MONTGOMERY WATSON

EPA Region 5 Records Ctr.
201235
921490

May 2, 2000

Timothy J. Prendiville
Remedial Project Manager
United States Environmental Protection Agency, Region 5
Mail Code SR-J6
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Re: Quarterly Groundwater Report
Eighth Round (February 2000)
Blackwell Landfill NPL Site

Dear Mr. Prendiville:

On behalf of the Forest Preserve District of DuPage County, we are pleased to submit the Quarterly Groundwater Report for the eighth round of quarterly sampling undertaken in February 2000. If you have questions on the attached report, please contact me at (630) 836-8900.

Sincerely,

MONTGOMERY WATSON

Walter G. Buettner, P.E.
Supervising Engineer

cc: Rick Lanham – Illinois Environmental Protection Agency (2 copies)
Jerry Hartwig – Forest Preserve District of DuPage County
Pranika Uppal – Tetra Tech EM, Inc.
Kurt Lindland, Assistant Regional Counsel – U.S. EPA (without attachment)
David Barritt – Chapman and Cutler (without attachment)

Attachment

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GROUNDWATER MONITORING REPORT
EIGHTH ROUND (February 2000)

BLACKWELL FOREST PRESERVE LANDFILL SITE
DUPAGE COUNTY, ILLINOIS

Montgomery Watson File No.: 1252008

Prepared For:

Forest Preserve District of
DuPage County, Illinois

Prepared By:

Montgomery Watson
27755 Diehl Road, Suite 300
Warrenville, Illinois 60555

May 2000

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Prepared For:

Forest Preserve District of
DuPage County, Illinois

Prepared by: Lonny R. Boring — 05-02-2000
Lonny R. Boring, Associate Engineer — Date

Approved by: — 5/2/00
Walter G. Buettner, P.E. — Date

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ACRONYNMS AND ABBREVIATIONS

AOC	Administrative Order of Consent
FPD	Forest Preserve District
MCLs	Maximum Contaminant Levels
QAPP	Quality Assurance Project Plan
QC	Quality Control
ORP	Oxidation-Reduction Potential
RI/FS	Remedial Investigation/Feasibility Study
SOW	Statement of Work
TCL	Target Compound List
TDS	Total Dissolved Solids
UAO	Unilateral Administrative Order
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

Montgomery Watson was retained by the Forest Preserve District (FPD) of DuPage County to develop and implement a two year quarterly groundwater monitoring program at the Blackwell Landfill NPL Site (Site), located in Warrenville, DuPage County, Illinois (Figure 1). General site features are shown in Figure 2. The quarterly groundwater monitoring program is required by the Administrative Order of Consent (AOC), U.S. EPA Docket No. V-W-96-C-341, between U.S. EPA and the FPD, and by the April 9, 1999 Unilateral Administrative Order (UAO), U.S. EPA Docket No. V-W-99-C-541.

This report documents the results of the eighth round of groundwater sampling conducted in February 2000.

2.0 SCOPE OF MONITORING PROGRAM

The scope of the two year quarterly groundwater monitoring program is described in the Revised PreDesign Investigation Report (July 1997) which was approved by the U.S. EPA on August 21, 1997. The objective of the program, as outlined in the Statement of Work (SOW) attached to the AOC, is to monitor groundwater quality in both the upper, glacial outwash aquifer, and the underlying, limestone bedrock aquifer downgradient between the landfill and the Site property line. The analytical results of the monitoring will be used to:

- Provide on-going characterization of groundwater quality downgradient of the Site;
- Confirm that groundwater contaminants do not exceed maximum contaminant levels (MCLs), an excess cancer risk greater than 10^{-6}, or Hazard Index greater than or equal to 1.0, at the Site downgradient boundary;
- Provide baseline groundwater data following cap repair remediation, which may be utilized to estimate contaminant natural attenuation rates; and
- Determine whether reduction of groundwater contaminant loading following cap repairs and in combination with natural attenuation and dilution, will meet 35 IAC 620.410 groundwater standards with time.

Prior to the first round of sampling (completed in November 1997), a monitoring well and piezometer integrity survey was conducted on the wells proposed for inclusion into the groundwater monitoring program, and five new wells were installed as required by U.S. EPA. The results of the integrity survey and new well installation are documented in Monitoring Well Assessment Report (Montgomery Watson, February 1998). As a result of the survey and new well installation, twenty-nine monitoring wells are included in the quarterly groundwater monitoring program.

The groundwater monitoring program consists of groundwater level measurements and groundwater sampling and analysis. The monitoring wells are divided into:

- Detection monitoring wells, located between the landfill and the downgradient Site boundary;
- Compliance monitoring wells, located along the downgradient Site boundary; and
- Other monitoring wells/piezometers for water level measurement only.

The wells are further grouped into those screened in the upper, glacial outwash aquifer (Figure 3) and those screened in the lower, limestone bedrock aquifer (Figure 4). The 29 wells are listed below in these groupings:

Detection Monitoring Wells

Glacial Outwash Aquifer Wells	Bedrock Wells
G107S	G128D
G117	G135
G118S	G140D
G123	G141D
G126	G145*
G127	
G129	
G130	

Compliance Monitoring Wells

Glacial Outwash Aquifer Wells	Bedrock Wells
G122	G131D
G133S	G133D
G142*	G138
G143*	G139
G144*	G146*

Water Level Wells

Glacial Outwash Aquifer Wells	Bedrock Wells
P2	G132D
G114	G134
G121	G137

Note
* New monitoring wells installed in October 1997.

The rationale for including these wells in the groundwater monitoring program is discussed in the Revised Pre-Design Investigation Report (July 1997).

A licensed, professional surveyor measured surface water elevations on February 10, 2000 at Silver Lake, Sand Pond, Pine Lake, Spring Brook, and the West Branch of the DuPage River, for the eighth round of quarterly groundwater sampling.

3.0 SUMMARY OF FIELD ACTIVITIES

3.1 GROUNDWATER SAMPLING

Groundwater samples were collected from the detection and compliance monitoring wells from February 14 through February 21, 2000. The samples were collected in accordance with procedures described in the U.S. EPA-approved Revised Pre-Design Investigation Activities report, Appendix F (July 1997) and the Quality Assurance Project Plan (QAPP, Volume IV of the Pre-Design Investigation Activities Report). These procedures are summarized below:

- Static water levels were measured at each monitoring well (Table 1).
- Water elevations of nearby surface water bodies (i.e., Silver Lake, Pine Lake, Sand Pond, two locations along Spring Brook and one location on the west branch of the DuPage River) were measured (Table 1).
- All monitoring wells, except G141D, were purged with a decontaminated, submersible Grundfos™ pump using low-flow methods. Dedicated tubing was used in each well. Wells were purged until field parameters (i.e., temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential (ORP), and turbidity) stabilized (Table 2).
- All monitoring wells, except G141D, were sampled from the pump discharge following purging. Samples for total dissolved solids analysis were filtered using an in-line, 0.45 micron membrane.
- As approved by U.S. EPA during Round 1, the sampling procedures for monitoring well G141D were modified due to an obstruction in the well. This obstruction prevents the submersible pump from being lowered to the screened interval. A bailer was successfully lowered to the well bottom, and was used to purge three well volumes and collect the necessary sample volume.
- Quality control (QC) samples (e.g., duplicates, field blanks, and matrix spike/matrix spike duplicates) were collected at frequencies specified in the QAPP.
- Following collection, the samples were placed in coolers and delivered under strict chain-of-custody to First Environmental Laboratories, Inc. in Naperville, Illinois.

3.2 ANALYTICAL RESULTS

The groundwater samples were analyzed by First Environmental Laboratories, Inc., of Naperville, Illinois for Target Compound List (TCL) volatile organic compounds (VOCs), chlorides, sulfate, and total dissolved solids (TDS).

The samples were analyzed in accordance with the analytical methods and required practical quantitation limits outlined in the QAPP and in QAPP addenda. The laboratory-supplied data package was reviewed and validated by Montgomery Watson in accordance with the QAPP and EPA guidance. The validation report has been retained on file at Montgomery Watson, and is available upon request.

The validated analytical results are summarized in Table 3. The U S EPA's MCLs and Illinois Class I Groundwater Standards are also listed in Table 3 and exceedances of these standards are highlighted. A summary of detections, groundwater standards, and exceedances of standards is provided in Table 4. Tables 3 and 4 indicate that:

- One VOC was detected during the eighth round of quarterly groundwater monitoring (i.e , cis-1,2-dichloroethene). Cis-1,2-dichloroethene was detected in groundwater samples from two detection monitoring wells (G118S and G127) located in the upper outwash aquifer, but at concentrations below regulatory standards. The detected cis-1,2-dichloroethene concentrations in these wells are consistent with historic results.

- TDS was detected in groundwater samples from 12 of the 23 wells at concentrations above the secondary MCL. While the maximum detected concentration was 859 mg/L in a sample from outwash detection well G118S, the exceedances of TDS were distributed among the four classes of monitoring wells (i.e., shallow detection, shallow compliance, deep detection and deep compliance).

3.3 COMPARISON TO HISTORIC ANALYTICAL RESULTS

Montgomery Watson reviewed the historic analytical results obtained from detection and compliance monitoring wells during the Remedial Investigation and Feasibility Study (RI/FS) and previous rounds of quarterly groundwater monitoring to assess overall trends in the data and specific changes during the eighth round of quarterly monitoring. The historic data was collected on the following dates:

- September 1991: first round of the RI;
- January 1992· second round of the RI,
- June 1995: round collected during the FS;
- November 1997. first round of the Quarterly Groundwater Monitoring Program;
- July 1998 second round of the Quarterly Groundwater Monitoring Program,
- October 1998 third round of the Quarterly Groundwater Monitoring Program,
- February 1999· fourth round of the Quarterly Groundwater Monitoring Program;
- May 1999· fifth round of the Quarterly Groundwater Monitoring Program,
- August 1999· sixth round of the Quarterly Groundwater Monitoring Program; and
- November 1999· seventh round of the Quarterly Groundwater Monitoring Program.

