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TABLE 3A
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Chlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Lab Qualifier	Chlorobenzene Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	5.00E-04	U	Dry
AA-CLAY-2-S	2292029	702612	4.80E+00		Dry
AA-O-5-S	2291988	701441	2.50E-04	U	5.29E-03
AA-P-10-S	2292965	707034	2.50E-04	U	4.60E-03
AA-P-4-S	2293667	705938	1.40E-03		8.34E-02
AA-P-6-S	2291978	706643	2.50E-04	U	4.89E-03
AA-P-7-S	2293537	708624	2.50E-04	U	2.45E-04
AA-P-9-S	2293245	704449	2.50E-04	U	Dry
AA-Q-10-S	2288018	697146	8.10E-04	J	Dry
AA-Q-9-S	2289912	701235	9.00E-03		Dry
AA-SLAY-1-S	2292817	704829	2.50E-04	U	Dry
AA-SLAY-2-S	2292056	705202	6.20E-04	J	7.01E-02
B-22A	2291090	704158	1.70E+00		1.40E+01
B-24A	2290763	703551	1.00E+00		1.93E+00
B-25A	2291275	703338	3.50E+00		Dry
B-25B	2291275	703338	1.20E+01		1.52E+01
B-28A	2290369	702643	3.40E-01		1.06E+00
B-29B	2290793	702429	1.20E+00		1.15E+00
CA-3	2297021	702413	1.90E-01		3.94E-01
CP-MW-10-S	2290148	698021	2.50E-04	U	9.06E-25
CP-MW-12-S	2289192	697495	2.50E-04	U	8.91E-30
CP-MW-13-S	2291059	697087	1.25E-02	U	6.02E-28
CP-MW-14-S	2289978	696840	1.25E-02	U	4.09E-32
CP-MW-15-S	2290628	696655	5.00E-03	U	1.95E-31
CP-MW-16-S	2289579	696182	6.50E-04	J	6.10E-37
CP-MW-6-S	2292546	698639	2.50E-04	U	2.58E-14
CP-MW-7-S	2291605	698213	2.50E-04	U	1.22E-18
CP-MW-8-S	2290855	698392	1.25E-02	U	3.54E-20
EE-03	2295550	699820	1.60E-02		2.72E-02
EEG-107	2294746	699964	2.60E+00		1.44E+00
GM-1	2298057	703323	2.50E-04	U	1.21E-10
GM-11	2297207	704134	2.50E-04	U	2.52E-06
GM-15	2296750	703149	1.60E-01		6.77E-03
GM-18A	2293001	701458	4.45E-04	J	8.08E-01
GM-19A	2292087	702314	1.60E-02		9.73E-01
GM-2	2294146	701475	5.10E+00		2.46E+00
GM-31A	2292910	701062	2.70E-03		2.27E-02
GM-46	2296000	702927	7.90E+00	D	6.64E+00
GM-4A	2294467	703403	2.50E-04	U	3.65E+01
GM-59A	2292805	701056	2.50E-04	U	1.22E-01
GM-5A	2293555	702897	2.50E-04	U	4.86E+00
GM-60A	2292356	703578	1.00E-03		1.93E+00
GM-6A	2294131	702060	7.90E+00	D	4.86E+00
GM-7A	2293241	701902	2.50E-04	U	5.31E+00

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TABLE 3A CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Chlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Lab Qualifier	Chlorobenzene Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
GM-8	2293110	701047	9.50E-04	J	3.63E-02
GM-9A	2295539	702112	2.50E-04	U	4.91E-01
OSAA-1-S	2294330	708622	2.50E-04	U	8.42E-04
PIEZ-7S	2286292	698362	2.50E-04	U	5.21E-33
SA2-MW-10-S	2288446	698693	4.30E-04	J	7.43E-25
SA2-MW-1-S	2293339	705296	2.50E-04	U	1.48E+00
SA2-MW-2-S	2292977	704530	2.50E-04	U	5.00E+00
SA2-MW-3-S	2292107	705001	2.50E-04	U	1.06E+00
SA2-MW-4-S	2291891	702685	1.10E+01	D	4.35E+00
SA2-MW-5-S	2291017	700273	2.50E-04	U	4.60E-08
SA2-MW-9-S	2289080	699061	2.50E-04	U	1.12E-21
SA-O-2-S	2292314	702283	4.40E-03		1.37E+00
SA-O-3-S	2292127	702338	2.20E-02		1.27E+00
SA-O-4-S	2292007	701964	4.30E-03		2.38E-01
SA-P-1-S	2293873	705618	2.50E-04	U	8.36E-01
SA-P-2-S	2293446	705140	8.70E-03		1.88E+00
SA-P-3-S	2293614	704569	2.50E-04	U	5.97E+00
SA-Q-10-S	2288657	698220	2.50E-04	U	4.36E-27
SA-Q-11-S	2288151	698311	2.50E-04	U	9.07E-28
SA-Q-12-S	2288086	697995	7.40E-03		9.75E-30
SA-Q-13-S	2288093	697234	2.50E-04	U	2.51E-34
SA-Q-14-S	2287593	697661	6.50E-02		1.11E-32
SA-Q-15-S	2287393	697315	2.50E-04	U	5.22E-36
SA-Q-16-S	2287118	697613	2.50E-04	U	8.67E-35
SA-Q-1-S	2290516	702121	1.20E+00		2.77E-02
SA-Q-5-S	2289554	700011	1.80E-03		3.87E-14
SA-Q-6-S	2289033	700433	2.80E-01	D	4.89E-14
SA-Q-7-S	2289470	699639	2.20E-03		3.55E-17
SA-Q-9-S	2288920	698693	2.50E-04	U	9.41E-24
SA-S-1-S	2291471	701874	1.60E-03	J	2.72E-02
SA-S-2-S	2291379	701731	2.50E-04	U	Dry
TCMW-2	2294810	699336	1.25E-03	U	2.00E-05
TCMW-3S	2294848	699582	1.25E-03	U	7.35E-03
TCMW-4	2294317	699507	1.25E-03	U	4.54E-05
TCMW-5S	2294327	699614	1.25E-03	U	1.24E-03
TCMW-6S	2293917	699642	1.25E-03	U	1.31E-04
UAA-10-S	2288938	698551	2.50E-04	U	Dry
UAA-11-S	2294603	705910	2.50E-04	U	9.63E-02
UAA-5-S	2294645	707932	2.50E-04	U	6.35E-03
UAA-6-S	2294980	705212	2.50E-04	U	1.02E-01
UAA-7-S	2291605	700343	2.50E-04	U	9.76E-07
UAA-8-S	2290412	700693	2.50E-04	U	Dry
UAA-9-S	2289920	699830	2.50E-04	U	Dry
				SHU (Layer 1 in Model) RMS Error (mg/L)	**4.71**
				SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**0.88**

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TABLE 3A CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Chlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Lab Qualifier	Chlorobenzene Simulated Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	3.80E-02		2.81E+00
AA-CLAY-2-M	2292029	702612	5.20E+00		4.94E+00
AA-O-4-M	2292838	702980	8.60E+00		3.96E+00
AA-O-5-M	2291988	701441	8.90E-03		3.07E-02
AA-P-10-M	2292965	707034	3.00E-03		5.60E-02
AA-P-4-M	2293667	705938	6.70E-04	J	6.19E-01
AA-P-5-M	2292965	706178	6.80E-03		3.14E-01
AA-P-6-M	2291978	706643	2.50E-04	U	3.56E-02
AA-P-7-M	2293537	708624	2.50E-04	U	3.75E-03
AA-P-8-M	2292516	708964	2.50E-04	U	3.36E-04
AA-P-9-M	2293245	704449	9.00E-02		6.52E+00
AA-Q-10-M	2288018	697146	1.50E-03		5.46E-35
AA-Q-9-M	2289912	701235	2.50E-04	U	7.07E-07
AA-SLAY-1-M	2292817	704829	1.10E-02		2.86E+00
AA-SLAY-2-M	2292056	705202	1.80E-01		7.01E-01
AA-SLAY-3-M	2291368	705455	2.50E-04	U	1.88E-01
AA-SLAY-4-M	2291741	704624	1.60E-03		7.87E-01
B-24C	2290774	703571	3.00E+00		1.16E+01
B-28B	2290377	702660	1.20E+00		3.43E+00
CP-MW-18	2287909	696142	2.50E-04	U	0.00E+00
CP-MW-20	2288265	696769	2.50E-04	U	1.33E-36
CP-MW-22	2288923	697923	2.50E-04	U	4.19E-28
CP-MW-24	2289419	698714	2.50E-04	U	1.27E-22
EE-01	2295289	700157	2.40E+00		2.28E+00
GM-10B	2296074	703673	5.40E+00		2.03E+00
GM-27B	2290909	704333	1.60E+00		8.09E+00
GM-3	2293971	704005	6.40E-04	J	1.82E+01
GM-31B	2292928	701064	1.60E-01		1.56E-01
GM-60B	2292362	703589	5.80E-01	D	1.93E+00
GM-9B	2295523	702120	2.20E-01		3.46E+00
IMW-1S	2296767	700427	1.25E-03	U	1.09E-06
MW-3B	2293764	703626	3.90E+01	D	1.39E+01
MW-5B	2293551	702877	1.50E+01		4.86E+00
OSAA-1-M	2294330	708622	2.50E-04	U	1.38E-02
PIEZ-7M	2286292	698362	2.50E-04	U	2.11E-32
PSMW-14M	2291997	706548	2.50E-04	U	5.48E-02
PSMW-15M	2291438	705483	2.50E-04	U	2.15E-01
PSMW-16M	2291113	704394	2.10E-02		3.65E+00
SA2-MW-10-M	2288442	698696	6.80E-03		7.43E-25
SA2-MW-1-M	2293340	705302	2.50E-04	U	1.48E+00
SA2-MW-2-M	2292979	704535	2.30E-02		5.00E+00
SA2-MW-3-M	2292109	704996	2.50E-04	U	1.06E+00
SA2-MW-4-M	2291893	702689	2.90E-01	D	4.35E+00
SA2-MW-5-M	2291015	700277	2.50E-04	U	4.60E-08
SA2-MW-6-M	2289601	700763	1.90E-03		9.76E-10
SA2-MW-7-M	2289033	700426	6.60E-04	J	3.53E-13
SA2-MW-9-M	2289080	699057	2.50E-04	U	1.12E-21

TABLE 3A CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Chlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Lab Qualifier	Chlorobenzene Simulated Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
SA-Q-2	2289951	702294	7.00E-03		3.09E-02
SA-Q-3	2290079	701615	1.50E-01		4.96E-05
SA-Q-4	2289686	700977	3.60E-02		2.18E-08
SA-Q-8	2288111	699785	5.80E-01	D	2.51E-20
TCMW-1M	2295680	699277	1.25E-03	U	2.39E-06
TCMW-3M	2294848	699588	1.10E-03	J	7.35E-03
TCMW-5M	2294328	699620	4.70E-03	J	1.24E-03
TCMW-6M	2293920	699648	1.25E-03	U	1.94E-04
UAA-10-M	2288938	698551	2.50E-04	U	1.31E-24
UAA-11-M	2294603	705910	4.90E-03		4.08E-01
UAA-5-M	2294645	707932	2.50E-04	U	7.80E-02
UAA-6-M	2294980	705212	4.80E-03		1.91E-01
UAA-7-M	2291605	700343	2.50E-04	U	4.34E-06
UAA-8-M	2290412	700693	2.50E-04	U	1.86E-07
UAA-9-M	2289920	699830	2.50E-04	U	6.10E-14
				MHU (Layer 2 in Model) RMS Error (mg/L)	**4.66**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**0.43**

