamination Overlaid on
the 1968 Aerial Photograph

Collinsville Landfill
Madison County, Illinois

Project No.: 23967

Date: June 2009

Drawn By: DWC

Figure Number

4-1



EXHIBIT FIVE
HISTORICAL AND RECENT SAMPLING DATA SENT TO IEPA
CLOSED COLLINSVILLE LANDFILL
COLLINSVILLE, ILLINOIS

Exhibit 5-1

Historical Sampling (2007-2008) Information Previously Sent to IEPA in July 2008

(Tables 5-1.1, 5-1.2, 5-1.3, and 5-1.4)

Table 5-1.1

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-1					
Compound	Aug-07	Oct-07	Feb-08	May-08	Class I
List 1					
Temperature of Water (unfiltered F)	61.97	60.15	52.16	58.12	NA
Spec Cond. (Unfiltered)	1.921	1.960	2.229	1.935	NA
pH (Unfiltered units)	6.59	6.34	6.57	6.21	6.5-9.0
Elev of GW Surf (ft ref MSL)	486.27	486.30	489.53	489.72	NA
Depth of Water (ft below LS)	9.91	8.21	6.26	6.15	NA
BTM Well Elev (ft ref MSL)	231.90	231.90	231.90	231.90	NA
Depth to Water Fr Mea Pt (ft)	12.63	10.93	8.98	8.87	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA mg/L
Arsenic AS, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	300.0	328.0	367.0	334.0	200.0 mg/L
Iron Fe, Diss (ug/L)	522.0	1,790.0	48.3	368.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	3,390.0	3,950.0	3,540.0	4,490.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	119.0	135.0	114.0	120.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	1,490.0	1,540.0	1,350.0	1,520.0	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.10	<0.10	<0.10	<0.10	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	2.1	2.5	2.1	2.2	NA mg/L
Total Organic Halogens (TOX) (ug/L)	91.5	182.0	159.0	117.0	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	*	*	--	<3.0	50.0 ug/L
Barium (ug/L)	*	*	--	172.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	152.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	*	*	--	353.00	200.0 mg/L
Chromium (ug/L)	--	--	--	7.30	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.14	4.0 mg/L
Iron (ug/L)	*	*	--	525.0	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	*	*	--	4,360	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10	50.0 ug/L
Sulfate (mg/L)	*	*	--	122.0	400.0 ug/L
Thallium (ug/L)	*	*	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	*	*	--	1,570.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	25.1	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	<2.00	2.0 ug/L
Aldicarb (ug/L)	--	--	--	<2.00	3.0 ug/L
Atrazine (ug/L)	--	--	--	<0.05	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.60	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	<0.20	0.20 ug/L

Table 5-1.1

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-1						
Compound	Aug-07	Oct-07	Feb-08	May-08	Class I	
Carbofuran (ug/L)	--	--	--	<10.0	40.0	ug/L
Carbon Tetrachloride (ug/L)	--	--	--	<1.00	5.0	ug/L
Chlordane (ug/L)	--	--	--	<0.14	2.0	ug/L
Dalapon (ug/L)	--	--	--	<1.30	200.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.20	5.0	ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	<6.00	6.0	ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	<0.20	0.20	ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	<0.700	7.0	ug/L
Endothall (ug/L)	--	--	--	<10.0	100.0	ug/L
Endrin (ug/L)	--	--	--	<0.06	2.0	ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	<0.05	0.05	ug/L
Heptachlor (ug/L)	--	--	--	<0.04	0.04	ug/L
Heptachlor Epoxide (ug/L)	--	--	--	<0.20	0.20	ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	<4.00	50.0	ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	<0.04	0.20	ug/L
2,4 - D (ug/L)	--	--	--	<12.0	70.0	ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	<5.00	600.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<5.00	75.0	ug/L
1,2-Dichloroethane (ug/L)	--	--	--	<5.00	5.0	ug/L
1,1-Dichloroethene (ug/L)	--	--	--	<5.00	7.0	ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	70.0	ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	100.0	ug/L
1,2-Dichloropropane (ug/L)	--	--	--	<5.00	5.0	ug/L
Ethylbenzene (ug/L)	--	--	--	<5.00	70.0	ug/L
Methoxychlor (ug/L)	--	--	--	<0.50	40.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<5.00	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.100	1.0	ug/L
Phenols (ug/L)	--	--	--	<15	100.0	ug/L
Picloram (ug/L)	*	*	--	<0.200	500.0	ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	<0.500	0.5	ug/L
Simazine (ug/L)	--	--	--	<4.00	4.0	ug/L
Styrene (ug/L)	--	--	--	<5.00	100.0	ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	<5.00	50.0	ug/L
Tetrachloroethene (ug/L)	--	--	--	<0.70	5.0	ug/L
Toluene (ug/L)	--	--	--	<5.00	1,000.0	ug/L
Toxaphene (ug/L)	--	--	--	<2.40	3.0	ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	<10.0	70.0	ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	<5.00	200.0	ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	<0.50	5.0	ug/L
Trichloroethene (ug/L)	--	--	--	<1.00	5.0	ug/L
Vinyl Chloride (ug/L)	--	--	--	<1.00	2.0	ug/L
Xylenes (ug/L)	--	--	--	<5.00	10,000.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

*: August and October 2007, additional parameters were analyzed for assessment monitoring. These parameters included unfiltered arsenic, barium, chloride, iron, manganese, sulfate, thallium, TDS, and picloram. Results are not reported under 2007-310-SP. Results were reported in the Assessment Monitoring Report submitted January 14, 2008.

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-1.2

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-2					
Compound	Aug-07*	Oct-07*	Feb-08	May-08	Class I
List 1					
Temperature of Water (unfiltered F)	58.08	--	50.76	58.12	NA
Spec Cond. (Unfiltered)	0.709	--	0.756	0.491	NA
pH (Unfiltered units)	6.94	--	6.78	6.62	6.5-9.0
Elev of GW Surf (ft ref MSL)	481.57	--	486.32	489.82	NA
Depth of Water (ft below LS)	13.92	--	10.89	8.24	NA
BTM Well Elev (ft ref MSL)	480.30	480.30	480.30	480.30	NA
Depth to Water Fr Mea Pt (ft)	15.14	DRY	12.11	9.46	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	--	--	<0.10	<0.10	NA mg/L
Arsenic AS, Diss (ug/L)	--	--	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	--	--	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	--	--	27.0	14.0	200.0 mg/L
Iron Fe, Diss (ug/L)	--	--	<40.0	<40.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	--	--	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	--	--	<15.0	<15.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	--	--	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	--	--	132.0	110.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	--	--	534.0	406.0	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	--	--	<0.10	<0.10	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	--	--	<15.0	<15.0R	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	--	--	1.4	1.6	NA mg/L
Total Organic Halogens (TOX) (ug/L)	--	--	<20.0	<20.0	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	<3.0	50.0 ug/L
Barium (ug/L)	--	--	--	43.8	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	63.1	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	14.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.23	4.0 mg/L
Iron (ug/L)	--	--	--	46.5	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	<15.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10	50.0 ug/L
Sulfate (mg/L)	--	--	--	106.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	414.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	<2.00	2.0 ug/L
Aldicarb (ug/L)	--	--	--	<2.00	3.0 ug/L
Atrazine (ug/L)	--	--	--	<0.05	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.60	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	<0.20	0.20 ug/L

Table 5-1.2

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-2						
Compound	Aug-07*	Oct-07*	Feb-08	May-08	Class I	
Carbofuran (ug/L)	--	--	--	<10.0	40.0	ug/L
Carbon Tetrachloride (ug/L)	--	--	--	<1.00	5.0	ug/L
Chlordane (ug/L)	--	--	--	<0.14	2.0	ug/L
Dalapon (ug/L)	--	--	--	<1.30	200.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.20	5.0	ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	<6.00	6.0	ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	<0.20	0.20	ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	<0.700	7.0	ug/L
Endothall (ug/L)	--	--	--	<10.0	100.0	ug/L
Endrin (ug/L)	--	--	--	<0.06	2.0	ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	<0.05	0.05	ug/L
Heptachlor (ug/L)	--	--	--	<0.04	0.04	ug/L
Heptachlor Epoxide (ug/L)	--	--	--	<0.20	0.20	ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	<4.00	50.0	ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	<0.04	0.20	ug/L
2,4 - D (ug/L)	--	--	--	<12.0	70.0	ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	<5.00	600.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<5.00	75.0	ug/L
1,2-Dichloroethane (ug/L)	--	--	--	<5.00	5.0	ug/L
1,1-Dichloroethene (ug/L)	--	--	--	<5.00	7.0	ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	70.0	ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	100.0	ug/L
1,2-Dichloropropane (ug/L)	--	--	--	<5.00	5.0	ug/L
Ethylbenzene (ug/L)	--	--	--	<5.00	70.0	ug/L
Methoxychlor (ug/L)	--	--	--	<0.50	40.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<5.00	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.100	1.0	ug/L
Phenols (ug/L)	--	--	--	<15.00	100.0	ug/L
Picloram (ug/L)	--	--	--	<0.200	500.0	ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	<0.500	0.5	ug/L
Simazine (ug/L)	--	--	--	<4.00	4.0	ug/L
Styrene (ug/L)	--	--	--	<5.00	100.0	ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	<5.00	50.0	ug/L
Tetrachloroethene (ug/L)	--	--	--	<0.70	5.0	ug/L
Toluene (ug/L)	--	--	--	<5.00	1,000.0	ug/L
Toxaphene (ug/L)	--	--	--	<2.40	3.0	ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	<10.0	70.0	ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	<5.00	200.0	ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	<0.50	5.0	ug/L
Trichloroethene (ug/L)	--	--	--	<1.00	5.0	ug/L
Vinyl Chloride (ug/L)	--	--	--	<1.00	2.0	ug/L
Xylenes (ug/L)	--	--	--	<5.00	10,000.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

*: Well was not sampled due to dry conditions.

R: Relative Percent Difference outside accepted recovery limits.