A summary of the historic detections in the detection and compliance wells is provided in Appendix A. Review of this historic data and Table 4 indicates the following:

- The number of VOCs detected in groundwater samples is decreasing with time. For example, during the first round of the RI in September 1991, a total of seven VOCs were detected within nine monitoring wells. However, during this eighth round of quarterly groundwater monitoring in February 2000, only one VOC (i.e., cis-1,2-dichloroethene) was detected within two outwash detection wells.

- The concentrations of detected VOCs are also decreasing with time. For the VOC currently detected in the monitoring wells, the maximum detected concentration of 1,2-dichloroethene (total) was 120 ug/L in January 1992 during the second round of the RI. Currently, the maximum concentration of cis-1,2-dichloroethene detected during the eighth round of quarterly sampling is 13.0 ug/L.

- Historically, the concentrations of seven inorganic parameters have exceeded MCLs or IEPA Class I Groundwater Standards at one time or another (i.e., antimony, iron, manganese, thallium, chloride, sulfate, and TDS). However, the sulfate and chloride exceedances were noted only during the 1991 and 1992 sampling events, the antimony exceedance was noted only during Round 1 of the Quarterly Groundwater Sampling, and the thallium exceedance was noted only during Round 6 of the Quarterly Groundwater Sampling in August 1999. The remaining three inorganic parameters (i.e., iron, manganese, and TDS) have generally exceeded their MCLs, Secondary MCLs or IEPA Class I Groundwater Standards since 1991.

3.4 GROUNDWATER LEVEL MEASUREMENTS

Surface water and groundwater elevations were measured prior to groundwater monitoring on February 10 and February 14, 2000 (respectively). The groundwater and surface water elevations are summarized in Table 1.

3.4.1 Upper Aquifer - Glacial Outwash

The water table surface for the upper glacial outwash aquifer is presented on Figure 5. The approximate northern boundary of the glacial aquifer is within the southwest portion of the landfill. The direction of groundwater flow in the glacial aquifer is to the south/southwest. Groundwater flow and the relationship of surface water elevations to groundwater elevations are consistent with the groundwater flows defined in previous monitoring reports.

3.4.2 Lower Aquifer - Bedrock

The potentiometric surface for the lower aquifer is presented on Figure 6. The direction of groundwater flow is to the southwest, and is consistent with the groundwater flow defined in previous monitoring reports.

4.0 SUMMARY AND CONCLUSIONS

Water level measurements collected in February 2000 indicate that the groundwater flow system is similar to historical data. Groundwater in the upper aquifer near the landfill flows to the south and southwest towards the West Branch of the DuPage River. Groundwater flow in the lower aquifer is to the southwest.

The analytical results for the February 2000 sampling event of 13 upper aquifer wells and 10 lower aquifer wells are consistent with past monitoring results, and show a general trend of decreasing number of VOC analytes and decreasing VOC concentrations. During the current monitoring event, groundwater samples from two monitoring wells contained low levels of the VOC cis-1,2-dichloroethene The detected concentrations cis-1,2-dichloroethene were below U.S. EPA MCLs and Illinois Groundwater Standards of Class I groundwater.

The concentrations of TDS detected during the eighth round of quarterly groundwater monitoring are consistent with previous sampling events, and continue to exceed U.S. EPA Secondary MCLs.

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TABLES

Table 1
Summary of Groundwater Level Measurements (February 2000)
Blackwell Landfill, DuPage County, Illinois

Deep Monitoring Wells (Bedrock)

Well Designation	Depth to Water (feet)	TOIC Elevation (feet)	Groundwater Elevation (feet)	Notes
G128D	15 59	707 41	691 82	Detection Well
G131D	14 15	706 03	691 88	Compliance Well
G133D	16 27	708 10	691 83	Compliance Well
G135	27 20	721 07	693 87	Detection Well
G138	16 94	708 69	691 75	Compliance Well
G139	10 28	702 22	691 94	Compliance Well
G140D	13 75	705 71	691 96	Detection Well
G141D	16 47	708 33	691 86	Detection Well
G145	19 39	711 18	692 53	Detection Well
G146	14 90	706 67	691 77	Compliance Well

Shallow Monitoring Wells (Glacial Outwash)

Well Designation	Depth to Water (feet)	TOIC Elevation (feet)	Groundwater Elevation (feet)	Notes
G107S	15 29	708 60	693 31	Detection Well
G117	15 09	707 44	692 35	Detection Well
G118S	18 20	711 33	693 13	Detection Well
G122	14 55	706 52	691 97	Compliance Well
G123	15 43	707 77	692 34	Detection Well
G126	12 42	704 50	692 08	Detection Well
G127	14 30	706 66	692 36	Detection Well
G129	10 28	702 86	692 58	Detection Well
G130	17 27	710 40	693 13	Detection Well
G133S	15 86	708 04	692 18	Compliance Well
G142	16 77	709 17	692 40	Compliance Well
G143	14 10	706 56	692 46	Compliance Well
G144	8 61	701 88	693 27	Compliance Well

Water Level Wells

Well Designation	Depth to Water (feet)	TOIC Elevation (feet)	Groundwater Elevation (feet)	Notes
P2	7 40	699 18	691 78	Glacial Outwash Aquifer Well
G114	16 78	709 40	692 62	Glacial Outwash Aquifer Well
G121	11 69	703 71	692 02	Glacial Outwash Aquifer Well
G132D	*	725 99	*	Bedrock Well
G134	27 10	727 20	700 10	Bedrock Well
G137	10 18	701 89	691 71	Bedrock Well

Surface Water

Measurement Location	Surface Water Elevation (feet)
Silver Lake	703 59
Pool West of Silver Lake	701 68
Sand Pond	692 00
Pine Lake	691 94
Spring Brook - No 2	700 29
Spring Brook - No 3	694 38
DuPage River	690 33

Notes
Surface water levels measured on February 10, 2000
Groundwater levels were measured on February 14, 2000
All depth and elevation measurements in units of feet
(*) Water level not available
TOIC = Top of inner casing

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Table 2
Summary of Field Parameters[1] (February 2000)
Blackwell Landfill, DuPage County, Illinois

Deep Monitoring Wells (Bedrock)

Well Number	Type of Well	pH	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (us/cm)	Turbidity (NTU)	Oxidation - Reduction Potential (mV)
G128D	Detection	7.18	11.20	0.22	89	30.5	172
G131D[2]	Compliance	8.02	11.20	4.93	94	45.5	298
G133D[4]	Compliance	7.30	8.96	0.18	0.861	14.4	106.8
G135	Detection	9.83	10 10	0.05	52	58.3	70
G138	Compliance	6.96	9 70	0.00	0.12	2 6	432
G139	Compliance	7.43	7.80	0.04	76	0.0*	119
G140D	Detection	7.15	10.80	1.22	0.12	2.6	312
G141D[3]	Detection	NA	NA	NA	NA	NA	NA
G145	Detection	7.28	10 20	4.69	0 11	86.3	255
G146	Compliance	7 10	9 50	0.00	0.1	0.0*	259

Shallow Monitoring Wells (Glacial Outwash)

Well Number	Tyep of Well	pH	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductivity (us/cm)	Turbidity (NTU)	Oxidation - Reduction Potential (mV)
G107S	Detection	7.54	9.70	2.32	64	10.4	157
G117	Detection	7.30	12.80	3.75	84	12.7	336
G118S	Detection	6.72	11.70	2.90	0.14	11.8	330
G122	Compliance	7.17	11.78	1.15	0.65	4.4	181.1
G123	Detection	7.07	10 60	2.69	74	74.1	283
G126	Detection	7.10	11.80	0.15	0 13	19.6	293
G127	Detection	7.15	10.40	1.39	82	153.0	179
G129	Detection	7 15	9 40	1 88	81	64 0	223
G130	Detection	7.06	11.10	0.79	0.14	10.2	272
G133S	Compliance	7.30	11.25	1.64	1.089	1.8	218.9
G142	Compliance	7.08	10.20	4.44	0.11	13.3	366
G143	Compliance	6.92	7.50	0.45	0.12	44.3	403
G144	Compliance	6.97	8.50	0.09	0 11	112.0	241

Notes
(1) Stabilized field parameters
(2) Well G131D was purged dry and allowed to recharge prior to sampling Field parameters were measured after recharge
(3) Well G141D was purged and sampled by hand bailing
(4) Parameters taken 34 minutes prior to sample collection Low-flow was maintained, but YSI Meter failed
°C - Degrees Celsius
mg/L - Milligrams per liter
us/cm - Microsiemens per centimeter
NTU - Nephelometric turbidity units
mV - Millivolts
* - Negative turbidity readings were recorded as 0 0 in the field book
NA = Not available

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Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G107S 08			BW GW G107S 98			BW GW G117 08			BW GW G117 98		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQI	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/	10		U/	10		U/UJ	10		U/UJ	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o-Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G107S-08			BW-GW-G107S-98			BW-GW-G117-08			BW-GW-G117-98		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L		U/	5		U/	5	32	/	5	34	/	5
Sulfate	500	400	mg/L	50	/	15	51	/	15	69	/	15	69	/	15
Total Dissolved Solids	500**	1200	mg/L	335	/	10	335	/	10	423	/	10	417	/	10

Notes:
* not listed as standard in 620.410:
** Secondary MCLs:
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers:
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 - sample
-91 - duplicate sample

Qualifier Definitions:
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit.
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
/R - Unusable, data qualifier added
S/ - Analysis performed using MSA
*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G118S 08			BW GW G122 08			BW GW G123 08			BW GW G126 08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/UJ	10		U/	10		U/UJ	10		U/UJ	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L	13	/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW-G118S-08			BW-GW G122-08			BW-GW G123-08			BW-GW-G126-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L		U/	5	14	/	5	6	/	5	116	/	5
Sulfate	500	400	mg/L	240	/	15	76	/	15	49	/	15	93	/	15
Total Dissolved Solids	500**	1200	mg/L	**859**	/	10	378	/	10	418	/	10	**649**	/	10

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 - sample
-91 - duplicate sample

Qualifier Definitions
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
/R - Unusable, data qualifier added
S/ Analysis performed using MSA
*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G127 08			BW GW G128D 08			BW GW G128D 98			BW GW G129 08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/UJ	10		U/UJ	10		U/UJ	10		U/UJ	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L	8 1	/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G127-08			BW-GW-G128D-08			BW-GW-G128D-98			BW-GW-G129-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L	20	/	5	34	/	5	38	/	5	26	/	5
Sulfate	500	400	mg/L	58	/	15	76	/	15	73	/	15	61	/	15
Total Dissolved Solids	500**	1200	mg/L	388	/	10	456	/	10	452	/	10	399	/	10

Notes:
* not listed as standard in 620.410:
** Secondary MCLs:
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers:

FB - field blank	TB - trip blank
GW - groundwater	VB - volatile blank
G107 - well identification	SVB - semi-volatile blank
	-01 - sample
	-91 - duplicate sample

Qualifier Definitions:
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit.

