Korleski, Christopher

From: Korleski, Christopher
Sent: Tuesday, December 27, 2016 1:53 PM
To: 'Crowley Engineering'
Cc: Kaplan, Robert; Poy, Thomas; Deltoral, Miguel; Bair, Rita; Korleski, Christopher
Subject: RE: Water Sampling in Zones 2 and 3
Attachments: East Chicago Graphs ALL SITES with summaries updated 2016-12-20.pdf; East Chicago Graphs High Pre-Excavation Sites Only updated 2016-12-16.pdf

Hi Greg:

I attach spreadsheets of the latest data I have. Because of a lot of technical staff being out for the holidays, I have not fully vetted this with staff, but I didn't want any more time to pass before getting this to you.

Based on my review of the spreadsheet, I think the following captures the new data generated since 12/2, when I provided you with the first spreadsheet:

- **Site ID 3016**: On 12/2 we had neither pre- nor post-excavation data, and now we have both. Moreover, none of the samples were above the 15ppb level.
- **Site ID 3097**: We now have post-excavation data not available to us on 12/2. None of the post-excavation samples were above the 15ppb level.
- **Site ID 3343**: We now have post-excavation data not available to us on 12/2. None of the post-excavation samples were above the 15ppb level.
- **Site ID 3383**: We now have post-excavation data not available to us on 12/2. None of the post-excavation samples were above the 15ppb level.
- **Site ID 3406**: We now have post-excavation data not available to us on 12/2. None of the post-excavation samples were above the 15ppb level.

The first spreadsheet also includes data on total P, chlorine, and pH.

I'm copying Miguel, and if I get any new info I'll be in touch.

Any Qs, please call my direct at 312 353 [redacted].

Thanks.

Chris

Chris Korleski
Director, Water Division, Region 5
U.S. Environmental Protection Agency
77 W. Jackson Blvd. (W-15J)
Chicago, IL 60604
312 886-1432 (Liz Rosado, Assistant)