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TABLE 3A CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Chlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Lab Qualifier	Chlorobenzene Simulated Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-CLAY-1-D	2292215	703094	1.10E+01		1.04E+01
AA-CLAY-2-D	2292026	702612	4.80E+00		3.48E+00
AA-O-4-D	2292838	702980	2.20E+01		1.68E+01
AA-O-5-D	2291980	701438	2.70E-01		2.09E-02
AA-P-10-D	2292965	707034	2.80E-01	D	3.10E-02
AA-P-4-D	2293668	705937	6.30E-01		3.22E-01
AA-P-5-D	2292966	706179	5.60E-01		1.71E-01
AA-P-6-D	2291980	706642	2.90E-01		2.61E-02
AA-P-7-D	2293538	708624	2.50E-04	U	1.76E-03
AA-P-8-D	2292518	708965	2.50E-04	U	2.27E-04
AA-P-9-D	2293249	704450	7.00E-01		3.24E+00
AA-Q-10-D	2288018	697143	2.50E-04	U	2.49E-35
AA-Q-9-D	2289912	701236	2.50E-04	U	4.29E-07
AA-SLAY-1-D	2292819	704829	4.10E+00	D	1.38E+00
AA-SLAY-2-D	2292057	705200	1.10E+00		3.46E-01
AA-SLAY-3-D	2291367	705455	2.30E-01	D	1.11E-01
AA-SLAY-4-D	2291741	704625	1.90E+00	D	4.09E-01
GM-12B	2297294	702590	2.50E-02	U	2.22E-03
GM-17B	2294310	702673	4.40E+00	D	3.07E+00
GM-18B	2292996	701435	7.10E-01	D	6.08E-01
GM-19C	2292105	702309	1.80E+00	D	6.53E-01
GM-20B	2292713	702844	5.50E+00		7.11E+00
GM-27C	2290906	704326	1.30E+00		1.36E+00
GM-31C	2292918	701061	9.70E-01		1.14E-01
GM-4B	2294470	703411	2.20E+01		1.65E+01
GM-6B	2294135	702076	2.20E+01		1.54E+01
GM-9C	2295527	702123	4.30E-02		1.05E+00
MW-3C	2293771	703625	4.80E-01		6.85E+00
MW-5C	2293553	702888	1.20E+00	D	3.10E+00
MW-7C	2293370	702337	7.90E+00		6.99E+00
OSAA-1	2294330	708622	1.70E-01		6.58E-03
PSMW-11	2292701	704884	1.40E+00		1.07E+00
PSMW-12	2292347	703599	1.40E+00		2.29E+00
PSMW-13	2291281	701517	1.10E-02		2.18E-03
PSMW-16D	2291113	704394	2.30E+00	D	7.52E-01
PSMW-17	2290245	702674	9.20E-01		1.20E+00
PSMW-2	2296639	703249	5.20E-01		5.85E-02
PSMW-4	2295098	703141	3.20E+01		3.42E+01
PSMW-6	2294214	705885	3.10E-01	D	3.00E-01
PSMW-7	2293955	704010	3.20E-01		8.93E+00
PSMW-9	2292455	700774	2.40E-03		6.91E-03
SA2-MW-2-D	2292981	704538	5.70E-01	D	2.47E+00
SA2-MW-4-D	2291896	702693	3.10E+00		3.48E+00
UAA-10-D	2288936	698551	2.50E-04	U	6.46E-25
UAA-11-D	2294602	705909	1.70E-01	D	2.09E-01
UAA-5-D	2294645	707931	9.00E-01		3.73E-02
UAA-6-D	2294979	705212	5.20E-02		1.01E-01

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TABLE 3A CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Chlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Lab Qualifier	Chlorobenzene Simulated Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
UAA-7-D	2291605	700341	2.50E-04	U	2.64E-06
UAA-8-D	2290410	700690	2.50E-04	U	1.10E-07
UAA-9-D	2289916	699830	2.50E-04	U	1.96E-14
				DHU (Layer 3 in Model) RMS Error (mg/L)	**2.28**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**-0.11**

Overall RMS error (mg/L)	**4.19**
Overall Mean Residual error (mg/L)	**0.49**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residual and RMS errors.

Dry = Well lies in model dry cell
Mg/L = Milligram per liter
RMS = Root mean square error

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TABLE 3B
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
1,4-Dichlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	1,4-Dichlorobenzene Observed Concentration (mg/L)	Lab Qualifier	1,4-Dichlorobenzene Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	4.65E-03	U	Dry
AA-CLAY-2-S	2292029	702612	1.60E+00		Dry
AA-O-5-S	2291988	701441	2.38E-03	U	9.81E-04
AA-P-10-S	2292965	707034	2.35E-03	U	3.87E-04
AA-P-4-S	2293667	705938	2.33E-03	U	8.56E-03
AA-P-6-S	2291978	706643	2.50E-03	U	4.56E-04
AA-P-7-S	2293537	708624	2.48E-03	U	1.59E-05
AA-P-9-S	2293245	704449	2.33E-03	U	Dry
AA-Q-10-S	2288018	697146	2.45E-03	U	Dry
AA-Q-9-S	2289912	701235	2.40E-03	U	Dry
AA-SLAY-1-S	2292817	704829	2.33E-03	U	Dry
AA-SLAY-2-S	2292056	705202	2.33E-03	U	6.90E-03
B-22A	2291090	704158	3.00E-01	D	5.86E-02
B-24A	2290763	703551	6.00E-01	U	-
B-25A	2291275	703338	1.20E+00	U	-
B-25B	2291275	703338	1.20E+00	U	Dry
B-28A	2290369	702643	2.35E-03	U	1.21E-01
B-29B	2290793	702429	1.18E-02	U	1.85E-01
CA-3	2297021	702413	2.35E-03	U	1.63E-04
CP-MW-10-S	2290148	698021	2.45E-03	U	1.06E-26
CP-MW-12-S	2289192	697495	2.38E-03	U	9.58E-32
CP-MW-13-S	2291059	697087	2.35E-03	U	6.31E-30
CP-MW-14-S	2289978	696840	2.35E-03	U	4.10E-34
CP-MW-15-S	2290628	696655	2.35E-03	U	1.98E-33
CP-MW-16-S	2289579	696182	2.48E-03	U	5.30E-39
CP-MW-6-S	2292546	698639	2.35E-03	U	4.98E-16
CP-MW-7-S	2291605	698213	2.35E-03	U	1.15E-20
CP-MW-8-S	2290855	698392	2.38E-03	U	2.52E-22
EE-03	2295550	699820	2.10E-02		7.68E-02
EEG-107	2294746	699964	1.10E+00		5.12E-02
GM-1	2298057	703323	2.35E-03	U	7.80E-12
GM-11	2297207	704134	2.35E-03	U	3.56E-07
GM-15	2296750	703149	1.40E-02		5.57E-04
GM-18A	2293001	701458	2.45E-03	U	1.83E-01
GM-19A	2292087	702314	1.40E-03	J	1.18E-01
GM-2	2294146	701475	1.10E+00	D	3.12E-01
GM-31A	2292910	701062	2.45E-03	U	5.45E-03
GM-33	2294376	702197	2.38E-03	U	2.94E+00
GM-46	2296000	702927	1.70E+00		1.38E+00
GM-4A	2294467	703403	2.35E-03	U	5.62E+00
GM-59A	2292805	701056	2.35E-03	U	2.60E-02
GM-5A	2293555	702897	2.35E-03	U	4.03E-01
GM-60A	2292356	703578	1.40E-03	J	1.44E-01
GM-6A	2294131	702060	8.40E-03	J	2.63E-01

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TABLE 3B CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
1,4-Dichlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	1,4-Dichlorobenzene Observed Concentration (mg/L)	Lab Qualifier	1,4-Dichlorobenzene Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
GM-7A	2293241	701902	2.38E-03	U	6.39E-01
GM-8	2293110	701047	2.48E-03	U	9.67E-03
GM-9A	2295539	702112	1.40E-03	J	-
OSAA-1-S	2294330	708622	2.38E-03	U	6.23E-05
PIEZ-7S	2286292	698362	2.40E-03	U	9.33E-35
PSMW-5	2294393	702077	1.25E+00	U	-
SA2-MW-10-S	2288446	698693	2.35E-03	U	1.05E-26
SA2-MW-1-S	2293339	705296	2.35E-03	U	1.56E-01
SA2-MW-2-S	2292977	704530	2.40E-03	U	6.05E-01
SA2-MW-3-S	2292107	705001	2.50E-03	U	1.07E-01
SA2-MW-4-S	2291891	702685	5.30E-02		2.85E-01
SA2-MW-5-S	2291017	700273	4.70E-03	U *	6.17E-10
SA2-MW-9-S	2289080	699061	2.45E-03	U	1.57E-23
SA-O-2-S	2292314	702283	1.20E-03	J	1.62E-01
SA-O-3-S	2292127	702338	1.80E-03	J	1.36E-01
SA-O-4-S	2292007	701964	2.60E-03	J	4.34E-02
SA-P-1-S	2293873	705618	2.35E-03	U	8.01E-02
SA-P-2-S	2293446	705140	1.78E-01	U	-
SA-P-3-S	2293614	704569	2.35E-03	U	8.41E-01
SA-Q-10-S	2288657	698220	2.35E-03	U	5.39E-29
SA-Q-11-S	2288151	698311	2.40E-03	U	1.11E-29
SA-Q-12-S	2288086	697995	2.43E-03	U	1.06E-31
SA-Q-13-S	2288093	697234	2.38E-03	U	2.18E-36
SA-Q-14-S	2287593	697661	1.20E-03	J	1.08E-34
SA-Q-15-S	2287393	697315	2.35E-03	U	5.65E-38
SA-Q-16-S	2287118	697613	2.50E-03	U	1.01E-36
SA-Q-1-S	2290516	702121	3.60E-02		3.77E-03
SA-Q-5-S	2289554	700011	2.35E-03	U	1.16E-16
SA-Q-6-S	2289033	700433	6.30E-03	J	1.67E-16
SA-Q-7-S	2289470	699639	2.48E-03	U	1.77E-19
SA-Q-9-S	2288920	698693	2.35E-03	U	1.33E-25
SA-S-1-S	2291471	701874	2.38E-03	U	4.76E-03
SA-S-2-S	2291379	701731	2.38E-03	U	Dry
TCMW-2	2294810	699336	2.48E-03	U	1.32E-06
TCMW-3S	2294848	699582	2.35E-03	U	4.55E-04
TCMW-4	2294317	699507	2.35E-03	U	5.50E-06
TCMW-5S	2294327	699614	2.35E-03	U	1.39E-04
TCMW-6S	2293917	699642	2.48E-03	U	1.49E-05
UAA-10-S	2288938	698551	2.38E-03	U	Dry
UAA-11-S	2294603	705910	2.38E-03	U	1.04E-02
UAA-5-S	2294645	707932	2.38E-03	U	5.39E-04
UAA-6-S	2294980	705212	2.38E-03	U	1.31E-02
UAA-7-S	2291605	700343	2.38E-03	U	2.85E-08
UAA-8-S	2290412	700693	2.43E-03	U	Dry
UAA-9-S	2289920	699830	2.33E-03	U	Dry
				SHU (Layer 1 in Model) RMS Error (mg/L)	**0.78**
				SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**0.14**

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TABLE 3B CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
1,4-Dichlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	1,4-Dichlorobenzene Observed Concentration (mg/L)	Lab Qualifier	1,4-Dichlorobenzene Simulated Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	4.95E-03	U	1.80E-01
AA-CLAY-2-M	2292029	702612	3.40E-01	D	3.20E-01
AA-O-4-M	2292838	702980	1.40E-02		2.73E-01
AA-O-5-M	2291988	701441	2.40E-03	U	5.73E-03
AA-P-10-M	2292965	707034	2.38E-03	U	4.59E-03
AA-P-4-M	2293667	705938	2.40E-03	U	5.71E-02
AA-P-5-M	2292965	706178	2.43E-03	U	2.85E-02
AA-P-6-M	2291978	706643	3.00E-03	U	3.32E-03
AA-P-7-M	2293537	708624	2.75E-03	U	2.33E-04
AA-P-8-M	2292516	708964	2.40E-03	U	3.19E-05
AA-P-9-M	2293245	704449	2.40E-03	U	8.25E-01
AA-Q-10-M	2288018	697146	2.50E-03	U	4.68E-37
AA-Q-9-M	2289912	701235	2.48E-03	U	2.36E-08
AA-SLAY-1-M	2292817	704829	2.50E-03	U	3.29E-01
AA-SLAY-2-M	2292056	705202	2.43E-03	U	6.80E-02
AA-SLAY-3-M	2291368	705455	2.40E-03	U	1.77E-02
AA-SLAY-4-M	2291741	704624	2.48E-03	U	7.49E-02
B-24C	2290774	703571	1.00E-01	J	3.07E-01
B-28B	2290377	702660	3.80E-02		3.62E-01
CP-MW-18	2287909	696142	2.35E-03	U	0.00E+00
CP-MW-20	2288265	696769	2.40E-03	U	1.13E-38
CP-MW-22	2288923	697923	2.35E-03	U	4.87E-30
CP-MW-24	2289419	698714	2.35E-03	U	1.67E-24
EE-01	2295289	700157	6.00E+00	D	5.70E+00
GM-10B	2296074	703673	6.10E-01	D	6.45E-01
GM-27B	2290909	704333	2.70E-02		5.61E-02
GM-31B	2292928	701064	2.40E-03	U	3.50E-02
GM-3	2293971	704005	2.45E-03	U	2.55E+00
GM-60B	2292362	703589	3.30E-02		1.44E-01
GM-9B	2295523	702120	2.38E-03	U	-
IMW-1S	2296767	700427	2.45E-03	U	1.04E-07
MW-3B	2293764	703626	5.50E-03	J	2.11E+00
MW-5B	2293551	702877	3.50E-02		4.03E-01
OSAA-1-M	2294330	708622	2.40E-03	U	9.58E-04
PIEZ-7M	2286292	698362	2.35E-03	U	3.02E-34
PSMW-1	2297398	702746	1.00E-02	U	1.06E-07
PSMW-14M	2291997	706548	2.50E-04	U	5.19E-03
PSMW-15M	2291438	705483	2.50E-04	U	1.95E-02
PSMW-16M	2291113	704394	2.50E-04	U	3.88E-02
PSMW-8	2293543	702857	6.70E-03		4.08E-01
SA2-MW-10-M	2288442	698696	2.35E-03	U	1.05E-26
SA2-MW-1-M	2293340	705302	2.40E-03	U	1.56E-01
SA2-MW-2-M	2292979	704535	2.35E-03	U	6.05E-01
SA2-MW-3-M	2292109	704996	2.50E-03	U	1.07E-01
SA2-MW-4-M	2291893	702689	3.20E-02		2.85E-01
SA2-MW-5-M	2291015	700277	2.35E-03	U *	6.17E-10
SA2-MW-6-M	2289601	700763	2.35E-03	U	9.27E-12
SA2-MW-7-M	2289033	700426	2.35E-03	U *	1.20E-15