U/ - Not detected	/J - Estimated value, data qualifier added
/U - Not detected, blank contamination	/R - Unusable, data qualifier added
J/ - Estimated value	S/ - Analysis performed using MSA
/UJ - Not detected, estimated detection limit	*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G130 08			BW GW G131D 08			BW GW G133D 08			BW GW G133S 08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/UJ	10		U/	10		U/	10		U/	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/l		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G130-08			BW-GW-G131D-08			BW-GW-G133D-08			BW-GW-G133S-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L	104	/	5	82	/	5	44	/	5	106	/	5
Sulfate	500	400	mg/L	108	/	15	74	/	15	73	/	15	98	/	15
Total Dissolved Solids	500**	1200	mg/L	**744**	/	10	**490**	/	10	**367**	/	10	**627**	/	10

Notes:
* not listed as standard in 620 410:
** Secondary MCLs:
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers:
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 - sample
-91 - duplicate sample

Qualifier Definitions:
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit.
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
/R - Unusable, data qualifier added
S/ - Analysis performed using MSA
*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G135 08			BW GW G138 08			BW GW G139 08			BW GW G140D 08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/UJ	10		U/UJ	10		U/UJ	10		U/	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G135 08			BW-GW G138-08			BW-GW-G139-08			BW-GW-G140D-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L	68	/	5	98	/	5	22	/	5	92	/	5
Sulfate	500	400	mg/L	58	/	15	117	/	15	83	/	15	94	/	15
Total Dissolved Solids	500**	1200	mg/L	211	/	10	672	/	10	400	/	10	649	/	10

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers
FB - field blank
GW groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 sample
-91 - duplicate sample

Qualifier Definitions
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
/R - Unusable, data qualifier added
S/ - Analysis performed using MSA
*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G141D 08			BW GW G142 08			BW GW G143 08			BW GW G144 08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/	10		U/	10		U/UJ	10		U/UJ	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G141D-08			BW-GW-G142-08			BW-GW-G143-08			BW-GW-G144-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L	78	/	5	104	/	5	110	/	5	76	/	5
Sulfate	500	400	mg/L	82	/	15	102	/	15	126	/	15	85	/	15
Total Dissolved Solids	500**	1200	mg/L	**576**	/	10	**608**	/	10	**682**	/	10	**629**	/	10

Notes:
* not listed as standard in 620.410:
** Secondary MCLs:
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers:
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 - sample
-91 - duplicate sample

Qualifier Definitions:
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit.
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
/R - Unusable, data qualifier added
S/ - Analysis performed using MSA
*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW GW G145 08			BW GW G146 08			BW GW TB 4 08			BW GW TB01 08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC															
Acetone		700*	ug/L		U/	10		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/UJ	10		U/UJ	10		U/UJ	10		U/	10
2 Butanone (MEK)			ug/L		U/	10		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10		U/	10
1 1 Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 2 Dichloroethene	70	70	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 2 Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 2 Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
cis 1 3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5		U/	5
trans 1 3 Dichloropropene			ug/L		U/	5		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5		U/	5
2 Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10		U/	10
4 Methyl 2 pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 2 Tetrachloroethane			ug/L		U/	5		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 1 Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5		U/	5
1 1 2 Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2		U/	2
m Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
o-Xylene			ug/L		U/	5		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-G145-08			BW-GW-G146-08			BW-GW-TB-4-08			BW-GW-TB01-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic															
Chloride	250**	200	mg/L	86	/	5	74	/	5		NA			NA	
Sulfate	500	400	mg/L	100	/	15	114	/	15		NA			NA	
Total Dissolved Solids	500**	1200	mg/L	**589**	/	10	**638**	/	10		NA			NA	

Notes:
* not listed as standard in 620.410:
** Secondary MCLs:
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards.

Sample Label Identifiers:
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 - sample
-91 - duplicate sample

Qualifier Definitions:
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit.
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
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S/ - Analysis performed using MSA
*/ - Duplicate outside control limits

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-TB02 08			BW-GW-TB03-08			BW-GW-TB05-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
VOC												
Acetone		700*	ug/L		U/	10		U/	10		U/	10
Benzene	5	5	ug/L		U/	5		U/	5		U/	5
Bromodichloromethane	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5
Bromoform	100/80 (THM)	0 2a	ug/L		U/	5		U/	5		U/	5
Bromomethane (Methyl bromide)		9 8*	ug/L		U/UJ	10		U/	10		U/UJ	10
2-Butanone (MEK)			ug/L		U/	10		U/	10		U/	10
Carbon disulfide		700*	ug/L		U/	5		U/	5		U/	5
Carbon tetrachloride	5	5	ug/L		U/	5		U/	5		U/	5
Chlorobenzene (Monochlorobenzene)	100	100	ug/L		U/	5		U/	5		U/	5
Chlorodibromomethane	100/80 (THM)	140*	ug/L		U/	5		U/	5		U/	5
Chloroethane			ug/L		U/	10		U/	10		U/	10
Chloroform	100/80 (THM)	0 02a	ug/L		U/	5		U/	5		U/	5
Chloromethane			ug/L		U/	10		U/	10		U/	10
1,1-Dichloroethane		700*	ug/L		U/	5		U/	5		U/	5
1,2-Dichloroethane	5	5	ug/L		U/	5		U/	5		U/	5
1,1-Dichloroethene	7	7	ug/L		U/	5		U/	5		U/	5
cis-1,2-Dichloroethene	70	70	ug/L		U/	5		U/	5		U/	5
trans-1 2-Dichloroethene	100	100	ug/L		U/	5		U/	5		U/	5
1 2-Dichloropropane	5	5	ug/L		U/	5		U/	5		U/	5
cis 1,3 Dichloropropene		1a (cis + trans)	ug/L		U/	5		U/	5		U/	5
trans 1,3 Dichloropropene			ug/L		U/	5		U/	5		U/	5
Ethyl benzene	700	700	ug/L		U/	5		U/	5		U/	5
2-Hexanone (MBK)			ug/L		U/	10		U/	10		U/	10
4-Methyl 2-pentanone (MIBK)			ug/L		U/	10		U/	10		U/	10
Methylene chloride	5	5	ug/L		U/	5		U/	5		U/	5
Styrene	100	100	ug/L		U/	5		U/	5		U/	5
1 1,2,2-Tetrachloroethane			ug/L		U/	5		U/	5		U/	5
Tetrachloroethene	5	5	ug/L		U/	5		U/	5		U/	5
Toluene	1000	1000	ug/L		U/	5		U/	5		U/	5
1 1,1-Trichloroethane	200	200	ug/L		U/	5		U/	5		U/	5
1,1,2-Trichloroethane	5	5	ug/L		U/	5		U/	5		U/	5
Trichloroethene	5	5	ug/L		U/	5		U/	5		U/	5
Vinyl Acetate		7000*	ug/L		U/	10		U/	10		U/	10
Vinyl Chloride	2	2	ug/L		U/	2		U/	2		U/	2
m-Xylene			ug/L		U/	5		U/	5		U/	5
o-Xylene			ug/L		U/	5		U/	5		U/	5
p Xylene			ug/L		U/	5		U/	5		U/	5

Table 3
Validated Analytical Results
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	BW-GW-TB02-08			BW-GW-TB03-08			BW-GW-TB05-08		
				Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL	Conc	LQ/DVQ	PQL
Inorganic												
Chloride	250**	200	mg/L		NA			NA			NA	
Sulfate	500	400	mg/L		NA			NA			NA	
Total Dissolved Solids	500**	1200	mg/L		NA			NA			NA	

Notes:
* not listed as standard in 620.410:
** Secondary MCLs:
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
THM - Total for all THMs cannot exceed the 80ug/L level
PHA - Polyaromatic Hydrocarbon
NA - Not Analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW Standards

Sample Label Identifiers:
FB - field blank
GW - groundwater
G107 - well identification
TB - trip blank
VB - volatile blank
SVB - semi-volatile blank
-01 - sample
-91 - duplicate sample

Qualifier Definitions:
The table presents any detected concentrations, followed by the Lab Qualifiers/Data Validation Qualifiers, followed by the reported detection limit.
U/ - Not detected
/U - Not detected, blank contamination
J/ - Estimated value
/UJ - Not detected, estimated detection limit
/J - Estimated value, data qualifier added
/R - Unusable, data qualifier added
S/ - Analysis performed using MSA
*/ - Duplicate outside control limits

Table 4
Summary of Detections in Monitoring Wells
Round 8, Quarterly Groundwater Monitoring Program (February 2000)
Blackwell Landfill, DuPage County, Illinois