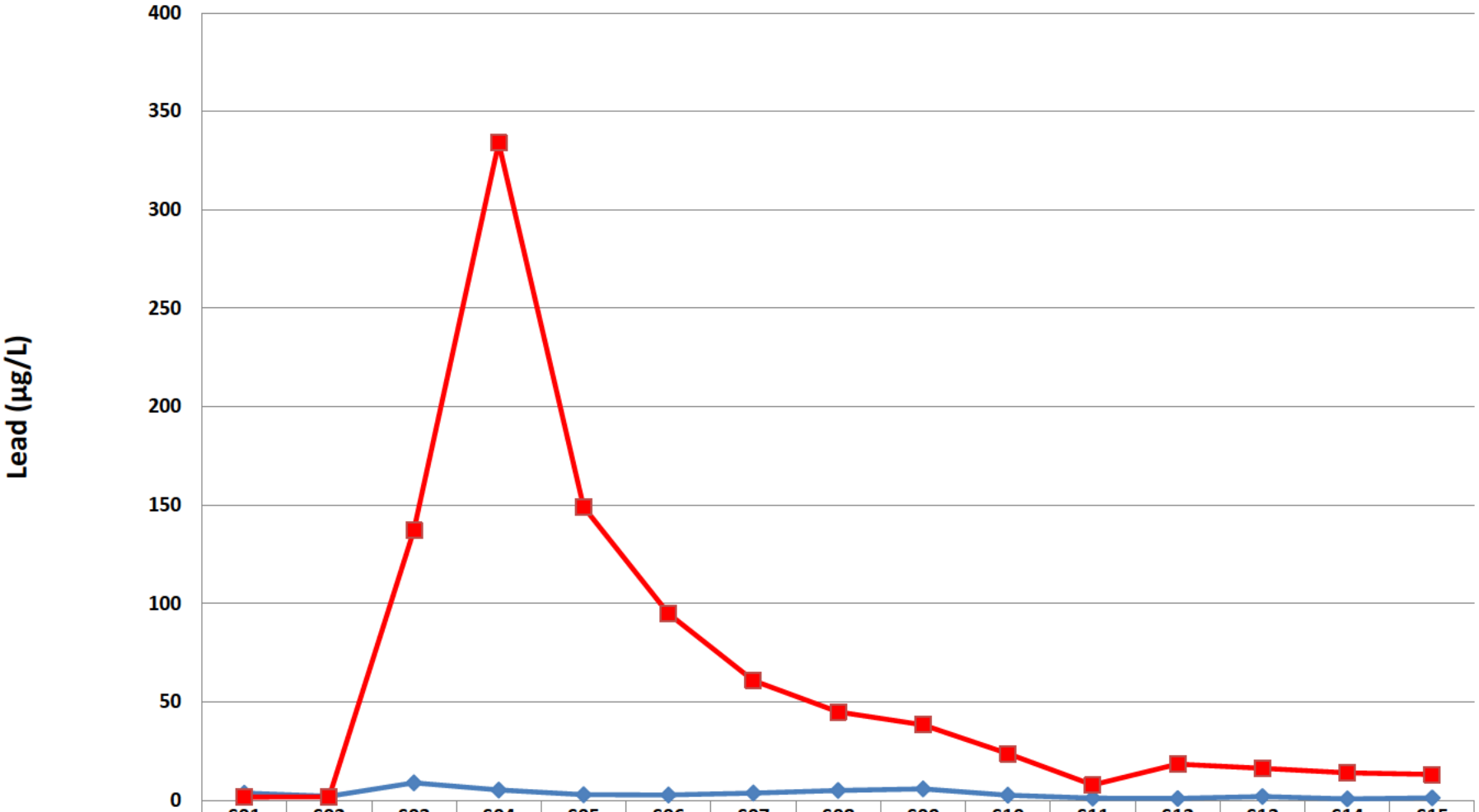
East Chicago

All Sites

Site ID: 2094

[redacted]

(Site ID: 2094- G/?)

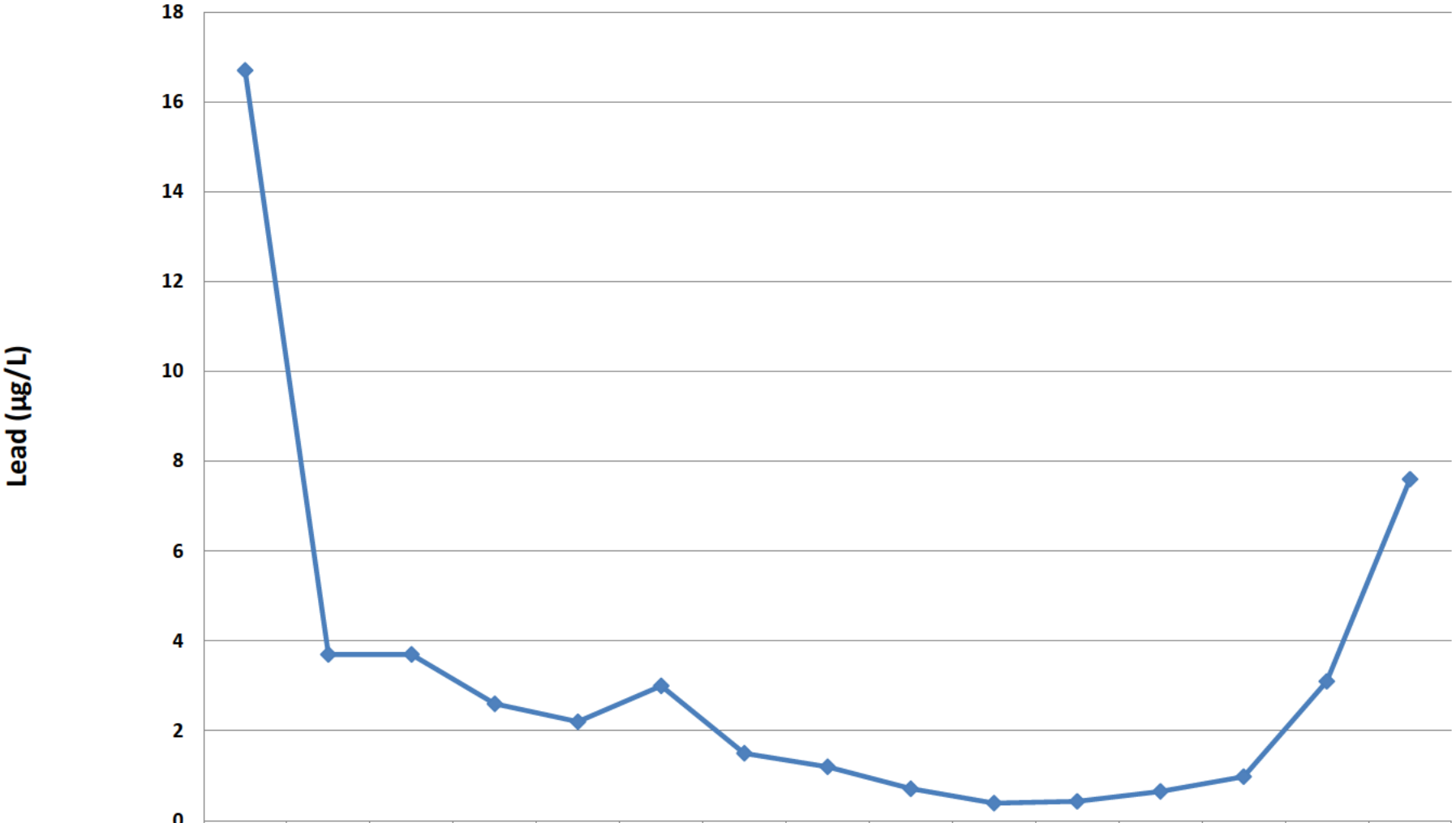


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1:10/26/2016	3.5	1.9	8.8	5.1	2.7	2.6	3.6	4.9	5.7	2.5	1	0.81	1.8	0.65	1.1
S2:11/9/2016	1.5	1.7	137	334	149	94.7	60.8	44.8	38.3	23.6	7.7	18.3	16.2	13.9	13

Site ID: 2099

[redacted]

(Site ID: 2099 - ?/?)