TABLE 3B CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
1,4-Dichlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	1,4-Dichlorobenzene Observed Concentration (mg/L)	Lab Qualifier	1,4-Dichlorobenzene Simulated Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
SA2-MW-9-M	2289080	699057	2.40E-03	U	1.57E-23
SA-O-1	2292907	702783	2.35E-03	U	3.58E-01
SA-Q-2	2289951	702294	3.30E-03	J	4.03E-03
SA-Q-3	2290079	701615	2.38E-03	U	4.49E-06
SA-Q-4	2289686	700977	3.60E-03	J	3.71E-10
SA-Q-8	2288111	699785	1.90E-03	J	5.01E-22
TCMW-1M	2295680	699277	2.35E-03	U	4.26E-06
TCMW-3M	2294848	699588	1.40E-03	J	4.55E-04
TCMW-5M	2294328	699620	2.43E-03	U	1.39E-04
TCMW-6M	2293920	699648	2.48E-03	U	2.23E-05
UAA-10-M	2288938	698551	2.43E-03	U	1.79E-26
UAA-11-M	2294603	705910	2.35E-03	U	3.72E-02
UAA-5-M	2294645	707932	2.40E-03	U	5.94E-03
UAA-6-M	2294980	705212	2.35E-03	U	2.05E-02
UAA-7-M	2291605	700343	2.33E-03	U	1.42E-07
UAA-8-M	2290412	700693	2.40E-03	U	3.29E-09
UAA-9-M	2289920	699830	2.40E-03	U	2.10E-16
				MHU (Layer 2 in Model) RMS Error (mg/L)	**0.45**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**0.14**

TABLE 3B CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
1,4-Dichlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	1,4-Dichlorobenzene Observed Concentration (mg/L)	Lab Qualifier	1,4-Dichlorobenzene Simulated Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-CLAY-1-D	2292215	703094	4.60E-01	D	6.90E-01
AA-CLAY-2-D	2292026	702612	6.30E-01	D	6.90E-01
AA-O-4-D	2292838	702980	3.70E-01	D	3.12E-01
AA-O-5-D	2291980	701438	2.38E-03	U	8.44E-03
AA-P-10-D	2292965	707034	2.35E-03	U	6.07E-03
AA-P-4-D	2293668	705937	2.70E-02		6.81E-02
AA-P-5-D	2292966	706179	2.40E-03	U	3.48E-02
AA-P-6-D	2291980	706642	2.75E-03	U	4.18E-03
AA-P-7-D	2293538	708624	2.75E-03	U	3.40E-04
AA-P-8-D	2292518	708965	2.48E-03	U	3.30E-05
AA-P-9-D	2293249	704450	4.90E-03	J	7.57E-01
AA-Q-10-D	2288018	697143	2.43E-03	U	5.69E-37
AA-Q-9-D	2289912	701236	2.48E-03	U	3.22E-08
AA-SLAY-1-D	2292819	704829	1.20E-02		3.20E-01
AA-SLAY-2-D	2292057	705200	2.48E-03	U	7.11E-02
AA-SLAY-3-D	2291367	705455	2.48E-03	U	1.93E-02
AA-SLAY-4-D	2291741	704625	5.20E-03	J	7.74E-02
GM-12B	2297294	702590	2.40E-03	U	2.42E-06
GM-17B	2294310	702673	1.80E-01		6.94E-01
GM-18B	2292996	701435	2.70E-01	D	2.71E-01
GM-19C	2292105	702309	2.60E-01		1.59E-01
GM-20B	2292713	702844	1.30E+00	D	3.41E-01
GM-27C	2290906	704326	2.50E-02		8.51E-02
GM-31C	2292918	701061	2.38E-03	U	5.22E-02
GM-4B	2294470	703411	1.90E+00		3.73E+00
GM-6B	2294135	702076	1.70E-01		1.57E+00
GM-9C	2295527	702123	2.38E-03	U	-
MW-3C	2293771	703625	1.20E-03	J	1.70E+00
MW-5C	2293553	702888	2.40E-01	D	3.93E-01
MW-7C	2293370	702337	3.90E-01		8.38E-01
OSAA-1	2294330	708622	2.35E-03	U	1.38E-03
PSMW-11	2292701	704884	5.00E-03	U	2.44E-01
PSMW-12	2292347	703599	5.20E-01		1.65E-01
PSMW-13	2291281	701517	2.50E-04	U	6.17E-04
PSMW-16D	2291113	704394	9.00E-02		5.63E-02
PSMW-17	2290245	702674	1.70E-01		2.33E-01
PSMW-2	2296639	703249	1.00E-02	U	5.44E-03
PSMW-3	2296036	702995	1.10E+01		1.04E+01
PSMW-4	2295098	703141	6.40E+00		7.18E+00
PSMW-6	2294214	705885	3.80E-02		6.32E-02
PSMW-7	2293955	704010	1.25E-03	U	2.05E+00
PSMW-9	2292455	700774	2.50E-04	U	1.60E-03
SA2-MW-2-D	2292981	704538	2.60E-03	J	5.67E-01
SA2-MW-4-D	2291896	702693	7.30E-01	D	6.90E-01
UAA-10-D	2288936	698551	2.40E-03	U	2.12E-26
UAA-11-D	2294602	705909	4.00E-02		4.38E-02
UAA-5-D	2294645	707931	7.40E-02		8.05E-03

TABLE 3B CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
1,4-Dichlorobenzene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	1,4-Dichlorobenzene Observed Concentration (mg/L)	Lab Qualifier	1,4-Dichlorobenzene Simulated Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
UAA-6-D	2294979	705212	6.70E-03	J	2.18E-02
UAA-7-D	2291605	700341	2.35E-03	U	1.72E-07
UAA-8-D	2290410	700690	2.45E-03	U	4.49E-09
UAA-9-D	2289916	699830	2.43E-03	U	1.57E-16
				DHU (Layer 3 in Model) RMS Error (mg/L)	**0.56**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**0.19**
				Overall RMS error (mg/L)	**0.62**
				Overall Mean Residual error (mg/L)	**0.15**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residual and RMS errors.

- = Well not used in analysis because either the detection limit is too high or the low concentration well lies well lies too close to the source zone or a high concentration well.
Dry = Well lies in model dry cell
Mg/L = Milligram per liter
RMS = Root mean square error

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TABLE 3C
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
2,4-Dichlorophenoxyacetic Acid Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	2,4-D Observed Concentration (mg/L)	Lab Qualifier	2,4-D Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	2.50E-04	U	Dry
AA-CLAY-2-S	2292029	702612	8.60E-04	J	Dry
AA-O-5-S	2291988	701441	1.23E-04	U	2.47E-06
AA-P-10-S	2292965	707034	1.20E-04	U	6.70E-18
AA-P-4-S	2293667	705938	1.20E-04	U	1.84E-15
AA-P-6-S	2291978	706643	1.23E-04	U	4.77E-16
AA-P-7-S	2293537	708624	1.23E-04	U	7.27E-21
AA-P-9-S	2293245	704449	1.23E-04	U	Dry
AA-Q-10-S	2288018	697146	1.20E-03		Dry
AA-Q-9-S	2289912	701235	1.23E-04	U	Dry
AA-SLAY-1-S	2292817	704829	1.25E-04	U	Dry
AA-SLAY-2-S	2292056	705202	1.23E-04	U	1.04E-08
B-24A	2290763	703551	4.10E+01		3.39E+00
B-25A	2291275	703338	1.10E+01	DP	Dry
B-25B	2291275	703338	2.00E+01	D	1.55E+01
CA-3	2297021	702413	5.50E-04	P	6.63E-02
CP-MW-10-S	2290148	698021	9.00E-05	J	9.48E-34
CP-MW-12-S	2289192	697495	1.10E-04	JP	3.86E-39
CP-MW-13-S	2291059	697087	1.20E-04	U	1.19E-39
CP-MW-14-S	2289978	696840	1.23E-04	U	0.00E+00
CP-MW-15-S	2290628	696655	1.25E-04	U	0.00E+00
CP-MW-16-S	2289579	696182	1.25E-04	U	0.00E+00
CP-MW-6-S	2292546	698639	1.05E-04	J	5.55E-20
CP-MW-7-S	2291605	698213	1.20E-04	U	-5.04E-26
CP-MW-8-S	2290855	698392	1.20E-04	U	2.48E-28
EE-03	2295550	699820	1.25E-04	U	3.93E-07
EEG-107	2294746	699964	1.20E+00		3.04E-02
GM-1	2298057	703323	1.23E-04	U	8.25E-13
GM-11	2297207	704134	5.50E-04		6.30E-10
GM-15	2296750	703149	1.20E-04	U	3.31E-04
GM-18A	2293001	701458	1.20E-04	U	5.14E-04
GM-19A	2292087	702314	2.80E-03		7.24E-06
GM-2	2294146	701475	1.23E-04	U	8.94E-06
GM-31A	2292910	701062	1.23E-02	U	5.84E-05
GM-33	2294376	702197	1.25E-04	U	3.24E-09
GM-46	2296000	702927	1.23E+00	U	-
GM-4A	2294467	703403	1.23E-04	U	7.91E-07
GM-59A	2292805	701056	1.90E-04	JP	6.27E-04
GM-5A	2293555	702897	1.23E-04	U	4.09E-09
GM-60A	2292356	703578	1.20E-04	U	1.24E-05
GM-6A	2294131	702060	1.20E-04	U	6.26E-08
GM-7A	2293241	701902	1.20E-04	U	8.34E-05
GM-8	2293110	701047	1.23E-04	U	8.97E-05
GM-9A	2295539	702112	1.20E-04	U	1.64E-11

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TABLE 3C CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
2,4-Dichlorophenoxyacetic Acid Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	2,4-D Observed Concentration (mg/L)	Lab Qualifier	2,4-D Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
OSAA-1-S	2294330	708622	1.20E-04	U	1.85E-21
PIEZ-7S	2286292	698362	6.50E-03	D	0.00E+00
PSMW-5	2294393	702077	1.20E-04	U	1.20E-08
SA2-MW-10-S	2288446	698693	1.20E-04	U	3.26E-31
SA2-MW-1-S	2293339	705296	1.20E-04	U	2.10E-11
SA2-MW-2-S	2292977	704530	1.25E-04	U	4.32E-10
SA2-MW-3-S	2292107	705001	1.25E-04	U	1.65E-07
SA2-MW-4-S	2291891	702685	2.40E-04	U	3.87E-05
SA2-MW-5-S	2291017	700273	1.70E-04	JP	1.64E-12
SA2-MW-9-S	2289080	699061	1.25E-04	U	2.12E-27
SA-O-2-S	2292314	702283	1.10E-02		8.58E-06
SA-O-3-S	2292127	702338	1.25E-03	U	5.37E-06
SA-O-4-S	2292007	701964	1.20E-04	U	2.41E-05
SA-P-1-S	2293873	705618	6.40E-04	JP	1.37E-11
SA-P-2-S	2293446	705140	1.23E-01	U	1.94E-10
SA-P-3-S	2293614	704569	1.20E-04	U	1.44E-08
SA-Q-10-S	2288657	698220	1.20E-04	U	1.15E-34
SA-Q-11-S	2288151	698311	1.20E-04	U	3.22E-35
SA-Q-12-S	2288086	697995	1.23E-04	U	6.62E-38
SA-Q-13-S	2288093	697234	1.20E-04	U	0.00E+00
SA-Q-14-S	2287593	697661	1.20E-04	U	0.00E+00
SA-Q-15-S	2287393	697315	1.25E-04	U	0.00E+00
SA-Q-16-S	2287118	697613	1.20E-04	U	0.00E+00
SA-Q-1-S	2290516	702121	1.23E-04	U	1.55E-01
SA-Q-5-S	2289554	700011	1.20E-04	U	4.00E-19
SA-Q-6-S	2289033	700433	1.23E-03	U	6.91E-18
SA-Q-7-S	2289470	699639	5.00E-04		1.86E-22
SA-Q-9-S	2288920	698693	1.20E-04	U	3.36E-30
SA-S-1-S	2291471	701874	1.20E-04	U	2.33E-05
SA-S-2-S	2291379	701731	2.90E-04	J	Dry
TCMW-2	2294810	699336	1.25E-04	U	2.35E-07
TCMW-3S	2294848	699582	3.60E-04	J	1.75E-04
TCMW-4	2294317	699507	1.25E-04	U	1.50E-06
TCMW-5S	2294327	699614	1.25E-04	U	5.82E-05
TCMW-6S	2293917	699642	1.25E-04	U	4.07E-06
UAA-10-S	2288938	698551	1.23E-04	U	Dry
UAA-11-S	2294603	705910	1.20E-04	U	7.27E-14
UAA-5-S	2294645	707932	1.23E-04	U	2.60E-21
UAA-6-S	2294980	705212	1.20E-04	J	5.55E-10
UAA-7-S	2291605	700343	1.23E-04	U	6.64E-10
UAA-8-S	2290412	700693	1.20E-04	J	Dry
UAA-9-S	2289920	699830	1.25E-04	U	Dry
				SHU (Layer 1 in Model) RMS Error (mg/L)	**4.41**
				SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**-0.58**