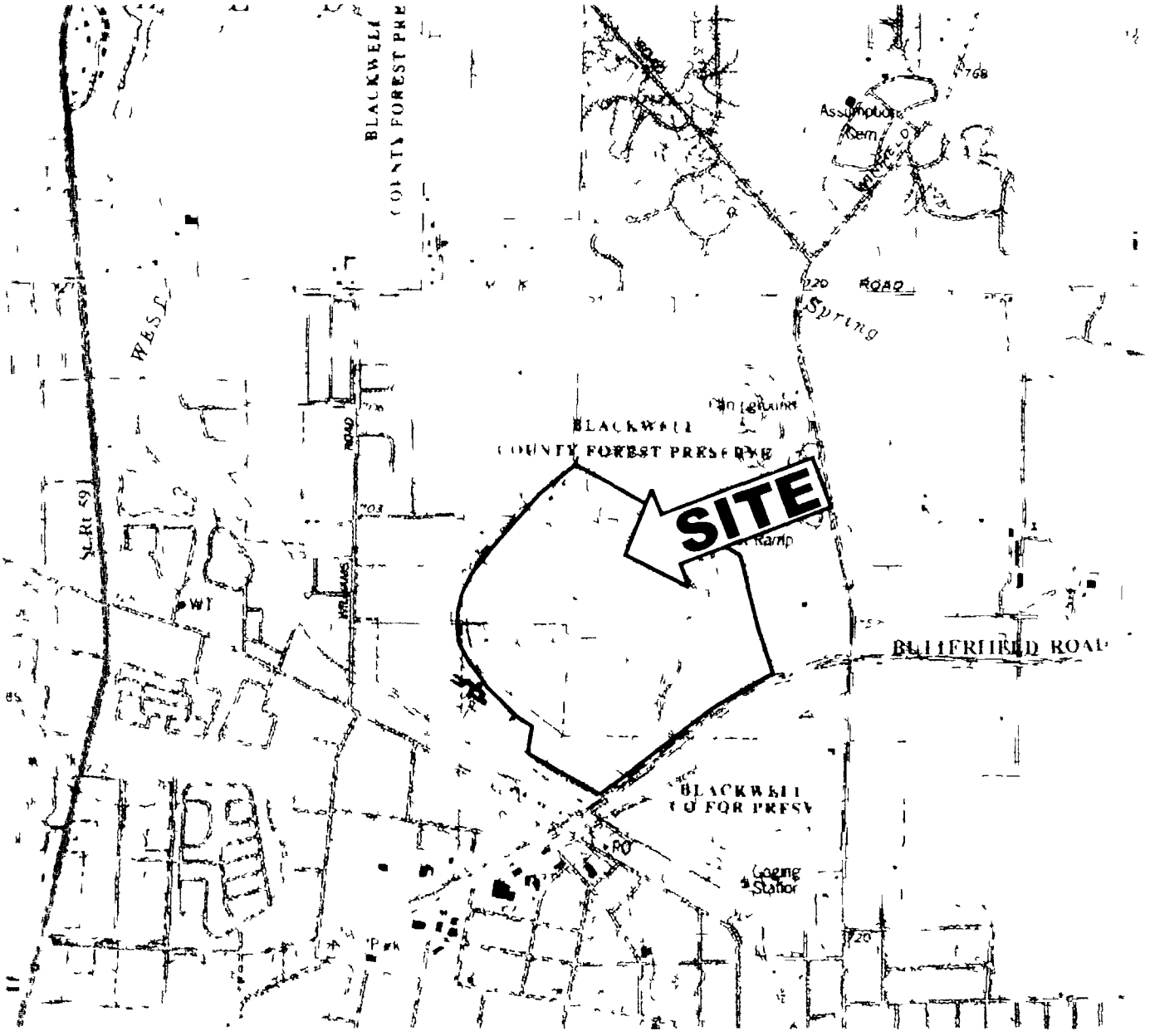
Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
cis-1,2-Dichloroethene	70	70	ug/L	2 / 8	8.1	13	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
Inorganic															
Chloride	250**	200	mg/L	6 / 8	6	116	5 / 5	34	92	5 / 5	14	110	5 / 5	22	98
Sulfate	500	400	mg/L	8 / 8	49	240	5 / 5	58	100	5 / 5	76	126	5 / 5	73	117
Total Dissolved Solids	500**	1200	mg/L	8 / 8	335	**859**	5 / 5	211	**649**	5 / 5	378	**682**	5 / 5	367	**672**

Notes:
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shaded = Exceeds IEPA GW standards

AHS/LRB/emp/PJD
J \1252\008\125200807185 xls
1252008 07160201

FIGURES



ILLINOIS

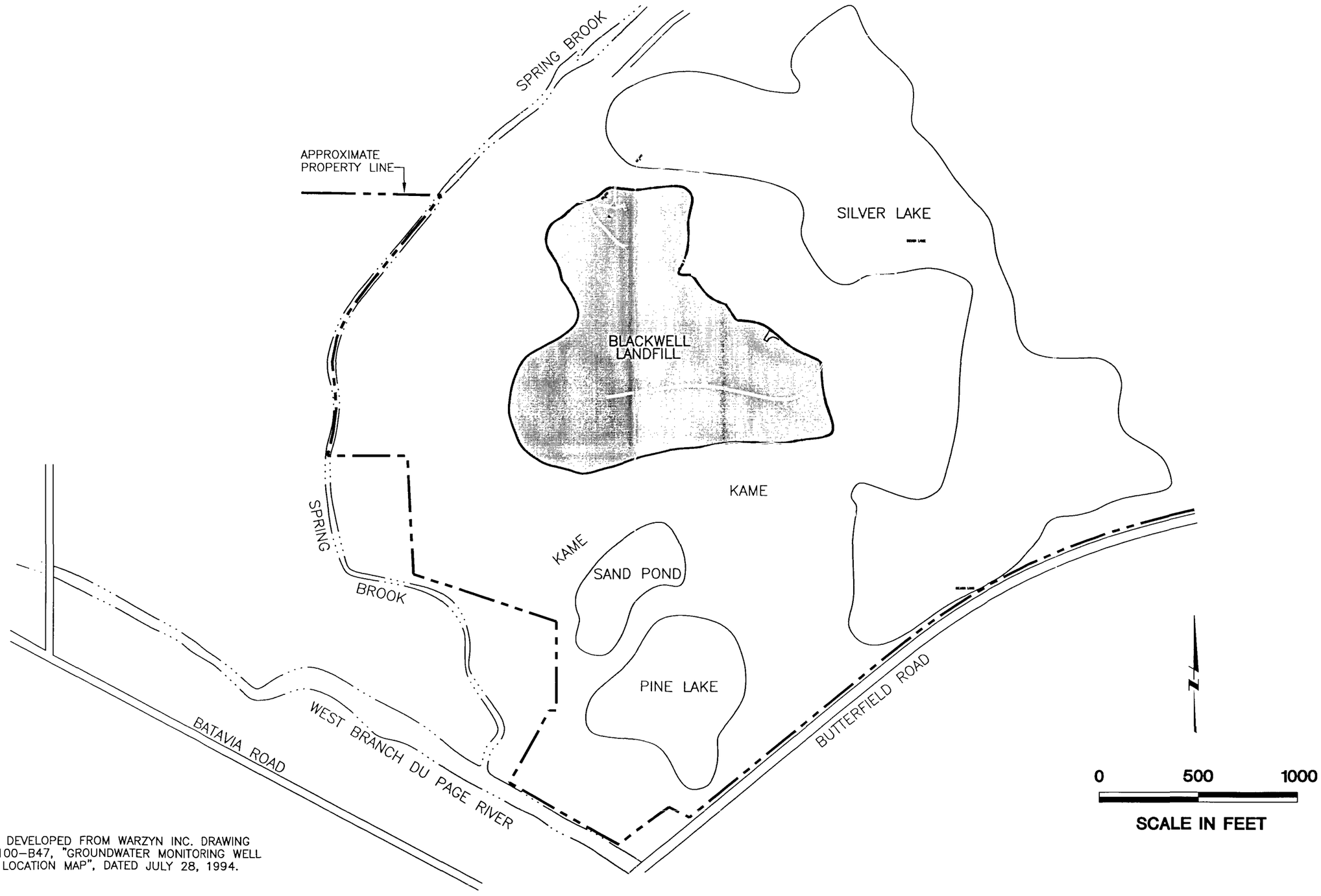
north

0 2000 4000

SCALE IN FEET

The map developed from the
Naperville Illinois 7.5 Minute
U.S.G.S. Topographic Quadrangle Map
dated 1992