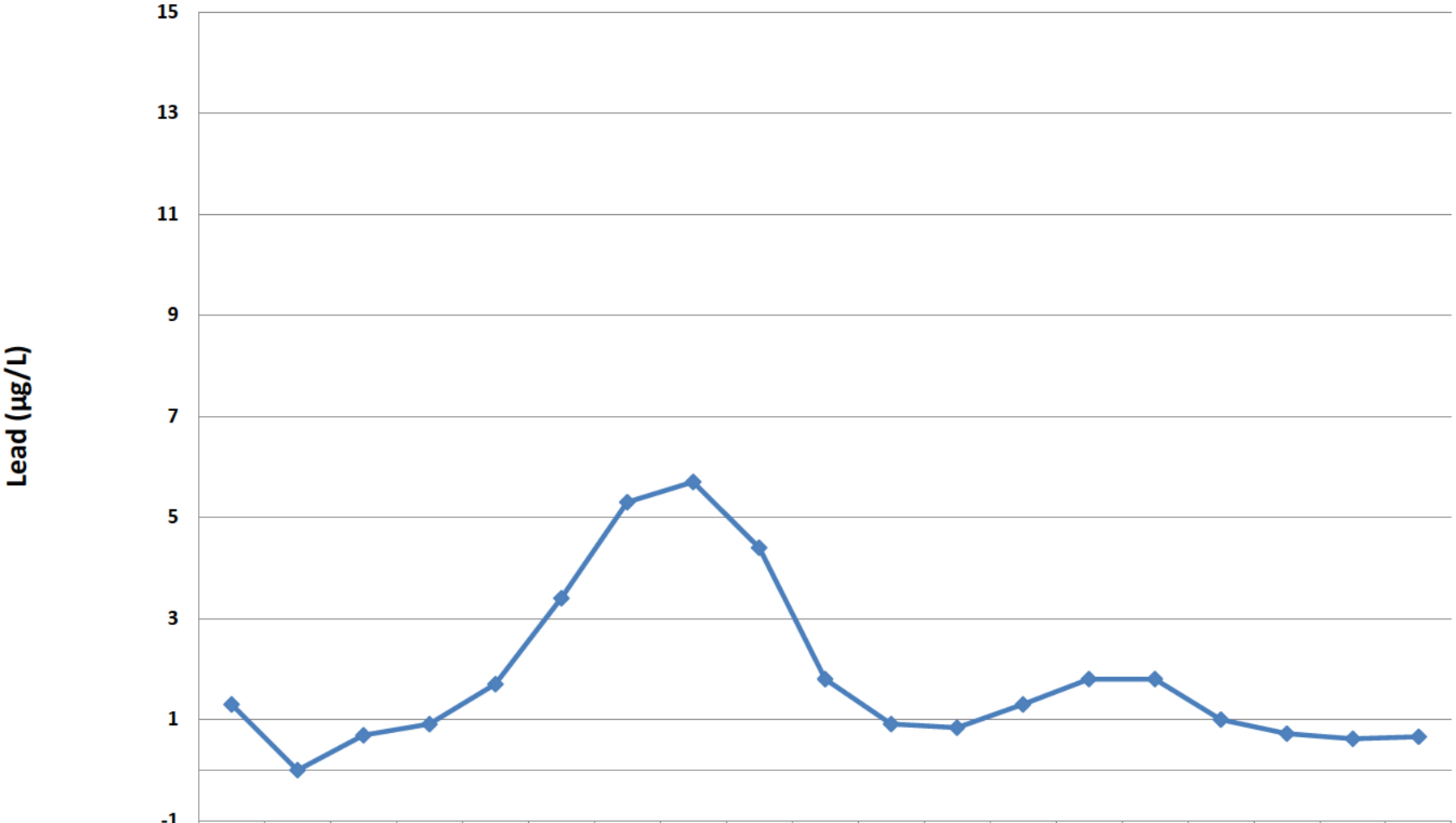


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 11/13/2016	16.7	3.7	3.7	2.6	2.2	3.0	1.5	1.2	0.71	0.39	0.43	0.65	0.98	3.1	7.6

Site ID: 2121

[redacted]

(Site ID: 2121 - G/PVC)

