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Sample Analysis Report

May, 2013

Analyst Initials: JEO P
Date: 06-14-13

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
Residential Wells								
D0								
4601 Park 4 inch-05-20-13-09:45-1	2	1.0						
4601 Park 6 inch-05-20-13-10:30-1	2	1.0						
Miscellaneous Wells								
E								
IW-1-05-06-13-14:40-1	nd	1.0						
Not Determined								
Bethlehem Cemetery-05-07-13-08:50-1	nd	1.0						
Extraction Wells								
C3								
DOLPH-05-06-13-08:28-1	90	1.0						
TW-1-05-28-13-10:30-1	120	1.0						O, B, D
TW-10-05-28-13-10:55-1	320	10.0						O, B, D
TW-14-05-28-13-10:45-1	24	1.0						O, B
TW-20-05-06-13-09:27-1	950	100.0						D
TW-3-05-28-13-10:35-1	5	1.0						O, B
TW-6-05-20-13-14:30-1	58	1.0						O, B
D2								
LB-1-05-06-13-07:50-1	660	100.0						D

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
LB-3-05-06-13-07:51-1	420	100.0						D
TW-21-05-06-13-09:05-1	140	10.0						D
TW-5-05-06-13-09:10-1	750	100.0						D
TW-9-05-06-13-09:35-1	840	100.0						D
E								
TW-11-05-06-13-09:11-1	200	25.0						D
TW-12-05-28-13-10:15-1	33	1.0						O, B
TW-17-05-28-13-10:40-1	560	10.0						O, B, D
TW-18-05-06-13-08:30-1	300	50.0						D
TW-19-05-06-13-07:52-1	880	100.0						D
Marshy								
PW-1-05-06-13-08:32-1	1100	100.0						D
SW								
TW-22-05-06-13-11:50-1	540	100.0						D
TW-8-05-06-13-11:51-1	610	50.0						D
Monitoring Wells								
C2								
MW-25s-05-09-13-13:40-1	89	50.0						D
C3								
MW-125-05-29-13-13:35-1	214	5.0						D, O, B
MW-127s-05-29-13-09:05-1	4	1.0						O, B
MW-18d-05-07-13-14:05-1	220	10.0						D
MW-20-05-31-13-10:35-1	3	1.0						O, B
MW-22-05-31-13-14:15-1	1090	50.0						O, B, D
MW-2d-05-20-13-13:25-1	27	1.0						
MW-2s-05-20-13-13:30-1	3	1.0						

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
MW-32-05-31-13-13:45-1	15	1.0						O, B
MW-34s-05-31-13-13:20-1	3	1.0						O, B
MW-35-05-07-13-11:40-1	11	1.0						
MW-37-05-07-13-14:30-1	330	10.0						D
MW-39s-05-13-13-13:30-1	7	1.0						
MW-75-05-31-13-12:20-1	1440	20.0						O, B, D
D0								
A2 Cleaning Supply-05-31-13-09:00-1	71	1.0						O, B
MW-41d-05-29-13-14:55-1	37	1.0						O, B
MW-41s-05-29-13-14:57-1	23	1.0						O, B
MW-53d-05-31-13-10:05-1	3	1.0						O, B
MW-53i-05-13-13-12:45-1	53	1.0						
MW-53s-05-31-13-09:33-1	4	1.0						O, B
MW-61d-05-15-13-13:40-1	2	1.0						
MW-61s-05-15-13-13:55-1	22	1.0						
MW-93-05-20-13-11:00-1	4	1.0						
D2								
HZ-S-05-28-13-10:50-1	620	20.0						D, O, B
MW-107-05-24-13-12:20-1	510	10.0						O, B, D
MW-113-05-28-13-10:55-1	54	1.0						O, B
MW-118-05-29-13-14:20-1	81	1.0						O, B
MW-11d-05-07-13-13:35-1	160	25.0						D
MW-121s-05-22-13-09:00-1	nd	1.0						
MW-122s-05-22-13-10:30-1	75	1.0						O, B
MW-126s-05-15-13-11:20-1	nd	1.0						
MW-129i-05-23-13-09:40-1	nd	1.0						
MW-129s-05-23-13-09:10-1	nd	1.0						

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
MW-130i-05-23-13-13:45-1	nd	1.0						
MW-130s-05-23-13-13:15-1	nd	1.0						
MW-131s-05-15-13-09:50-1	nd	1.0						
MW-17-05-08-13-09:05-1	510	100.0						D
MW-34d-05-07-13-10:20-1	nd	1.0						
MW-38d-05-07-13-09:45-1	51	1.0						
MW-39d-05-13-13-13:55-1	140	25.0						D
MW-54d-05-20-13-12:05-1	47	1.0						
MW-54s-05-20-13-11:30-1	2	1.0						O, B
MW-92-05-24-13-11:55-1	27	1.0						O, B
MW-BE-1d-05-28-13-11:35-1	98	1.0						O, B
MW-BE-1s-05-28-13-11:55-1	790	10.0						O, B, D
MW-KD-1d-05-22-13-12:45-1	120	1.0						
MW-KD-1s-05-22-13-12:20-1	45	1.0						O, B
E								
MW-100-05-24-13-14:25-1	1610	20.0						D, O, B
MW-103s-05-31-13-11:30-1	79	1.0						O, B
MW-104-05-21-13-14:25-1	3	1.0						
MW-110-05-22-13-13:40-1	36	1.0						O, B
MW-112d-05-17-13-11:30-1	nd	1.0						
MW-112i-05-17-13-10:30-1	6	1.0						
MW-112s-05-17-13-10:45-1	nd	1.0						
MW-119-05-28-13-10:05-1	62	1.0						O, B
MW-120d-05-22-13-12:00-1	nd	1.0						
MW-122d-05-22-13-10:00-1	nd	1.0						
MW-123d-05-21-13-13:50-1	nd	1.0						
MW-126d-05-15-13-12:05-1	nd	1.0						