TABLE 3C CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
2,4-Dichlorophenoxyacetic Acid Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	2,4-D Observed Concentration (mg/L)	Lab Qualifier	2,4-D Simulated Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	2.50E-04	U	8.13E-06
AA-CLAY-2-M	2292029	702612	2.45E-04	U	4.13E-06
AA-O-4-M	2292838	702980	1.23E-04	U	2.38E-08
AA-O-5-M	2291988	701441	1.20E-04	U	2.89E-05
AA-P-10-M	2292965	707034	1.20E-04	U	1.71E-18
AA-P-4-M	2293667	705938	1.20E-04	U	1.27E-13
AA-P-5-M	2292965	706178	3.10E-04	JP	3.03E-16
AA-P-6-M	2291978	706643	1.25E-04	U	1.53E-15
AA-P-7-M	2293537	708624	1.28E-04	U	3.77E-20
AA-P-8-M	2292516	708964	1.20E-04	U	5.59E-20
AA-P-9-M	2293245	704449	1.23E-04	U	2.20E-09
AA-Q-10-M	2288018	697146	1.05E-04	J	0.00E+00
AA-Q-9-M	2289912	701235	1.25E-04	U	6.71E-08
AA-SLAY-1-M	2292817	704829	1.25E-04	U	7.22E-11
AA-SLAY-2-M	2292056	705202	1.25E-04	U	5.21E-08
AA-SLAY-3-M	2291368	705455	1.23E-04	U	5.02E-06
AA-SLAY-4-M	2291741	704624	1.23E-04	U	2.13E-04
B-24C	2290774	703571	3.70E+01		3.01E+01
CP-MW-18	2287909	696142	1.23E-04	U	0.00E+00
CP-MW-20	2288265	696769	1.23E-04	U	0.00E+00
CP-MW-22	2288923	697923	6.00E-05	J P	1.64E-36
CP-MW-24	2289419	698714	1.23E-04	U	2.41E-29
EE-01	2295289	700157	1.53E-01	U	2.05E-05
GM-10B	2296074	703673	1.23E-04	U	6.18E-04
GM-27B	2290909	704333	1.23E-04	U	1.60E+00
GM-31B	2292928	701064	1.23E-04	U	8.00E-04
GM-3	2293971	704005	2.60E-04	J	2.72E-07
GM-60B	2292362	703589	2.90E-04	J	1.24E-05
GM-9B	2295523	702120	1.23E-04	U	3.66E-10
IMW-1S	2296767	700427	1.23E-04	U	1.37E-18
MW-3B	2293764	703626	1.23E-04	U	3.85E-08
MW-5B	2293551	702877	1.20E-04	U	4.09E-09
OSAA-1-M	2294330	708622	1.23E-04	U	5.71E-21
PIEZ-7M	2286292	698362	1.20E-04	U	1.48E-40
PSMW-1	2297398	702746	1.23E-04	U	-1.22E-03
PSMW-14M	2291997	706548	1.20E-04	U	3.38E-14
PSMW-15M	2291438	705483	1.20E-04	U	3.26E-06
PSMW-16M	2291113	704394	1.20E-04	U	6.82E-01
PSMW-8	2293543	702857	5.80E-04		8.30E-09
SA2-MW-10-M	2288442	698696	1.20E-04	U	3.26E-31
SA2-MW-1-M	2293340	705302	1.23E-04	U	2.10E-11
SA2-MW-2-M	2292979	704535	1.23E-04	U	4.32E-10
SA2-MW-3-M	2292109	704996	1.25E-04	U	1.65E-07
SA2-MW-4-M	2291893	702689	2.40E-04	U	3.87E-05
SA2-MW-5-M	2291015	700277	1.20E-04	U	1.64E-12
SA2-MW-6-M	2289601	700763	1.20E-04	U	2.42E-12
SA2-MW-7-M	2289033	700426	1.23E-04	U	4.80E-17

TABLE 3C CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
2,4-Dichlorophenoxyacetic Acid Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	2,4-D Observed Concentration (mg/L)	Lab Qualifier	2,4-D Simulated Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
SA2-MW-9-M	2289080	699057	1.20E-04	U	2.12E-27
SA-Q-2	2289951	702294	1.20E-04	U	1.04E-01
SA-Q-3	2290079	701615	1.20E-04	U	4.86E-05
SA-Q-4	2289686	700977	1.20E-03	U	3.09E-10
SA-Q-8	2288111	699785	1.23E-04	U	2.48E-24
TCMW-1M	2295680	699277	1.25E-04	U	1.31E-09
TCMW-1S	2295681	699282	1.25E-04	U	1.31E-09
TCMW-3M	2294848	699588	4.80E-04	J	1.75E-04
TCMW-5M	2294328	699620	1.25E-04	U	5.82E-05
TCMW-6M	2293920	699648	1.25E-04	U	6.58E-06
UAA-10-M	2288938	698551	1.25E-04	U	1.82E-31
UAA-11-M	2294603	705910	1.20E-04	U	1.01E-11
UAA-5-M	2294645	707932	1.20E-04	U	2.50E-21
UAA-6-M	2294980	705212	1.23E-04	U	2.10E-08
UAA-7-M	2291605	700343	1.23E-04	U	4.96E-09
UAA-8-M	2290412	700693	2.10E-04	J	1.29E-10
UAA-9-M	2289920	699830	1.25E-04	U	1.42E-19
				MHU (Layer 2 in Model) RMS Error (mg/L)	**0.89**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**-0.07**

TABLE 3C CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
2,4-Dichlorophenoxyacetic Acid Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	2,4-D Observed Concentration (mg/L)	Lab Qualifier	2,4-D Simulated Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-CLAY-1-D	2292215	703094	2.50E-04	U	1.35E-06
AA-CLAY-2-D	2292026	702612	2.40E-04	U	1.17E-06
AA-O-4-D	2292838	702980	1.20E-04	U	1.53E-08
AA-O-5-D	2291980	701438	1.20E-04	U	1.50E-05
AA-P-10-D	2292965	707034	1.20E-04	U	1.23E-18
AA-P-4-D	2293668	705937	2.10E-03		9.34E-14
AA-P-5-D	2292966	706179	1.28E-04	U	2.29E-16
AA-P-6-D	2291980	706642	1.25E-04	U	1.54E-15
AA-P-7-D	2293538	708624	1.25E-04	U	4.84E-20
AA-P-8-D	2292518	708965	1.25E-04	U	5.84E-20
AA-P-9-D	2293249	704450	1.23E-04	U	1.55E-09
AA-Q-10-D	2288018	697143	1.05E-04	J	0.00E+00
AA-Q-9-D	2289912	701236	1.23E-04	U	2.91E-08
AA-SLAY-1-D	2292819	704829	1.25E-04	U	4.09E-11
AA-SLAY-2-D	2292057	705200	1.28E-04	U	2.45E-08
AA-SLAY-3-D	2291367	705455	1.23E-04	U	3.55E-06
AA-SLAY-4-D	2291741	704625	2.90E-04	J	6.77E-05
GM-17C	2294317	702701	1.23E-04	U	3.11E-10
GM-18B	2292996	701435	1.20E-04	U	2.42E-04
GM-19C	2292105	702309	1.23E-04	U	4.19E-06
GM-20B	2292713	702844	1.23E-04	U	7.15E-08
GM-27C	2290906	704326	1.23E-04	U	2.85E-01
GM-31C	2292918	701061	1.23E-04	U	3.31E-04
GM-4B	2294470	703411	1.25E-04	U	6.99E-07
GM-6B	2294135	702076	1.20E-04	U	7.10E-07
GM-9C	2295527	702123	1.25E-04	U	2.48E-10
IMW-1I	2296764	700438	1.25E-04	U	1.27E-18
MW-3C	2293771	703625	1.20E-04	U	2.64E-08
MW-5C	2293553	702888	1.20E-04	U	2.68E-09
MW-7B	2293363	702339	1.23E-04	U	1.16E-06
OSAA-1	2294330	708622	1.23E-04	U	7.25E-21
PSMW-11	2292701	704884	1.20E-04	U	8.61E-11
PSMW-12	2292347	703599	1.20E-04	U	2.56E-06
PSMW-13	2291281	701517	1.20E-04	U	1.10E-06
PSMW-16D	2291113	704394	1.20E-04	U	1.18E-01
PSMW-17	2290245	702674	4.20E-03	D	2.98E+00
PSMW-2	2296639	703249	1.20E-04	U	3.09E-03
PSMW-3	2296036	702995	1.20E-04	U	4.24E-04
PSMW-4	2295098	703141	1.20E-04	U	6.04E-06
PSMW-6	2294214	705885	1.20E-04	U	2.29E-12
PSMW-7	2293955	704010	1.20E-04	U	1.87E-07
PSMW-9	2292455	700774	1.20E-04	U	3.07E-05
SA2-MW-2-D	2292981	704538	1.25E-04	U	2.92E-10
SA2-MW-4-D	2291896	702693	2.40E-04	U	8.30E-06
UAA-10-D	2288936	698551	1.23E-04	U	1.77E-31
UAA-11-D	2294602	705909	1.20E-04	U	7.38E-12
UAA-5-D	2294645	707931	4.80E-04		2.87E-21

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TABLE 3C CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
2,4-Dichlorophenoxyacetic Acid Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	2,4-D Observed Concentration (mg/L)	Lab Qualifier	2,4-D Simulated Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
UAA-6-D	2294979	705212	1.23E-04	U	1.51E-08
UAA-7-D	2291605	700341	1.25E-04	U	2.48E-09
UAA-8-D	2290410	700690	4.60E-04	J	5.23E-11
UAA-9-D	2289916	699830	1.23E-04	U	7.87E-20
				DHU (Layer 3 in Model) RMS Error (mg/L)	**0.42**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**0.07**

Overall RMS error (mg/L)	**2.81**
Overall Mean Residual error (mg/L)	**-0.24**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residual and RMS errors.

- = Well not used in analysis because either the detection limit is too high or the low concentration well lies too close to the source zone or a high concentration well.
Dry = Well lies in model dry cell
Mg/L = Milligram per liter
RMS = Root mean square error

TABLE 3D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Tetrachloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	PCE Observed Concentration (mg/L)	Lab Qualifier	PCE Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	5.00E-04	U	Dry
AA-O-5-S	2291988	701441	2.50E-04	U	1.37E-04
AA-P-10-S	2292965	707034	2.50E-04	U	0.00E+00
AA-P-4-S	2293667	705938	2.50E-04	U	3.04E-33
AA-P-6-S	2291978	706643	2.50E-04	U	5.56E-22
AA-P-7-S	2293537	708624	2.50E-04	U	0.00E+00
AA-P-9-S	2293245	704449	2.50E-04	U	Dry
AA-Q-10-S	2288018	697146	2.50E-04	U	Dry
AA-Q-9-S	2289912	701235	2.50E-04	U	Dry
AA-SLAY-1-S	2292817	704829	2.50E-04	U	Dry
AA-SLAY-2-S	2292056	705202	2.50E-04	U	1.20E-11
B-22A	2291090	704158	2.50E-03	U	Dry
B-28A	2290369	702643	5.00E-04	U	1.77E-04
B-29B	2290793	702429	2.50E-03	U	Dry
CA-3	2297021	702413	2.50E-04	U	0.00E+00
CP-MW-10-S	2290148	698021	2.50E-04	U	0.00E+00
CP-MW-12-S	2289192	697495	2.50E-04	U	0.00E+00
CP-MW-16-S	2289579	696182	2.50E-04	U	0.00E+00
CP-MW-6-S	2292546	698639	2.50E-04	U	4.42E-22
CP-MW-7-S	2291605	698213	2.50E-04	U	0.00E+00
EE-03	2295550	699820	2.50E-04	U	6.55E-06
EEG-107	2294746	699964	2.80E-01		2.50E-01
GM-1	2298057	703323	2.50E-04	U	0.00E+00
GM-11	2297207	704134	2.50E-04	U	0.00E+00
GM-15	2296750	703149	2.50E-04	U	0.00E+00
GM-18A	2293001	701458	2.50E-04	U	2.06E-02
GM-19A	2292087	702314	1.10E-01		4.66E-04
GM-31A	2292910	701062	2.50E-04	U	2.49E-03
GM-46	2296000	702927	8.80E-03		0.00E+00
GM-4A	2294467	703403	2.50E-04	U	6.53E-14
GM-59A	2292805	701056	2.50E-04	U	2.25E-02
GM-5A	2293555	702897	2.50E-04	U	2.89E-07
GM-60A	2292356	703578	2.50E-04	U	1.55E-05
GM-6A	2294131	702060	1.00E-03	U	3.70E-06
GM-7A	2293241	701902	2.50E-04	U	4.02E-03
GM-8	2293110	701047	2.50E-04	U	3.63E-03
GM-9A	2295539	702112	2.50E-04	U	4.33E-19
OSAA-1-S	2294330	708622	2.50E-04	U	Dry
PIEZ-7S	2286292	698362	2.50E-04	U	0.00E+00
SA2-MW-10-S	2288446	698693	2.50E-04	U	0.00E+00
SA2-MW-1-S	2293339	705296	2.50E-04	U	0.00E+00
SA2-MW-2-S	2292977	704530	2.50E-04	U	9.42E-13