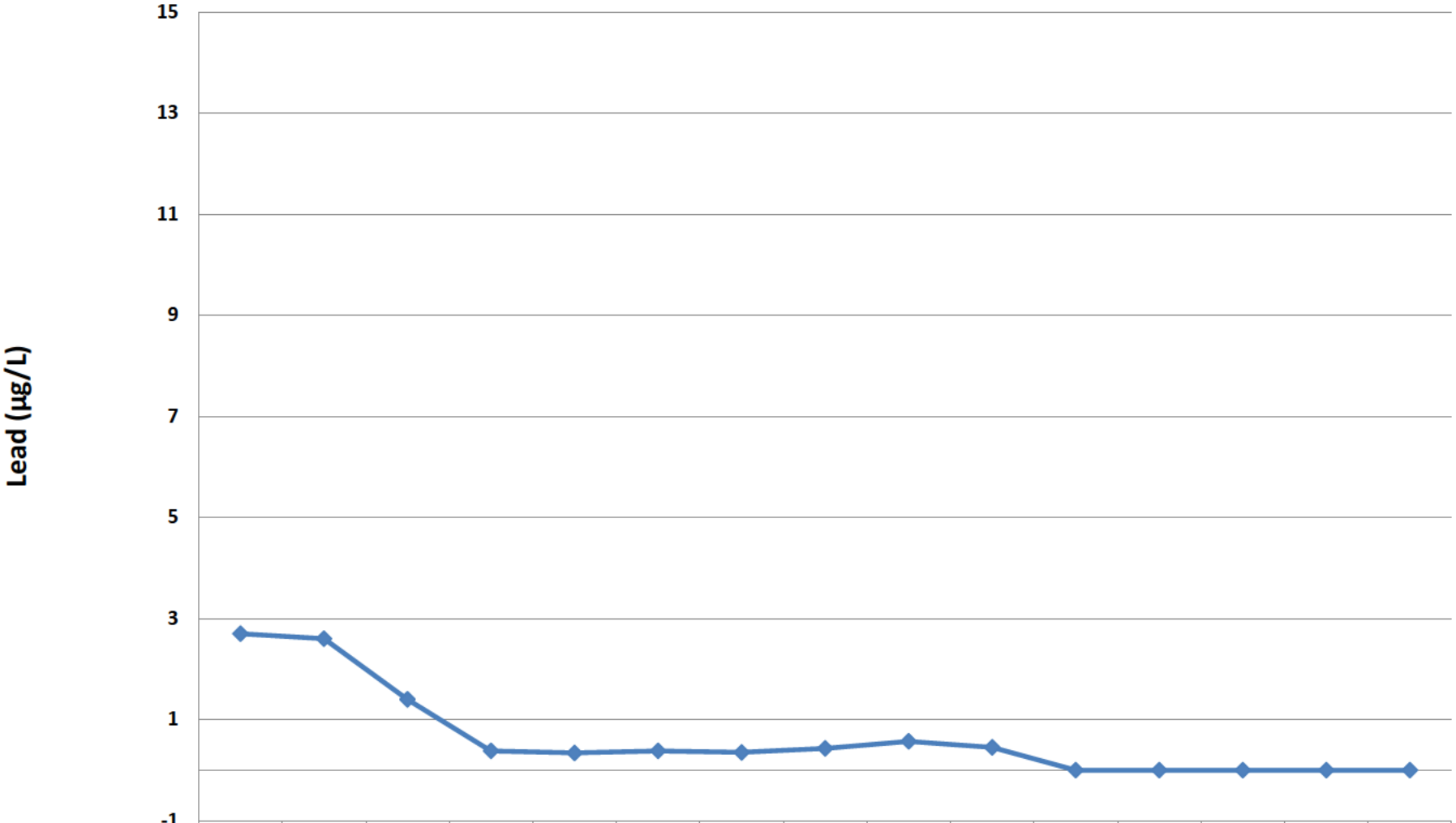


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19
S1:10/27/2016	1.3	0	0.69	0.91	1.7	3.4	5.3	5.7	4.4	1.8	0.91	0.84	1.3	1.8	1.8	1	0.72	0.62	0.66

Site ID: 2148

[redacted]

(Site ID: 2148 - ?/G)