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
MW-127d-05-29-13-09:55-1	4	1.0						O, B
MW-129d-05-23-13-10:20-1	nd	1.0						
MW-130d-05-23-13-14:35-1	nd	1.0						
MW-131d-05-15-13-10:45-1	nd	1.0						
MW-135-05-24-13-09:35-1	3	1.0						O, B
MW-64-05-08-13-12:30-1	49	1.0						
MW-65d-05-21-13-11:45-1	29	1.0						
MW-65i-05-21-13-10:05-1	nd	1.0						
MW-65s-05-21-13-10:40-1	20	1.0						O, B
MW-66-05-07-13-11:25-1	2	1.0						
MW-72d-05-08-13-10:10-1	2300	200.0						D
MW-76s-05-17-13-13:30-1	320	30.0						D, O, B
MW-81-05-24-13-11:10-1	460	10.0						O, B, D
MW-84s-05-17-13-14:20-1	56	10.0						D
MW-85-05-28-13-14:35-1	1250	50.0						O, B, D
MW-87d-05-28-13-13:35-1	590	10.0						O, B, D
MW-87s-05-28-13-13:50-1	1090	20.0						O, B, D
MW-88-05-28-13-13:00-1	445	5.0						D, O, B
MW-90-05-22-13-14:25-1	16	1.0						
MW-91-05-24-13-10:25-1	178	1.0						O, B
MW-98d-05-23-13-11:30-1	12	1.0						
Saginaw Forest Cabin #1-05-29-13-12:45-1	23	1.0						O, B
Saginaw Forest Cabin #2-05-29-13-11:10-1	5	1.0						O, B
SH								
MW-5d-05-09-13-14:30-1	21000	1000.0						D
SW								
MW-10d-05-31-13-14:40-1	1330	20.0						O, B, D

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
MW-45d-05-09-13-12:05-1	630	25.0						D
MW-45s-05-09-13-11:45-1	7	1.0						
MW-46-05-08-13-13:15-1	170	25.0						D
MW-48-05-09-13-09:55-1	100	10.0						D
MW-49-05-08-13-12:50-1	nd	1.0						
MW-50-05-08-13-14:45-1	1300	100.0						D
MW-52s-05-09-13-12:35-1	840	50.0						D
MW-57-05-31-13-12:00-1	6	1.0						O, B
MW-58d-05-08-13-13:50-1	18	1.0						
MW-58s-05-08-13-14:10-1	160	25.0						D
MW-78-05-29-13-13:10-1	27	1.0						O, B
TW-4-05-09-13-11:20-1	102	16.7						D
Surface Water								
Not Applicable								
HC/HR-05-01-13-08:00-1			nd	2.0				
HC/HR-05-02-13-08:25-1			nd	2.0				
HC/HR-05-03-13-08:15-1			nd	2.0				
HC/HR-05-06-13-08:15-1			nd	2.0				
HC/HR-05-07-13-07:55-1			nd	2.0				
HC/HR-05-08-13-08:50-1			nd	2.0				
HC/HR-05-09-13-07:50-1			nd	2.0				
HC/HR-05-10-13-08:20-1			nd	2.0				
HC/HR-05-13-13-08:05-1			nd	2.0				
HC/HR-05-14-13-07:40-1			nd	2.0				
HC/HR-05-15-13-08:05-1			nd	2.0				
HC/HR-05-16-13-08:00-1			nd	2.0				
HC/HR-05-17-13-08:25-1			nd	2.0				

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
HC/HR-05-20-13-08:10-1			nd	2.0				
HC/HR-05-21-13-08:10-1			nd	2.0				
HC/HR-05-22-13-08:20-1			nd	2.0				
HC/HR-05-23-13-08:20-1			nd	5.0				
HC/HR-05-24-13-08:20-1			nd	2.0				
HC/HR-05-28-13-08:05-1			nd	2.0				
HC/HR-05-29-13-07:55-1			nd	2.0				
HC/HR-05-30-13-08:35-1			nd	2.0				
HC/HR-05-31-13-07:45-1			nd	2.0				
Treatment System								
OUTFALL-05-01-13-1	4	1.0						
OUTFALL-05-01-13-2			7	5.0				
OUTFALL-05-02-13-1	6	1.0						
OUTFALL-05-02-13-2			nd	5.0				
OUTFALL-05-05-13-1	6	1.0						
OUTFALL-05-05-13-2			7	5.0				
OUTFALL-05-06-13-1	5	1.0						
OUTFALL-05-06-13-2			6	5.0				
OUTFALL-05-07-13-1	6	1.0						
OUTFALL-05-08-13-01	6	1.0						
OUTFALL-05-07-13-2			5	5.0				
OUTFALL-05-08-13-02			nd	5.0				
OUTFALL-05-09-13-1	6	1.0						
OUTFALL-05-09-13-2			7	5.0				
OUTFALL-05-12-13-1	4	1.0						
OUTFALL-05-12-13-2			nd	5.0				
OUTFALL-05-13-13-1	7	1.0						

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
OUTFALL-05-13-13-2			nd	5.0				
OUTFALL-05-14-13-1	5	1.0						
OUTFALL-05-14-13-2			nd	5.0				
OUTFALL-05-15-13-1	7	1.0						
OUTFALL-05-15-13-2			nd	5.0				
OUTFALL-05-16-13-1	6	1.0						
OUTFALL-05-16-13-2			nd	5.0				
OUTFALL-05-19-13-1	8	1.0						
OUTFALL-05-19-13-2			nd	5.0				
OUTFALL-05-20-13-1	8	1.0						
OUTFALL-05-20-13-2			nd	5.0				
OUTFALL-05-21-13-1	8	1.0						O, B
OUTFALL-05-21-13-2			nd	2.0				
OUTFALL-05-22-13-1	6	1.0						
OUTFALL-05-22-13-3	7	1.0						O, R
OUTFALL-05-22-13-2			5	5.0				
OUTFALL-05-23-13-1	8	1.0						O, B
OUTFALL-05-23-13-2			6	5.0				
OUTFALL-05-26-13-1	8	1.0						O, B
OUTFALL-05-26-13-2			nd	5.0				
OUTFALL-05-27-13-1	7	1.0						O, B
OUTFALL-05-27-13-2			5	5.0				
OUTFALL-05-28-13-1	9	1.0						O, B
OUTFALL-05-28-13-2			nd	5.0				
OUTFALL-05-29-13-1	9	1.0						O, B
OUTFALL-05-29-13-3	5	1.0						O, R
OUTFALL-05-29-13-2			nd	5.0				

