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December 20, 2004

Mr. Larry Rose
North Carolina Department of Environment,
Health and Natural Resources
Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: Fall 2004 Analytical Results-Buncombe County Landfills

Dear Mr. Rose:

Enclosed please find the analytical results and potentiometric surface maps from the Fall 2004 sampling event for both the old and new Buncombe County Landfills. Also included is a statistical analysis of the detected constituents at the new landfill.

If you have any questions or comments concerning this matter, please give me, or Phil Cook, a call at (561) 689-7275.

Sincerely,

PBS&J

Philip R. Cook for

Geoffrey M. Burke, P.G.

cc: Ed Hilton
Denise Ballew, Buncombe County

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Statistical Analysis

Buncombe County New Landfill
Fall 2004

Constituents detected during the Fall 2004 sampling event were analyzed in order to determine whether there is statistically significant evidence of contamination. This analysis was conducted by calculating Tolerance Intervals from background well data and comparing concentrations from the compliance wells to the calculated interval using the method specified in EPA, 1989. Background concentrations from the shallow monitoring well (MW-1) were compared to shallow compliance wells MW-2 through MW-12, and background concentrations from the deep monitoring well (MW-1D) were compared to the deep compliance wells (MW-2D, MW-4D, MW-5D, and MW-8D through MW-12D). Tolerance Interval calculations are provided in the attached tables.

Compliance well concentrations fell outside calculated Tolerance Intervals for Barium, Beryllium, Cobalt, Lead, and Zinc in MW-2 and Thallium in MW-4D. Although statistically significant, these concentrations are unlikely to be indicative of contamination due to landfill activities. The elevated concentrations most probably result from interferences due to inadequate development or high turbidity in these wells. The monitoring wells are scheduled to be redeveloped prior to the next round of sampling.

Reference:

EPA, 1989. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance, Office of Solid Waste. Washington D.C.

Barium concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	190	1100*	220	86	74	180	220	100	240	340	49	280
3/30/2004	130	280	150	200	120	54	160	87	250	150	100	140
9/30/2003	290	410	380	87	67	1100*	500	70	190	240	60	86
3/25/2003	190	120	260	110	52	59	120	62	160	320	61	220
10/28/2002	350											
4/30/2002	280											
10/23/2001	430											
5/1/2001	570											
11/6/2000	610											
4/4/2000	108											
11/2/1999	240											
4/27/1999	419											
11/9/1998	709											
4/14/1998	528											

n=	14	number of observations
Mean=	360	arithmetic mean
SD=	189	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	855	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	27	140	32	55	58	220	17	15	420
3/30/2004	76	100	62	50	55	190	12	17	6.8
9/30/2003	52	7.7	5.5	53	52	180	12	63	150
3/25/2003	37	77	45	50	53	130	130	65	1000
10/28/2002	270								
4/30/2002	60								
10/23/2001	110								
5/1/2001	530								
11/6/2000	880								
4/4/2000	1290								

n=	10	number of observations
Mean=	333	arithmetic mean
SD=	436	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	1601	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Chromium concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	6.4	57	27	2.1	8	37	15	8.3	BDL	43	BDL	10
3/30/2004	29	18	12	23	8.3	BDL	BDL	9.5	BDL	16	20	BDL
9/30/2003	20	26	85	BDL	7.4	290*	81	5.2	BDL	43	6.9	7.7
3/25/2003	5.1	120	47	9.3	8.4	BDL	5.1	BDL	BDL	69	7.6	36
10/28/2002	42											
4/30/2002	23											
10/23/2001	34											
5/1/2001	**2.5**											
11/6/2000	9.9											
4/4/2000	1											
11/2/1999	22											
4/27/1999	47											
11/9/1998	176											
4/14/1998	60											

n=	14	number of observations
Mean=	34	arithmetic mean
SD=	45	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	151	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	**1**	5.1	BDL	BDL	BDL	BDL	BDL	BDL	50
3/30/2004	**1**	5.7	62	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	**2.5**	9.7	BDL	BDL	BDL	2.7	BDL	BDL	13
3/25/2003	12	BDL	BDL	BDL	BDL	BDL	35	BDL	170
10/28/2002	9.1								
4/30/2002	**2.5**								
10/23/2001	**2.5**								
5/1/2001	5.9								
11/6/2000	31								
4/4/2000	202								

n=	10	number of observations
Mean=	27	arithmetic mean
SD=	62	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	208	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Copper concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	11	46	13	2.1	2.5	14	22	8.4	2.7	28	2.7	15
3/30/2004	5	13	9.3	19	5.2	BDL	BDL	9.3	BDL	6	28	BDL
9/30/2003	9	20	36	2.7	3.6	100*	74	5.9	2.6	24	9.7	8
3/25/2003	8.3	4	18	8.1	2.9	BDL	5.5	4.1	2.6	31	5.9	22
10/28/2002	44											
4/30/2002	23											
10/23/2001	48											
5/1/2001	14											
11/6/2000	21											
4/4/2000	**2.5**											
11/2/1999	16											
4/27/1999	43											
11/9/1998	76											
4/14/1998	56											