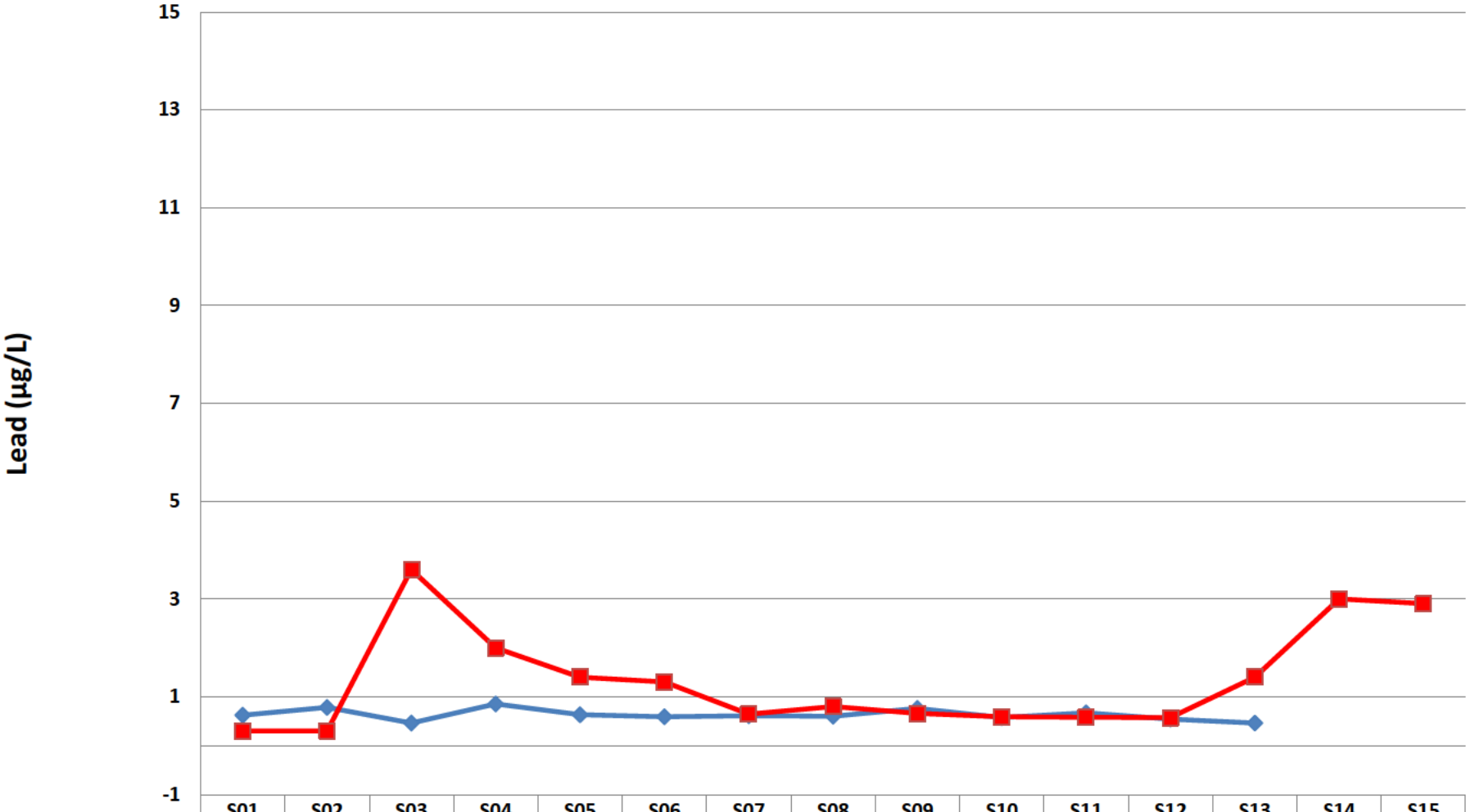


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1:10/27/2016	2.7	2.6	1.4	0.38	0.34	0.38	0.35	0.43	0.57	0.45	0	0	0	0	0

Site ID: 2166

[redacted]

(Site ID: 2166 - Cu/Cu)