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-1.3

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-3					
Compound	Aug-07	Oct-07	Feb-08	May-08	Class I
List 1					
Temperature of Water (unfiltered F)	61.63	60.87	53.91	57.00	NA
Spec Cond. (Unfiltered)	0.408	0.649	0.520	0.322	NA
pH (Unfiltered units)	9.68	9.56	9.12	10.97	6.5-9.0
Elev of GW Surf (ft ref MSL)	534.21	532.40	532.94	542.00	NA
Depth of Water (ft below LS)	10.24	12.64	7.15	4.07	NA
BTM Well Elev (ft ref MSL)	521.60	521.60	521.60	521.60	NA
Depth to Water Fr Mea Pt (ft)	13.39	15.79	10.30	7.22	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	3.73	4.41	2.76	2.76	NA mg/L
Arsenic AS, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	10.0	8.0	13.0	6.0	200.0 mg/L
Iron Fe, Diss (ug/L)	<40.0	<40.0	<40.0	<40.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	<15.0	<15.0	<15.0	<15.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	<5.0	<5.0	<5.0	5.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	554.0	664.0	518.0	518.0	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.10	<0.10	<0.10	<0.10	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	25.0	39.0	<15.0	<15.0	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	12.5	21.1	8.7	2.8	NA mg/L
Total Organic Halogens (TOX) (ug/L)	20.8	<20.0	<20.0	<20.0	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	*	*	--	<3.0	50.0 ug/L
Barium (ug/L)	*	*	--	195,000.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	655.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	*	*	--	5.0	200.0 mg/L
Chromium (ug/L)	--	--	--	10.9	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.10	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.75	4.0 mg/L
Iron (ug/L)	*	*	--	<40.0	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	*	*	--	<15.0	150 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10	50.0 ug/L
Sulfate (mg/L)	*	*	--	7.0	400.0 ug/L
Thallium (ug/L)	*	*	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	*	*	--	514.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	<2.00	2.0 ug/L
Aldicarb (ug/L)	--	--	--	<2.00	3.0 ug/L
Atrazine (ug/L)	--	--	--	<0.05	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.60	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	<0.20	0.20 ug/L

Table 5-1.3

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-3						
Compound	Aug-07	Oct-07	Feb-08	May-08	Class I	
Carbofuran (ug/L)	--	--	--	<10.0	40.0	ug/L
Carbon Tetrachloride (ug/L)	--	--	--	<1.00	5.0	ug/L
Chlordane (ug/L)	--	--	--	<0.14	2.0	ug/L
Dalapon (ug/L)	--	--	--	<1.30	200.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.20	5.0	ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	<6.00	6.0	ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	<0.20	0.20	ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	<0.700	7.0	ug/L
Endothall (ug/L)	--	--	--	<10.0	100.0	ug/L
Endrin (ug/L)	--	--	--	<0.06	2.0	ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	<0.05	0.05	ug/L
Heptachlor (ug/L)	--	--	--	<0.04	0.04	ug/L
Heptachlor Epoxide (ug/L)	--	--	--	<0.20	0.20	ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	<4.00	50.0	ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	<0.04	0.20	ug/L
2,4 - D (ug/L)	--	--	--	<12.0	70.0	ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	<5.00	600.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<5.00	75.0	ug/L
1,2-Dichloroethane (ug/L)	--	--	--	<5.00	5.0	ug/L
1,1-Dichloroethene (ug/L)	--	--	--	<5.00	7.0	ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	70.0	ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	100.0	ug/L
1,2-Dichloropropane (ug/L)	--	--	--	<5.00	5.0	ug/L
Ethylbenzene (ug/L)	--	--	--	<5.00	70.0	ug/L
Methoxychlor (ug/L)	--	--	--	<0.50	40.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<5.00	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	0.135	1.0	ug/L
Phenols (ug/L)	--	--	--	<15	100.0	ug/L
Picloram (ug/L)	*	*	--	<0.200	500.0	ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	<0.500	0.5	ug/L
Simazine (ug/L)	--	--	--	<4.00	4.0	ug/L
Styrene (ug/L)	--	--	--	<5.00	100.0	ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	<5.00	50	ug/L
Tetrachloroethene (ug/L)	--	--	--	<0.70	5.0	ug/L
Toluene (ug/L)	--	--	--	<5.00	1,000.0	ug/L
Toxaphene (ug/L)	--	--	--	<2.40	3.0	ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	<10.0	70.0	ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	<5.00	200.0	ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	<0.50	5.0	ug/L
Trichloroethene (ug/L)	--	--	--	<1.00	5.0	ug/L
Vinyl Chloride (ug/L)	--	--	--	<1.00	2.0	ug/L
Xylenes (ug/L)	--	--	--	<5.00	10,000.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

-- : Not tested

*: August and October 2007, additional parameters were analyzed for assessment monitoring. These parameters included unfiltered arsenic, barium, chloride, iron, manganese, sulfate, thallium, TDS, and picloram. Results are not reported under 2007-310-SP. Results were reported in the Assessment Monitoring Report submitted January 14, 2008.

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-1.4

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-4					
Compound	Aug-07	Oct-07	Feb-08	May-08	Class I
List 1					
Temperature of Water (unfiltered F)	61.23	59.79	52.29	55.69	NA
Spec Cond. (Unfiltered)	1.959	1.930	1.434	1.080	NA
pH (Unfiltered units)	6.36	6.16	6.50	6.28	6.5-9.0
Elev of GW Surf (ft ref MSL)	485.71	485.66	489.28	489.64	NA
Depth of Water (ft below LS)	9.72	9.77	6.15	5.79	NA
BTM Well Elev (ft ref MSL)	472.00	472.00	472.00	472.00	NA
Depth to Water Fr Mea Pt (ft)	12.69	12.74	9.12	8.76	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	<0.10	0.15	<0.10	NA mg/L
Arsenic AS, Diss (ug/L)	7.6	8.6	10.4	9.5	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	306.0	366.0	139.0	116.0	200.0 mg/L
Iron Fe, Diss (ug/L)	4,740.0	3,790.0	6,770.0	6,700.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	8,900.0	7,580.0	16,400.0	14,000.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	107.0	140.0	72.0	79.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	1,530.0	1,560.0	866.0	922.0	1,200 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.10	<0.10	<0.10	<0.10	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	2.1	2.3	4.3	4.1	NA mg/L
Total Organic Halogens (TOX) (ug/L)	70.6	78.6	44.1	47.7	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	*	*	--	9.7	50.0 ug/L
Barium (ug/L)	*	*	--	318.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	97.5	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	*	*	--	109.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.24	4.0 mg/L
Iron (ug/L)	*	*	--	7,510.0	5,000 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	*	*	--	13,700.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10	50.0 ug/L
Sulfate (mg/L)	*	*	--	79.0	400.0 ug/L
Thallium (ug/L)	*	*	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	*	*	--	944.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	<2.00	2.0 ug/L
Aldicarb (ug/L)	--	--	--	<2.00	3.0 ug/L
Atrazine (ug/L)	--	--	--	<0.05	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.60	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	<0.20	0.20 ug/L

Table 5-1.4

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-4						
Compound	Aug-07	Oct-07	Feb-08	May-08	Class I	
Carbofuran (ug/L)	--	--	--	<10.0	40.0	ug/L
Carbon Tetrachloride (ug/L)	--	--	--	<1.00	5.0	ug/L
Chlordane (ug/L)	--	--	--	<0.14	2.0	ug/L
Dalapon (ug/L)	--	--	--	<1.30	200.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.20	5.0	ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	<6.00	6.0	ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	<0.20	0.20	ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	<0.700	7.0	ug/L
Endothall (ug/L)	--	--	--	<10.0	100.0	ug/L
Endrin (ug/L)	--	--	--	<0.06	2.0	ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	<0.05	0.05	ug/L
Heptachlor (ug/L)	--	--	--	<0.04	0.04	ug/L
Heptachlor Epoxide (ug/L)	--	--	--	<0.20	0.20	ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	<4.00	50.0	ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	<0.04	0.20	ug/L
2,4 - D (ug/L)	--	--	--	<12.0	70.0	ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	<5.00	600.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<5.00	75.0	ug/L
1,2-Dichloroethane (ug/L)	--	--	--	<5.00	5.0	ug/L
1,1-Dichloroethene (ug/L)	--	--	--	<5.00	7.0	ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	70.0	ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	<5.00	100.0	ug/L
1,2-Dichloropropane (ug/L)	--	--	--	<5.00	5.0	ug/L
Ethylbenzene (ug/L)	--	--	--	<5.00	70.0	ug/L
Methoxychlor (ug/L)	--	--	--	<0.50	40.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<5.00	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.100	1.0	ug/L
Phenols (ug/L)	--	--	--	<15	100.0	ug/L
Picloram (ug/L)	*	*	--	<0.200	500.0	ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	<0.500	0.5	ug/L
Simazine (ug/L)	--	--	--	<4.00	4.0	ug/L
Styrene (ug/L)	--	--	--	<5.00	100.0	ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	<5.00	50.0	ug/L
Tetrachloroethene (ug/L)	--	--	--	<0.70	5.0	ug/L
Toluene (ug/L)	--	--	--	<5.00	1,000.0	ug/L
Toxaphene (ug/L)	--	--	--	<2.40	3.0	ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	<10.0	70.0	ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	<5.00	200.0	ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	<0.50	5.0	ug/L
Trichloroethene (ug/L)	--	--	--	<1.00	5.0	ug/L
Vinyl Chloride (ug/L)	--	--	--	<1.00	2.0	ug/L
Xylenes (ug/L)	--	--	--	<5.00	10,000.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

*: August and October 2007, additional parameters were analyzed for assessment monitoring. These parameters included unfiltered arsenic, barium, chloride, iron, manganese, sulfate, thallium, TDS, and picloram. Results are not reported under 2007-310-SP. Results were reported in the Assessment Monitoring Report submitted January 14, 2008.

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Exhibit 5-2

Historical Sampling (2008-2009) Information Previously Sent to IEPA in July 2009

(Tables 5-2.1, 5-2.2, 5-2.3, 5-2.4, 5-2.5)

Table 5-2.1

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-1					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
List 1					
Temperature of Water (unfiltered F)	66.43	60.33	54.16	55.45	NA
Spec Cond. (Unfiltered)	2.003	2.468	1.471	2.873	NA
pH (Unfiltered units)	6.27	6.34	6.45	6.41	6.5-9.0
Elev of GW Surf (ft ref MSL)	488.02	488.57	489.33	489.65	NA
Depth of Water (ft below LS)	8.16	7.51	6.85	6.53	NA
BTM Well Elev (ft ref MSL)	472.20	472.20	472.20	472.20	NA
Depth to Water Fr Mea Pt (ft)	10.88	10.33	9.57	9.25	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA mg/L
Arsenic AS, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	393.0	397.0	402.0	389.0	200.0 mg/L
Iron Fe, Diss (ug/L)	300.0	179.0	<40.0	376.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	3,030.0	2,730.0 S	2,750.0	4,060.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20 S	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	108.0	108.0	105.0	113.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	1,460.0	1,390.0	1,440.0	1,510.0	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100 SR	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	1.9	1.9	2.1	3.3	NA mg/L
Total Organic Halogens (TOX) (ug/L)	125.0 R	105.0	146.0	149.0	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0 S	6.0 ug/L
Arsenic (ug/L)	--	--	--	<3.0	50.0 ug/L
Barium (ug/L)	--	--	--	218.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	126.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	368.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.14	4.0 mg/L
Iron (ug/L)	--	--	--	458.0	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0 S	7.5 ug/L
Manganese (ug/L)	--	--	--	4,340.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	114.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	1,600.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	--	2.0 ug/L
Aldicarb (ug/L)	--	--	--	--	3.0 ug/L
Atrazine (ug/L)	--	--	--	--	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.50	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	--	0.20 ug/L

Table 5-2.1

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-1					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
Carbofuran (ug/L)	--	--	--	--	40.0 ug/L
Carbon Tetrachloride (ug/L)	--	--	--	--	5.0 ug/L
Chlordane (ug/L)	--	--	--	--	2.0 ug/L
Dalapon (ug/L)	--	--	--	--	200.0 ug/L
Dichloromethane (ug/L)	--	--	--	<0.50	5.0 ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	--	6.0 ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	--	0.20 ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	--	7.0 ug/L
Endothall (ug/L)	--	--	--	--	100.0 ug/L
Endrin (ug/L)	--	--	--	--	2.0 ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	--	0.05 ug/L
Heptachlor (ug/L)	--	--	--	--	0.04 ug/L
Heptachlor Epoxide (ug/L)	--	--	--	--	0.20 ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	--	50.0 ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	--	0.20 ug/L
2,4 - D (ug/L)	--	--	--	--	70.0 ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	--	600.0 ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<2.0	75.0 ug/L
1,2-Dichloroethane (ug/L)	--	--	--	--	5.0 ug/L
1,1-Dichloroethene (ug/L)	--	--	--	--	7.0 ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	--	70.0 ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	--	100.0 ug/L
1,2-Dichloropropane (ug/L)	--	--	--	--	5.0 ug/L
Ethylbenzene (ug/L)	--	--	--	--	70.0 ug/L
Methoxychlor (ug/L)	--	--	--	--	40.0 ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<2.0	100.0 ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.100	1.0 ug/L
Phenols (ug/L)	--	--	--	--	100.0 ug/L
Picloram (ug/L)	--	--	--	<0.200	500.0 ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	--	0.5 ug/L
Simazine (ug/L)	--	--	--	--	4.0 ug/L
Styrene (ug/L)	--	--	--	--	100.0 ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	--	50.0 ug/L
Tetrachloroethene (ug/L)	--	--	--	--	5.0 ug/L
Toluene (ug/L)	--	--	--	--	1,000.0 ug/L
Toxaphene (ug/L)	--	--	--	--	3.0 ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	--	70.0 ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	--	200.0 ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	--	5.0 ug/L
Trichloroethene (ug/L)	--	--	--	--	5.0 ug/L
Vinyl Chloride (ug/L)	--	--	--	--	2.0 ug/L
Xylenes (ug/L)	--	--	--	--	10,000.0 ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