TABLE 3D CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Tetrachloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	PCE Observed Concentration (mg/L)	Lab Qualifier	PCE Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
SA2-MW-3-S	2292107	705001	2.50E-04	U	7.57E-10
SA2-MW-5-S	2291017	700273	2.50E-04	U	1.30E-10
SA2-MW-9-S	2289080	699061	2.50E-04	U	0.00E+00
SA-O-2-S	2292314	702283	2.50E-04	U	5.39E-04
SA-O-3-S	2292127	702338	2.70E-02		3.91E-04
SA-O-4-S	2292007	701964	2.50E-04	U	1.36E-03
SA-P-1-S	2293873	705618	2.50E-04	U	1.72E-33
SA-P-2-S	2293446	705140	2.50E-04	U	0.00E+00
SA-P-3-S	2293614	704569	2.50E-04	U	4.93E-19
SA-Q-10-S	2288657	698220	2.50E-04	U	0.00E+00
SA-Q-11-S	2288151	698311	2.50E-04	U	0.00E+00
SA-Q-12-S	2288086	697995	2.50E-04	U	0.00E+00
SA-Q-13-S	2288093	697234	2.50E-04	U	0.00E+00
SA-Q-14-S	2287593	697661	2.50E-04	U	0.00E+00
SA-Q-15-S	2287393	697315	2.50E-04	U	0.00E+00
SA-Q-16-S	2287118	697613	2.50E-04	U	0.00E+00
SA-Q-5-S	2289554	700011	2.50E-04	U	6.20E-22
SA-Q-6-S	2289033	700433	2.50E-04	U	4.70E-23
SA-Q-7-S	2289470	699639	2.50E-04	U	0.00E+00
SA-Q-9-S	2288920	698693	2.50E-04	U	0.00E+00
SA-S-1-S	2291471	701874	5.00E-04	U	1.80E-04
SA-S-2-S	2291379	701731	2.50E-04	U	Dry
TCMW-2	2294810	699336	1.25E-03	U	5.56E-06
TCMW-3S	2294848	699582	1.25E-03	U	2.18E-03
TCMW-4	2294317	699507	1.25E-03	U	3.34E-05
TCMW-5S	2294327	699614	1.25E-03	U	9.31E-04
TCMW-6S	2293917	699642	1.25E-03	U	1.07E-04
UAA-10-S	2288938	698551	2.50E-04	U	Dry
UAA-11-S	2294603	705910	2.50E-04	U	0.00E+00
UAA-5-S	2294645	707932	2.50E-04	U	0.00E+00
UAA-6-S	2294980	705212	2.50E-04	U	0.00E+00
UAA-7-S	2291605	700343	2.50E-04	U	3.73E-08
UAA-8-S	2290412	700693	2.50E-04	U	Dry
UAA-9-S	2289920	699830	2.50E-04	U	Dry
				SHU (Layer 1 in Model) RMS Error (mg/L)	**0.015**
				SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**-0.002**

TABLE 3D CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Tetrachloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	PCE Measured Concentration (mg/L)		PCE Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	5.00E-04	U	7.36E-04
AA-O-5-M	2291988	701441	2.50E-04	U	1.54E-03
AA-P-10-M	2292965	707034	2.50E-04	U	1.68E-39
AA-P-4-M	2293667	705938	2.50E-04	U	8.38E-32
AA-P-5-M	2292965	706178	2.50E-04	U	1.67E-27
AA-P-6-M	2291978	706643	2.50E-04	U	2.15E-20
AA-P-7-M	2293537	708624	2.50E-04	U	0.00E+00
AA-P-8-M	2292516	708964	2.50E-04	U	0.00E+00
AA-P-9-M	2293245	704449	2.50E-04	U	3.01E-14
AA-Q-10-M	2288018	697146	2.50E-04	U	0.00E+00
AA-Q-9-M	2289912	701235	2.50E-04	U	4.70E-11
AA-SLAY-1-M	2292817	704829	2.50E-04	U	2.30E-13
AA-SLAY-2-M	2292056	705202	2.50E-04	U	1.26E-10
AA-SLAY-3-M	2291368	705455	2.50E-04	U	6.14E-09
AA-SLAY-4-M	2291741	704624	2.50E-04	U	9.05E-07
CP-MW-18	2287909	696142	2.50E-04	U	0.00E+00
CP-MW-20	2288265	696769	2.50E-04	U	0.00E+00
CP-MW-22	2288923	697923	2.50E-04	U	0.00E+00
CP-MW-24	2289419	698714	2.50E-04	U	0.00E+00
GM-3	2293971	704005	2.50E-04	U	Dry
GM-31B	2292928	701064	2.50E-04	U	2.76E-02
GM-60B	2292362	703589	2.50E-04	U	1.55E-05
GM-9B	2295523	702120	5.00E-04	U	0.00E+00
IMW-1S	2296767	700427	1.25E-03	U	4.79E-16
PIEZ-7M	2286292	698362	2.50E-04	U	0.00E+00
PSMW-14M	2291997	706548	2.50E-04	U	1.46E-18
PSMW-15M	2291438	705483	2.50E-04	U	4.10E-09
PSMW-16M	2291113	704394	2.50E-04	U	1.23E-04
PSMW-8	2293543	702857	2.50E-04	U	5.81E-07
SA2-MW-10-M	2288442	698696	1.25E-03	U	0.00E+00
SA2-MW-1-M	2293340	705302	2.50E-04	U	0.00E+00
SA2-MW-2-M	2292979	704535	2.50E-04	U	9.42E-13
SA2-MW-3-M	2292109	704996	2.50E-04	U	7.57E-10
SA2-MW-5-M	2291015	700277	2.50E-04	U	1.30E-10
SA2-MW-6-M	2289601	700763	2.50E-04	U	2.32E-15
SA2-MW-7-M	2289033	700426	2.50E-04	U	4.88E-22
SA2-MW-9-M	2289080	699057	2.50E-04	U	0.00E+00
SA-O-1	2292907	702783	2.50E-04	U	9.65E-06
SA-Q-2	2289951	702294	2.50E-04	U	9.41E-09
SA-Q-3	2290079	701615	2.50E-04	U	4.25E-09
SA-Q-4	2289686	700977	2.50E-04	U	2.88E-13
SA-Q-8	2288111	699785	2.50E-04	U	1.44E-39

TABLE 3D CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Tetrachloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	PCE Measured Concentration (mg/L)		PCE Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
TCMW-1M	2295680	699277	1.25E-03	U	2.48E-08
TCMW-1S	2295681	699282	1.25E-03	U	2.48E-08
TCMW-3M	2294848	699588	1.25E-03	U	2.18E-03
TCMW-5M	2294328	699620	1.25E-03	U	9.31E-04
TCMW-6M	2293920	699648	1.25E-03	U	1.60E-04
UAA-10-M	2288938	698551	2.50E-04	U	0.00E+00
UAA-11-M	2294603	705910	2.50E-04	U	0.00E+00
UAA-5-M	2294645	707932	2.50E-04	U	0.00E+00
UAA-6-M	2294980	705212	2.50E-04	U	0.00E+00
UAA-7-M	2291605	700343	2.50E-04	U	2.77E-07
UAA-8-M	2290412	700693	2.50E-04	U	1.26E-10
UAA-9-M	2289920	699830	2.50E-04	U	2.22E-21
				MHU (Layer 2 in Model) RMS Error (mg/L)	**0.004**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**0.0**

TABLE 3D CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Tetrachloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	PCE Measured Concentration (mg/L)		PCE Predicted Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-O-5-D	2291980	701438	2.50E-04	U	8.25E-04
AA-P-10-D	2292965	707034	2.50E-04	U	4.40E-39
AA-P-5-D	2292966	706179	1.25E-03	U	0.00E+00
AA-P-6-D	2291980	706642	5.00E-04	U	2.01E-20
AA-P-7-D	2293538	708624	2.50E-04	U	0.00E+00
AA-P-8-D	2292518	708965	2.50E-04	U	0.00E+00
AA-Q-10-D	2288018	697143	2.50E-04	U	0.00E+00
AA-Q-9-D	2289912	701236	2.50E-04	U	2.63E-11
AA-SLAY-2-D	2292057	705200	1.25E-03	U	5.38E-11
AA-SLAY-3-D	2291367	705455	2.50E-04	U	3.71E-09
GM-17B	2294310	702673	5.00E-04	U	2.61E-08
GM-18B	2292996	701435	5.00E-04	U	1.04E-02
GM-19C	2292105	702309	2.50E-04	U	2.60E-04
GM-9C	2295527	702123	2.50E-04	U	0.00E+00
IMW-1I	2296764	700438	2.50E-04	U	3.07E-16
MW-5C	2293553	702888	1.00E-03	U	1.89E-07
OSAA-1	2294330	708622	2.50E-04	U	0.00E+00
PSMW-13	2291281	701517	2.50E-04	U	2.53E-05
PSMW-6	2294214	705885	2.50E-04	U	0.00E+00
PSMW-7	2293955	704010	1.25E-03	U	2.21E-16
PSMW-9	2292455	700774	2.50E-04	U	1.36E-03
SA2-MW-2-D	2292981	704538	5.00E-04	U	3.53E-13
UAA-10-D	2288936	698551	2.50E-04	U	0.00E+00
UAA-11-D	2294602	705909	2.50E-04	U	0.00E+00
UAA-6-D	2294979	705212	2.50E-04	U	0.00E+00
UAA-7-D	2291605	700341	2.50E-04	U	1.38E-07
UAA-8-D	2290410	700690	2.50E-04	U	6.79E-11
UAA-9-D	2289916	699830	2.50E-04	U	5.64E-22
				DHU (Layer 3 in Model) RMS Error (mg/L)	**0.002**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**0.0**

Overall RMS error (mg/L)	**0.01**
Overall Mean Residual error (mg/L)	**-0.001**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residual and RMS errors.
   Dry = Well lies in model dry cell
   Mg/L = Milligram per liter
   RMS = Root mean square error

TABLE 3E
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Trichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	TCE Measured Concentration (mg/L)	Lab Qualifier	TCE Predicted Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	1.70E-03		Dry
AA-CLAY-2-S	2292029	702612	6.90E-01		Dry
AA-O-5-S	2291988	701441	2.50E-04	U	2.86E-04
AA-P-10-S	2292965	707034	2.50E-04	U	9.90E-40
AA-P-4-S	2293667	705938	2.50E-04	U	9.22E-33
AA-P-6-S	2291978	706643	2.50E-04	U	1.32E-21
AA-P-7-S	2293537	708624	2.50E-04	U	0.00E+00
AA-P-9-S	2293245	704449	2.50E-04	U	Dry
AA-Q-10-S	2288018	697146	2.50E-04	U	Dry
AA-Q-9-S	2289912	701235	2.50E-04	U	Dry
AA-SLAY-1-S	2292817	704829	2.50E-04	U	Dry
AA-SLAY-2-S	2292056	705202	2.50E-04	U	2.41E-11
B-22A	2291090	704158	2.50E-03	U	Dry
B-28A	2290369	702643	5.00E-04	U	2.07E-04
B-29B	2290793	702429	2.50E-03	U	Dry
CA-3	2297021	702413	2.50E-04	U	0.00E+00
CP-MW-10-S	2290148	698021	2.50E-04	U	0.00E+00
CP-MW-12-S	2289192	697495	2.50E-04	U	0.00E+00
CP-MW-16-S	2289579	696182	2.50E-04	U	0.00E+00
CP-MW-6-S	2292546	698639	2.50E-04	U	9.66E-22
CP-MW-7-S	2291605	698213	2.50E-04	U	2.53E-38
EE-03	2295550	699820	2.50E-04	U	9.30E-06
EEG-107	2294746	699964	3.90E-01		1.88E-01
GM-1	2298057	703323	2.50E-04	U	0.00E+00
GM-11	2297207	704134	2.50E-04	U	0.00E+00
GM-15	2296750	703149	2.50E-04	U	0.00E+00
GM-18A	2293001	701458	2.50E-04	U	4.04E-02
GM-19A	2292087	702314	5.50E-02		8.93E-04
GM-31A	2292910	701062	2.50E-04	U	4.96E-03
GM-46	2296000	702927	2.50E-04	U	0.00E+00
GM-4A	2294467	703403	2.50E-04	U	1.31E-13
GM-59A	2292805	701056	2.50E-04	U	4.34E-02
GM-5A	2293555	702897	2.50E-04	U	5.14E-07
GM-60A	2292356	703578	2.50E-04	U	2.10E-05
GM-6A	2294131	702060	1.00E-03	U	6.72E-06
GM-7A	2293241	701902	2.50E-04	U	7.76E-03
GM-8	2293110	701047	2.50E-04	U	7.17E-03
GM-9A	2295539	702112	2.50E-04	U	1.77E-19
OSAA-1-S	2294330	708622	2.50E-04	U	Dry
PIEZ-7S	2286292	698362	1.00E-03		0.00E+00
SA2-MW-10-S	2288446	698693	2.50E-04	U	0.00E+00
SA2-MW-1-S	2293339	705296	2.50E-04	U	0.00E+00