MONTGOMERY WATSON Chicago, Illinois	BLACKWELL LANDFILL DUPAGE COUNTY, ILLINOIS	SITE LOCATION	FIGURE 1



NOTE

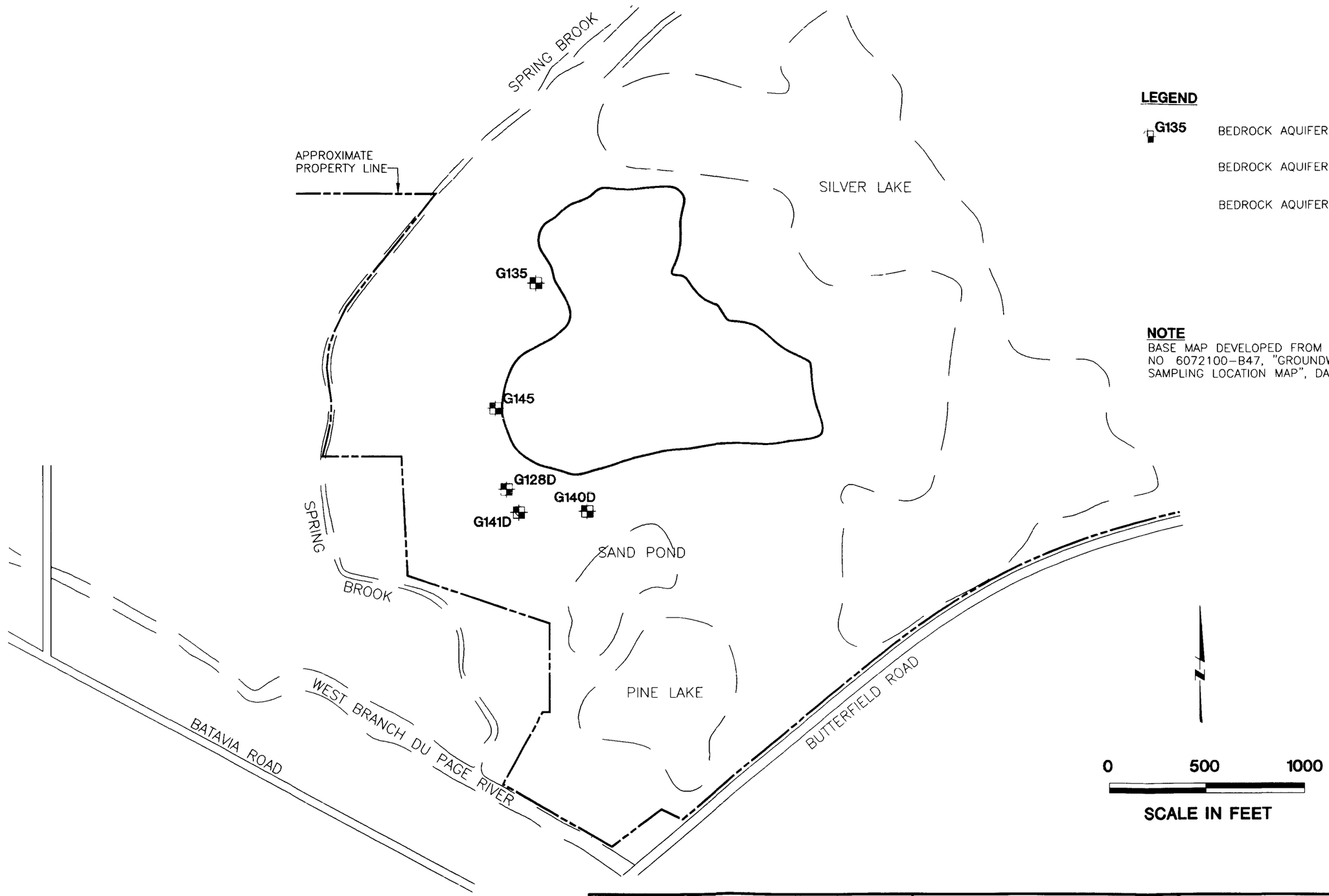
BASE MAP DEVELOPED FROM WARZYN INC. DRAWING NO. 6072100-B47, "GROUNDWATER MONITORING WELL SAMPLING LOCATION MAP", DATED JULY 28, 1994.

SCALE				FIGURE
AS SHOWN	MONTGOMERY WATSON Chicago, Illinois	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	SITE FEATURES MAP	2

JOB No. MW Job No. FILE J:/1252/008/MWDWGS/0087C98c.dwg Plot Date

SCALE				FIGURE
AS SHOWN	MONTGOMERY WATSON Chicago, Illinois	BLACKWELL LANDFILL NPL SITE DU PAGE COUNTY, ILLINOIS	UPPER AQUIFER WELL AND PIEZOMETER LOCATIONS	3

JOB No MW Job No FILE J/1252/008/MWDWGS/NEW_WELL/SHALL_WELL.dwg Plot Date



LEGEND

G135 BEDROCK AQUIFER DETECTION WELLS

BEDROCK AQUIFER COMPLIANCE WELLS

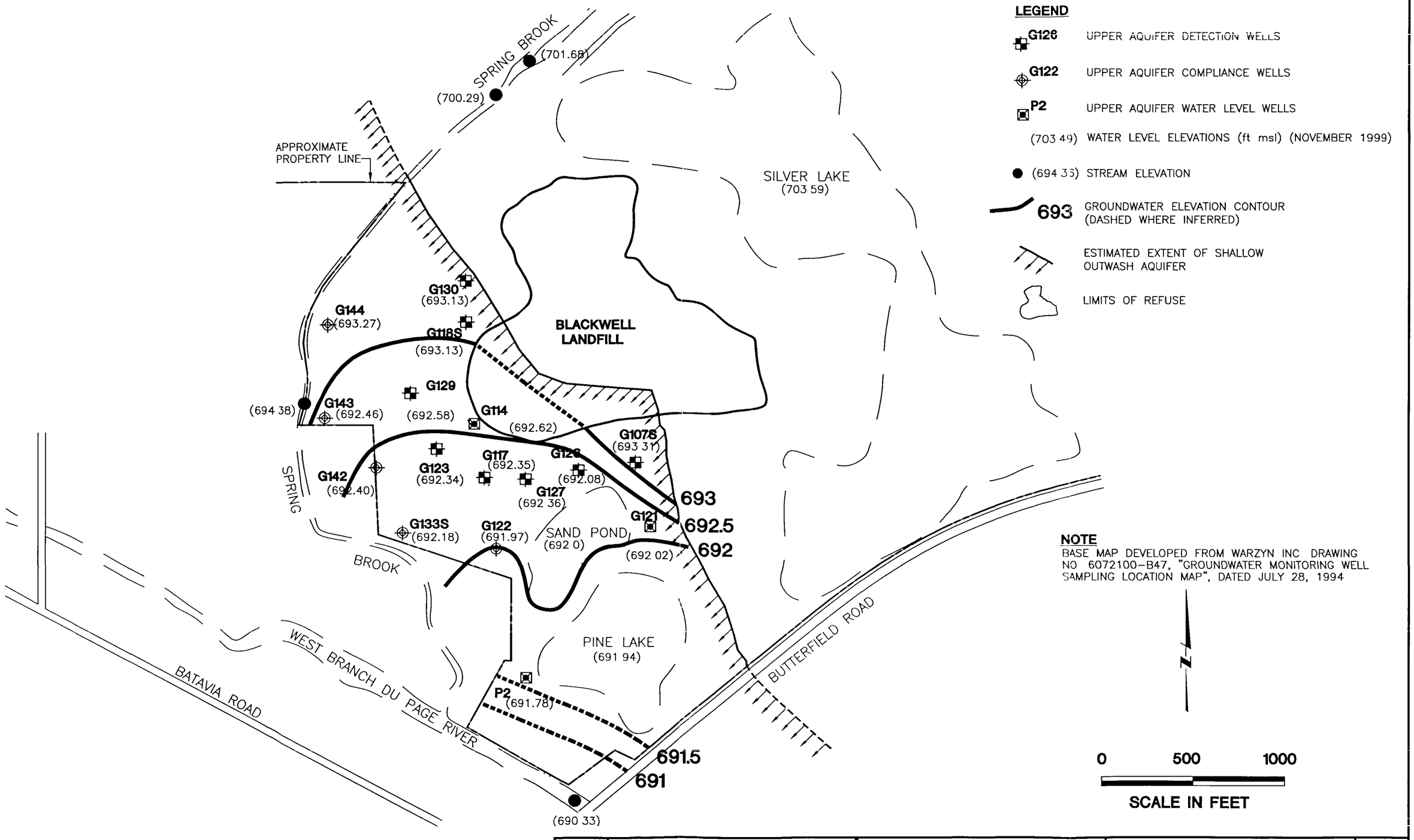
BEDROCK AQUIFER WATER LEVEL WELLS

NOTE

BASE MAP DEVELOPED FROM WARZYN INC DRAWING NO 6072100-B47, "GROUNDWATER MONITORING WELL SAMPLING LOCATION MAP", DATED JULY 28, 1994

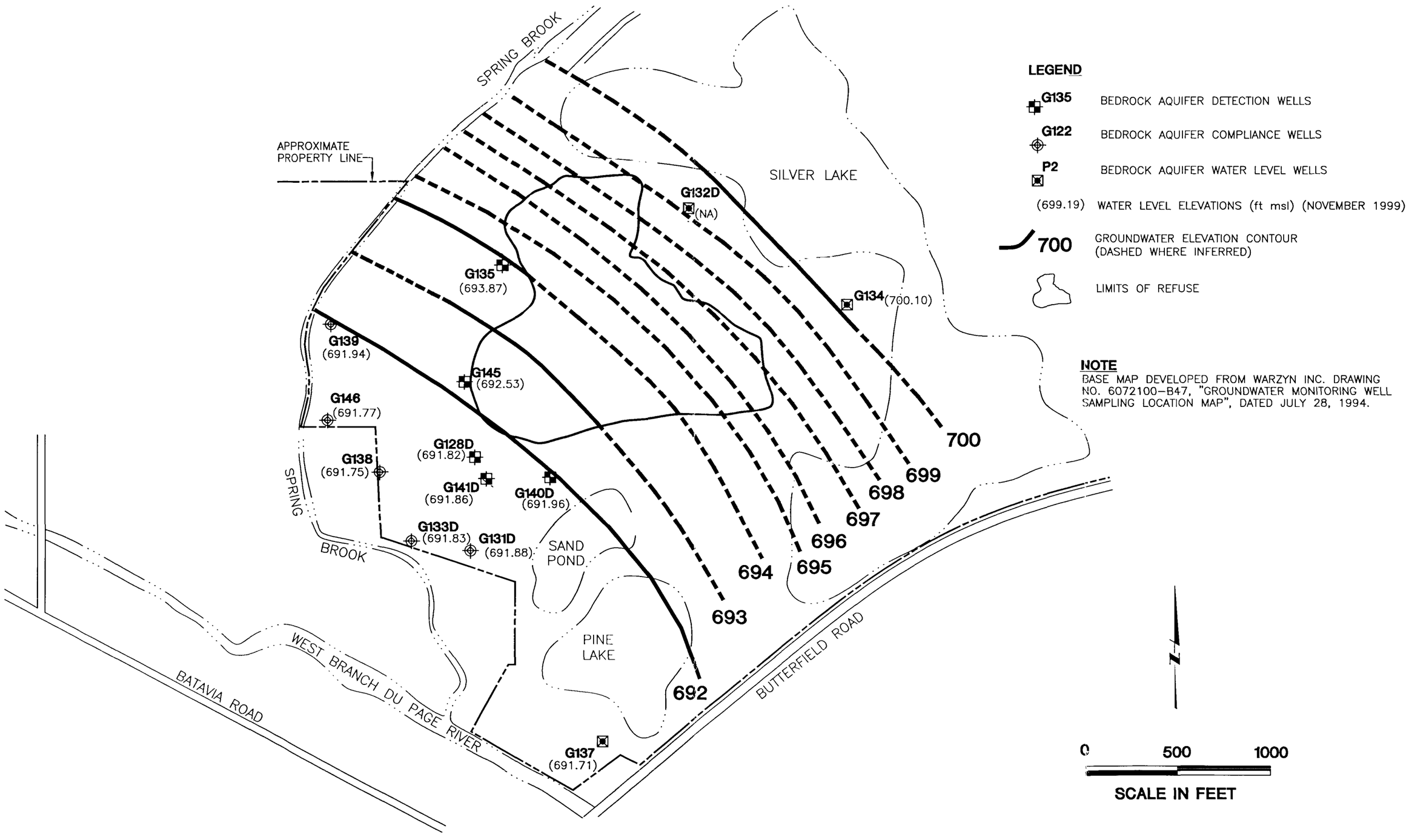
SCALE				FIGURE
AS SHOWN	MONTGOMERY WATSON Chicago, Illinois	BLACKWELL LANDFILL NPL SITE DU PAGE COUNTY, ILLINOIS	BEDROCK AQUIFER WELL LOCATIONS	4