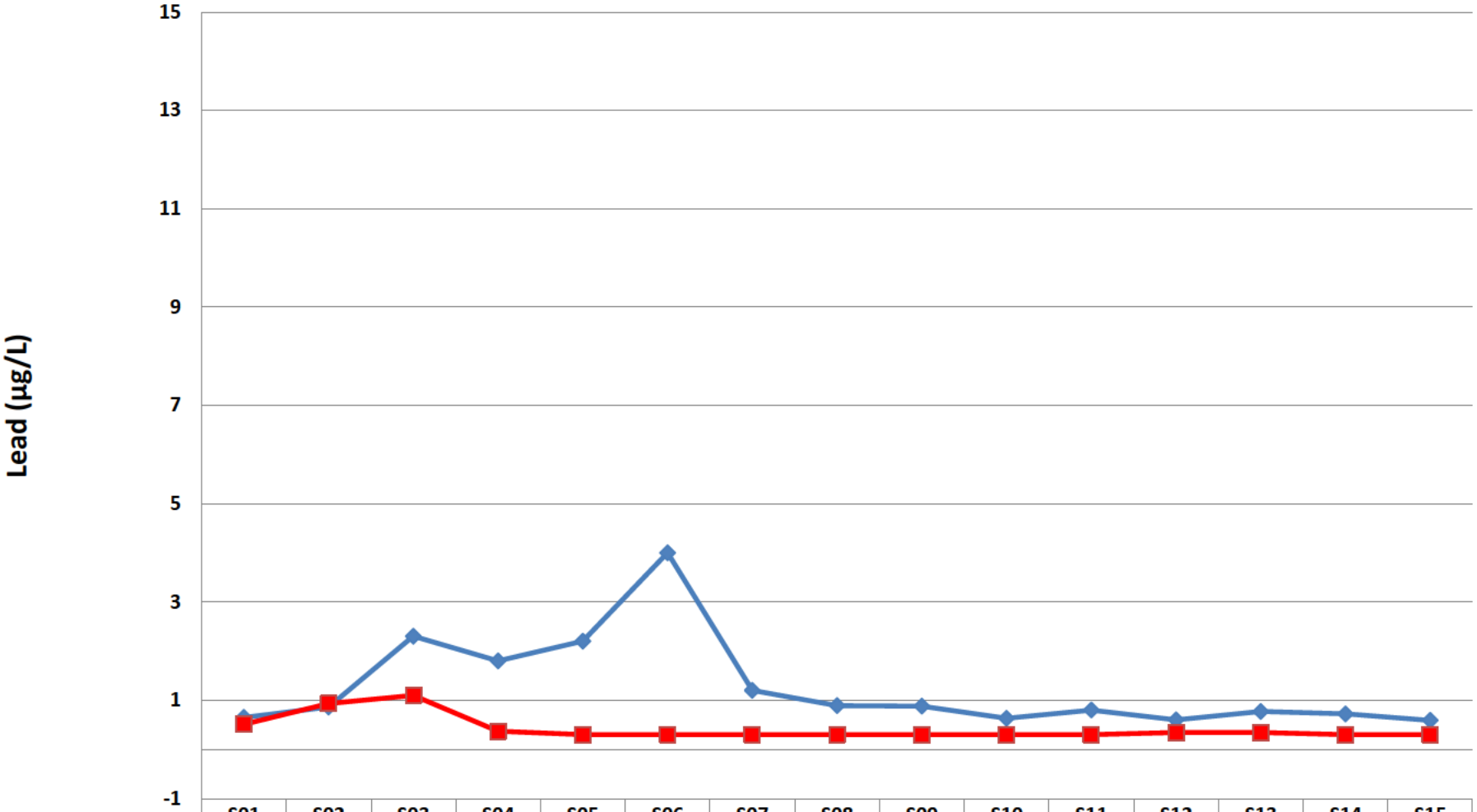


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1:10/29/2016	0.62	0.78	0.46	0.85	0.63	0.59	0.61	0.6	0.76	0.57	0.67	0.54	0.46		
S2:11/13/2016	0.3	0.3	3.6	2	1.4	1.3	0.64	0.8	0.66	0.59	0.58	0.57	1.4	3	2.9

Site ID: 2178

[redacted]

(Site ID: 2178 - G/G)