Sample Name - Date/Time Sampled	1,4-Dioxane Results (ppb)	R.L. (ppb)	Bromate Results (ppb)	R.L. (ppb)	Bromide Results (ppb)	R.L. (ppb)	Comments	Qualifier(s)
OUTFALL-05-30-13-1	9	1.0						O, B
OUTFALL-05-30-13-3	7	1.0						O, R
OUTFALL-05-30-13-2			nd	5.0				
Red Pond-05-06-13-08:25-1	470	25.0						D
Red Pond-05-13-13-08:25-1	570	25.0						D
Red Pond-05-20-13-06:50-1	530	10.0						D, O, B
Red Pond-05-28-13-07:15-1	520	10.0						D, O, B

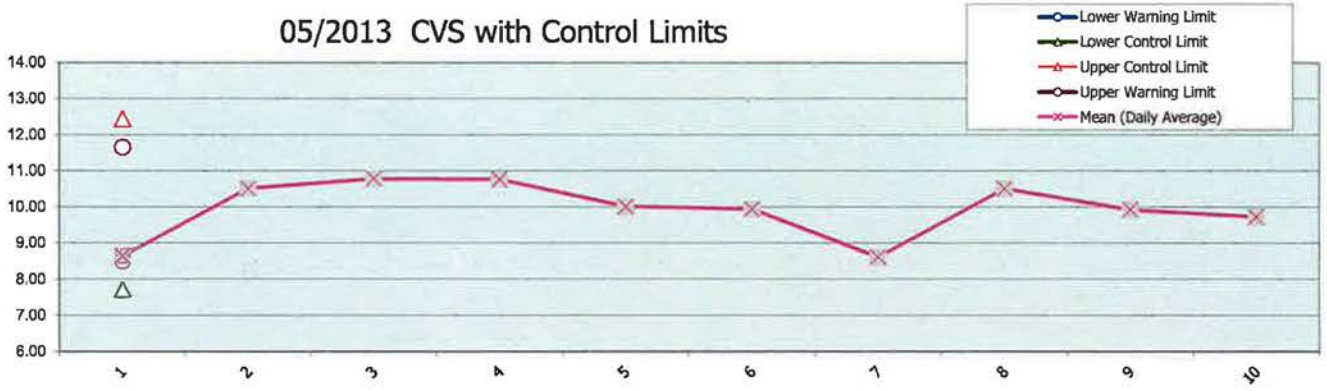
Qualifier Code:	Qualifier Description
D	Analyte value quantified from a dilution, reporting limit is raised to reflect dilution
O	Samples were sent to outside laboratories due to an extended absence of the Pall Analytical Staff.
B	"Method Blanks" 2-3ppb levels for 1,4-dioxane, causing elevated levels in analyzed samples.
R	Replicate sample done from split samples, sent to Brighton Analytical Laboratories

Control Chart for 05/2013 CVS

Analyst: Susan E.O. Peters

GC/MS Data: #2
Report Date: 6/14/2013
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: 1,4-dioxane
Start date: 5/1/2013
End date: 5/31/2013
Desired level: 100%

Date	CVS Values				Mean (Daily Average)	Sample Mean (All Individual Data)	Daily Standard Deviation	Daily Average Sample Standard Deviation	Lower Control Limit	Upper Control Limit	Lower Warning Limit	Upper Warning Limit
	CVS 1	CVS 2	CVS 3	CVS 4								
5/6/2013	8.64				8.64	10.09	na	0.79	7.73	12.45	8.51	11.66
5/8/2013	10.00	11.04			10.52	10.09	0.74					
5/9/2013	10.48	11.1			10.79	10.09	0.44					
5/10/2013	10.84	10.7			10.77	10.09	0.10					
5/13/2013	10.84	10.14	9.72	9.37	10.02	10.09	0.63					
5/15/2013	10.03	9.86			9.95	10.09	0.12					
5/20/2013	8.62				8.62	10.09	na					
5/21/2013	9.55	11.48			10.52	10.09	1.36					
5/24/2013	10.45	9.42			9.94	10.09	0.73					
5/29/2013	10.00	9.47			9.74	10.09	0.37					

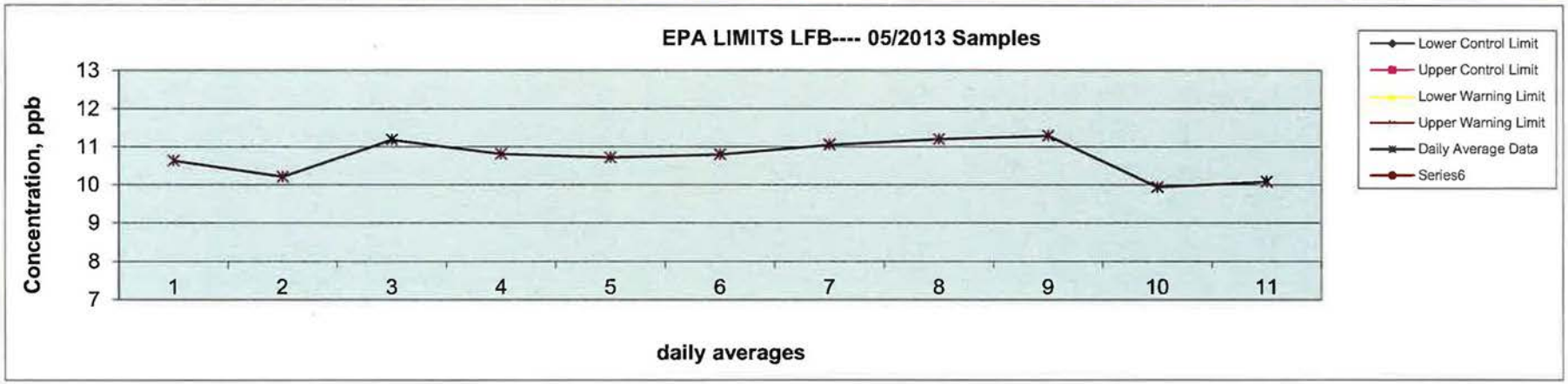


Control Chart for 5/2013 LFB

Analyst: Susan E.O. Peters

GC/MS Data: #2
Report Date: 6/14/2013
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: 1,4-dioxane
Start date: 5/1/2013
End date: 5/31/2013
Desired level: 100%