n=	14	number of observations
Mean=	27	arithmetic mean
SD=	23	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	86	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	5	11	BDL	BDL	4.1	BDL	2	BDL	82
3/30/2004	6.8	3.4	13	BDL	BDL	3.4	3	BDL	2.2
9/30/2003	6	6.8	2.4	2.2	BDL	6.7	2.8	3.2	16
3/25/2003	2.1	BDL	6.7	BDL	BDL	BDL	21	2.6	200
10/28/2002	8.7								
4/30/2002	2.8								
10/23/2001	**2.5**								
5/1/2001	9.1								
11/6/2000	27								
4/4/2000	240								

n=	10	number of observations
Mean=	31	arithmetic mean
SD=	74	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	246	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Nickel concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	**2.5**	66	50	BDL	BDL	12	28	BDL	20	18	19	23
3/30/2004	**2.5**	21	55	13	5.1	BDL	13	5.2	23	8.7	4.8	5
9/30/2003	15	32	6.1	BDL	BDL	100	92	BDL	21	23	20	9.1
3/25/2003	5	6.7	62	5.5	BDL	BDL	12	BDL	36	36	21	48
10/28/2002	30											
4/30/2002	18											
10/23/2001	30											
5/1/2001	13											
11/6/2000	21											
4/4/2000	**2.5**											
11/2/1999	16											
4/27/1999	33											
11/9/1998	120											
4/14/1998	40											

n=	14	number of observations
Mean=	25	arithmetic mean
SD=	30	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	103	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	**2.5**	BDL	BDL	BDL	BDL	BDL	12	BDL	52
3/30/2004	9.7	BDL	7	BDL	BDL	8.6	6.8	BDL	BDL
9/30/2003	7.8	7.2	BDL	BDL	BDL	10	10	BDL	15
3/25/2003	5	BDL	BDL	BDL	BDL	BDL	BDL	13	230
10/28/2002	18								
4/30/2002	5.2								
10/23/2001	12								
5/1/2001	28								
11/6/2000	42								
4/4/2000	212								

n=	10	number of observations
Mean=	34	arithmetic mean
SD=	64	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	220	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Zinc concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	5	260*	38	22	21	57	23	12	BDL	40	BDL	26
3/30/2004	5	78	32	27	13	BDL	BDL	14	BDL	21	21	BDL
9/30/2003	31	120	89	BDL	BDL	290*	99	BDL	BDL	38	11	16
3/25/2003	5	23	43	BDL	BDL	BDL	14	BDL	BDL	62	14	130
10/28/2002	48											
4/30/2002	28											
10/23/2001	51											
5/1/2001	37											
11/6/2000	200											
4/4/2000	12.5											
11/2/1999	34											
4/27/1999	55											
11/9/1998	102											
4/14/1998	90											

n=	14	number of observations
Mean=	50	arithmetic mean
SD=	52	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	187	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	10	16	BDL	79	BDL	BDL	BDL	24	95
3/30/2004	50	18	14	BDL	BDL	60	BDL	BDL	BDL
9/30/2003	42	24	12	BDL	BDL	17	16	BDL	20
3/25/2003	30	BDL	BDL	BDL	30	15	40	16	320*
10/28/2002	58								
4/30/2002	18								
10/23/2001	33								
5/1/2001	30								
11/6/2000	78								
4/4/2000	195								

n=	10	number of observations
Mean=	54	arithmetic mean
SD=	53	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	209	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Cobalt concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	**2.5**	75*	18	BDL	BDL	15	12	BDL	BDL	8.5	BDL	11
3/30/2004	**2.5**	19	25	6.9	BDL	BDL	6.4	BDL	BDL	BDL	9.8	BDL
9/30/2003	9	27	44	BDL	BDL	100*	32	BDL	BDL	5.4	BDL	BDL
3/25/2003	**2.5**	5.4	21	BDL	BDL	BDL	BDL	BDL	BDL	14	BDL	18
10/28/2002	15											
4/30/2002	11											
10/23/2001	17											
5/1/2001	30											
11/6/2000	34											
4/4/2000	**2.5**											
11/2/1999	12											
4/27/1999	19											
11/9/1998	37											
4/14/1998	29											

n=	14	number of observations
Mean=	16	arithmetic mean
SD=	12	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	48	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	**2.5**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	22
3/30/2004	**2.5**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	**2.5**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/25/2003	**2.5**	BDL	BDL	BDL	BDL	BDL	9	BDL	81
10/28/2002	13								
4/30/2002	**2.5**								
10/23/2001	**2.5**								
5/1/2001	33								
11/6/2000	51								
4/4/2000	126								