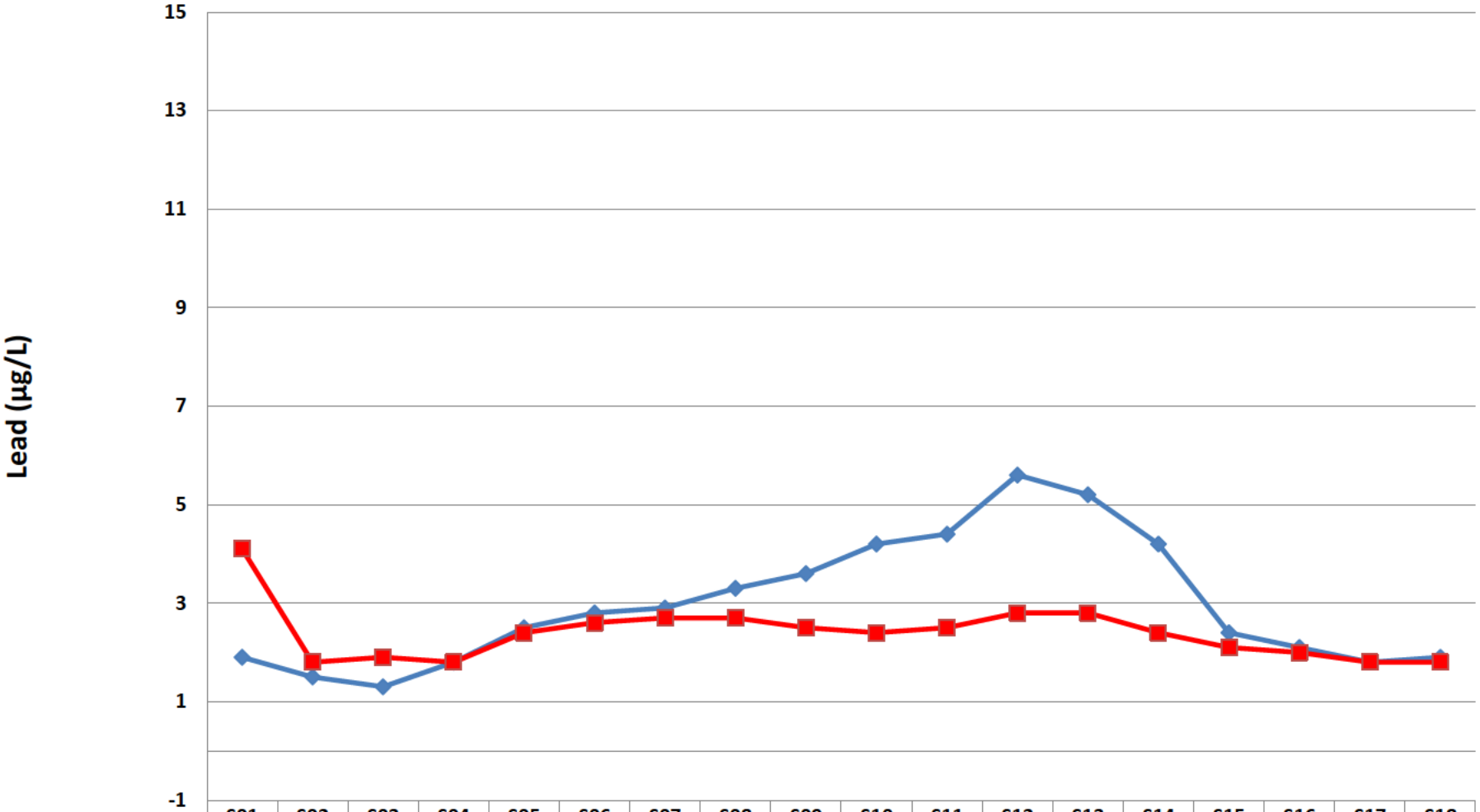


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1:10/29/2016	0.65	0.86	2.3	1.8	2.2	4	1.2	0.89	0.88	0.63	0.8	0.6	0.77	0.72	0.59
S2:11/13/2016	0.51	0.93	1.1	0.37	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.34	0.34	0.3	0.3

Site ID: 2183

[redacted]

(Site ID: 2183 - ?/Cu & PVC)

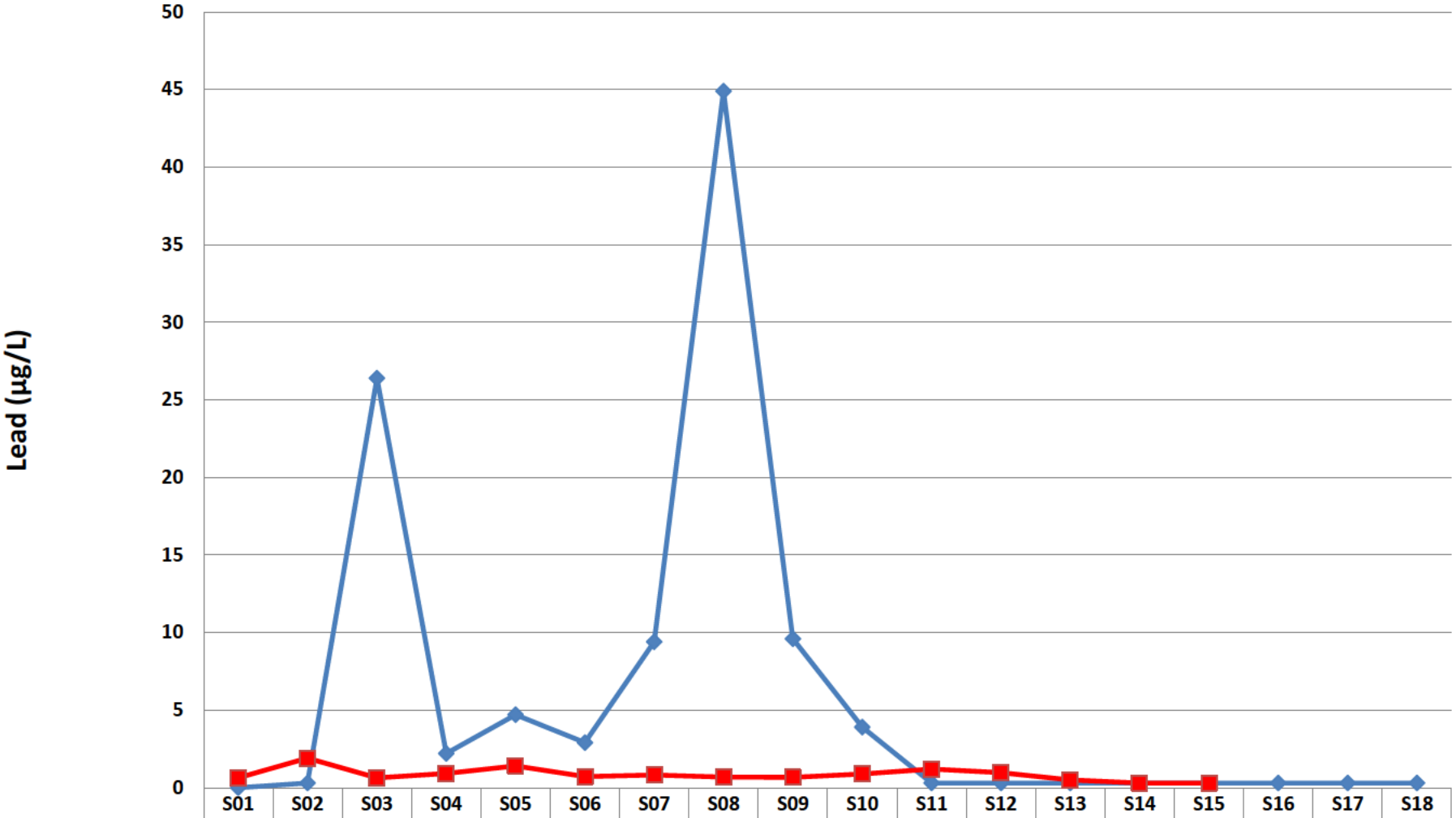


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1:10/29/2016	1.9	1.5	1.3	1.8	2.5	2.8	2.9	3.3	3.6	4.2	4.4	5.6	5.2	4.2	2.4	2.1	1.8	1.9
S2: 11/18/2016	4.1	1.8	1.9	1.8	2.4	2.6	2.7	2.7	2.5	2.4	2.5	2.8	2.8	2.4	2.1	2.0	1.8	1.8

Site ID: 2187

[redacted]

(Site ID: 2187 - Cu/?)