Date	LFB Values						Mean (Daily Average)	Sample Mean (All Individual Data)	Daily Standard Deviation	Daily Average Sample Standard Deviation	Lower Control Limit	Upper Control Limit	Lower Warning Limit	Upper Warning Limit
	LFB 1	LFB 2	LFB 3	LFB 4	LFB 5	LFB 6								
5/6/2013	10.5	10.2	11.2				10.63	10.74	0.51	0.47	9.34	12.14	9.81	11.67
5/8/2013	10.35	10.9	9.4	10.2			10.21	10.74	0.62					
5/9/2013	10.56	11.4	10.2	11.90	11.90		11.18	10.74	0.78					
5/10/2013	11.90	9.6	11.90	11.80	9.72	9.99	10.81	10.74	1.16					
5/13/2013	10.1	10.7	11.3	11.48	10.88	10.67	10.72	10.74	0.49					
5/13/2013	11.5	10.1	11.16	10.46	9.51		10.80	10.74	0.79					
5/15/2013	9.9	10.6	11.6	11.30	11.90		11.05	10.74	0.82					
5/20/2013	10.8	11.90	10.9				11.20	10.74	0.61					
5/21/2013	9.99	11.4	11.9	11.9			11.29	10.74	0.90					
5/24/2013	9.7	10.40	10.1	9.56			9.95	10.74	0.39					
5/29/2013	11.4	10.0	8.84				10.08	10.74	1.28					

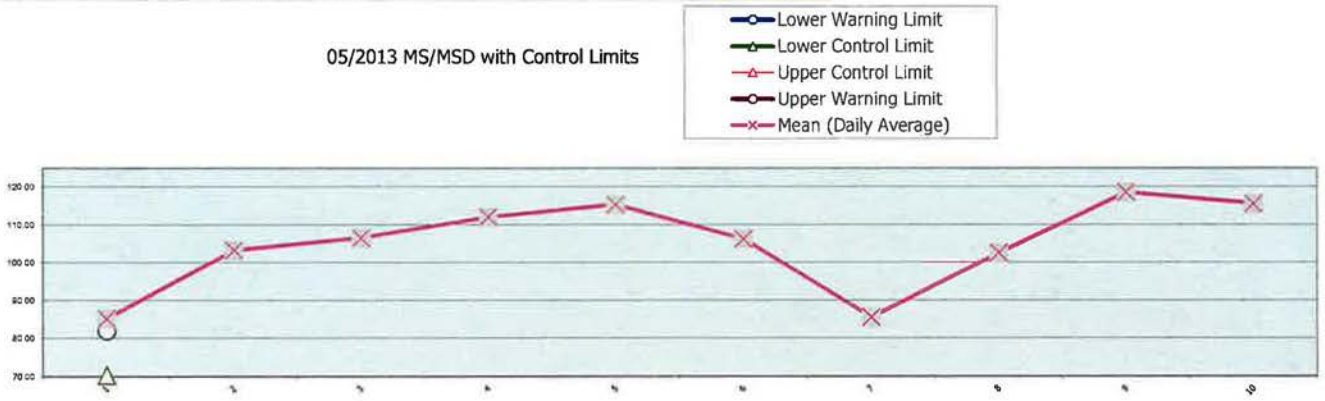


Control Chart for 05/2013 MS/MSD %Recoveries

Analyst: Susan E.O. Peters

GC/MS Data: #2
Report Date: 6/12/2013
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: 1,4-dioxane
Start date: 5/1/2013
End date: 5/31/2013
Desired level: 100%

Date	Matrix Spike % Recovery Values						Mean (Daily Average)	Sample Mean (All Individual Data)	Daily Standard Deviation	Daily Average Sample Standard Deviation	Lower Control Limit	Upper Control Limit	Lower Warning Limit	Upper Warning Limit	Mean RPD (Individual Data)
	MS 1	MSD 1	MS 2	MSD 2	MS 3	MSD 3									
5/6/2013	90	80					85.15	105.53	12.71	11.73	70.35	140.70	82.07	128.98	105.53
5/8/2013	95	98	109	111			103.25								
5/9/2013	108	105					106.50								
5/10/2013	112	112					112.00								
5/13/2013	112	107	124	118			115.25								
5/15/2013	98	102	113	111			106.15								
5/20/2013	81	90					85.40								
5/21/2013	108	79	123	100			102.50								
5/24/2013	121	116					118.50								
5/29/2013	120	111					115.50								