n=	10	number of observations
Mean=	24	arithmetic mean
SD=	40	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	139	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Vanadium concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	18	74	37	5.1	25	49	26	14	BDL	46	BDL	24
3/30/2004	9.1	23	22	38	15	BDL	BDL	15	BDL	18	19	BDL
9/30/2003	39	30	94	BDL	28	380*	140	7.6	BDL	42	7.9	13
3/25/2003	13	6.8	66	19	38	BDL	11	7	BDL	69	7.7	45
10/28/2002	71											
4/30/2002	41											
10/23/2001	75											
5/1/2001	17											
11/6/2000	33											
4/4/2000	**2.5**											
11/2/1999	34											
4/27/1999	72											
11/9/1998	131											
4/14/1998	105											

n= 14 number of observations
Mean= 47 arithmetic mean
SD= 38 standard deviation

K= 2.614 one-sided normal tolerance factor (from table)

TL= 148 upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	**2.5**	9.9	6.2	BDL	BDL	BDL	BDL	BDL	120
3/30/2004	6.2	8.2	39	BDL	BDL	6.2	BDL	BDL	BDL
9/30/2003	7	13	8.6	BDL	BDL	11	BDL	BDL	25
3/25/2003	**2.5**	BDL	22	BDL	BDL	BDL	25	BDL	300*
10/28/2002	13								
4/30/2002	**2.5**								
10/23/2001	**2.5**								
5/1/2001	33								
11/6/2000	51								
4/4/2000	126								

n= 10 number of observations
Mean= 25 arithmetic mean
SD= 39 standard deviation

K= 2.911 one-sided normal tolerance factor (from table)

TL= 139 upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Cadmium concentrations (ug/l)

	Background	Compliance Wells										
Date	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/25/2003	0.5	BDL	1.5	BDL	BDL	BDL	BDL	BDL	BDL	2.8	BDL	1.8
10/28/2002	2.7											
4/30/2002	1.4											
10/23/2001	3.1											
5/1/2001	0.5											
11/6/2000	0.5											
4/4/2000	0.5											
11/2/1999	0.5											
4/27/1999	0.5											
11/9/1998	0.5											
4/14/1998	0.5											

n=	14	number of observations
Mean=	1	arithmetic mean
SD=	1	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	3	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Arsenic concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	2.5	BDL	BDL	BDL	BDL	8*	BDL	BDL	BDL	BDL	BDL	BDL
3/25/2003	2.5											
10/28/2002	2.5											
4/30/2002	5											
10/23/2001	5											
5/1/2001	5											
11/6/2000	5											
4/4/2000	2.5											
11/2/1999	2.5											
4/27/1999	2.5											
11/9/1998	2.5											
4/14/1998	2.5											

n=	14	number of observations
Mean=	3	arithmetic mean
SD=	1	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	6.3	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	2.5	BDL	BDL	BDL	BDL	8	BDL	BDL	BDL
3/25/2003	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	7.8
10/28/2002	2.5								
4/30/2002	5								
10/23/2001	5								
5/1/2001	5								
4/4/2000	2.5								

n=	10	number of observations
Mean=	3	arithmetic mean
SD=	1	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	7	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Carbon disulfide concentrations (ug/l)

	Background	Compliance Wells										
Date	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	1	2.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4/14/1998	1	BDL	BDL	32*	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11/9/1998	1											
4/27/1999	0.5											
11/2/1999	0.5											
4/4/2000	0.5											
11/6/2000	2.5											
5/1/2001	2.5											
10/23/2001	1											
4/30/2002	0.5											
10/28/2002	5											
3/25/2003	5											

n=	14	number of observations
Mean=	2	arithmetic mean
SD=	2	standard deviation
K=	2.670	one-sided normal tolerance factor (from table)
TL=	6	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

	Background	Compliance Wells							
Date	MW-1D	MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	1	BDL	BDL	BDL	6.4	BDL	BDL	BDL	BDL
9/30/2003	6.4	BDL	16	BDL	BDL	BDL	BDL	BDL	BDL
10/28/2002	14	BDL	BDL	28	BDL	BDL	BDL	BDL	13
3/25/2003	5								
4/30/2002	5								
4/4/2000	0.5								
10/23/2001	29.9								
5/1/2001	2.5								
11/6/2000	2.5								

n=	10	number of observations
Mean=	7	arithmetic mean
SD=	9	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	33	upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Lead concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	2.5	31*	BDL	BDL	BDL	10	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	2.5	11	BDL	5.9	BDL	BDL	BDL	BDL	BDL	BDL	6.5	BDL
9/30/2003	2.5	12	6.1	BDL	BDL	34*	6.5	BDL	BDL	BDL	BDL	BDL
3/25/2003	5											
10/28/2002	5											
4/30/2002	5											
10/23/2001	5											
5/1/2001	5											
11/6/2000	5											
4/4/2000	2											
11/2/1999	2											
4/27/1999	6											
11/9/1998	10											
4/14/1998	2											

n= 14 number of observations
Mean= 4 arithmetic mean
SD= 2 standard deviation

K= 2.614 one-sided normal tolerance factor (from table)