TABLE 3E CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Trichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	TCE Measured Concentration (mg/L)	Lab Qualifier	TCE Predicted Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
SA2-MW-2-S	2292977	704530	2.50E-04	U	1.65E-12
SA2-MW-3-S	2292107	705001	2.50E-04	U	1.38E-09
SA2-MW-5-S	2291017	700273	2.50E-04	U	3.48E-10
SA2-MW-9-S	2289080	699061	2.50E-04	U	0.00E+00
SA-O-2-S	2292314	702283	2.50E-04	U	1.04E-03
SA-O-3-S	2292127	702338	2.40E-02		7.13E-04
SA-O-4-S	2292007	701964	2.50E-04	U	2.77E-03
SA-P-1-S	2293873	705618	2.50E-04	U	6.33E-33
SA-P-2-S	2293446	705140	2.50E-04	U	0.00E+00
SA-P-3-S	2293614	704569	2.50E-04	U	1.04E-18
SA-Q-10-S	2288657	698220	2.50E-04	U	0.00E+00
SA-Q-11-S	2288151	698311	2.50E-04	U	0.00E+00
SA-Q-12-S	2288086	697995	2.50E-04	U	0.00E+00
SA-Q-13-S	2288093	697234	2.50E-04	U	0.00E+00
SA-Q-14-S	2287593	697661	2.50E-04	U	0.00E+00
SA-Q-15-S	2287393	697315	2.50E-04	U	0.00E+00
SA-Q-16-S	2287118	697613	2.50E-04	U	0.00E+00
SA-Q-5-S	2289554	700011	2.50E-04	U	1.64E-21
SA-Q-6-S	2289033	700433	2.50E-04	U	1.19E-22
SA-Q-7-S	2289470	699639	2.50E-04	U	3.55E-37
SA-Q-9-S	2288920	698693	2.50E-04	U	0.00E+00
SA-S-1-S	2291471	701874	5.00E-04	U	3.70E-04
SA-S-2-S	2291379	701731	2.50E-04	U	Dry
TCMW-2	2294810	699336	6.75E-04	U	1.06E-05
TCMW-3S	2294848	699582	6.75E-04	U	2.53E-03
TCMW-4	2294317	699507	6.75E-04	U	6.54E-05
TCMW-5S	2294327	699614	6.75E-04	U	1.33E-03
TCMW-6S	2293917	699642	6.75E-04	U	1.90E-04
UAA-10-S	2288938	698551	2.50E-04	U	Dry
UAA-11-S	2294603	705910	2.50E-04	U	0.00E+00
UAA-5-S	2294645	707932	2.50E-04	U	0.00E+00
UAA-6-S	2294980	705212	2.50E-04	U	0.00E+00
UAA-7-S	2291605	700343	2.50E-04	U	9.50E-08
UAA-8-S	2290412	700693	2.50E-04	U	Dry
UAA-9-S	2289920	699830	2.50E-04	U	Dry
				SHU (Layer 1 in Model) RMS Error (mg/L)	**0.03**
				SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**-0.003**

TABLE 3E CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Trichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	TCE Measured Concentration (mg/L)		TCE Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	5.00E-04	U	8.40E-04
AA-O-5-M	2291988	701441	2.50E-04	U	3.17E-03
AA-P-10-M	2292965	707034	2.50E-04	U	4.10E-38
AA-P-4-M	2293667	705938	2.50E-04	U	2.42E-31
AA-P-5-M	2292965	706178	2.50E-04	U	4.82E-27
AA-P-6-M	2291978	706643	2.50E-04	U	4.80E-20
AA-P-7-M	2293537	708624	2.50E-04	U	0.00E+00
AA-P-8-M	2292516	708964	2.50E-04	U	0.00E+00
AA-P-9-M	2293245	704449	2.50E-04	U	5.31E-14
AA-Q-10-M	2288018	697146	2.50E-04	U	0.00E+00
AA-Q-9-M	2289912	701235	2.50E-04	U	1.23E-10
AA-SLAY-1-M	2292817	704829	2.50E-04	U	4.24E-13
AA-SLAY-2-M	2292056	705202	2.50E-04	U	2.35E-10
AA-SLAY-3-M	2291368	705455	2.50E-04	U	1.15E-08
AA-SLAY-4-M	2291741	704624	2.50E-04	U	1.55E-06
B-24C	2290774	703571	5.40E-02		5.54E-02
CP-MW-18	2287909	696142	2.50E-04	U	0.00E+00
CP-MW-20	2288265	696769	2.50E-04	U	0.00E+00
CP-MW-22	2288923	697923	2.50E-04	U	0.00E+00
CP-MW-24	2289419	698714	2.50E-04	U	0.00E+00
GM-31B	2292928	701064	2.50E-04	U	5.28E-02
GM-3A	2293971	704005	2.50E-04	U	6.37E-16
GM-60B	2292362	703589	2.50E-04	U	2.10E-05
GM-9B	2295523	702120	5.00E-04	U	0.00E+00
IMW-1S	2296767	700427	1.25E-03	U	1.14E-15
PIEZ-7M	2286292	698362	2.50E-04	U	0.00E+00
PSMW-14M	2291997	706548	2.50E-04	U	3.09E-18
PSMW-15M	2291438	705483	2.50E-04	U	7.68E-09
PSMW-16M	2291113	704394	2.50E-04	U	2.01E-04
PSMW-8	2293543	702857	2.50E-04	U	1.04E-06
SA2-MW-10-M	2288442	698696	1.25E-03	U	0.00E+00
SA2-MW-1-M	2293340	705302	2.50E-04	U	0.00E+00
SA2-MW-2-M	2292979	704535	2.50E-04	U	1.65E-12
SA2-MW-3-M	2292109	704996	2.50E-04	U	1.38E-09
SA2-MW-4-M	2291893	702689	5.00E-04	U	1.61E-03
SA2-MW-5-M	2291015	700277	2.50E-04	U	3.48E-10
SA2-MW-6-M	2289601	700763	2.50E-04	U	6.33E-15
SA2-MW-7-M	2289033	700426	2.50E-04	U	1.23E-21
SA2-MW-9-M	2289080	699057	2.50E-04	U	0.00E+00
SA-O-1	2292907	702783	2.50E-04	U	1.71E-05
SA-Q-2	2289951	702294	2.50E-04	U	2.33E-08
SA-Q-3	2290079	701615	2.50E-04	U	1.09E-08

TABLE 3E CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Trichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	TCE Measured Concentration (mg/L)		TCE Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
SA-Q-4	2289686	700977	2.50E-04	U	7.70E-13
SA-Q-8	2288111	699785	2.50E-04	U	6.43E-40
TCMW-1M	2295680	699277	6.75E-04	U	4.27E-08
TCMW-1S	2295681	699282	6.75E-04	U	4.27E-08
TCMW-3M	2294848	699588	6.75E-04	U	2.53E-03
TCMW-5M	2294328	699620	6.75E-04	U	1.33E-03
TCMW-6M	2293920	699648	6.75E-04	U	2.74E-04
UAA-10-M	2288938	698551	2.50E-04	U	0.00E+00
UAA-11-M	2294603	705910	2.50E-04	U	0.00E+00
UAA-5-M	2294645	707932	2.50E-04	U	0.00E+00
UAA-6-M	2294980	705212	2.50E-04	U	0.00E+00
UAA-7-M	2291605	700343	2.50E-04	U	6.91E-07
UAA-8-M	2290412	700693	2.50E-04	U	3.32E-10
UAA-9-M	2289920	699830	2.50E-04	U	5.74E-21
				MHU (Layer 2 in Model) RMS Error (mg/L)	**0.01**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**0.0**

TABLE 3E CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Trichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	TCE Measured Concentration (mg/L)		TCE Predicted Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-O-5-D	2291980	701438	2.50E-04	U	1.70E-03
AA-P-10-D	2292965	707034	2.50E-04	U	1.25E-38
AA-P-5-D	2292966	706179	1.25E-03	U	0.00E+00
AA-P-6-D	2291980	706642	5.00E-04	U	4.55E-20
AA-P-7-D	2293538	708624	2.50E-04	U	0.00E+00
AA-P-8-D	2292518	708965	2.50E-04	U	0.00E+00
AA-Q-10-D	2288018	697143	2.50E-04	U	0.00E+00
AA-Q-9-D	2289912	701236	2.50E-04	U	6.90E-11
AA-SLAY-2-D	2292057	705200	1.25E-03	U	1.01E-10
AA-SLAY-3-D	2291367	705455	2.50E-04	U	7.04E-09
GM-17B	2294310	702673	5.00E-04	U	4.64E-08
GM-18B	2292996	701435	5.00E-04	U	2.05E-02
GM-19C	2292105	702309	2.50E-04	U	5.08E-04
GM-9C	2295527	702123	2.50E-04	U	0.00E+00
IMW-1I	2296764	700438	2.50E-04	U	7.40E-16
MW-5C	2293553	702888	1.00E-03	U	3.37E-07
OSAA-1	2294330	708622	2.50E-04	U	0.00E+00
PSMW-13	2291281	701517	2.50E-04	U	5.74E-05
PSMW-6	2294214	705885	2.50E-04	U	0.00E+00
PSMW-7	2293955	704010	1.25E-03	U	4.39E-16
PSMW-9	2292455	700774	2.50E-04	U	2.73E-03
SA2-MW-2-D	2292981	704538	5.00E-04	U	6.28E-13
UAA-10-D	2288936	698551	2.50E-04	U	0.00E+00
UAA-11-D	2294602	705909	2.50E-04	U	0.00E+00
UAA-6-D	2294979	705212	2.50E-04	U	0.00E+00
UAA-7-D	2291605	700341	2.50E-04	U	3.49E-07
UAA-8-D	2290410	700690	2.50E-04	U	1.80E-10
UAA-9-D	2289916	699830	2.50E-04	U	1.48E-21
				DHU (Layer 3 in Model) RMS Error (mg/L)	**0.004**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**0.0**

Overall RMS error (mg/L)	**0.02**
Overall Mean Residual error (mg/L)	**-0.001**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residual and RMS errors.
   Dry = Well lies in model dry cell
   Mg/L = Milligram per liter
   RMS = Root mean square error