JOB No MW Job No FILE J/1252/008/MWDWGS/NEW_WELL/DEEP_WELL.dwg Plot Date



SCALE				FIGURE
AS SHOWN	MONTGOMERY WATSON Chicago, Illinois	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	UPPER AQUIFER WATER TABLE MAP (FEBRUARY 2000)	5

JOB No MW Job No FILE J:/1232/088/MWDWGS/NEW_WELL/SHALL_WELL_FEB_00_A.dwg Plot Date



SCALE				FIGURE
AS SHOWN	MONTGOMERY WATSON Chicago, Illinois	BLACKWELL LANDFILL NPL SITE DUPAGE COUNTY, ILLINOIS	LOWER AQUIFER POTENTIOMETER SURFACE MAP (FEBRUARY 2000)	6

JOB No. MW Job No. FILE: J:/1252/008/MWDWGS/NEW_WELL/DEEP_WELL_FEB_00.dwg Plot Date:

APPENDIX A

HISTORIC SUMMARY OF DETECTIONS IN MONITORING WELLS

Appendix A-1
Summary of Detections in Monitoring Wells
September 1991
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
Benzene	5	5	ug/L	0 / 7	nd	nd	1 / 4	5	5	0 / 2	nd	nd	1 / 3	5	5
1,1-Dichloroethane		700*	ug/L	2 / 7	6	6	1 / 4	2	2	0 / 2	nd	nd	0 / 3	nd	nd
1,2-Dichloroethene (total)			ug/L	3 / 7	2	110	2 / 4	2	2	0 / 2	nd	nd	1 / 3	1	1
1,2-Dichloropropane	5	5	ug/L	2 / 7	1	2	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Tetrachloroethene	5	5	ug/L	1 / 7	**12**	**12**	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Trichloroethene	5	5	ug/L	3 / 7	1	**15**	1 / 4	1	1	0 / 2	nd	nd	1 / 3	1	1
Vinyl Chloride	2	2	ug/L	3 / 7	**5**	**31**	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
SVOC															
bis(2-ethylhexyl)phthalate	6	6	ug/L	0 / 7	nd	nd	0 / 4	nd	nd	0 / 2	nd	nd	1 / 3	**29**	**29**
Di-n-octylphthalate		140*	ug/L	0 / 7	nd	nd	1 / 4	1	1	0 / 2	nd	nd	0 / 3	nd	nd
Inorganic															
Arsenic	0 05	0 05	mg/L	2 / 7	0 0039	0 007	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Calcium			mg/L	7 / 7	111	166	4 / 4	27 3	112	2 / 2	112	129	3 / 3	55 1	96 5
Iron	0 3**	5	mg/L	3 / 7	0 291	**12.4**	1 / 4	**0.631**	**0.631**	0 / 2	nd	nd	0 / 3	nd	nd
Magnesium			mg/L	7 / 7	20 6	71 9	4 / 4	9 37	47 4	2 / 2	55 8	59 8	3 / 3	9 03	48 7
Manganese	0 05**	0 15	mg/L	6 / 7	0 03	**1.45**	2 / 4	0 015	0 05	1 / 2	**0.226**	**0.226**	1 / 3	**0.131**	**0.131**
Nickel	0 1	0 1	mg/L	1 / 7	0 066	0 066	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Potassium			mg/L	0 / 7	nd	nd	1 / 4	13 1	13 1	0 / 2	nd	nd	0 / 3	nd	nd
Sodium			mg/L	6 / 7	29 8	109	4 / 4	35 6	54 9	2 / 2	50 9	149	3 / 3	26	128
Zinc	5**	5	mg/L	1 / 7	0 099	0 099	1 / 4	0 115	0 115	1 / 2	0 124	0 124	0 / 3	nd	nd
Alkalinity			mg/L	7 / 7	295	510	4 / 4	74	364	2 / 2	343	358	3 / 3	20	353
Cyanide	0 2	0 2	mg/L	0 / 7	nd	nd	1 / 4	0 011	0 011	0 / 2	nd	nd	0 / 3	nd	nd
Chloride	250**	200	mg/L	7 / 7	33	**216**	4 / 4	65	110	2 / 2	94	**247**	3 / 3	13	**269**
Nitrate+Nitrite Nitrogen			mg/L	4 / 7	0 02	0 55	3 / 4	0 12	1 98	2 / 2	0 32	0 61	2 / 3	0 05	0 33
Nitrogen, Ammonia			mg/L	4 / 7	0 12	1 08	3 / 4	0 1	3 31	0 / 2	nd	nd	2 / 3	0 1	0 22
Nitrogen, Total Kjeldahl			mg/L	7 / 7	0 23	1 79	1 / 4	3 74	3 74	2 / 2	0 1	0 34	1 / 3	0 54	0 54
Sulfate	500	400	mg/L	7 / 7	130	**656**	4 / 4	7	127	2 / 2	132	213	3 / 3	37	149
Total Dissolved Solids	500**	1200	mg/L	7 / 7	184	**952**	4 / 4	260	**680**	2 / 2	**712**	**1080**	3 / 3	428	**826**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

AHS/ahs/JMS/AHS
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Appendix A-2
Summary of Detections in Monitoring Wells
January 1992
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
Benzene	5	5	ug/L	1 / 7	1	1	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Carbon disulfide		700*	ug/L	0 / 7	nd	nd	1 / 4	1	1	0 / 2	nd	nd	0 / 3	nd	nd
Chloroethane			ug/L	2 / 7	1	4	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
1,1-Dichloroethane		700*	ug/L	4 / 7	1	7	2 / 4	2	3	0 / 2	nd	nd	0 / 3	nd	nd
1,2-Dichloroethene (total)			ug/L	3 / 7	7	120	2 / 4	2	3	0 / 2	nd	nd	0 / 3	nd	nd
1,2-Dichloropropane	5	5	ug/L	2 / 7	2	3	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Tetrachloroethene	5	5	ug/L	1 / 7	4	4	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
1,1,1-Trichloroethane	200	200	ug/L	1 / 7	1	1	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Trichloroethene	5	5	ug/L	3 / 7	2	**18**	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Vinyl Chloride	2	2	ug/L	1 / 7	**21**	**21**	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
SVOC															
bis(2-ethylhexyl)phthalate	6	6	ug/L	1 / 7	5	5	0 / 4	nd	nd	0 / 2	nd	nd	1 / 3	2	2
Di-n-octylphthalate		140*	ug/L	2 / 7	3	4	2 / 4	3	3	0 / 2	nd	nd	1 / 3	1	1
Phenol		100	ug/L	1 / 7	6	6	1 / 4	2	2	0 / 2	nd	nd	0 / 3	nd	nd
Inorganic															
Arsenic	0 05	0 05	mg/L	1 / 7	0 0088	0 0088	1 / 4	0 002	0 002	0 / 2	nd	nd	1 / 3	0 0028	0 0028
Barium	2	2	mg/L	7 / 7	0 015	0 142	4 / 4	0 057	0 083	2 / 2	0 078	0 096	3 / 3	0 086	0 097
Calcium			mg/L	7 / 7	102	269	4 / 4	61 2	101	2 / 2	117	139	3 / 3	91 6	102
Cobalt		1	mg/L	1 / 7	0 018	0 018	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Iron	0 3**	5	mg/L	4 / 7	0 244	**8.26**	1 / 4	0 277	0 277	0 / 2	nd	nd	1 / 3	**0.955**	**0.955**
Magnesium			mg/L	7 / 7	41	121	4 / 4	44 1	51	2 / 2	56 7	66 6	3 / 3	44 3	64 1
Manganese	0 05**	0 15	mg/L	5 / 7	0 044	**4.88**	2 / 4	0 013	0 017	1 / 2	**0.06**	**0.06**	3 / 3	0 012	**0.107**
Nickel	0 1	0 1	mg/L	1 / 7	0 055	0 055	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Potassium			mg/L	7 / 7	0 96	5 07	4 / 4	2 77	5 21	2 / 2	3 65	5 99	3 / 3	2 93	5 27
Sodium			mg/L	6 / 7	17 6	104	4 / 4	21 9	59 6	2 / 2	69 8	226	3 / 3	50 4	109
Zinc	5**	5	mg/L	4 / 7	0 01	0 02	1 / 4	0 022	0 022	1 / 2	0 012	0 016	1 / 3	0 05	0 05
Alkalinity			mg/L	7 / 7	270	502	4 / 4	294	386	2 / 2	295	385	3 / 3	258	359
Cyanide	0 2	0 2	mg/l	2 / 7	0 007	0 009	0 / 4	nd	nd	0 / 2	nd	nd	0 / 3	nd	nd
Chloride	250**	200	mg/L	7 / 7	5	177	4 / 4	35	107	2 / 2	128	**413**	3 / 3	97	**216**
Nitrate+Nitrite Nitrogen			mg/L	6 / 7	0 04	0 77	2 / 4	0 05	0 08	2 / 2	0 49	0 93	2 / 3	0 08	0 18
Nitrogen, Total Kjeldahl			mg/L	6 / 7	0 27	1 82	2 / 4	0 15	0 6	1 / 2	0 29	0 42	2 / 3	0 12	0 56
Sulfate	500	400	mg/L	7 / 7	127	**787**	4 / 4	66	126	2 / 2	137	295	3 / 3	92	172
Total Dissolved Solids	500**	1200	mg/L	7 / 7	**584**	**1600**	4 / 4	400	**674**	2 / 2	**752**	**1340**	3 / 3	**610**	**746**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens