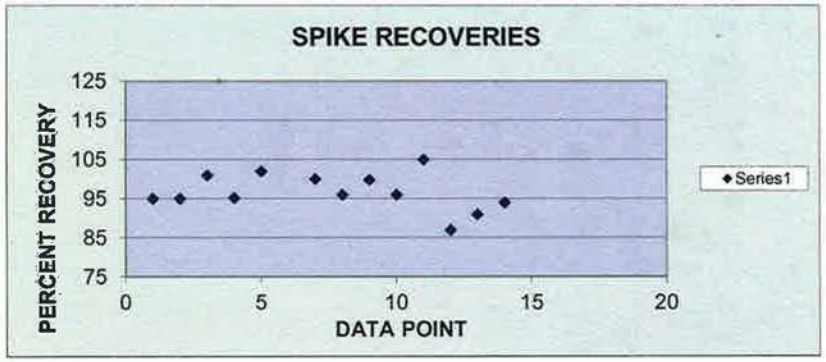


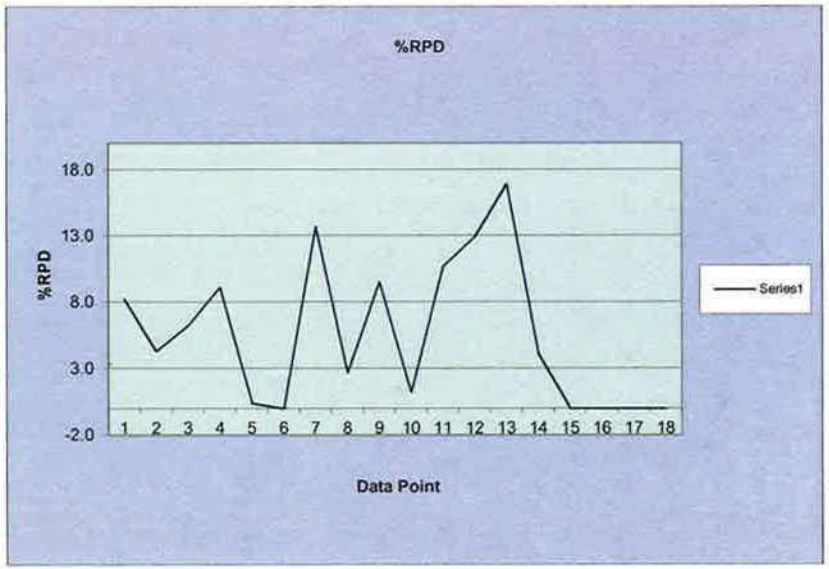
Control Chart for 05/2013 MS/MSD & Repeat %Recoveries

Analyst: Susan E.O. Peters

IC: Metrohm
Report Date: 6/14/2013
Chemist: Susan E.O. Peters
Dept: Environmental
Analyte: Bromate
Start date: 5/1/2013
End date: 5/31/2013
Desired level: 100%

	MS Recoveries and Replicate Recoveries							
Analysis Date	**Spike 1 ---- % Rec**	**Spike 2 ----- % Rec**	**Ave. Spike Recovery (75-125%)**	**%RPD Spike Recovery (0-20%**	**Std. Dev. Spikes**	**Ave. Sample Replicates**	**Std. Dev. Sample Replicates**	**n=**
5/2/2013	101	88	95	8.2	9.2	5.23	0.19	3
5/3/2013	99	90	95	4.3	6.4			
5/8/2013	96	106	101	6.3	6.8	6.01	0.10	2
5/9/2013	100	91	95	9.1	6.4	1.54	0.44	2
5/10/2013	102	102	102	0.4	0.5	7.38	0.05	2
5/10/2013	na	na	na	na	na	6.86	0.26	2
5/13/2013	91	110	100	13.7	13.2	3.53	0.33	2
5/14/2013	98	94	96	2.7	2.8	4.85	0.38	2
5/15/2013	94	106	100	9.5	8.9	3.18	0.48	2
5/16/2013	97	95	96	1.2	2.1	3.65	0.35	2
5/20/2013	99	111	105	10.7	8.5	0.88	0.008	2
5/17/2013	81	94	87	12.9	8.5	0.71	0.073	2
5/22/2013	80	103	91	16.9	16.3	4.01	0.11	2
5/24/2013	90	99	94.0	4.1	6.4	5.03	0.35	2
5/24/2013	na	na	na	na	na	6.39	0.50	2





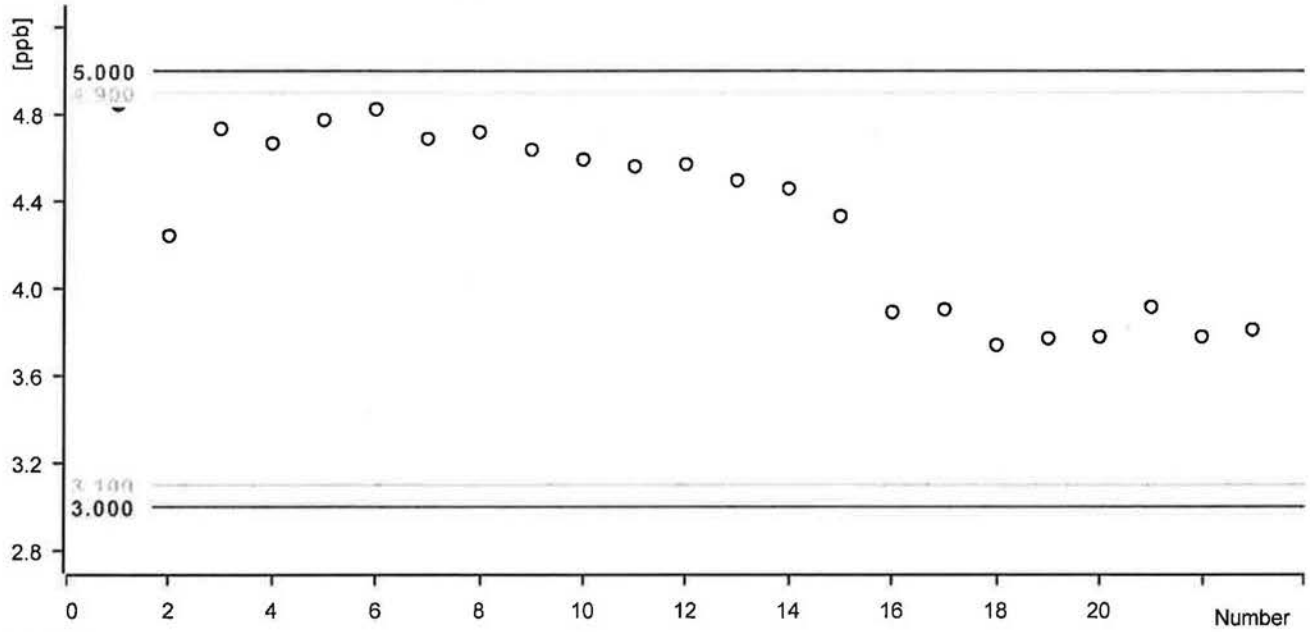
MagIC Net 2.2 Build 70 | Client name: ICS-1000 | User (short name): Admin
License ID: 11297947 | Printed: 2013-06-17 14:07:54 UTC-4

Control chart

3EOP

Comment

ECCS. CCCS Bromate std 4ppb



Statistics

Mean value:	4.336 ppb	Absolute standard deviation:	0.409 ppb
Minimum:	3.739 ppb	Relative standard deviation:	9.436 %
Maximum:	4.847 ppb	Number of determinations:	23