R: RPD outside accepted recovery limits

S: Spike Recovery outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-2.2

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-2					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
List 1					
Temperature of Water (unfiltered F)	60.45	53.53	49.96	52.57	NA
Spec Cond. (Unfiltered)	0.909	1.002	0.583	0.870	NA
pH (Unfiltered units)	6.67	6.57	6.56	7.10	6.5-9.0
Elev of GW Surf (ft ref MSL)	484.86	486.06	486.50	486.90	NA
Depth of Water (ft below LS)	10.22	9.02	8.58	8.18	NA
BTM Well Elev (ft ref MSL)	480.30	480.30	480.30	480.30	NA
Depth to Water Fr Mea Pt (ft)	11.44	10.24	9.80	9.40	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA mg/L
Arsenic As, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	31.0	37.0	27.0	16.0	200.0 mg/L
Iron Fe, Diss (ug/L)	<40.0	<40.0	<40.0	<40.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	<15.0	17.30	<15.0	<15.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	187.0	188.0	130.0	104.0 S	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	866.0	652.0	548.0	414.0	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	1.8	1.4	1.4	1.3	NA mg/L
Total Organic Halogens (TOX) (ug/L)	24.9	20.8	20.4	<20.0 S	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	<3.0	50.0 ug/L
Barium (ug/L)	--	--	--	71.9	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	50.7	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	15.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.21	4.0 mg/L
Iron (ug/L)	--	--	--	<40.0	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	<15.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	103.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	434.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	--	2.0 ug/L
Aldicarb (ug/L)	--	--	--	--	3.0 ug/L
Atrazine (ug/L)	--	--	--	--	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.50	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	--	0.20 ug/L

Table 5-2.2

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-2					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
Carbofuran (ug/L)	--	--	--	--	40.0 ug/L
Carbon Tetrachloride (ug/L)	--	--	--	--	5.0 ug/L
Chlordane (ug/L)	--	--	--	--	2.0 ug/L
Dalapon (ug/L)	--	--	--	--	200.0 ug/L
Dichloromethane (ug/L)	--	--	--	<0.50	5.0 ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	--	6.0 ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	--	0.20 ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	--	7.0 ug/L
Endothall (ug/L)	--	--	--	--	100.0 ug/L
Endrin (ug/L)	--	--	--	--	2.0 ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	--	0.05 ug/L
Heptachlor (ug/L)	--	--	--	--	0.04 ug/L
Heptachlor Epoxide (ug/L)	--	--	--	--	0.20 ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	--	50.0 ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	--	0.20 ug/L
2,4 - D (ug/L)	--	--	--	--	70.0 ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	--	600.0 ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<2.0	75.0 ug/L
1,2-Dichloroethane (ug/L)	--	--	--	--	5.0 ug/L
1,1-Dichloroethene (ug/L)	--	--	--	--	7.0 ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	--	70.0 ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	--	100.0 ug/L
1,2-Dichloropropane (ug/L)	--	--	--	--	5.0 ug/L
Ethylbenzene (ug/L)	--	--	--	--	70.0 ug/L
Methoxychlor (ug/L)	--	--	--	--	40.0 ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<2.0	100.0 ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.100	1.0 ug/L
Phenols (ug/L)	--	--	--	--	100.0 ug/L
Picloram (ug/L)	--	--	--	<0.20	500.0 ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	--	0.5 ug/L
Simazine (ug/L)	--	--	--	--	4.0 ug/L
Styrene (ug/L)	--	--	--	--	100.0 ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	--	50.0 ug/L
Tetrachloroethene (ug/L)	--	--	--	--	5.0 ug/L
Toluene (ug/L)	--	--	--	--	1,000.0 ug/L
Toxaphene (ug/L)	--	--	--	--	3.0 ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	--	70.0 ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	--	200.0 ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	--	5.0 ug/L
Trichloroethene (ug/L)	--	--	--	--	5.0 ug/L
Vinyl Chloride (ug/L)	--	--	--	--	2.0 ug/L
Xylenes (ug/L)	--	--	--	--	10,000.0 ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

S: Spike Recovery outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-2.3

Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill

Monitoring Location MW-3					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
List 1					
Temperature of Water (unfiltered F)	63.01	58.69	--	--	NA
Spec Cond. (Unfiltered)	0.973	0.504	--	--	NA
pH (Unfiltered units)	8.27	9.63	--	--	6.5-9.0
Elev of GW Surf (ft ref MSL)	537.82	536.60	--	--	NA
Depth of Water (ft below LS)	6.63	7.85	--	--	NA
BTM Well Elev (ft ref MSL)	521.60	521.60	--	--	NA
Depth to Water Fr Mea Pt (ft)	9.78	11.00	--	--	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	2.84	2.75	--	--	NA mg/L
Arsenic AS, Diss (ug/L)	<5.0	<5.0	--	--	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	--	--	5.0 ug/L
Chloride Diss (mg/L)	56.0	19.0	--	--	200.0 mg/L
Iron Fe, Diss (ug/L)	95.0	360.0	--	--	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	--	--	8.0 ug/L
Manganese Mn, Diss (ug/L)	345.0	444.0	--	--	150.0 ug/L
Mercury Hg, Diss (ug/L)	0.58	<0.20	--	--	2.0 ug/L
Sulfate SO4, Diss (mg/L)	<5.0	<50.0	--	--	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	562.0	568.0	--	--	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	--	--	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	--	--	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	5.7	3.2	--	--	NA mg/L
Total Organic Halogens (TOX) (ug/L)	49.3	<0.20	--	--	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	--	6.0 ug/L
Arsenic (ug/L)	--	--	--	--	50.0 ug/L
Barium (ug/L)	--	--	--	--	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	--	4.0 ug/L
Boron (ug/L)	--	--	--	--	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	--	5.0 ug/L
Chloride (mg/L)	--	--	--	--	200.0 mg/L
Chromium (ug/L)	--	--	--	--	100.0 ug/L
Cobalt (ug/L)	--	--	--	--	1,000.0 ug/L
Copper (ug/L)	--	--	--	--	650.0 ug/L
Cyanide (mg/L)	--	--	--	--	0.20 mg/L
Fluoride (mg/L)	--	--	--	--	4.0 mg/L
Iron (ug/L)	--	--	--	--	5,000.0 ug/L
Lead (ug/L)	--	--	--	--	7.5 ug/L
Manganese (ug/L)	--	--	--	--	150 ug/L
Mercury (ug/L)	--	--	--	--	2.0 ug/L
Nickel (ug/L)	--	--	--	--	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	--	10.0 mg/L
Selenium (ug/L)	--	--	--	--	50.0 ug/L
Silver (ug/L)	--	--	--	--	50.0 ug/L
Sulfate (mg/L)	--	--	--	--	400.0 ug/L
Thallium (ug/L)	--	--	--	--	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	--	1,200.0 mg/L
Zinc (ug/L)	--	--	--	--	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	--	2.0 ug/L
Aldicarb (ug/L)	--	--	--	--	3.0 ug/L
Atrazine (ug/L)	--	--	--	--	3.0 ug/L
Benzene (ug/L)	--	--	--	--	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	--	0.20 ug/L

Table 5-2.3

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-3					
Compound	Aug-08	Nov-08	Feb-08	May-09	Class I
Carbofuran (ug/L)	--	--	--	--	40.0 ug/L
Carbon Tetrachloride (ug/L)	--	--	--	--	5.0 ug/L
Chlordane (ug/L)	--	--	--	--	2.0 ug/L
Dalapon (ug/L)	--	--	--	--	200.0 ug/L
Dichloromethane (ug/L)	--	--	--	--	5.0 ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	--	6.0 ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	--	0.20 ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	--	7.0 ug/L
Endothall (ug/L)	--	--	--	--	100.0 ug/L
Endrin (ug/L)	--	--	--	--	2.0 ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	--	0.05 ug/L
Heptachlor (ug/L)	--	--	--	--	0.04 ug/L
Heptachlor Epoxide (ug/L)	--	--	--	--	0.20 ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	--	50.0 ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	--	0.20 ug/L
2,4 - D (ug/L)	--	--	--	--	70.0 ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	--	600.0 ug/L
para-Dichlorobenzene (ug/L)	--	--	--	--	75.0 ug/L
1,2-Dichloroethane (ug/L)	--	--	--	--	5.0 ug/L
1,1-Dichloroethene (ug/L)	--	--	--	--	7.0 ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	--	70.0 ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	--	100.0 ug/L
1,2-Dichloropropane (ug/L)	--	--	--	--	5.0 ug/L
Ethylbenzene (ug/L)	--	--	--	--	70.0 ug/L
Methoxychlor (ug/L)	--	--	--	--	40.0 ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	--	100.0 ug/L
Pentachlorophenol (ug/L)	--	--	--	--	1.0 ug/L
Phenols (ug/L)	--	--	--	--	100.0 ug/L
Picloram (ug/L)	--	--	--	--	500.0 ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	--	0.5 ug/L
Simazine (ug/L)	--	--	--	--	4.0 ug/L
Styrene (ug/L)	--	--	--	--	100.0 ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	--	50 ug/L
Tetrachloroethene (ug/L)	--	--	--	--	5.0 ug/L
Toluene (ug/L)	--	--	--	--	1,000.0 ug/L
Toxaphene (ug/L)	--	--	--	--	3.0 ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	--	70.0 ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	--	200.0 ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	--	5.0 ug/L
Trichloroethene (ug/L)	--	--	--	--	5.0 ug/L
Vinyl Chloride (ug/L)	--	--	--	--	2.0 ug/L
Xylenes (ug/L)	--	--	--	--	10,000.0 ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