TABLE 3F
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
cis-1,2-Dichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	DCE Observed Concentration (mg/L)	Lab Qualifier	DCE Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	1.00E-02		Dry
AA-CLAY-2-S	2292029	702612	4.00E+01		Dry
AA-O-5-S	2291988	701441	5.00E-04	U	6.39E-04
AA-P-10-S	2292965	707034	2.50E-04	U	1.65E-03
AA-P-4-S	2293667	705938	5.00E-04	U	3.07E-03
AA-P-6-S	2291978	706643	5.00E-04	U	3.72E-03
AA-P-7-S	2293537	708624	5.00E-04	U	4.20E-05
AA-P-9-S	2293245	704449	5.00E-04	U	Dry
AA-Q-10-S	2288018	697146	5.00E-04	U	Dry
AA-Q-9-S	2289912	701235	5.00E-04	U	Dry
AA-SLAY-1-S	2292817	704829	5.00E-04	U	Dry
AA-SLAY-2-S	2292056	705202	5.00E-04	U	4.29E-03
B-28A	2290369	702643	1.00E-03	U	2.63E-02
B-29B	2290793	702429	1.80E-02	J	2.93E-03
CA-3	2297021	702413	5.00E-04	U	1.38E-11
CP-MW-10-S	2290148	698021	5.00E-04	U	1.95E-25
CP-MW-12-S	2289192	697495	5.00E-04	U	7.44E-30
CP-MW-16-S	2289579	696182	5.00E-04	U	1.74E-36
CP-MW-6-S	2292546	698639	5.00E-04	U	1.38E-16
CP-MW-7-S	2291605	698213	5.00E-04	U	1.16E-20
EE-03	2295550	699820	5.00E-04	U	6.24E-04
EEG-107	2294746	699964	2.40E-01		2.31E-01
GM-1	2298057	703323	5.00E-04	U	7.82E-16
GM-11	2297207	704134	5.00E-04	U	1.83E-10
GM-15	2296750	703149	5.00E-04	U	4.78E-10
GM-18A	2293001	701458	5.00E-04	U	8.01E-02
GM-19A	2292087	702314	6.70E-02		4.03E-02
GM-31A	2292910	701062	5.00E-04	U	9.40E-03
GM-46	2296000	702927	5.00E-04	U	2.91E-07
GM-4A	2294467	703403	5.00E-04	U	7.74E-04
GM-59A	2292805	701056	5.00E-04	U	7.65E-02
GM-5A	2293555	702897	5.00E-04	U	3.28E-02
GM-60A	2292356	703578	5.00E-04	U	2.93E-02
GM-6A	2294131	702060	2.00E-03	U	2.27E-02
GM-7A	2293241	701902	2.00E-03		5.35E-02
GM-8	2293110	701047	5.00E-04	U	1.35E-02
GM-9A	2295539	702112	5.00E-04	U	1.07E-04
OSAA-1-S	2294330	708622	2.50E-04	U	1.06E-03
PIEZ-7S	2286292	698362	5.00E-04	U	1.04E-31
SA2-MW-10-S	2288446	698693	2.50E-04	U	4.56E-25
SA2-MW-1-S	2293339	705296	2.50E-04	U	9.82E-03
SA2-MW-2-S	2292977	704530	2.50E-04	U	1.33E-02

TABLE 3F CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
cis-1,2-Dichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	DCE Observed Concentration (mg/L)	Lab Qualifier	DCE Simulated Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
SA2-MW-3-S	2292107	705001	2.50E-04	U	1.91E-02
SA2-MW-5-S	2291017	700273	2.50E-04	U	8.29E-10
SA2-MW-9-S	2289080	699061	2.50E-04	U	2.96E-22
SA-O-2-S	2292314	702283	5.00E-04	U	3.01E-02
SA-O-3-S	2292127	702338	4.70E-02		9.35E-02
SA-O-4-S	2292007	701964	5.00E-04	U	8.90E-03
SA-P-1-S	2293873	705618	5.00E-04	U	5.22E-03
SA-P-2-S	2293446	705140	5.00E-04	U	7.54E-03
SA-P-3-S	2293614	704569	5.00E-04	U	4.85E-03
SA-Q-10-S	2288657	698220	5.00E-04	U	3.27E-27
SA-Q-11-S	2288151	698311	5.00E-04	U	9.58E-28
SA-Q-12-S	2288086	697995	5.00E-04	U	1.44E-29
SA-Q-13-S	2288093	697234	5.00E-04	U	9.19E-34
SA-Q-14-S	2287593	697661	5.00E-04	U	3.78E-32
SA-Q-15-S	2287393	697315	5.00E-04	U	6.89E-35
SA-Q-16-S	2287118	697613	5.00E-04	U	1.02E-33
SA-Q-5-S	2289554	700011	5.00E-04	U	1.05E-16
SA-Q-6-S	2289033	700433	5.00E-04	U	2.51E-16
SA-Q-7-S	2289470	699639	5.00E-04	U	7.85E-19
SA-Q-9-S	2288920	698693	5.00E-04	U	3.85E-24
SA-S-1-S	2291471	701874	6.90E-03		1.15E-03
SA-S-2-S	2291379	701731	5.00E-04	U	Dry
TCMW-2	2294810	699336	1.25E-03	U	1.69E-05
TCMW-3S	2294848	699582	1.25E-03	U	3.37E-03
TCMW-4	2294317	699507	1.25E-03	U	1.07E-04
TCMW-5S	2294327	699614	1.25E-03	U	1.82E-03
TCMW-6S	2293917	699642	1.25E-03	U	2.96E-04
UAA-10-S	2288938	698551	5.00E-04	U	Dry
UAA-11-S	2294603	705910	2.50E-04	U	1.28E-03
UAA-5-S	2294645	707932	5.00E-04	U	3.37E-04
UAA-6-S	2294980	705212	5.00E-04	U	4.71E-04
UAA-7-S	2291605	700343	5.00E-04	U	1.99E-07
UAA-8-S	2290412	700693	5.00E-04	U	Dry
UAA-9-S	2289920	699830	5.00E-04	U	Dry
SHU (Layer 1 in Model) RMS Error (mg/L)					**0.02**
SHU (Layer 1 in Model) Mean Residual Error (mg/L)					**0.006**

TABLE 3F CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
cis-1,2-Dichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	DCE Measured Concentration (mg/L)		DCE Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	1.60E-02		1.01E-01
AA-CLAY-2-M	2292029	702612	1.20E+00		1.14E+00
AA-O-5-M	2291988	701441	2.90E-03		6.54E-03
AA-P-10-M	2292965	707034	2.50E-04	U	7.31E-03
AA-P-4-M	2293667	705938	5.00E-04	U	8.08E-03
AA-P-5-M	2292965	706178	5.00E-04	U	1.23E-02
AA-P-6-M	2291978	706643	5.00E-04	U	1.02E-02
AA-P-7-M	2293537	708624	5.00E-04	U	5.10E-04
AA-P-8-M	2292516	708964	5.00E-04	U	1.07E-04
AA-P-9-M	2293245	704449	5.00E-04	U	9.79E-03
AA-Q-10-M	2288018	697146	5.00E-04	U	2.46E-34
AA-Q-9-M	2289912	701235	5.00E-04	U	5.23E-09
AA-SLAY-1-M	2292817	704829	5.00E-04	U	1.52E-02
AA-SLAY-2-M	2292056	705202	5.00E-04	U	1.82E-02
AA-SLAY-3-M	2291368	705455	5.00E-04	U	1.40E-02
AA-SLAY-4-M	2291741	704624	5.00E-04	U	1.84E-02
CP-MW-18	2287909	696142	5.00E-04	U	0.00E+00
CP-MW-20	2288265	696769	5.00E-04	U	7.26E-36
CP-MW-22	2288923	697923	5.00E-04	U	3.08E-28
CP-MW-24	2289419	698714	5.00E-04	U	3.15E-23
EE-01	2295289	700157	4.60E-02		5.00E-02
GM-31B	2292928	701064	5.00E-04	U	9.22E-02
GM-3A	2293971	704005	5.00E-04	U	2.19E-03
GM-60B	2292362	703589	3.20E-03		2.93E-02
GM-9B	2295523	702120	1.00E-03	U	3.66E-04
OSAA-1-M	2294330	708622	2.50E-04	U	1.06E-03
PIEZ-7M	2286292	698362	1.60E-03	J	1.53E-31
PSMW-14M	2291997	706548	2.50E-04	U	1.16E-02
PSMW-15M	2291438	705483	2.50E-04	U	1.43E-02
PSMW-16M	2291113	704394	2.30E-03		1.09E-01
PSMW-8	2293543	702857	2.50E-04	U	3.71E-02
SA2-MW-10-M	2288442	698696	1.25E-03	U	4.56E-25
SA2-MW-1-M	2293340	705302	2.50E-04	U	9.82E-03
SA2-MW-2-M	2292979	704535	2.50E-04	U	1.33E-02
SA2-MW-3-M	2292109	704996	2.50E-04	U	1.91E-02
SA2-MW-4-M	2291893	702689	6.10E-01	D	1.21E+00
SA2-MW-5-M	2291015	700277	2.50E-04	U	8.29E-10
SA2-MW-6-M	2289601	700763	2.50E-04	U	1.30E-12
SA2-MW-7-M	2289033	700426	2.50E-04	U	7.47E-16
SA2-MW-9-M	2289080	699057	2.50E-04	U	2.96E-22
SA-O-1	2292907	702783	5.00E-04	U	5.01E-02
SA-Q-2	2289951	702294	5.00E-04	U	9.86E-04
SA-Q-3	2290079	701615	1.50E-03	J	1.87E-06

TABLE 3F CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
cis-1,2-Dichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	DCE Measured Concentration (mg/L)		DCE Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
SA-Q-4	2289686	700977	5.00E-04	U	5.19E-11
SA-Q-8	2288111	699785	5.00E-04	U	1.06E-20
TCMW-1M	2295680	699277	1.25E-03	U	1.09E-07
TCMW-1S	2295681	699282	1.25E-03	U	1.09E-07
TCMW-3M	2294848	699588	1.25E-03	U	3.37E-03
TCMW-5M	2294328	699620	1.25E-03	U	1.82E-03
TCMW-6M	2293920	699648	1.25E-03	U	4.17E-04
UAA-10-M	2288938	698551	5.00E-04	U	6.03E-25
UAA-11-M	2294603	705910	1.60E-03		1.60E-03
UAA-5-M	2294645	707932	5.00E-04	U	1.78E-03
UAA-6-M	2294980	705212	5.00E-04	U	2.17E-04
UAA-7-M	2291605	700343	3.30E-03		1.43E-06
UAA-8-M	2290412	700693	5.00E-04	U	1.07E-09
UAA-9-M	2289920	699830	5.00E-04	U	1.35E-16
				MHU (Layer 2 in Model) RMS Error (mg/L)	**0.08**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**0.02**

TABLE 3F CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
cis-1,2-Dichloroethene Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	DCE Measured Concentration (mg/L)		DCE Predicted Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-CLAY-2-D	2292026	702612	9.60E+00		9.56E+00
AA-O-5-D	2291980	701438	1.70E-03	J	3.63E-03
AA-P-10-D	2292965	707034	8.90E-04	J	9.81E-03
AA-P-6-D	2291980	706642	1.00E-03	U	1.28E-02
AA-P-7-D	2293538	708624	5.00E-04	U	7.52E-04
AA-P-8-D	2292518	708965	5.00E-04	U	1.10E-04
AA-Q-10-D	2288018	697143	5.00E-04	U	2.99E-34
AA-Q-9-D	2289912	701236	5.00E-04	U	7.10E-09
AA-SLAY-3-D	2291367	705455	5.00E-04	U	1.66E-02
GM-17B	2294310	702673	1.00E-03	U	1.43E-02
GM-18B	2292996	701435	1.00E-03	U	4.31E-02
GM-19C	2292105	702309	1.40E-03	J	8.08E-02
GM-9C	2295527	702123	5.00E-04	U	1.94E-04
IMW-1I	2296764	700438	5.00E-04	U	1.78E-09
MW-5C	2293553	702888	3.90E-02		2.86E-02
OSAA-1-D	2294330	708622	2.50E-03		1.06E-03
PSMW-13	2291281	701517	2.50E-04	U	1.46E-04
PSMW-16D	2291113	704394	1.10E-02		2.44E-01
PSMW-6	2294214	705885	2.50E-04	U	4.30E-03
PSMW-7	2293955	704010	1.25E-03	U	2.27E-03
PSMW-9	2292455	700774	2.50E-04	U	5.08E-03
SA2-MW-2-D	2292981	704538	5.00E-04	U	1.55E-02
SA2-MW-4-D	2291893	702689	1.30E-02	J	-
UAA-10-D	2288936	698551	5.00E-04	U	6.98E-25
UAA-11-D	2294602	705909	2.10E-03		1.88E-03
UAA-6-D	2294979	705212	5.00E-04	U	2.22E-04
UAA-7-D	2291605	700341	5.00E-04	U	7.27E-07
UAA-8-D	2290410	700690	5.00E-04	U	7.08E-10
UAA-9-D	2289916	699830	5.00E-04	U	1.00E-16
				DHU (Layer 3 in Model) RMS Error (mg/L)	**0.05**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**0.01**

Overall RMS error (mg/L)	**0.06**
Overall Mean Residual error (mg/L)	**0.01**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residu and RMS errors.
   Dry = Well lies in model dry cell
   Mg/L = Milligram per liter
   RMS = Root mean square error