	Date	Number	Ident	Sample type	Method	ECCS. CCCS Bromate std 4ppb	Statistics
1	2013-05-09 00:55:31 UTC-4	1	ECCS/CCCS	Sample	04172013 300.1	4.847 ppb	on
2	2013-05-09 01:33:15 UTC-4	2	ECCS/CCCS	Sample	04172013 300.1	4.243 ppb	on
3	2013-05-09 19:43:35 UTC-4	3	ECCS/CCCS	Sample	04172013 300.1	4.735 ppb	on
4	2013-05-09 20:21:20 UTC-4	4	ECCS/CCCS	Sample	04172013 300.1	4.668 ppb	on
5	2013-05-10 16:44:17 UTC-4	5	ECCS/CCCS	Sample	04172013 300.1	4.775 ppb	on
6	2013-05-10 17:22:00 UTC-4	6	ECCS/CCCS	Sample	04172013 300.1	4.824 ppb	on
7	2013-05-13 19:22:42 UTC-4	7	ECCS/CCCS	Sample	04172013 300.1	4.688 ppb	on
8	2013-05-13 20:00:25 UTC-4	8	ECCS/CCCS	Sample	04172013 300.1	4.720 ppb	on
9	2013-05-14 14:14:37 UTC-4	9	ECCS/CCCS	Sample	04172013 300.1	4.637 ppb	on
10	2013-05-14 14:52:21 UTC-4	10	ECCS/CCCS	Sample	04172013 300.1	4.593 ppb	on
11	2013-05-15 18:44:38 UTC-4	11	ECCS/CCCS	Sample	04172013 300.1	4.560 ppb	on
12	2013-05-15 19:22:22 UTC-4	12	ECCS/CCCS	Sample	04172013 300.1	4.570 ppb	on
13	2013-05-16 14:40:48 UTC-4	13	ECCS/CCCS	Sample	04172013 300.1	4.496 ppb	on
14	2013-05-16 15:18:31 UTC-4	14	ECCS/CCCS	Sample	04172013 300.1	4.458 ppb	on
15	2013-05-17 15:30:17 UTC-4	15	ECCS/CCCS	Sample	04172013 300.1	4.332 ppb	on
16	2013-05-20 21:01:04 UTC-4	16	ECCS/CCCS	Sample	04172013 300.1	3.891 ppb	on
17	2013-05-21 15:07:00 UTC-4	17	ECCS/CCCS	Sample	04172013 300.1	3.904 ppb	on
18	2013-05-22 19:59:42 UTC-4	18	ECCS/CCCS	Sample	04172013 300.1	3.739 ppb	on
19	2013-05-23 17:33:48 UTC-4	19	ECCS/CCCS	Sample	04172013 300.1	3.770 ppb	on
20	2013-05-24 16:36:58 UTC-4	20	ECCS/CCCS	Sample	04172013 300.1	3.778 ppb	on
21	2013-05-28 21:16:01 UTC-4	21	ECCS/CCCS	Sample	04172013 300.1	3.914 ppb	on
22	2013-05-29 19:09:17 UTC-4	22	ECCS/CCCS	Sample	04172013 300.1	3.778 ppb	on
23	2013-05-30 13:17:46 UTC-4	23	ECCS/CCCS	Sample	04172013 300.1	3.810 ppb	on

MagIC Net 2.2 Build 70
License ID: 11297947

Client name: ICS-1000

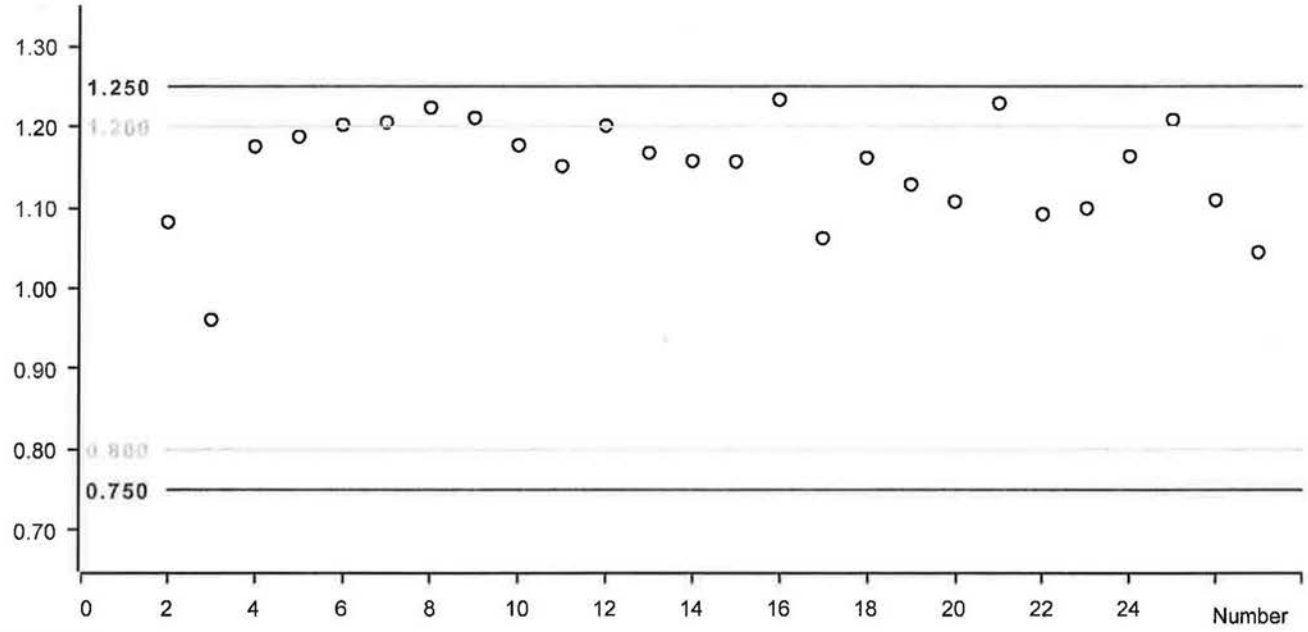
User (short name): Admin
Printed: 2013-06-17 14:10:51 UTC-4

Control chart

SEOP

Comment

ppb Bromate Concentration ICCS



Statistics

Mean value:	1.150	Absolute standard deviation:	0.065
Minimum:	0.961	Relative standard deviation:	5.686 %
Maximum:	1.233	Number of determinations:	26