-- : Not tested

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-2.4

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-4					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
List 1					
Temperature of Water (unfiltered F)	60.30	58.80	53.78	55.04	NA
Spec Cond. (Unfiltered)	2.132	2.502	1.251	2.154	NA
pH (Unfiltered units)	6.17	6.29	6.32	6.76	6.5-9.0
Elev of GW Surf (ft ref MSL)	487.79	488.10	489.10	489.31	NA
Depth of Water (ft below LS)	7.64	7.33	6.33	6.12	NA
BTM Well Elev (ft ref MSL)	473.48	473.48	473.48	473.48	NA
Depth to Water Fr Mea Pt (ft)	10.61	10.30	9.30	9.09	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	0.16	0.11	0.14	NA mg/L
Arsenic AS, Diss (ug/L)	8.1	9.1	9.7	11.6	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	371.0	303.0	304.0	189.0	200.0 mg/L
Iron Fe, Diss (ug/L)	4,420.0	3,450.0	5,080.0	9,810.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	8,150.0	7,020.0	10,200.0	14,200.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20 S	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	127.0	101.0	99.0	88.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	1,470.0	1,190.0	1,260.0	1,110.0	1,200 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0 S	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	1.8	2.2	2.8	3.5	NA mg/L
Total Organic Halogens (TOX) (ug/L)	135.0	116.0	67.3	96.0 R	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	9.6	50.0 ug/L
Barium (ug/L)	--	--	--	352.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	112.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	197.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.21	4.0 mg/L
Iron (ug/L)	--	--	--	9,210.0	5,000 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	13,900.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	89.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	1,170.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	--	2.0 ug/L
Aldicarb (ug/L)	--	--	--	--	3.0 ug/L
Atrazine (ug/L)	--	--	--	--	3.0 ug/L
Benzene (ug/L)	--	--	--	<0.50	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	--	0.20 ug/L

Table 5-2.4

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-4					
Compound	Aug-08	Nov-08	Feb-09	May-09	Class I
Carbofuran (ug/L)	--	--	--	--	40.0 ug/L
Carbon Tetrachloride (ug/L)	--	--	--	--	5.0 ug/L
Chlordane (ug/L)	--	--	--	--	2.0 ug/L
Dalapon (ug/L)	--	--	--	--	200.0 ug/L
Dichloromethane (ug/L)	--	--	--	<0.50	5.0 ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	--	6.0 ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	--	0.20 ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	--	7.0 ug/L
Endothall (ug/L)	--	--	--	--	100.0 ug/L
Endrin (ug/L)	--	--	--	--	2.0 ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	--	0.05 ug/L
Heptachlor (ug/L)	--	--	--	--	0.04 ug/L
Heptachlor Epoxide (ug/L)	--	--	--	--	0.20 ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	--	50.0 ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	--	0.20 ug/L
2,4 - D (ug/L)	--	--	--	--	70.0 ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	--	600.0 ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<2.0	75.0 ug/L
1,2-Dichloroethane (ug/L)	--	--	--	--	5.0 ug/L
1,1-Dichloroethene (ug/L)	--	--	--	--	7.0 ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	--	70.0 ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	--	100.0 ug/L
1,2-Dichloropropane (ug/L)	--	--	--	--	5.0 ug/L
Ethylbenzene (ug/L)	--	--	--	--	70.0 ug/L
Methoxychlor (ug/L)	--	--	--	--	40.0 ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<2.0	100.0 ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.10	1.0 ug/L
Phenols (ug/L)	--	--	--	--	100.0 ug/L
Picloram (ug/L)	--	--	--	<0.20	500.0 ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	--	0.5 ug/L
Simazine (ug/L)	--	--	--	--	4.0 ug/L
Styrene (ug/L)	--	--	--	--	100.0 ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	--	50.0 ug/L
Tetrachloroethene (ug/L)	--	--	--	--	5.0 ug/L
Toluene (ug/L)	--	--	--	--	1,000.0 ug/L
Toxaphene (ug/L)	--	--	--	--	3.0 ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	--	70.0 ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	--	200.0 ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	--	5.0 ug/L
Trichloroethene (ug/L)	--	--	--	--	5.0 ug/L
Vinyl Chloride (ug/L)	--	--	--	--	2.0 ug/L
Xylenes (ug/L)	--	--	--	--	10,000.0 ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

R: RPD outside accepted recovery limits

S: Spike Recovery outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-2.5

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-6					
Compound	Aug-08	Oct-07	Feb-09	May-09	Class I
List 1					
Temperature of Water (unfiltered F)	--	--	53.42	62.42	NA
Spec Cond. (Unfiltered)	--	--	0.924	1.762	NA
pH (Unfiltered units)	--	--	6.58	6.89	6.5-9.0
Elev of GW Surf (ft ref MSL)	--	--	532.28	533.00	NA
Depth of Water (ft below LS)	--	--	29.53	28.49	NA
BTM Well Elev (ft ref MSL)	--	--	521.77	521.77	NA
Depth to Water Fr Mea Pt (ft)	--	--	31.42	30.38	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	--	--	<0.10	<0.10	NA mg/L
Arsenic As, Diss (ug/L)	--	--	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	--	--	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	--	--	69.0	64.0	200.0 mg/L
Iron Fe, Diss (ug/L)	--	--	<40.0	<40.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	--	--	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	--	--	181.0	180.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	--	--	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	--	--	87.0	91.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	--	--	930.0	912.0	1,200 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	--	--	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	--	--	<15.0	<15.0	1.0 ug/L
Total Organic Carbon (TOC) (mg/L)	--	--	3.6	3.8	NA mg/L
Total Organic Halogens (TOX) (ug/L)	--	--	51.1	68.4 R	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	<3.0	50.0 ug/L
Barium (ug/L)	--	--	--	113.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	57.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	64.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.31	4.0 mg/L
Iron (ug/L)	--	--	--	<40.0	5,000 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	218.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	92.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	934.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	--	--	--	<2.0	2.0 ug/L
Aldicarb (ug/L)	--	--	--	<2.0	3.0 ug/L
Atrazine (ug/L)	--	--	--	<0.05	3.0 ug/L
Benzene (ug/L)	--	--	--	<1.0	5.0 ug/L
Benzo(a)pyrene (ug/L)	--	--	--	<0.20	0.20 ug/L

Table 5-2.5

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-6						
Compound	Aug-08	Oct-07	Feb-09	May-09	Class I	
Carbofuran (ug/L)	--	--	--	<10.0	40.0	ug/L
Carbon Tetrachloride (ug/L)	--	--	--	--	5.0	ug/L
Chlordane (ug/L)	--	--	--	<0.14	2.0	ug/L
Dalapon (ug/L)	--	--	--	<1.3	200.0	ug/L
Dichloromethane (ug/L)	--	--	--	0.30 B	5.0	ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	--	--	--	<6.0	6.0	ug/L
1,2-Dibromo-3-chloropropane (ug/L)	--	--	--	<0.20	0.20	ug/L
Dinoseb (DNBP) (ug/L)	--	--	--	<0.70	7.0	ug/L
Endothall (ug/L)	--	--	--	<10.0	100.0	ug/L
Endrin (ug/L)	--	--	--	<0.06	2.0	ug/L
Ethylene Dibromide (EDB) (ug/L)	--	--	--	<0.05	0.05	ug/L
Heptachlor (ug/L)	--	--	--	<0.04	0.04	ug/L
Heptachlor Epoxide (ug/L)	--	--	--	<0.20	0.20	ug/L
Hexachlorocyclopentadiene (ug/L)	--	--	--	<4.0	50.0	ug/L
Lindane (Gamma-Hexachlor cyclohexane)	--	--	--	<0.04	0.20	ug/L
2,4 - D (ug/L)	--	--	--	<12.0	70.0	ug/L
ortho-Dichlorobenzene (ug/L)	--	--	--	<5.0	600.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<5.0	75.0	ug/L
1,2-Dichloroethane (ug/L)	--	--	--	<5.0	5.0	ug/L
1,1-Dichloroethene (ug/L)	--	--	--	<5.0	7.0	ug/L
cis-1,2-Dichloroethene (ug/L)	--	--	--	<5.0	70.0	ug/L
trans-1,2-Dichloroethene (ug/L)	--	--	--	<5.0	100.0	ug/L
1,2-Dichloropropane (ug/L)	--	--	--	<5.0	5.0	ug/L
Ethylbenzene (ug/L)	--	--	--	<5.0	70.0	ug/L
Methoxychlor (ug/L)	--	--	--	<0.50	40.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<5.0	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.10	1.0	ug/L
Phenols (ug/L)	--	--	--	<15.0	100.0	ug/L
Picloram (ug/L)	--	--	--	<0.20	500.0	ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	--	--	--	<0.50	0.5	ug/L
Simazine (ug/L)	--	--	--	<4.0	4.0	ug/L
Styrene (ug/L)	--	--	--	<5.0	100.0	ug/L
2,4,5-TP (Silvex) (ug/L)	--	--	--	<5.0	50.0	ug/L
Tetrachloroethene (ug/L)	--	--	--	<0.70	5.0	ug/L
Toluene (ug/L)	--	--	--	<5.0	1,000.0	ug/L
Toxaphene (ug/L)	--	--	--	<2.40	3.0	ug/L
1,2,4-Trichlorobenzene (ug/L)	--	--	--	<10.0	70.0	ug/L
1,1,1-Trichloroethane (ug/L)	--	--	--	<5.0	200.0	ug/L
1,1,2-Trichloroethane (ug/L)	--	--	--	<0.50	5.0	ug/L
Trichloroethene (ug/L)	--	--	--	<1.0	5.0	ug/L
Vinyl Chloride (ug/L)	--	--	--	<1.0	2.0	ug/L
Xylenes (ug/L)	--	--	--	<5.0	10,000.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

B: Analyte detected in the associated Method Blank

R: RPD outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Exhibit 5-3

Historical Sampling (2009-2010) Information Previously Sent to IEPA in July 2010

(Tables 5-3.1, 5-2.2, 5-3.3, 5-2.4)

Table 5-3.1

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-1					
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I
List 1					
Temperature of Water (unfiltered F)	62.37	58.68	49.95	54.72	NA
Spec Cond. (Unfiltered)	1.913	2.870	1.997	2.480	NA
pH (Unfiltered units)	6.36	6.51	6.84	7.00	6.5-9.0
Elev of GW Surf (ft ref MSL)	488.75	488.88	489.88	490.90	NA
Depth of Water (ft below LS)	7.43	7.30	6.30	5.28	NA
BTM Well Elev (ft ref MSL)	472.20	472.20	472.20	472.20	NA
Depth to Water Fr Mea Pt (ft)	10.15	10.02	9.02	8.00	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	0.47 S	0.28 S	<0.10 S	0.26	NA mg/L
Arsenic AS, Diss (ug/L)	<5.0	<5.0	<5.0	5.1	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	374.0	288.0	314.0	341.0	200.0 mg/L
Iron Fe, Diss (ug/L)	856.0	386.0	<40.0	6,760.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	3,360.0	2,400.0	2,470.0	4,270.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20 S	2.0 ug/L
Sulfate SO4, Diss (mg/L)	95.0	91.0	103.0	94.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	1,390.0 H	1,370.0	1,530.0	1,630.0*	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	100.0 ug/L
Total Organic Carbon (TOC) (mg/L)	3.5	3.0	2.4	1.4	NA mg/L
Total Organic Halogens (TOX) (ug/L)	171.0	115.0	156.6	44.8**	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	4.3	50.0 ug/L
Barium (ug/L)	--	--	--	223.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	129.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	325.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.15	4.0 mg/L
Iron (ug/L)	--	--	--	7,150.0	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	4,310.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	94.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	1,490.0*	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L

Table 5-3.1

Supplemental Permit Condition 6b
 Class I Concentrations
 Closed Collinsville Landfill

Monitoring Location MW-1						
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I	
List 3 Organic Parameters Unfiltered						
Benzene (ug/L)	--	--	--	<0.15	5.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.15	5.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<0.25	75.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<0.25	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.069	1.0	ug/L
Picloram (ug/L)	--	--	--	<0.056	500.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

-- : Not tested

* Indicates a laboratory instrument malfunction and results were not obtained. There was insufficient sample to reanalyze the sample. The sample was recollected on March 16, 2010 and the results are reported above.