TABLE 3G
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Vinyl Chloride Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	VC Measured Concentration (mg/L)	Lab Qualifier	VC Predicted Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
AA-CLAY-1-S	2292216	703094	5.00E-04	U	Dry
AA-CLAY-2-S	2292029	702612	5.10E-01		Dry
AA-O-5-S	2291988	701441	2.50E-04	U	1.99E-04
AA-P-10-S	2292965	707034	2.50E-04	U	9.69E-03
AA-P-4-S	2293667	705938	2.50E-04	U	1.71E-02
AA-P-6-S	2291978	706643	2.50E-04	U	2.21E-02
AA-P-7-S	2293537	708624	2.50E-04	U	2.55E-04
AA-P-9-S	2293245	704449	2.50E-04	U	Dry
AA-Q-10-S	2288018	697146	2.50E-04	U	Dry
AA-Q-9-S	2289912	701235	2.50E-04	U	Dry
AA-SLAY-1-S	2292817	704829	2.50E-04	U	Dry
AA-SLAY-2-S	2292056	705202	2.50E-04	U	2.22E-02
B-22A	2291090	704158	2.50E-03	U	Dry
B-28A	2290369	702643	5.00E-04	U	1.29E-02
B-29B	2290793	702429	2.50E-03	U	Dry
CA-3	2297021	702413	2.50E-04	U	7.08E-11
CP-MW-10-S	2290148	698021	2.50E-04	U	2.48E-25
CP-MW-12-S	2289192	697495	2.50E-04	U	1.08E-29
CP-MW-16-S	2289579	696182	2.50E-04	U	2.86E-36
CP-MW-6-S	2292546	698639	2.50E-04	U	8.92E-17
CP-MW-7-S	2291605	698213	2.50E-04	U	1.01E-20
EE-03	2295550	699820	2.50E-04	U	2.82E-05
GM-1	2298057	703323	2.50E-04	U	4.61E-15
GM-11	2297207	704134	2.50E-04	U	1.05E-09
GM-15	2296750	703149	2.50E-04	U	2.59E-09
GM-18A	2293001	701458	2.50E-04	U	2.68E-02
GM-19A	2292087	702314	1.80E-03		6.54E-02
GM-31A	2292910	701062	2.50E-04	U	1.85E-03
GM-46	2296000	702927	2.50E-04	U	1.42E-06
GM-4A	2294467	703403	2.50E-04	U	3.49E-03
GM-59A	2292805	701056	2.50E-04	U	1.36E-02
GM-5A	2293555	702897	2.50E-04	U	1.24E-01
GM-60A	2292356	703578	2.50E-04	U	1.28E-01
GM-6A	2294131	702060	1.00E-03	U	6.12E-02
GM-7A	2293241	701902	2.50E-04	U	1.13E-01
GM-8	2293110	701047	2.50E-04	U	2.72E-03
GM-9A	2295539	702112	2.50E-04	U	3.01E-04
OSAA-1-S	2294330	708622	2.50E-04	U	6.75E-03
PIEZ-7S	2286292	698362	2.50E-04	U	1.98E-31
SA2-MW-10-S	2288446	698693	2.50E-04	U	6.52E-25
SA2-MW-1-S	2293339	705296	2.50E-04	U	5.30E-02
SA2-MW-2-S	2292977	704530	2.50E-04	U	6.75E-02

TABLE 3G CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Vinyl Chloride Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	VC Measured Concentration (mg/L)	Lab Qualifier	VC Predicted Concentration (mg/L)
SHU (LAYER 1 IN MODEL)					
SA2-MW-3-S	2292107	705001	2.50E-04	U	9.78E-02
SA2-MW-5-S	2291017	700273	2.50E-04	U	1.72E-10
SA2-MW-9-S	2289080	699061	2.50E-04	U	3.95E-22
SA-O-2-S	2292314	702283	2.50E-04	U	6.67E-02
SA-O-3-S	2292127	702338	2.50E-04	U	1.25E-01
SA-O-4-S	2292007	701964	2.50E-04	U	9.34E-03
SA-P-1-S	2293873	705618	2.50E-04	U	2.90E-02
SA-P-2-S	2293446	705140	2.50E-04	U	4.05E-02
SA-P-3-S	2293614	704569	2.50E-04	U	2.53E-02
SA-Q-10-S	2288657	698220	2.50E-04	U	4.73E-27
SA-Q-11-S	2288151	698311	2.50E-04	U	1.44E-27
SA-Q-12-S	2288086	697995	2.50E-04	U	2.24E-29
SA-Q-13-S	2288093	697234	2.50E-04	U	1.55E-33
SA-Q-14-S	2287593	697661	1.20E-03		6.36E-32
SA-Q-15-S	2287393	697315	2.50E-04	U	1.28E-34
SA-Q-16-S	2287118	697613	2.50E-04	U	1.87E-33
SA-Q-5-S	2289554	700011	2.50E-04	U	1.11E-16
SA-Q-6-S	2289033	700433	9.30E-04	J	3.30E-16
SA-Q-7-S	2289470	699639	2.50E-04	U	9.70E-19
SA-Q-9-S	2288920	698693	2.50E-04	U	5.28E-24
SA-S-1-S	2291471	701874	5.00E-04	U	9.04E-04
SA-S-2-S	2291379	701731	2.50E-04	U	Dry
TCMW-2	2294810	699336	2.50E-03	U	Dry
TCMW-3S	2294848	699582	2.50E-03	U	Dry
TCMW-4	2294317	699507	2.50E-03	U	Dry
TCMW-5S	2294327	699614	2.50E-03	U	Dry
TCMW-6S	2293917	699642	2.50E-03	U	Dry
UAA-10-S	2288938	698551	2.50E-04	U	Dry
UAA-11-S	2294603	705910	2.50E-04	U	7.16E-03
UAA-5-S	2294645	707932	2.50E-04	U	2.00E-03
UAA-6-S	2294980	705212	2.50E-04	U	2.58E-03
UAA-7-S	2291605	700343	2.50E-04	U	3.63E-08
UAA-8-S	2290412	700693	2.50E-04	U	Dry
UAA-9-S	2289920	699830	2.50E-04	U	Dry
				SHU (Layer 1 in Model) RMS Error (mg/L)	**0.04**
				SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**0.02**

TABLE 3G CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Vinyl Chloride Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	VC Measured Concentration (mg/L)	Lab Qualifier	VC Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
AA-CLAY-1-M	2292216	703094	9.60E-03		1.66E-01
AA-CLAY-2-M	2292029	702612	1.40E+00		1.26E+00
AA-O-5-M	2291988	701441	2.50E-04	U	1.54E-03
AA-P-10-M	2292965	707034	2.50E-04	U	4.26E-02
AA-P-4-M	2293667	705938	2.50E-04	U	4.53E-02
AA-P-5-M	2292965	706178	2.50E-04	U	6.91E-02
AA-P-6-M	2291978	706643	2.50E-04	U	6.00E-02
AA-P-7-M	2293537	708624	2.50E-04	U	3.09E-03
AA-P-8-M	2292516	708964	2.50E-04	U	6.70E-04
AA-P-9-M	2293245	704449	2.50E-04	U	4.97E-02
AA-Q-10-M	2288018	697146	2.50E-04	U	4.22E-34
AA-Q-9-M	2289912	701235	2.50E-04	U	3.38E-09
AA-SLAY-1-M	2292817	704829	2.50E-04	U	7.82E-02
AA-SLAY-2-M	2292056	705202	2.50E-04	U	9.49E-02
AA-SLAY-3-M	2291368	705455	2.50E-04	U	7.45E-02
AA-SLAY-4-M	2291741	704624	2.50E-04	U	8.68E-02
CP-MW-18	2287909	696142	2.50E-04	U	7.92E-40
CP-MW-20	2288265	696769	2.50E-04	U	1.27E-35
CP-MW-22	2288923	697923	2.50E-04	U	4.42E-28
CP-MW-24	2289419	698714	2.50E-04	U	4.14E-23
GM-31B	2292928	701064	2.50E-04	U	1.63E-02
GM-3A	2293971	704005	2.50E-04	U	1.10E-02
GM-60B	2292362	703589	1.70E-03		1.28E-01
GM-9B	2295523	702120	5.00E-04	U	9.93E-04
IMW-1S	2296767	700427	1.25E-03	U	1.14E-08
OSAA-1-M	2294330	708622	2.50E-04	U	6.75E-03
PIEZ-7M	2286292	698362	9.60E-04	J	2.71E-31
PSMW-14M	2291997	706548	2.50E-04	U	6.77E-02
PSMW-15M	2291438	705483	2.50E-04	U	7.56E-02
PSMW-16M	2291113	704394	2.50E-04	U	8.09E-02
PSMW-8	2293543	702857	4.20E-03		1.38E-01
SA2-MW-10-M	2288442	698696	1.25E-03	U	6.52E-25
SA2-MW-1-M	2293340	705302	2.50E-04	U	5.30E-02
SA2-MW-2-M	2292979	704535	2.50E-04	U	6.75E-02
SA2-MW-3-M	2292109	704996	2.50E-04	U	9.78E-02
SA2-MW-5-M	2291015	700277	2.50E-04	U	1.72E-10
SA2-MW-6-M	2289601	700763	2.50E-04	U	8.90E-13
SA2-MW-7-M	2289033	700426	2.50E-04	U	8.33E-16
SA2-MW-9-M	2289080	699057	2.50E-04	U	3.95E-22
SA-O-1	2292907	702783	2.50E-04	U	1.92E-01
SA-Q-2	2289951	702294	2.50E-04	U	5.36E-04
SA-Q-3	2290079	701615	2.50E-04	U	1.15E-06
SA-Q-4	2289686	700977	2.50E-04	U	3.50E-11

TABLE 3G CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Vinyl Chloride Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	VC Measured Concentration (mg/L)	Lab Qualifier	VC Predicted Concentration (mg/L)
MHU (LAYER 2 IN MODEL)					
SA-Q-8	2288111	699785	2.50E-04	U	1.52E-20
TCMW-1S	2295681	699282	2.50E-03	U	1.54E-08
UAA-10-M	2288938	698551	2.50E-04	U	8.32E-25
UAA-11-M	2294603	705910	2.50E-04	U	9.09E-03
UAA-5-M	2294645	707932	2.50E-04	U	1.05E-02
UAA-6-M	2294980	705212	2.50E-04	U	1.22E-03
UAA-7-M	2291605	700343	2.50E-04	U	2.57E-07
UAA-8-M	2290412	700693	2.50E-04	U	3.34E-10
UAA-9-M	2289920	699830	2.50E-04	U	1.25E-16
				MHU (Layer 2 in Model) RMS Error (mg/L)	**0.06**
				MHU (Layer 2 in Model) Mean Residual Error (mg/L)	**0.03**

TABLE 3G CONT'D
GROUNDWATER FATE AND TRANSPORT MODEL CALIBRATION RESULTS
Vinyl Chloride Observed Vs. Simulated Concentrations

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	VC Measured Concentration (mg/L)	Lab Qualifier	VC Predicted Concentration (mg/L)
DHU (LAYER 3 IN MODEL)					
AA-CLAY-2-D	2292026	702612	9.60E-02	J	3.27E-01
AA-O-5-D	2291980	701438	2.50E-04	U	1.27E-03
AA-P-10-D	2292965	707034	2.50E-04	U	6.06E-02
AA-P-5-D	2292966	706179	1.25E-03	U	9.50E-02
AA-P-6-D	2291980	706642	5.00E-04	U	7.76E-02
AA-P-7-D	2293538	708624	2.50E-04	U	4.79E-03
AA-P-8-D	2292518	708965	2.50E-04	U	7.01E-04
AA-Q-10-D	2288018	697143	2.50E-04	U	5.14E-34
AA-Q-9-D	2289912	701236	2.50E-04	U	4.01E-09
AA-SLAY-2-D	2292057	705200	1.25E-03	U	1.31E-01
AA-SLAY-3-D	2291367	705455	2.50E-04	U	9.66E-02
GM-17B	2294310	702673	5.00E-04	U	1.30E-01
GM-18B	2292996	701435	5.00E-04	U	3.34E-02
GM-19C	2292105	702309	3.20E-03		7.33E-02
GM-27C	2290906	704326	4.10E-02		1.67E-01
GM-6B	2294135	702076	6.90E-01		5.67E-01
GM-9C	2295527	702123	2.50E-04	U	2.34E-03
IMW-1I	2296764	700438	2.50E-04	U	2.54E-08
MW-5C	2293553	702888	1.10E-01		2.24E-01
OSAA-1-D	2294330	708622	2.50E-04	U	6.75E-03
PSMW-12	2292347	703599	3.50E-02		1.92E-01
PSMW-13	2291281	701517	2.50E-04	U	7.71E-05
PSMW-16D	2291113	704394	1.30E-02		1.28E-01
PSMW-6	2294214	705885	2.50E-04	U	2.63E-02
PSMW-7	2293955	704010	1.25E-03	U	1.40E-02
PSMW-9	2292455	700774	2.50E-04	U	9.05E-04
SA2-MW-2-D	2292981	704538	5.00E-04	U	9.41E-02
UAA-10-D	2288936	698551	2.50E-04	U	9.67E-25
UAA-11-D	2294602	705909	2.50E-04	U	1.16E-02
UAA-6-D	2294979	705212	2.50E-04	U	1.36E-03
UAA-7-D	2291605	700341	2.50E-04	U	1.33E-07
UAA-8-D	2290410	700690	2.50E-04	U	2.84E-10
UAA-9-D	2289916	699830	2.50E-04	U	1.01E-16
				DHU (Layer 3 in Model) RMS Error (mg/L)	**0.08**
				DHU (Layer 3 in Model) Mean Residual Error (mg/L)	**0.04**
				Overall RMS error (mg/L)	**0.06**
				Overall Mean Residual error (mg/L)	**0.03**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
2. For non-detects, values equal to half the detection limit were used for the calculation of Mean Residual and RMS errors.
   Dry = Well lies in model dry cell
   Mg/L = Milligram per liter
   RMS = Root mean square error