	Date	Number	Ident	Sample type	Method	ppb Bromate Concentration ICCS	Statistics
1	2013-05-06 12:47:15 UTC-4	1	ICCS/LFB	Sample	04172013 300.1		on
2	2013-05-06 13:24:58 UTC-4	2	ICCS/LFB	Sample	04172013 300.1	1,082 ppb	on
3	2013-05-08 18:38:21 UTC-4	3	ICCS/LFB	Sample	04172013 300.1	0,961 ppb	on
4	2013-05-08 19:16:05 UTC-4	4	ICCS/LFB	Sample	04172013 300.1	1,178 ppb	on
5	2013-05-09 14:41:52 UTC-4	5	ICCS/LFB	Sample	04172013 300.1	1,188 ppb	on
6	2013-05-09 15:19:36 UTC-4	6	ICCS/LFB	Sample	04172013 300.1	1,205 ppb	on
7	2013-05-10 09:49:13 UTC-4	7	ICCS/LFB	Sample	04172013 300.1	1,209 ppb	on
8	2013-05-10 10:26:56 UTC-4	8	ICCS/LFB	Sample	04172013 300.1	1,224 ppb	on
9	2013-05-13 12:27:09 UTC-4	9	ICCS/LFB	Sample	04172013 300.1	1,241 ppb	on
10	2013-05-13 13:04:52 UTC-4	10	ICCS/LFB	Sample	04172013 300.1	1,177 ppb	on
11	2013-05-14 09:12:53 UTC-4	11	ICCS/LFB	Sample	04172013 300.1	1,151 ppb	on
12	2013-05-14 09:50:37 UTC-4	12	ICCS/LFB	Sample	04172013 300.1	1,201 ppb	on
13	2013-05-15 11:21:58 UTC-4	13	ICCS/LFB	Sample	04172013 300.1	1,168 ppb	on
14	2013-05-15 11:59:42 UTC-4	14	ICCS/LFB	Sample	04172013 300.1	1,157 ppb	on
15	2013-05-16 09:39:00 UTC-4	15	ICCS/LFB	Sample	04172013 300.1	1,157 ppb	on
16	2013-05-16 10:16:43 UTC-4	16	ICCS/LFB	Sample	04172013 300.1	1,232 ppb	on
17	2013-05-17 11:06:14 UTC-4	17	ICCS/LFB	Sample	04172013 300.1	1,062 ppb	on
18	2013-05-20 16:36:59 UTC-4	18	ICCS/LFB	Sample	04172013 300.1	1,161 ppb	on
19	2013-05-21 08:54:09 UTC-4	19	ICCS/LFB	Sample	04172013 300.1	1,128 ppb	on
20	2013-05-22 08:47:53 UTC-4	20	ICCS/LFB	Sample	04172013 300.1	1,107 ppb	on
21	2013-05-22 15:35:36 UTC-4	21	ICCS/LFB	Sample	04172013 300.1	1,229 ppb	on
22	2013-05-23 11:54:11 UTC-4	22	ICCS/LFB	Sample	04172013 300.1	1,092 ppb	on
23	2013-05-23 12:31:54 UTC-4	23	ICCS/LFB	Sample	04172013 300.1	1,099 ppb	on
24	2013-05-24 08:26:26 UTC-4	24	ICCS/LFB	Sample	04172013 300.1	1,163 ppb	on
25	2013-05-28 13:06:57 UTC-4	25	ICCS/LFB	Sample	04172013 300.1	1,208 ppb	on
26	2013-05-29 13:19:59 UTC-4	26	ICCS/LFB	Sample	04172013 300.1	1,109 ppb	on
27	2013-05-30 08:53:44 UTC-4	27	ICCS/LFB	Sample	04172013 300.1	1,045 ppb	on

QC – Brighton Analytical
1 of 1

GC/MS
VOLATILE METHOD 8260 SIM
REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: June 5, 2013 Spike Std. ID: 2153 Inst./Detec: Vol 5 GC/MS

Laboratory ID: BY02824 Matrix: Water Analyst: CW

	Matrix Spike - Precision				Matrix spike - Accuracy					
	Spike 1	Spike 2	Relative Percent Difference	Spk Conc ug/L	% Recovery	% Recovery	Range (%)	Sample background	Method Blank	LCS
1,4 Dioxane	9.9	10.5	6.1	10	99	105	70-130	<1	<1	102%

ug/L is equivalent to ppb

Comments:

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS130605W1
Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)
Lab Sample ID: 130605a6.lcsw05a
Run in Batch: 130605A6, Run Date: 06/05/2013 13:18, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**110.92**	70.0	130.0

Laboratory Control Sample (LCS)
Lab Sample ID: 130605b6.lcsw05a
Run in Batch: 130605B6, Run Date: 06/05/2013 13:18, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**100.34**	70.0	130.0

Blank (BLK)
Lab Sample ID: 130605a6.blkw05a
Run in Batch: 130605A6, Run Date: 06/05/2013 14:24, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane	*	**2.5**	1	ug/l

Blank (BLK)
Lab Sample ID: 130605b6.blkw05a
Run in Batch: 130605B6, Run Date: 06/05/2013 14:24, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		**ND**	0.02	ug/l

Laboratory Control Sample Duplicate (LCSD)
Lab Sample ID: 130605a6.lcsw05b, Parent Sample ID: 130605a6.lcsw05a
Run in Batch: 130605A6, Run Date: 06/05/2013 13:40, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**107.40**	70.0	130.0	**3.2**	30.0

Laboratory Control Sample Duplicate (LCSD)
Lab Sample ID: 130605b6.lcsw05b, Parent Sample ID: 130605b6.lcsw05a
Run in Batch: 130605B6, Run Date: 06/05/2013 13:40, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**98.32**	70.0	130.0	**2.0**	30.0

Merit Lab QC
2 of 6

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS130603W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130603a6.lcsw03a

Run in Batch: 130603A6, Run Date: 06/03/2013 12:55, Prep Date: 06/03/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**88.96**	70.0	130.0

Blank (BLK)