TL= 10 upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	5	BDL	BDL	BDL	BDL	5.1	BDL	BDL	16
3/30/2004	6.1	BDL	BDL	BDL	BDL	5.1	BDL	BDL	BDL
9/30/2003	9.8	BDL	BDL	BDL	BDL	6	BDL	BDL	BDL
3/25/2003	11								
10/28/2002	5								
4/30/2002	5								
10/23/2001	5								
5/1/2001	5								
11/6/2000	5								
4/4/2000	25								

n= 10 number of observations
Mean= 8 arithmetic mean
SD= 6 standard deviation

K= 3.031 one-sided normal tolerance factor (from table)

TL= 27 upper tolerance limit = [Mean + (SD x K)]

*indicates contamination (upper tolerance limit exceeded)

Antimony concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	2.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	2.5	BDL	BDL	BDL	BDL	BDL	BDL	5.5	BDL	BDL	BDL	BDL
9/30/2003	2.5	BDL	BDL	BDL	BDL	BDL	BDL	5.5	BDL	BDL	BDL	BDL
3/25/2003	5											
10/28/2002	5											
4/30/2002	5											
10/23/2001	5											
5/1/2001	5											
11/6/2000	2.5											
4/4/2000	2.5											
11/2/1999	2.5											
4/27/1999	2.5											
11/9/1998	2.5											
4/14/1998	2.5											

n=	14	number of observations
Mean=	3	arithmetic mean
SD=	1	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	7	upper tolerance limit = [Mean + (SD x K)]

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	2.5	7.7	5.5	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	2.5	7.7	5.5	BDL	BDL	BDL	BDL	BDL	BDL
9/30/2003	2.5	7.7	5.5	BDL	BDL	BDL	BDL	BDL	BDL
3/25/2003	5								
10/28/2002	5								
4/30/2002	5								
10/23/2001	5								
5/1/2001	5								
11/6/2000	5								
4/4/2000	2.5								

n=	10	number of observations
Mean=	4	arithmetic mean
SD=	1	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	8	upper tolerance limit = [Mean + (SD x K)]

Beryllium concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	0.5	2.5*	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	0.5											
9/30/2003	0.5											
3/25/2003	1											
10/28/2002	1											
4/30/2002	2											
10/23/2001	1											
5/1/2001	1											
11/6/2000	2.1											
4/4/2000	0.5											
11/2/1999	0.5											
4/27/1999	0.5											
11/9/1998	0.5											
4/14/1998	0.5											

n=	14	number of observations
Mean=	1	arithmetic mean
SD=	1	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	2	upper tolerance limit = [Mean + (SD x K)]

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.5
3/30/2004	0.5								
9/30/2003	1.2								
3/25/2003	1								
10/28/2002	1								
4/30/2002	1								
10/23/2001	1								
5/1/2001	1								
11/6/2000	2.7								
4/4/2000	1								

n=	10	number of observations
Mean=	1	arithmetic mean
SD=	1	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	3	upper tolerance limit = [Mean + (SD x K)]

Thallium concentrations (ug/l)

Date	Background MW-1	Compliance Wells MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
9/27/2004	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	5											
9/30/2003	1											
3/25/2003	1											
10/28/2002	1											
4/30/2002	1											
10/23/2001	1											
5/1/2001	1											
11/6/2000	1											
4/4/2000	1											
11/2/1999	1											
4/27/1999	1											
11/9/1998	1											
4/14/1998	1											

n=	14	number of observations
Mean=	2	arithmetic mean
SD=	1	standard deviation
K=	2.614	one-sided normal tolerance factor (from table)
TL=	5	upper tolerance limit = [Mean + (SD x K)]

Date	Background MW-1D	Compliance Wells MW-2D	MW-4D	MW-5D	MW-8D	MW-9D	MW-10D	MW-11D	MW-12D
9/27/2004	5	BDL	11*	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2004	5								
9/30/2003	1								
3/25/2003	1								
10/28/2002	1								
4/30/2002	1								
10/23/2001	1								
5/1/2001	1								
11/6/2000	1								
4/4/2000	1								

n=	10	number of observations
Mean=	2	arithmetic mean
SD=	2	standard deviation
K=	2.911	one-sided normal tolerance factor (from table)
TL=	7	upper tolerance limit = [Mean + (SD x K)]