+ Action Level listed in Drinking Water Regulations
nd - no detections
Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

AHS/ahs/JMS/AHS
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1252008 07160201

Appendix A-3
Summary of Detections in Monitoring Wells
June 1995
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
SVOC															
bis(2 ethylhexyl)phthalate	6	6	ug/L	0 / 1	nd	nd	0 / 0	na	na	0 / 2	nd	nd	2 / 3	1	2
Di n butylphthalate		700*	ug/L	0 / 1	nd	nd	0 / 0	na	na	0 / 2	nd	nd	1 / 3	1	1
Inorganic															
Aluminum total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	0 05	0 09
Barium	2	2	mg/L	1 / 1	0 028	0 028	0 / 0	na	na	2 / 2	0 051	0 063	3 / 3	0 056	0 111
Barium total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	0 06	0 094
Cadmium	0 005	0 005	mg/L	0 / 1	nd	nd	0 / 0	na	na	0 / 2	nd	nd	1 / 3	0 005	0 005
Calcium			mg/L	1 / 1	95 6	95 6	0 / 0	na	na	2 / 2	101	107	3 / 3	52 1	114
Calcium total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	53 5	108
Chromium total	0 1	0 1	mg/L	0 / 1	nd	nd	0 / 0	na	na	0 / 2	nd	nd	1 / 3	0 002	0 002
Cobalt total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	1 / 2	0 001	0 001
Copper	1 3 (at tap)+	0 65	mg/L	0 / 1	nd	nd	0 / 0	na	na	1 / 2	0 002	0 002	0 / 3	nd	nd
Iron	0 3**	5	mg/L	0 / 1	nd	nd	0 / 0	na	na	0 / 2	nd	nd	1 / 3	0 021	0 021
Iron total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	0 12	0 51
Magnesium			mg/L	1 / 1	34	34	0 / 0	na	na	2 / 2	46 7	49 2	3 / 3	5 8	54 4
Magnesium total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	41 4	53 2
Manganese	0 05**	0 15	mg/L	1 / 1	0 007	0 007	0 / 0	na	na	1 / 2	**0 082**	**0 082**	3 / 3	0 002	0 008
Manganese total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	0 026	0 036
Nickel	0 1	0 1	mg/L	0 / 1	nd	nd	0 / 0	na	na	1 / 2	0 001	0 001	2 / 3	0 001	0 003
Potassium			mg/L	1 / 1	0 8	0 8	0 / 0	na	na	2 / 2	1 8	2 7	3 / 3	1 4	5 7
Potassium total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	1 3	3 5
Sodium			mg/L	1 / 1	3 4	3 4	0 / 0	na	na	2 / 2	21 6	45	3 / 3	19 4	73 6
Sodium total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	19 1	54 8
Zinc	5**	5	mg/L	1 / 1	0 017	0 017	0 / 0	na	na	2 / 2	0 008	0 017	3 / 3	0 007	0 03
Zinc total			mg/L	0 / 0	na	na	0 / 0	na	na	0 / 0	na	na	2 / 2	0 015	0 025
Alkalinity			mg/L	1 / 1	268	268	0 / 0	na	na	2 / 2	340	380	3 / 3	12	372
Chloride	250**	200	mg/L	1 / 1	6	6	0 / 0	na	na	2 / 2	34	104	3 / 3	10	178
Nitrate+Nitrite Nitrogen			mg/L	1 / 1	0 87	0 87	0 / 0	na	na	2 / 2	0 13	0 97	3 / 3	0 02	0 56
Nitrogen Ammonia			mg/L	1 / 1	0 11	0 11	0 / 0	na	na	0 / 2	nd	nd	1 / 3	0 22	0 22
Nitrogen Total Kjeldahl			mg/L	1 / 1	0 16	0 16	0 / 0	na	na	1 / 2	0 008	0 008	0 / 3	nd	nd
Sulfate	500	400	mg/L	1 / 1	113	113	0 / 0	na	na	2 / 2	110	112	3 / 3	22	136
Total Dissolved Solids	500**	1200	mg/L	1 / 1	407	407	0 / 0	na	na	2 / 2	**556**	**632**	3 / 3	353	**718**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations

nd no detections
na not analyzed

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

AHS/ahs/JMS\AHS
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Appendix A-4
Summary of Detections in Monitoring Wells
Round 1, Quarterly Groundwater Monitoring Program (November 1997)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
1,1-Dichloroethane		700*	ug/L	1 / 8	3 4	3 4	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
cis-1,2-Dichloroethene	70	70	ug/L	3 / 8	10 3	30 3	0 / 5	nd	nd	1 / 5	7 1	7 1	0 / 5	nd	nd
Trichloroethene	5	5	ug/L	1 / 8	2 9	2 9	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
SVOC															
bis(2-ethylhexyl)phthalate	6	6	ug/L	1 / 8	**20**	**20**	1 / 5	**11**	**11**	0 / 5	nd	nd	2 / 5	**57**	**187**
Phenol		100	ug/L	6 / 8	20	46	2 / 5	15	40	2 / 5	12	22	4 / 5	21	160
Inorganic															
Antimony	0 006	0 006	mg/L	1 / 8	0 003	0 003	0 / 5	nd	nd	1 / 5	**0.007**	**0.007**	2 / 5	0 002	0 002
Barium	2	2	mg/L	8 / 8	0 031	0 098	5 / 5	0 044	0 101	5 / 5	0 045	0 094	5 / 5	0 067	0 204
Calcium			mg/L	8 / 8	61 8	153	5 / 5	46 2	99 1	5 / 5	87 5	103	5 / 5	54 2	270
Chromium, total	0 1	0 1	mg/L	0 / 8	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd	1 / 5	0 032	0 032
Cobalt		1	mg/L	1 / 8	0 001	0 001	2 / 5	0 001	0 002	2 / 5	0 002	0 003	2 / 5	0 002	0 002
Copper	1 3 (at tap)+	0 65	mg/L	1 / 8	0 001	0 001	1 / 5	0 002	0 002	2 / 5	0 001	0 003	1 / 5	0 002	0 002
Iron	0 3**	5	mg/L	4 / 8	**0.98**	**3.39**	3 / 5	0 06	**1.16**	2 / 5	0 02	**1.7**	4 / 5	0 02	**0.38**
Magnesium			mg/L	8 / 8	31 9	75 1	5 / 5	38 5	57 5	5 / 5	40 6	55 3	4 / 5	45 1	57 7
Manganese	0 05**	0 15	mg/L	7 / 8	0 017	**0.854**	4 / 5	0 002	**0.057**	4 / 5	0 005	**0.516**	4 / 5	0 012	**0.063**
Nickel	0 1	0 1	mg/L	2 / 8	0 005	0 006	1 / 5	0 004	0 004	2 / 5	0 002	0 02	3 / 5	0 002	0 005
Potassium			mg/L	8 / 8	0 9	4 6	5 / 5	3	5 6	5 / 5	1 7	6	5 / 5	2 4	7 8
Sodium			mg/L	8 / 8	4 1	58 1	5 / 5	19 6	66 8	5 / 5	13 3	63 4	5 / 5	21 7	57 9
Zinc	5**	5	mg/L	3 / 8	0 005	0 007	1 / 5	0 03	0 034	1 / 5	0 007	0 007	1 / 5	0 008	0 008
Chloride	250**	200	mg/L	5 / 8	22	116	5 / 5	14	108	5 / 5	16	128	5 / 5	24	100
Sulfate	500	400	mg/L	8 / 8	28	198	5 / 5	58	102	5 / 5	31	91	5 / 5	42	112
Total Dissolved Solids	500**	1200	mg/L	8 / 8	327	**821**	5 / 5	375	**735**	5 / 5	483	**723**	5 / 5	420	**766**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