Lab Sample ID: 130603a6.blkw03a

Run in Batch: 130603A6, Run Date: 06/03/2013 14:46, Prep Date: 06/03/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane	*	**3.4**	1	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130603a6.lcsw03b, Parent Sample ID: 130603a6.lcsw03a

Run in Batch: 130603A6, Run Date: 06/03/2013 13:18, Prep Date: 06/03/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**99.92**	70.0	130.0	**11.6**	20.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS130604W1
Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)
Lab Sample ID: 130604a6.lcsw04a
Run in Batch: 130604A6, Run Date: 06/04/2013 13:01, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**92.52**	70.0	130.0

Laboratory Control Sample (LCS)
Lab Sample ID: 130604b6.lcsw04a
Run in Batch: 130604B6, Run Date: 06/04/2013 13:01, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**83.70**	70.0	130.0

Blank (BLK)
Lab Sample ID: 130604a6.blkw04a
Run in Batch: 130604A6, Run Date: 06/04/2013 14:51, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane	*	**2.3**	1	ug/l

Blank (BLK)
Lab Sample ID: 130604b6.blkw04a
Run in Batch: 130604B6, Run Date: 06/04/2013 14:51, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		**ND**	0.02	ug/l

Laboratory Control Sample Duplicate (LCSD)
Lab Sample ID: 130604a6.lcsw04b, Parent Sample ID: 130604a6.lcsw04a
Run in Batch: 130604A6, Run Date: 06/04/2013 13:23, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**89.44**	70.0	130.0	**3.4**	20.0

Laboratory Control Sample Duplicate (LCSD)
Lab Sample ID: 130604b6.lcsw04b, Parent Sample ID: 130604b6.lcsw04a
Run in Batch: 130604B6, Run Date: 06/04/2013 13:23, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**79.98**	70.0	130.0	**4.5**	20.0

Merit Lab QC
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Organics - Volatiles, Prep Batch ID: VS130604W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130604a6.lcsw04a

Run in Batch: 130604A6, Run Date: 06/04/2013 13:01, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**92.52**	70.0	130.0

Laboratory Control Sample (LCS)

Lab Sample ID: 130604b6.lcsw04a

Run in Batch: 130604B6, Run Date: 06/04/2013 13:01, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**83.70**	70.0	130.0

Blank (BLK)

Lab Sample ID: 130604a6.blkw04a

Run in Batch: 130604A6, Run Date: 06/04/2013 14:51, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane	*	**2.3**	1	ug/l

Blank (BLK)

Lab Sample ID: 130604b6.blkw04a

Run in Batch: 130604B6, Run Date: 06/04/2013 14:51, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		**ND**	0.02	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130604a6.lcsw04b, Parent Sample ID: 130604a6.lcsw04a

Run in Batch: 130604A6, Run Date: 06/04/2013 13:23, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**89.44**	70.0	130.0	**3.4**	20.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130604b6.lcsw04b, Parent Sample ID: 130604b6.lcsw04a

Run in Batch: 130604B6, Run Date: 06/04/2013 13:23, Prep Date: 06/04/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**79.98**	70.0	130.0	**4.5**	20.0

Merit Lab QC
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QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS130605W1
Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)
Lab Sample ID: 130605a6.lcsw05a
Run in Batch: 130605A6, Run Date: 06/05/2013 13:18, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**110.92**	70.0	130.0

Laboratory Control Sample (LCS)
Lab Sample ID: 130605b6.lcsw05a
Run in Batch: 130605B6, Run Date: 06/05/2013 13:18, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**100.34**	70.0	130.0

Blank (BLK)
Lab Sample ID: 130605a6.blkw05a
Run in Batch: 130605A6, Run Date: 06/05/2013 14:24, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane	*	**2.5**	1	ug/l

Blank (BLK)
Lab Sample ID: 130605b6.blkw05a
Run in Batch: 130605B6, Run Date: 06/05/2013 14:24, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		**ND**	0.02	ug/l

Laboratory Control Sample Duplicate (LCSD)
Lab Sample ID: 130605a6.lcsw05b, Parent Sample ID: 130605a6.lcsw05a
Run in Batch: 130605A6, Run Date: 06/05/2013 13:40, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**107.40**	70.0	130.0	**3.2**	30.0

Laboratory Control Sample Duplicate (LCSD)
Lab Sample ID: 130605b6.lcsw05b, Parent Sample ID: 130605b6.lcsw05a
Run in Batch: 130605B6, Run Date: 06/05/2013 13:40, Prep Date: 06/05/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**98.32**	70.0	130.0	**2.0**	30.0

QC Report - Batch QC Results

Organics - Volatiles, Prep Batch ID: VS130606W1

Surrogates: Yes, QC Types: LCS/BLK/LCSD

Laboratory Control Sample (LCS)

Lab Sample ID: 130606a6.lcsw06a

Run in Batch: 130606A6, Run Date: 06/06/2013 12:10, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**101.50**	70.0	130.0

Laboratory Control Sample (LCS)

Lab Sample ID: 130606b6.lcsw06a

Run in Batch: 130606B6, Run Date: 06/06/2013 12:10, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL
1,4-Dioxane		**92.54**	70.0	130.0

Blank (BLK)

Lab Sample ID: 130606a6.blkw06a

Run in Batch: 130606A6, Run Date: 06/06/2013 13:16, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane	*	**3.0**	1	ug/l

Blank (BLK)

Lab Sample ID: 130606b6.blkw06a

Run in Batch: 130606B6, Run Date: 06/06/2013 13:16, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	Conc	RDL	Units
1,4-Dioxane		**ND**	0.02	ug/l

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130606a6.lcsw06b, Parent Sample ID: 130606a6.lcsw06a

Run in Batch: 130606A6, Run Date: 06/06/2013 12:32, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**100.36**	70.0	130.0	**1.1**	30.0

Laboratory Control Sample Duplicate (LCSD)

Lab Sample ID: 130606b6.lcsw06b, Parent Sample ID: 130606b6.lcsw06a

Run in Batch: 130606B6, Run Date: 06/06/2013 12:32, Prep Date: 06/06/2013, Matrix: WW, Dilution: 1

Analyte	Flags	% Rec	LCL	UCL	RPD	RPD CL
1,4-Dioxane		**91.46**	70.0	130.0	**1.2**	30.0