** Indicates a laboratory instrument malfunction and results were not obtained. There was insufficient sample to reanalyze the sample. The sample was recollected on June 29, 2010 and the results are reported above.

R: RPD outside accepted recovery limits

S: Spike Recovery outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-3.2

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-2					
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I
List 1					
Temperature of Water (unfiltered F)	58.60	57.22	48.72	52.05	NA
Spec Cond. (Unfiltered)	0.624	1.087	0.722	0.678	NA
pH (Unfiltered units)	6.34	6.65	6.85	6.33	6.5-9.0
Elev of GW Surf (ft ref MSL)	485.60	487.28	486.91	487.95	NA
Depth of Water (ft below LS)	9.48	7.80	8.17	7.13	NA
BTM Well Elev (ft ref MSL)	480.30	480.30	480.30	480.30	NA
Depth to Water Fr Mea Pt (ft)	10.70	9.02	9.39	8.35	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA mg/L
Arsenic As, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	27.0 S	20.0	10.0	6.0	200.0 mg/L
Iron Fe, Diss (ug/L)	<40.0	76.8	<40.0	46.5	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	53.40	<15.0	<15.0	<15.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	119.0	104.0	92.0	66.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	482.0 H	406.0	368.0	288.0	1,200.0 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	100.0 ug/L
Total Organic Carbon (TOC) (mg/L)	1.6	3.2	1.1	1.1	NA mg/L
Total Organic Halogens (TOX) (ug/L)	<20.0	22.0	<20.0	28.4**	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	<3.0	50.0 ug/L
Barium (ug/L)	--	--	--	54.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	53.4	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	5.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.18	4.0 mg/L
Iron (ug/L)	--	--	--	260.0	5,000.0 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	<15.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	66.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	278.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L

Table 5-3.2

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-2						
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I	
List 3 Organic Parameters Unfiltered						
Benzene (ug/L)	--	--	--	<0.15	5.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.15	5.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<0.25	75.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<0.25	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.069	1.0	ug/L
Picloram (ug/L)	--	--	--	<0.056	500.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

-- : Not tested

** Indicates a laboratory instrument malfunction and results were not obtained. There was insufficient sample to reanalyze the sample. The sample was recollected on June 30, 2010 and the results are reported above.

S: Spike Recovery outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-3.3

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-4					
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I
List 1					
Temperature of Water (unfiltered F)	59.56	57.56	52.16	53.26	NA
Spec Cond. (Unfiltered)	1.893	2.863	1.773	1.501	NA
pH (Unfiltered units)	6.13	6.41	6.55	6.91	6.5-9.0
Elev of GW Surf (ft ref MSL)	488.00	488.25	489.46	490.61	NA
Depth of Water (ft below LS)	7.43	7.18	5.97	4.82	NA
BTM Well Elev (ft ref MSL)	472.00	472.00	472.00	472.00	NA
Depth to Water Fr Mea Pt (ft)	10.40	10.15	8.94	7.79	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	0.13	0.12	0.13	NA mg/L
Arsenic AS, Diss (ug/L)	<10.0	9.5	10.6	18.1	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	374.0	263.0	222.0	101.0	200.0 mg/L
Iron Fe, Diss (ug/L)	5,820.0	6,100.0	9,580.0	18,800.0 S	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	9,750.0	9,470.0	11,800.0	15,700.0 S	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	111.0	96.0	89.0	27.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	1,440.0	1,380.0	1,190.0	890.0	1,200 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	16.0	<15.0	100.0 ug/L
Total Organic Carbon (TOC) (mg/L)	2.9	2.9	3.2	3.6	NA mg/L
Total Organic Halogens (TOX) (ug/L)	229.0	88.8 S	84.4	38.6**	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	--	--	--	<3.0	6.0 ug/L
Arsenic (ug/L)	--	--	--	17.6	50.0 ug/L
Barium (ug/L)	--	--	--	337.0	2,000.0 ug/L
Beryllium (ug/L)	--	--	--	<2.0	4.0 ug/L
Boron (ug/L)	--	--	--	114.0	2,000.0 ug/L
Cadmium (ug/L)	--	--	--	<2.0	5.0 ug/L
Chloride (mg/L)	--	--	--	98.0	200.0 mg/L
Chromium (ug/L)	--	--	--	<7.0	100.0 ug/L
Cobalt (ug/L)	--	--	--	<50.0	1,000.0 ug/L
Copper (ug/L)	--	--	--	<20.0	650.0 ug/L
Cyanide (mg/L)	--	--	--	<0.100	0.20 mg/L
Fluoride (mg/L)	--	--	--	0.26	4.0 mg/L
Iron (ug/L)	--	--	--	18,600.0	5,000 ug/L
Lead (ug/L)	--	--	--	<5.0	7.5 ug/L
Manganese (ug/L)	--	--	--	16,100.0	150.0 ug/L
Mercury (ug/L)	--	--	--	<0.20	2.0 ug/L
Nickel (ug/L)	--	--	--	<40.0	100.0 ug/L
Nitrate as N (mg/L)	--	--	--	<1.0	10.0 mg/L
Selenium (ug/L)	--	--	--	<5.0	50.0 ug/L
Silver (ug/L)	--	--	--	<10.0	50.0 ug/L
Sulfate (mg/L)	--	--	--	27.0	400.0 ug/L
Thallium (ug/L)	--	--	--	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	--	--	--	878.0	1,200.0 mg/L
Zinc (ug/L)	--	--	--	<20.0	5,000.0 ug/L

Table 5-3.3

Supplemental Permit Condition 6b
 Class I Concentrations
 Closed Collinsville Landfill

Monitoring Location MW-4						
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I	
List 3 Organic Parameters Unfiltered						
Benzene (ug/L)	--	--	--	<0.15	5.0	ug/L
Dichloromethane (ug/L)	--	--	--	<0.15	5.0	ug/L
para-Dichlorobenzene (ug/L)	--	--	--	<0.25	75.0	ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	--	--	--	<0.25	100.0	ug/L
Pentachlorophenol (ug/L)	--	--	--	<0.069	1.0	ug/L
Picloram (ug/L)	--	--	--	<0.056	500.0	ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

** Indicates a laboratory instrument malfunction and results were not obtained. There was insufficient sample to reanalyze the sample. The sample was recollected on June 29, 2010 and the results are reported above.

R: RPD outside accepted recovery limits

S: Spike Recovery outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Table 5-3.4

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-6					
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I
List 1					
Temperature of Water (unfiltered F)	67.62	57.56	55.81	60.12	NA
Spec Cond. (Unfiltered)	1.205	1.831	1.300	1.472	NA
pH (Unfiltered units)	6.30	6.69	6.86	6.73	6.5-9.0
Elev of GW Surf (ft ref MSL)	533.73	532.14	534.76	534.51	NA
Depth of Water (ft below LS)	28.08	29.67	27.05	27.30	NA
BTM Well Elev (ft ref MSL)	521.77	521.77	521.77	521.77	NA
Depth to Water Fr Mea Pt (ft)	29.97	31.56	28.94	29.19	NA
List 2 Filtered					
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA mg/L
Arsenic As, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	50.0 ug/L
Cadmium Cd, Diss (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride Diss (mg/L)	61.0	58.0	66.0	64.0	200.0 mg/L
Iron Fe, Diss (ug/L)	<40.0	<40.0	<40.0	<40.0	5,000.0 ug/L
Lead Pb, Diss (ug/L)	<5.0	<5.0	<5.0	<5.0	8.0 ug/L
Manganese Mn, Diss (ug/L)	212.0	220.0	205.0	160.0	150.0 ug/L
Mercury Hg, Diss (ug/L)	<0.20	<0.20	<0.20	<0.20	2.0 ug/L
Sulfate SO4, Diss (mg/L)	90.0	82.0	91.0	84.0	400.0 mg/L
Total Dissolved Solids (TDS, mg/L)	882.0 H	904.0 H	864.0	928.0	1,200 mg/L
List 2 Unfiltered					
Cyanide CN, Total (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	19.0	<15.0	100.0 ug/L
Total Organic Carbon (TOC) (mg/L)	3.8	4.2	4.0	3.2	NA mg/L
Total Organic Halogens (TOX) (ug/L)	255.0	59.6	49.0	48.6**	NA ug/L
List 3 Inorganic Parameters Unfiltered					
Antimony (ug/L)	<3.0	<5.0	<5.0	<3.0	6.0 ug/L
Arsenic (ug/L)	<3.0	<3.0	<3.0	<3.0	50.0 ug/L
Barium (ug/L)	107.0	104.0	101.0	95.4	2,000.0 ug/L
Beryllium (ug/L)	<2.0	<1.0	<1.0	<2.0	4.0 ug/L
Boron (ug/L)	68.6	70.5	81.6	80.3	2,000.0 ug/L
Cadmium (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0 ug/L
Chloride (mg/L)	60.0 S	58.0 S	50.0	65.0	200.0 mg/L
Chromium (ug/L)	<7.0	<10.0	<10.0	<7.0	100.0 ug/L
Cobalt (ug/L)	<50.0	<10.0	<10.0	<50.0	1,000.0 ug/L
Copper (ug/L)	<20.0	<10.0	10.1	<20.0	650.0 ug/L
Cyanide (mg/L)	<0.100	<0.100	<0.100	<0.100	0.20 mg/L
Fluoride (mg/L)	0.38	0.35	0.41	0.33	4.0 mg/L
Iron (ug/L)	474.0	56.7	42.1	174.0	5,000 ug/L
Lead (ug/L)	<5.0	<2.0	<2.0	<5.0	7.5 ug/L
Manganese (ug/L)	225.0	222.0	201.0	149.0	150.0 ug/L
Mercury (ug/L)	<0.20	<0.20	<0.20 S	<0.20 S	2.0 ug/L
Nickel (ug/L)	<40.0	<10.0	<10.0	<40.0	100.0 ug/L
Nitrate as N (mg/L)	<1.0	<0.01	<0.05	<1.0	10.0 mg/L
Selenium (ug/L)	<5.0	<6.0	<6.0	<5.0	50.0 ug/L
Silver (ug/L)	<10.0 B	<10.0	<10.0	<10.0	50.0 ug/L
Sulfate (mg/L)	89.0	82.0 S	91.0	88.0	400.0 ug/L
Thallium (ug/L)	<1.0	<2.0	<2.0	<1.0	2.0 ug/L
Total Dissolved Solids (mg/L)	894.0	924.0	856.0	916.0	1,200.0 mg/L
Zinc (ug/L)	<20.0	<10.0	<10.0	<20.0	5,000.0 ug/L
List 3 Organic Parameters Unfiltered					
Alachlor (ug/L)	<0.01	<0.01	<0.01	--	2.0 ug/L
Aldicarb (ug/L)	<0.50	<0.50	<0.50	--	3.0 ug/L
Atrazine (ug/L)	<0.05	<0.05	<0.05	--	3.0 ug/L
Benzene (ug/L)	<0.15	<0.15	<0.15	<0.15	5.0 ug/L
Benzo(a)pyrene (ug/L)	<0.08	<0.08	<0.08	--	0.20 ug/L