Appendix A-5
Summary of Detections in Monitoring Wells
Round 2, Quarterly Groundwater Monitoring Program (July 1998)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
Acetone		700*	ug/L	0 / 8	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd	1 / 5	29 9	29 9
cis-1 2-Dichloroethene	70	70	ug/L	4 / 8	8 8	**77.9**	0 / 5	nd	nd	1 / 5	12	12	0 / 5	nd	nd
Vinyl Chloride	2	2	ug/L	1 / 8	**7.1**	**7.6**	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
SVOC															
Phenol		100	ug/L	0 / 8	nd	nd	1 / 5	57	57	0 / 5	nd	nd	2 / 5	21	**180**
Inorganic															
Arsenic	0 05	0 05	mg/L	2 / 8	0 002	0 006	2 / 5	0 003	0 004	0 / 5	nd	nd	1 / 5	0 004	0 004
Barium	2	2	mg/L	8 / 8	0 023	0 11	5 / 5	0 053	0 084	5 / 5	0 034	0 08	5 / 5	0 05	0 09
Calcium			mg/L	8 / 8	56 8	172	5 / 5	51 3	89 1	5 / 5	78 8	99	5 / 5	60 7	92
Chromium, total	0 1	0 1	mg/L	0 / 8	nd	nd	0 / 5	nd	nd	1 / 5	0 001	0 001	0 / 5	nd	nd
Cobalt		1	mg/L	3 / 8	0 002	0 003	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
Copper	1 3 (at tap)+	0 65	mg/L	0 / 8	nd	nd	0 / 5	nd	nd	1 / 5	0 002	0 002	0 / 5	nd	nd
Iron	0 3**	5	mg/L	7 / 8	0 01	**5.1**	4 / 5	0 02	**1.2**	3 / 5	0 01	**3.4**	4 / 5	0 02	**0.9**
Magnesium			mg/L	8 / 8	28 6	83 7	5 / 5	35	49 4	5 / 5	42 7	49 8	5 / 5	18 5	53 7
Manganese	0 05**	0 15	mg/L	7 / 8	0 003	**0.945**	5 / 5	0 003	**0.055**	4 / 5	0 012	**0.467**	4 / 5	0 013	**0.07**
Nickel	0 1	0 1	mg/L	5 / 8	0 003	0 01	3 / 5	0 002	0 006	5 / 5	0 002	0 032	3 / 5	0 001	0 003
Potassium			mg/L	8 / 8	0 4	2 6	5 / 5	1 9	2 6	5 / 5	0 8	2 5	5 / 5	1 6	4 2
Sodium			mg/L	8 / 8	2	66 8	5 / 5	20	66 5	5 / 5	15 5	67 8	5 / 5	30 7	62 6
Zinc	5**	5	mg/L	6 / 8	0 007	0 024	3 / 5	0 005	0 009	4 / 5	0 012	0 022	1 / 5	0 017	0 017
Chloride	250**	200	mg/L	5 / 8	21	108	5 / 5	20	86	5 / 5	24	103	5 / 5	30	94
Sulfate	500	400	mg/L	8 / 8	43	293	5 / 5	58	97	5 / 5	65	94	5 / 5	61	114
Total Dissolved Solids	500**	1200	mg/L	8 / 8	343	**1010**	5 / 5	381	**625**	5 / 5	**539**	**726**	5 / 5	407	**696**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

Appendix A-6
Summary of Detections in Monitoring Wells
Round 3, Quarterly Groundwater Monitoring Program (October 1998)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
cis 1 2-Dichloroethene	70	70	ug/L	4 / 8	5 3	15	0 / 5	nd	nd	1 / 5	5 3	5 3	0 / 5	nd	nd
Inorganic															
Chloride	250**	200	mg/L	7 / 8	6	100	5 / 5	10	99	5 / 5	14	126	5 / 5	26	97
Sulfate	500	400	mg/L	8 / 8	30	277	5 / 5	67	90	5 / 5	73	95	5 / 5	60	98
Total Dissolved Solids	500**	1200	mg/L	8 / 8	299	**900**	5 / 5	358	**611**	5 / 5	**528**	**733**	5 / 5	432	**678**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

Appendix A-7
Summary of Detections in Monitoring Wells
Round 4, Quarterly Groundwater Monitoring Program (February 1999)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOCs															
cis 1 2 Dichloroethene	70	70	ug/L	4 / 8	5 9	23 7	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
Vinyl Chloride	2	2	ug/L	1 / 8	**8.6**(1)	**9.8**(1)	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
Inorganics															
Chloride	250**	200	mg/L	6 / 8	11	110	5 / 5	35	102	5 / 5	18	122	5 / 5	23	107
Sulfate	500	400	mg/L	8 / 8	40	144	5 / 5	58	83	5 / 5	62	84	5 / 5	56	112
Total Dissolved Solids	500**	1200	mg/L	8 / 8	330	**750**	5 / 5	294	**612**	5 / 5	**505**	**676**	5 / 5	405	**673**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections
(1) Duplicate Sample

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

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Appendix A-8
Summary of Detections in Monitoring Wells
Round 5, Quarterly Groundwater Monitoring Program (May 1999)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
cis-1,2-Dichloroethene	70	70	ug/L	3 / 6	7 8	14 4	0 / 2	nd	nd	1 / 3	5 2	5 2	0 / 2	nd	nd
Inorganic															
Chloride	250**	200	mg/L	5 / 6	19	105	2 / 2	29	37	3 / 3	27	61	2 / 2	56	77
Sulfate	500	400	mg/L	6 / 6	43	158	2 / 2	70	71	3 / 3	45	84	2 / 2	79	98
Total Dissolved Solids	500**	1200	mg/L	6 / 6	359	**699**	2 / 2	436	439	3 / 3	467	488	2 / 2	477	**588**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

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Appendix A-9
Summary of Detections in Monitoring Wells
Round 6, Quarterly Groundwater Monitoring Program (August 1999)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
1,1-Dichloroethane		700*	ug/L	0 / 7	nd	nd	0 / 5	nd	nd	1 / 5	6 6	6 6	0 / 5	nd	nd
cis-1,2-Dichloroethene	70	70	ug/L	2 / 7	6	14 2	0 / 5	nd	nd	1 / 5	7 6	7 6	0 / 5	nd	nd
Inorganic															
Antimony	0 006	0 006	mg/L	0 / 7	nd	nd	1 / 5	0 003	0 003	0 / 5	nd	nd	0 / 5	nd	nd
Arsenic	0 05	0 05	mg/L	1 / 7	0 004	0 004	0 / 5	nd	nd	0 / 5	nd	nd	0 / 5	nd	nd
Barium	2	2	mg/L	7 / 7	0 02	0 095	5 / 5	0 039	0 086	5 / 5	0 032	0 082	4 / 5	0 037	0 077
Calcium			mg/L	7 / 7	0 1	117	5 / 5	35 8	86 3	5 / 5	79	119	5 / 5	41 2	87 6
Chromium			mg/L	1 / 7	0 002	0 002	1 / 5	0 002	0 002	3 / 5	0 001	0 002	3 / 5	0 002	0 002
Cobalt		1	mg/L	3 / 7	0 002	0 003	2 / 5	0 002	0 002	5 / 5	0 001	0 004	4 / 5	0 002	0 005
Copper	1 3 (at tap)+	0 65	mg/L	2 / 7	0 002	0 002	0 / 5	nd	nd	2 / 5	0 002	0 014	0 / 5	nd	nd
Iron	0 3**	5	mg/L	5 / 7	0 1	**3.6**	4 / 5	0 02	0 25	4 / 5	0 02	**32**	4 / 5	0 04	**0.65**
Magnesium			mg/L	7 / 7	26 4	72 4	5 / 5	27 3	50 1	5 / 5	44 6	54 9	5 / 5	30 6	47 2
Manganese	0 05**	0 15	mg/L	7 / 7	0 001	**0.476**	5 / 5	0 002	**0.052**	3 / 5	0 014	**0.432**	5 / 5	0 009	**0.055**
Nickel	0 1	0 1	mg/L	6 / 7	0 001	0 061	5 / 5	0 003	0 006	5 / 5	0 005	0 057	4 / 5	0 003	0 05
Potassium			mg/L	7 / 7	0 6	3 5	5 / 5	2 2	4 2	5 / 5	0 8	2 8	5 / 5	0 1	4 2
Sodium			mg/L	7 / 7	2 3	64 2	5 / 5	24 7	56 1	5 / 5	18 7	55 4	5 / 5	26 2	57 3
Thallium	0 002	0 002	mg/L	1 / 7	**0.003**	**0.003**	1 / 5	**0.007**	**0.007**	0 / 5	nd	nd	0 / 5	nd	nd
Chloride	250**	200	mg/L	6 / 7	7	105	5 / 5	39	83	5 / 5	35	97	5 / 5	25	92
Sulfate	500	400	mg/L	7 / 7	40	85	5 / 5	61	85	5 / 5	44	92	5 / 5	57	86
Total Dissolved Solids	500**	1200	mg/L	7 / 7	238	**668**	5 / 5	269	**572**	5 / 5	473	**619**	5 / 5	321	**617**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

Appendix A-10
Summary of Detections in Monitoring Wells
Round 7, Quarterly Groundwater Monitoring Program (November 1999)
Blackwell Landfill, DuPage County, Illinois

Parameter	EPA MCLs	IEPA Class I Standards	Units	Outwash Detection			Bedrock Detection			Outwash Compliance			Bedrock Compliance		
				Detections	Range		Detections	Range		Detections	Range		Detections	Range	
					Min	Max		Min	Max		Min	Max		Min	Max
VOC															
1,1-Dichloroethane		700*	ug/L	0 / 8	nd	nd	0 / 5	nd	nd	1 / 5	5 8	5 8	0 / 5	nd	nd
cis-1,2-Dichloroethene	70	70	ug/L	2 / 8	13 9	19	0 / 5	nd	nd	1 / 5	6 3	6 3	0 / 5	nd	nd
Inorganic															
Chloride	250**	200	mg/L	6 / 8	14	104	5 / 5	16	90	5 / 5	20	80	5 / 5	22	90
Sulfate	500	400	mg/L	8 / 8	42	260	5 / 5	68	87	5 / 5	69	90	5 / 5	68	105
Total Dissolved Solids	500**	1200	mg/L	8 / 8	291	**810**	5 / 5	283	**641**	5 / 5	**516**	**616**	5 / 5	407	**622**

Notes
* not listed as standard in 620 410
** Secondary MCLs
a - Health Advisory Concentration equal to ADL for carcinogens
+ Action Level listed in Drinking Water Regulations
nd - no detections

Bold = Exceeds MCLs
Shade = Exceeds IEPA GW standards

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