Table 5-3.4

**Supplemental Permit Condition 6b
Class I Concentrations
Closed Collinsville Landfill**

Monitoring Location MW-6					
Compound	Aug-09	Oct-09	Feb-10	May-10	Class I
Carbofuran (ug/L)	<0.50	<0.50	<0.50	--	40.0 ug/L
Chlordane (ug/L)	<0.02	<0.02	<0.02	--	2.0 ug/L
Dalapon (ug/L)	<0.60	<0.60	<0.60	--	200.0 ug/L
Dichloromethane (ug/L)	0.32	0.25	0.21	<0.15	5.0 ug/L
Bis(2-ethylhexyl)phthalate (ug/L)	<2.0	<2.0	<2.0	--	6.0 ug/L
1,2-Dibromo-3-chloropropane (ug/L)	<0.05	<0.05	<0.05	--	0.20 ug/L
Dinoseb (DNBP) (ug/L)	<0.037	<0.037	<0.037	--	7.0 ug/L
Endothall (ug/L)	<10.0	<10.0	<10.0	--	100.0 ug/L
Endrin (ug/L)	<0.02	<0.02	<0.02	--	2.0 ug/L
Ethylene Dibromide (EDB) (ug/L)	<0.05	<0.05	<0.05	--	0.05 ug/L
Heptachlor (ug/L)	<0.01	<0.01	<0.01	--	0.04 ug/L
Heptachlor Epoxide (ug/L)	<0.02	<0.02	<0.02	--	0.20 ug/L
Hexachlorocyclopentadiene (ug/L)	<2.0	<2.0	<2.0	--	50.0 ug/L
Lindane (Gamma-Hexachlor cyclohexane)	<0.03	<0.03	<0.03	--	0.20 ug/L
2,4 - D (ug/L)	<0.09	<0.09	<0.09	--	70.0 ug/L
ortho-Dichlorobenzene (ug/L)	<0.25	<0.25	<0.25	--	600.0 ug/L
para-Dichlorobenzene (ug/L)	<0.25	<0.25	<0.25	<0.25	75.0 ug/L
1,2-Dichloroethane (ug/L)	<0.25	<0.25	<0.25	--	5.0 ug/L
1,1-Dichloroethene (ug/L)	<0.25	<0.25	<0.25	--	7.0 ug/L
cis-1,2-Dichloroethene (ug/L)	<0.30	<0.30	<0.30	--	70.0 ug/L
trans-1,2-Dichloroethene (ug/L)	<0.25	<0.25	<0.25	--	100.0 ug/L
1,2-Dichloropropane (ug/L)	<0.25	<0.25	<0.25	--	5.0 ug/L
Ethylbenzene (ug/L)	<0.25	<0.25	<0.25	--	70.0 ug/L
Methoxychlor (ug/L)	<0.02	<0.02	<0.02	--	40.0 ug/L
Monochlorobenzene (Chlorobenzene) (ug/L)	<0.25	<0.25	<0.25	<0.25	100.0 ug/L
Pentachlorophenol (ug/L)	<0.069	<0.069	<0.069	<0.069	1.0 ug/L
Phenols (ug/L)	<15.0	<15.0	19.0	<15.0	100.0 ug/L
Picloram (ug/L)	<0.056	<0.056	<0.056	<0.056	500.0 ug/L
Polychlorinated Biphenyls (PCBs) (ug/L)	<0.50	<0.50	<0.50	--	0.5 ug/L
Simazine (ug/L)	<0.50	<0.50	<0.50	--	4.0 ug/L
Styrene (ug/L)	<0.25	<0.25	<0.25	--	100.0 ug/L
2,4,5-TP (Silvex) (ug/L)	<0.09	<0.09	<0.09	--	50.0 ug/L
Tetrachloroethene (ug/L)	<0.15	<0.15	<0.15	--	5.0 ug/L
Toluene (ug/L)	<0.25	<0.25	<0.25	--	1,000.0 ug/L
Toxaphene (ug/L)	<0.35	<0.35	<0.35	--	3.0 ug/L
1,2,4-Trichlorobenzene (ug/L)	<0.25	<0.25	<0.25	--	70.0 ug/L
1,1,1-Trichloroethane (ug/L)	<0.30	<0.30	<0.30	--	200.0 ug/L
1,1,2-Trichloroethane (ug/L)	<0.15	<0.15	<0.15	--	5.0 ug/L
Trichloroethene (ug/L)	<0.25	<0.25	<0.25	--	5.0 ug/L
Vinyl Chloride (ug/L)	<0.25	<0.25	<0.25	--	2.0 ug/L
Xylenes (ug/L)	<0.30	<0.30	<0.30	--	10,000.0 ug/L

NOTES:

All units are as noted

Bolded where the concentration exceeds Class I groundwater quality standards

<: Compound not detected at or above detection limit. Value shown is the detection limit of the compound for the analytical process.

--: Not tested

** Indicates a laboratory instrument malfunction and results were not obtained. There was insufficient sample to reanalyze the sample. The sample was recollected on June 30, 2010 and the results are reported above.

B: Analyte detected in the associated Method Blank

R: RPD outside accepted recovery limits

ref: reference

MSL: Mean Sea Level

LS: Land Surface

Fr Meas Pt: From Measuring Point

Exhibit 5-4

Background Data Sets from 2007 and 2010

**(Appendix E – Table 1 modified 7/28/2010 and Table 14 version 3) Previously Sent to IEPA
in April 2010 and November 2008, Respectively**

Appendix E - Table 1 (Modified 7/28/2010)

Statistical Calculations for Background Re-establishment for MW-6
Closed Collinsville Landfill

Monitoring Location MW6: Background Establishment Location

	5/19/2009	8/5/2009	10/13/2009	2/18/2010	Distribution ^a	Minimum	Maximum	Average	Variance	St. Dev.	99%CL	95%CL
List 1												
Temperature of Water (unfiltered F)	Calculated in 2008 See table 14 Version 3											
Spec Cond. (Unfiltered)	Calculated in 2008 See table 14 Version 3											
pH (Unfiltered units)	Calculated in 2008 See table 14 Version 3											
Elev of GW Surf (ft ref MSL)	Calculated in 2008 See table 14 Version 3											
Depth of Water (ft below LS)	Calculated in 2008 See table 14 Version 3											
BTM Well Elev (ft ref MSL)	Calculated in 2008 See table 14 Version 3											
Depth to Water Fr Mea Pt (ft)	Calculated in 2008 See table 14 Version 3											
List 2 Filtered												
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA	<0.10	<0.10	<0.10	NA	NA	0.10	0.10
Arsenic AS, Diss (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Cadmium Cd, Diss (ug/L)	<2.00	<2.00	<2.00	<2.00	NA	<2.00	<2.00	<2.00	NA	NA	2.00	2.00
Chloride Diss (mg/L)	64.00	61.00	58.00	66.00	Normal	58.00	66.00	62.25	12.3	3.50	80.02	71.46
Iron Fe, Diss (ug/L)	<40.00	<40.00	<40.00	<40.00	NA	<40.00	<40.00	<40.00	NA	NA	40.00	40.00
Lead Pb, Diss (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Manganese Mn, Diss (ug/L)	180.00	212.00	220.00	205.00	Normal	180.00	220.00	204.25	298.9	17.29	292.03	249.73
Mercury Hg, Diss (ug/L)	<0.2	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2	NA	NA	0.2000	0.2000
Sulfate SO4, Diss (mg/L) ^b	91.00	90.00	82.00	91.00	Lognormal	82.00	91.00	88.50	19.0	4.36	113.47	101.85
Total Dissolved Solids (TDS, mg/L)	912.00	882.00	904.00	864.00	Normal	864.00	912.00	890.50	473.0	21.75	1,000.92	947.71
List 2 Unfiltered												
Cyanide CN, Total (mg/L)	<0.1	<0.1	<0.1	<0.1	NA	<0.1	<0.1	<0.1	NA	NA	0.1000	0.1000
Phenols (Total Recoverable) (ug/L)	Calculated in 2008 See table 14 Version 3											
Total Organic Carbon (TOC) (mg/L)	Calculated in 2008 See table 14 Version 3											
Total Organic Halogens (TOX) (ug/L)	Calculated in 2008 See table 14 Version 3											
List 3 Inorganic Parameters Unfiltered												
Antimony (ug/L)	<3.0	<3.0	<5.0	<5.0	NA	<3.0	<5.0	NA	NA	NA	5.00	5.00
Arsenic (ug/L)	Calculated in 2008 See table 14 Version 3											
Barium (ug/L)	Calculated in 2008 See table 14 Version 3											
Beryllium (ug/L)	<2.00	<2.00	<1.00	<1.00	NA	<1.00	<2.00	NA	NA	NA	2.00	2.00
Boron (ug/L)	57.00	68.60	70.50	81.60	Normal	57.00	81.60	69.43	101.5	10.07	120.57	95.93
Cadmium (ug/L)	<2.0	<2.0	<2.0	<2.0	NA	<2.0	<2.0	<2.0	NA	NA	2.00	2.00
Chloride (mg/L)	Calculated in 2008 See table 14 Version 3											
Chromium (ug/L)	<7.0	<7.0	<10.0	<10.0	NA	<7.0	<7.0	NA	NA	NA	10.00	10.00
Cobalt (ug/L)	<50.0	<50.0	<10.0	<10.0	NA	<10.0	<50.0	NA	NA	NA	50.00	50.00
Copper (ug/L)	<20.0	<20.0	<10.0	<10.0	NA	<10.0	<20.0	NA	NA	NA	20.00	20.00
Cyanide (mg/L)	<0.10	<0.10	<0.10	<0.10	NA	<0.10	<0.10	<0.10	NA	NA	0.10	0.10
Fluoride (mg/L)	0.31	0.38	0.35	0.41	Normal	0.31	0.41	0.36	0.0	0.04	0.58	0.47
Iron (ug/L)	Calculated in 2008 See table 14 Version 3											
Lead (ug/L)	<5.0	<5.0	<2.0	<2.0	NA	<2.0	<5.0	NA	NA	NA	5.00	5.00
Manganese (ug/L)	Calculated in 2008 See table 14 Version 3											
Mercury (ug/L)	<0.2	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2	NA	NA	0.20	0.20
Nickel (ug/L)	<40.0	<40.0	<10.0	<10.0	NA	<10.0	<40.0	NA	NA	NA	40.00	40.00
Nitrate as N (mg/L)	<1.0	<1.0	<0.01	<0.01	NA	<0.01	<1.0	NA	NA	NA	1.00	1.00
Selenium (ug/L)	<5.0	<5.0	<6.0	<6.0	NA	<5.0	<6.0	NA	NA	NA	6.00	6.00
Silver (ug/L)	<10.0	<10.0	<10.0	<10.0	NA	<10.0	<10.0	<10.0	NA	NA	10.00	10.00
Sulfate (mg/L)	Calculated in 2008 See table 14 Version 3											
Thallium (ug/L)	Calculated in 2008 See table 14 Version 3											
Total Dissolved Solids (mg/L)	Calculated in 2008 See table 14 Version 3											
Zinc (ug/L)	<20.0	<20.0	<10.0	<10.0	NA	<10.0	<20.0	NA	NA	NA	20.00	20.00
List 3 Organic Parameters Unfiltered												
Alachlor (ug/L)	<2.00	<2.00	<2.00	<2.00	NA	<2.00	<2.00	<2.00	NA	NA	2.00	2.00
Aldicarb (ug/L)	<2.00	<2.00	<2.00	<2.00	NA	<2.00	<2.00	<2.00	NA	NA	2.00	2.00
Atrazine (ug/L)	<0.05	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05	NA	NA	0.05	0.05

Appendix E - Table 1 (Modified 7/28/2010)

Statistical Calculations for Background Re-establishment for MW-6
Closed Collinsville Landfill

Monitoring Location MW6: Background Establishment Location

	5/19/2009	8/5/2009	10/13/2009	2/18/2010	Distribution ^a	Minimum	Maximum	Average	Variance	St. Dev.	99%CL	95%CL
Benzene (ug/L)	<0.60	<0.60	<0.60	<0.60	NA	<0.60	<0.60	<0.60	NA	NA	0.60	0.60
Benzo(a)pyrene (ug/L)	<0.20	<0.20	<0.20	<0.20	NA	<0.20	<0.20	<0.20	NA	NA	0.20	0.20
Carbofuran (ug/L)	<10.0	<10.0	<10.0	<10.0	NA	<10.0	<10.0	<10.0	NA	NA	10.0	10.0
Carbon Tetrachloride (ug/L)	<1.00	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA	NA	1.00	1.00
Chlordane (ug/L)	<0.14	<0.14	<0.14	<0.14	NA	<0.14	<0.14	<0.14	NA	NA	0.14	0.14
Dalapon (ug/L)	<1.30	<1.30	<1.30	<1.30	NA	<1.30	<1.30	<1.30	NA	NA	1.30	1.30
Dichloromethane (ug/L)	0.30	0.32	0.25	0.21	Normal	0.21	0.32	0.27	0.0	0.05	0.52	0.40
Di (2-ethylhexyl)phthalate (ug/L)	<6.00	<6.00	<6.00	<6.00	NA	<6.00	<6.00	<6.00	NA	NA	6.00	6.00
1,2-Dibromo-3-chloropropane (ug/L)	<0.20	<0.20	<0.20	<0.20	NA	<0.20	<0.20	<0.20	NA	NA	0.20	0.20
Dinoseb (DNBP) (ug/L)	<0.700	<0.700	<0.700	<0.700	NA	<0.700	<0.700	<0.700	NA	NA	0.700	0.700
Endothall (ug/L)	<10	<10	<10	<10	NA	<10	<10	<10	NA	NA	10.0	10.0
Endrin (ug/L)	<0.06	<0.06	<0.06	<0.06	NA	<0.06	<0.06	<0.06	NA	NA	0.06	0.06
Ethylene Dibromide (EDB) (ug/L)	<0.05	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05	NA	NA	0.05	0.05
Heptachlor (ug/L)	<0.04	<0.04	<0.04	<0.04	NA	<0.04	<0.04	<0.04	NA	NA	0.04	0.04
Heptachlor Epoxide (ug/L)	<0.20	<0.20	<0.20	<0.20	NA	<0.20	<0.20	<0.20	NA	NA	0.20	0.20
Hexachlorocyclopentadiene (ug/L)	<4.00	<4.00	<4.00	<4.00	NA	<4.00	<4.00	<4.00	NA	NA	4.00	4.00
Lindane (Gamma-Hexachlor cyclohexane)	<0.04	<0.04	<0.04	<0.04	NA	<0.04	<0.04	<0.04	NA	NA	0.04	0.04
2,4 - D (ug/L)	<12.0	<12.0	<12.0	<12.0	NA	<12.0	<12.0	<12.0	NA	NA	12.0	12.0
ortho-Dichlorobenzene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
para-Dichlorobenzene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
1,2-Dichloroethane (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
1,1-Dichloroethylene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
cis-1,2-Dichloroethylene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
trans-1,2-Dichloroethylene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
1,2-Dichloropropane (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Ethylbenzene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Methoxychlor (ug/L)	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	NA	NA	0.50	0.50
Monochlorobenzene (Chlorobenzene) (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Pentachlorophenol (ug/L)	<0.100	<0.100	<0.100	<0.100	NA	<0.100	<0.100	<0.100	NA	NA	0.100	0.100
Phenols (ug/L)	Calculated in 2008 See table 14 Version 3											
Picloram (ug/L)	Calculated in 2008 See table 14 Version 3											
Polychlorinated Biphenyls (PCBs) (ug/L)	<0.500	<0.500	<0.500	<0.500	NA	<0.500	<0.500	<0.500	NA	NA	0.50	0.50
Simazine (ug/L)	<4.00	<4.00	<4.00	<4.00	NA	<4.00	<4.00	<4.00	NA	NA	4.00	4.00
Styrene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
2,4,5-TP (Silvex) (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Tetrachloroethylene (ug/L)	<0.70	<0.70	<0.70	<0.70	NA	<0.70	<0.70	<0.70	NA	NA	0.70	0.70
Toluene (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
Toxaphene (ug/L)	<2.40	<2.40	<2.40	<2.40	NA	<2.40	<2.40	<2.40	NA	NA	2.00	2.00
1,2,4-Trichlorobenzene (ug/L)	<10.0	<10.0	<10.0	<10.0	NA	<10.0	<10.0	<10.0	NA	NA	10.0	10.0
1,1,1-Trichloroethane (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00
1,1,2-Trichloroethane (ug/L)	<0.50	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	NA	NA	0.50	0.50
Trichloroethylene (ug/L)	<1.00	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA	NA	1.00	1.00
Vinyl Chloride (ug/L)	<1.00	<1.00	<1.00	<1.00	NA	<1.00	<1.00	<1.00	NA	NA	1.00	1.00
Xylenes (ug/L)	<5.00	<5.00	<5.00	<5.00	NA	<5.00	<5.00	<5.00	NA	NA	5.00	5.00

Notes:

a - Shapiro-Wilk test for normality was used

b - Natural log of data was normally distributed, all calculations made on log-normal data.

* - Formulas for calculations were used from "Statistical Analysis of Ground-Water at RCRA Facilities" - April 1989.

Appendix E - Table 2 Modified 7/29/2010

Comparison of MW-6 Analytical Results
to Class I Groundwater Standards, 99% Confidence Limits and 2XPQLs
Closed Collinsville Landfill

Monitoring Location MW6: Comparison to Class I Standards, 99% Confidence Limits and 2XPQLs

	5/19/2009	8/5/2009	10/13/2009	2/18/2010	Class I	99%CL 2008 ^c	99%CL 2008 ^c	99%CL 2010 ^a	99%CL 2010 ^a	2XPQL
List 1										
Temperature of Water (unfiltered F)	62.42	62.62	57.56	55.81	NA	77.77	70.05			NA
Spec Cond. (Unfiltered)	1.762	1.205	1.831	1.300	NA	2.59	2.08			NA
pH (Unfiltered units)	6.89	6.30	6.69	6.86	6.5-9.0	7.47	7.21	-	-	NA
Elev of GW Surf (ft ref MSL)	533.32	533.72	532.14	534.76	NA	538.57	536.08	-	-	NA
Depth of Water (ft below LS)	28.49	28.08	29.67	27.05	NA	33.81	32.39	-	-	NA
BTM Well Elev (ft ref MSL)	521.77	521.77	521.77	521.77	NA	520.75	520.75	-	-	NA
Depth to Water Fr Mea Pt (ft)	30.38	29.97	31.56	28.94	NA	35.70	34.28	-	-	NA
List 2 Filtered										
Ammonia as N Diss (mg/L)	<0.10	<0.10	<0.10	<0.10	NA	-	-	0.10	0.10	NA
Arsenic AS, Diss (ug/L)	<5.00	<5.00	<5.00	<5.00	50.0	-	-	5.00	5.00	10
Cadmium Cd, Diss (ug/L)	<2.00	<2.00	<2.00	<2.00	5.0	-	-	2.00	2.00	4
Chloride Diss (mg/L)	64.00	61.00	58.00	66.00	200.0	-	-	80.02	71.46	2
Iron Fe, Diss (ug/L)	<40.00	<40.00	<40.00	<40.00	5,000.0	-	-	40.00	40.00	80
Lead Pb, Diss (ug/L)	<5.00	<5.00	<5.00	<5.00	8.0	-	-	5.00	5.00	10
Manganese Mn, Diss (ug/L)	180.00	212.00	220.00	205.00	150.0	-	-	292.03	249.73	30
Mercury Hg, Diss (ug/L)	<0.2	<0.2	<0.2	<0.2	2.0	-	-	0.2000	0.2000	0.4
Sulfate SO ₄ , Diss (mg/L) ^b	91.00	90.00	82.00	91.00	400.0	-	-	113.47	101.85	2
Total Dissolved Solids (TDS, mg/L)	912.00	882.00	904.00	864.00	1,200.0	-	-	1000.92	947.71	20
List 2 Unfiltered										
Cyanide CN, Total (mg/L)	<0.1	<0.1	<0.1	<0.1	0.20			0.1000	0.1000	0.2
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	19.00	1.0	15.0c	NA	-	-	30
Total Organic Carbon (TOC) (mg/L)	<3.80	<3.80	<4.20	<4.20	NA	8.20	6.09	-	-	NA
Total Organic Halogens (TOX) (ug/L)	68.40	200.00	59.60	49.00	NA	140.73	100.95	-	-	NA
List 3 Inorganic Parameters Unfiltered										
Antimony (ug/L)	<3.0	<3.0	<5.0	<5.0	6.0	-	-	5.00	5.00	6
Arsenic (ug/L)	<3.0	<3.0	<3.0	<3.0	50.0	5.00	NA	-	-	10
Barium (ug/L)	113.00	107.00	104.00	101.00	2,000.0	280.64	217.04	-	-	40
Beryllium (ug/L)	<2.00	<2.00	<1.00	<1.00	4.0	-	-	1.00	1.00	4
Boron (ug/L)	57.00	68.60	70.50	81.60	2,000.0	-	-	120.57	95.93	80
Cadmium (ug/L)	<2.0	<2.0	<2.0	<2.0	5.0	-	-	2.00	2.00	4
Chloride (mg/L)	64.00	60.00	58.00	50.00	200.0	75.58	70.07	-	-	2
Chromium (ug/L)	<7.0	<7.0	<10.0	<10.0	100.0	-	-	10.00	10.00	14
Cobalt (ug/L)	<50.0	<50.0	<10.0	<10.0	1,000.0	-	-	50.00	50.00	100
Copper (ug/L)	<20.0	<20.0	<10.0	<10.0	650.0	-	-	20.00	20.00	10
Cyanide (mg/L)	<0.10	<0.10	<0.10	<0.10	0.20	-	-	0.10	0.10	0.2
Fluoride (mg/L)	0.31	0.38	0.35	0.41	4.0	-	-	0.58	0.47	0.2
Iron (ug/L)	<40.0	474.00	56.70	42.10	5,000.0	69000	5600	-	-	80
Lead (ug/L)	<5.0	<5.0	<2.0	<2.0	7.5	-	-	5.00	5.00	10
Manganese (ug/L)	218.00	225.00	222.00	201.00	150	506.84	374.85	-	-	30
Mercury (ug/L)	<0.2	<0.2	<0.2	<0.2	2.0	-	-	0.20	0.20	0.4
Nickel (ug/L)	<40.0	<40.0	<10.0	<10.0	100.0	-	-	40.00	40.00	80
Nitrate as N (mg/L)	<1.0	<1.0	<0.01	<0.01	10.0	-	-	1.00	1.00	2
Selenium (ug/L)	<5.0	<5.0	<6.0	<6.0	50.0	-	-	6.00	6.00	10
Silver (ug/L)	<10.0	<10.0	<10.0	<10.0	50.0	-	-	10.00	10.00	20
Sulfate (mg/L)	92.00	89.00	82.00	91.00	400.0	154.05	133.16	-	-	2
Thallium (ug/L)	<1.00	<1.00	<2.00	<2.00	2.0	1.20	NA	-	-	2
Total Dissolved Solids (mg/L)	934.00	894.00	924.00	856.00	1,200.0	1025.84	982.12	-	-	20
Zinc (ug/L)	<20.0	<20.0	<10.0	<10.0	5,000.0	-	-	20.00	20.00	40
List 3 Organic Parameters Unfiltered										
Alachlor (ug/L)	<2.00	<2.00	<2.00	<2.00	2.0	-	-	2.00	2.00	4

Appendix E - Table 2 Modified 7/29/2010

Comparison of MW-6 Analytical Results
to Class I Groundwater Standards, 99% Confidence Limits and 2XPQLs
Closed Collinsville Landfill

Monitoring Location MW6: Comparison to Class I Standards, 99% Confidence Limits and 2XPQLs

	5/19/2009	8/5/2009	10/13/2009	2/18/2010	Class I	99%CL 2008 ^c	99%CL 2008 ^c	99%CL 2010 ^a	99%CL 2010 ^a	2XPQL
Aldicarb (ug/L)	<2.00	<2.00	<2.00	<2.00	3.0	-	-	2.00	2.00	4
Atrazine (ug/L)	<0.05	<0.05	<0.05	<0.05	3.0	-	-	0.050	0.050	0.16
Benzene (ug/L)	<0.60	<0.60	<0.60	<0.60	5.0	-	-	0.60	0.60	1.2
Benzo(a)pyrene (ug/L)	<0.20	<0.20	<0.20	<0.20	0.20	-	-	0.20	0.20	0.4
Carbofuran (ug/L)	<10.0	<10.0	<10.0	<10.0	40.0	-	-	10.00	10.00	20
Carbon Tetrachloride (ug/L)	<1.00	<1.00	<1.00	<1.00	5.0	-	-	1.00	1.00	2
Chlordane (ug/L)	<0.14	<0.14	<0.14	<0.14	2.0	-	-	0.14	0.14	0.28
Dalapon (ug/L)	<1.30	<1.30	<1.30	<1.30	200.0	-	-	1.30	1.30	2.6
Dichloromethane (ug/L)	0.30	0.32	0.25	0.21	5.0	-	-	0.52	25.39	0.5
Di (2-ethylhexyl)phthalate (ug/L)	<6.00	<6.00	<6.00	<6.00	6.0	-	-	6.00	6.00	12
1,2-Dibromo-3-chloropropane (ug/L)	<0.20	<0.20	<0.20	<0.20	0.20	-	-	0.20	0.20	0.4
Dinoseb (DNBP) (ug/L)	<0.700	<0.700	<0.700	<0.700	7.0	-	-	0.700	0.700	1.4
Endothall (ug/L)	<10	<10	<10	<10	100.0	-	-	10.00	10.00	20
Endrin (ug/L)	<0.06	<0.06	<0.06	<0.06	2.0	-	-	0.06	0.06	0.12
Ethylene Dibromide (EDB) (ug/L)	<0.05	<0.05	<0.05	<0.05	0.05	-	-	0.050	0.050	0.1
Heptachlor (ug/L)	<0.04	<0.04	<0.04	<0.04	0.04	-	-	0.040	0.040	0.08
Heptachlor Epoxide (ug/L)	<0.20	<0.20	<0.20	<0.20	0.20	-	-	0.20	0.20	0.4
Hexachlorocyclopentadiene (ug/L)	<4.00	<4.00	<4.00	<4.00	50.0	-	-	4.00	4.00	8
Lindane (Gamma-Hexachlor cyclohexane)	<0.04	<0.04	<0.04	<0.04	0.20	-	-	0.040	0.040	0.08
2,4 - D (ug/L)	<12.0	<12.0	<12.0	<12.0	70.0	-	-	12.00	12.00	24
ortho-Dichlorobenzene (ug/L)	<5.00	<5.00	<5.00	<5.00	600.0	-	-	5.00	5.00	10
para-Dichlorobenzene (ug/L)	<5.00	<5.00	<5.00	<5.00	75.0	-	-	5.00	5.00	10
1,2-Dichloroethane (ug/L)	<5.00	<5.00	<5.00	<5.00	5.0	-	-	5.00	5.00	10
1,1-Dichloroethylene (ug/L)	<5.00	<5.00	<5.00	<5.00	7.0	-	-	5.00	5.00	10
cis-1,2-Dichloroethylene (ug/L)	<5.00	<5.00	<5.00	<5.00	70.0	-	-	5.00	5.00	10
trans-1,2-Dichloroethylene (ug/L)	<5.00	<5.00	<5.00	<5.00	100.0	-	-	5.00	5.00	10
1,2-Dichloropropane (ug/L)	<5.00	<5.00	<5.00	<5.00	5.0	-	-	5.00	5.00	10
Ethylbenzene (ug/L)	<5.00	<5.00	<5.00	<5.00	70.0	-	-	5.00	5.00	10
Methoxychlor (ug/L)	<0.50	<0.50	<0.50	<0.50	40.0	-	-	0.50	0.50	1
Monochlorobenzene (Chlorobenzene) (ug/L)	<5.00	<5.00	<5.00	<5.00	100.0	-	-	5.00	5.00	10
Pentachlorophenol (ug/L)	<0.100	<0.100	<0.100	<0.100	1.0	-	-	0.100	0.100	NA
Phenols (ug/L)	<15.0	<15.0	<15.0	19.00	100.0	15.00	NA	-	-	30
Picloram (ug/L)	<0.20	<0.20	<0.20	<0.20	500.0	NA	NA	-	-	0.4
Polychlorinated Biphenyls (PCBs) (ug/L)	<0.500	<0.500	<0.500	<0.500	0.5	-	-	0.500	0.500	1
Simazine (ug/L)	<4.00	<4.00	<4.00	<4.00	4.0	-	-	4.00	4.00	8
Styrene (ug/L)	<5.00	<5.00	<5.00	<5.00	100.0	-	-	5.00	5.00	10
2,4,5-TP (Silvex) (ug/L)	<5.00	<5.00	<5.00	<5.00	50	-	-	5.00	5.00	10
Tetrachloroethylene (ug/L)	<0.70	<0.70	<0.70	<0.70	5.0	-	-	0.70	0.70	1.4
Toluene (ug/L)	<5.00	<5.00	<5.00	<5.00	1,000.0	-	-	5.00	5.00	10
Toxaphene (ug/L)	<2.40	<2.40	<2.40	<2.40	3.0	-	-	2.40	2.40	4.8
1,2,4-Trichlorobenzene (ug/L)	<10.0	<10.0	<10.0	<10.0	70.0	-	-	10.00	10.00	20
1,1,1-Trichloroethane (ug/L)	<5.00	<5.00	<5.00	<5.00	200.0	-	-	5.00	5.00	10
1,1,2-Trichloroethane (ug/L)	<0.50	<0.50	<0.50	<0.50	5.0	-	-	0.50	0.50	1
Trichloroethylene (ug/L)	<1.00	<1.00	<1.00	<1.00	5.0	-	-	1.00	1.00	2
Vinyl Chloride (ug/L)	<1.00	<1.00	<1.00	<1.00	2.0	-	-	1.00	1.00	2
Xylenes (ug/L)	<5.00	<5.00	<5.00	<5.00	10,000.0	-	-	5.00	5.00	10

Notes:

a - See 2008 99% and 95% CL

b - lognormal calculations

c - See 2010 99% and 95% CL

**Table 14 (Version 3)
Background
Collinsville Landfill**

Background Well MW-6*													
Compound	Nov-07	Feb-07	Apr-07	Aug-07	Oct-07	Distribution ^a	Minimum	Maximum	Average	Variance	Std Dev	99% UCL	95% UCL
List 1													
Temperature of Water (unfiltered F)	60.72	55.8	57.68	67	58.06	Normal	55.8	67	59.85	19.05	4.36	77.77	70.05
Spec Cond. (Unfiltered)	1.42	1.14	1.893	1.294	1.348	Normal	1.14	1.893	1.42	0.08	0.28	2.59	2.08
pH (Unfiltered units)**	6.83	6.97	7.05	6.73	6.71	Normal ^e	6.71	7.05	6.86	0.02	0.15	7.47	7.21
Elev of GW Surf (ft ref MSL)	532.48	533.2	534.45	533.22	530.62	Normal	530.62	534.45	532.79	1.98	1.41	538.57	536.08
Depth of Water (ft below LS)	31.22	30.5	29.25	30.48	31.19	Normal	29.25	31.22	30.53	0.64	0.80	33.81	32.39
BTM Well Elev (ft ref MSL)	520.75	520.75	520.75	520.75	520.75	NA	520.75	520.75	520.75	0.00	0.00	520.75	520.75
Depth to Water Fr Mea Pt (ft)	33.11	32.39	31.14	32.37	33.08	Normal	31.14	33.11	32.42	0.64	0.80	35.70	34.28
Analytes													
List 2 Unfiltered													
Phenols (Total Recoverable) (ug/L)	<15.0	<15.0	<15.0	<15.0	<15.0	NA	<15.0	<15.0	<15.0	NA	NA	15.0 ^c	NA
Total Organic Carbon (TOC) (mg/L)	3.4	3.6	4.5	3.7	1.3	Normal	1.3	4.5	3.30	1.43	1.19	8.20	6.09
Total Organic Halogens (TOX) (ug/L)	65.7	63.4	<20.0	52.9	50.2	Normal	<20.0	65.7	48.44	505.58	22.49	140.73	100.95
List 3 Inorganic Parameters Unfiltered													
Arsenic (ug/L)	<5.0	<3.0	<5.0	<3.0	<3.0	Nonparametric ^c	<3.0	<5.0	1.9 ^d	NA	NA	5.00 ^c	NA
Barium (ug/L)	123	159	95.4	107	181	Normal	95.4	181	133.08	1292.43	35.95	280.64	217.04
Chloride (mg/L)	65	58	63	62	66	Normal	58	66	62.80	9.70	3.11	75.58	70.07
Iron (ug/L)	140	1920	70.6	57	309	Lognormal ^b	57	1920	201.75	7.56	4.15	69000	5600
Manganese (ug/L)	327	174	151	145	206	Normal	145	327	200.60	5566.30	74.61	506.84	374.85
Sulfate (mg/L)	113	96	122	94	103	Normal	94	122	105.60	139.30	11.80	154.05	133.16
Thallium (ug/L)	<1.0	<1.0	<1.0	1.2	<1.0	Nonparametric ^c	<1.0	1.2	0.64 ^d	NA	NA	1.2 ^c	NA
Total Dissolved Solids (mg/L)	946	906	892	930	948	Normal	892	948	924.40	610.80	24.71	1025.84	982.12
List 3 Organic Parameters Unfiltered													
Sulfide (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	NA	<0.05	<0.05	<0.05	NA	NA	NA	NA
Picloram (ug/L)	0.942	<0.20	<0.20	<0.20	<0.20	Nonparametric ^c	<0.20	0.942	0.2684 ^d	NA	NA	NA	NA

a - Shapiro-Wilk test for normality was used

b - Natural log of data was normally distributed, all calculations made on log-normal data.

c - Nonparametric distribution, minimum of seven samples required to compute statistics. Maximum concentration used for UCL.

d - 1/2 the less than value was used for calculation purposes.

e - pH values were used, no conversion to pH units was done.

* - Formulas for calculations were used from "Statistical Analysis of Ground-Water at RCRA Facilities" - April 1989.

** - The LCL for pH is 6.25