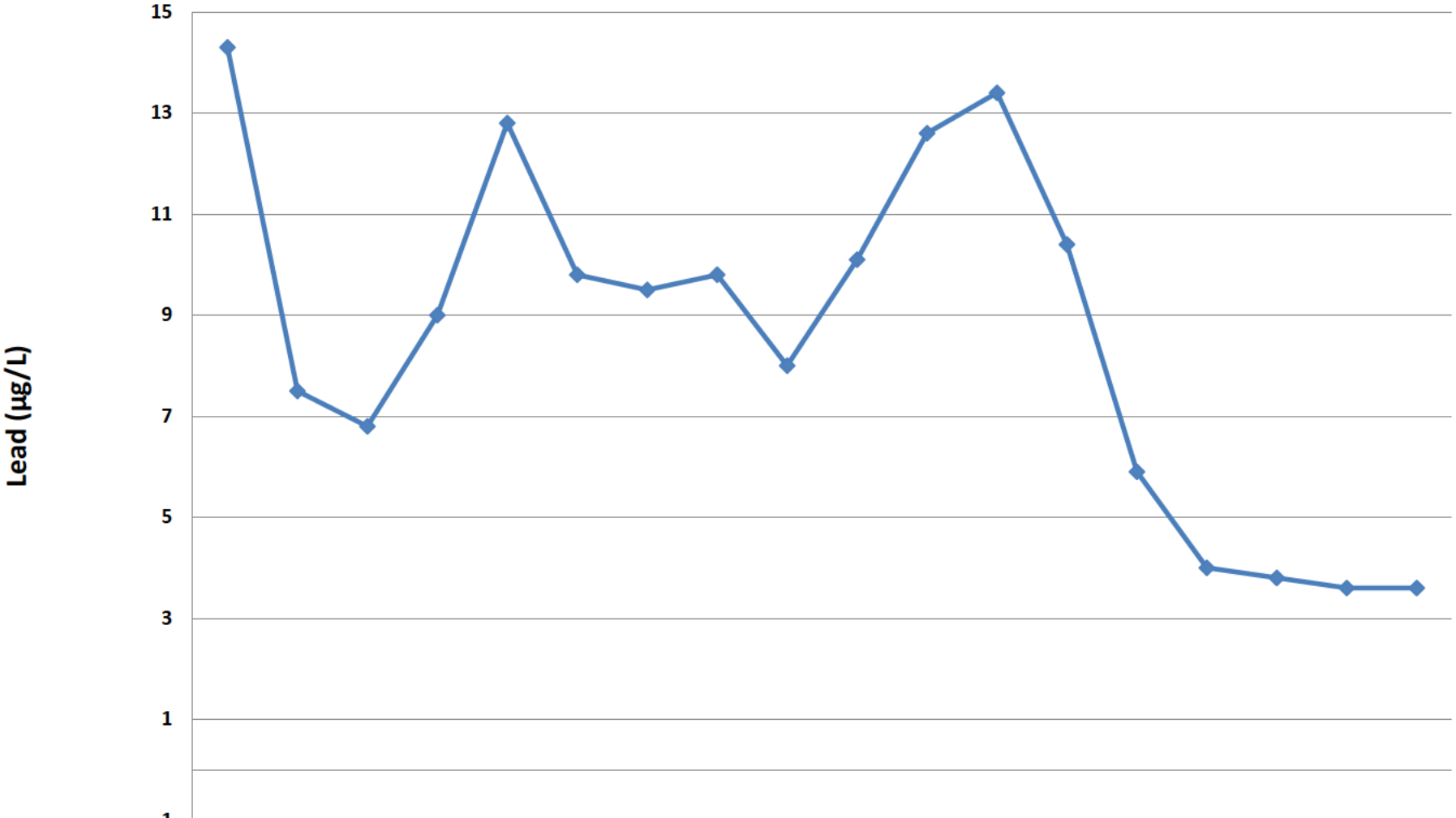


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/25/2016	0	0.3	26.4	2.2	4.7	2.9	9.4	44.9	9.6	3.9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
S2: 11/16/2016	0.63	1.9	0.63	0.91	1.4	0.71	0.82	0.68	0.66	0.88	1.2	0.96	0.49	0.3	0.3			

Site ID: 3037

[redacted]

(Site ID: 3037 - ?/?)

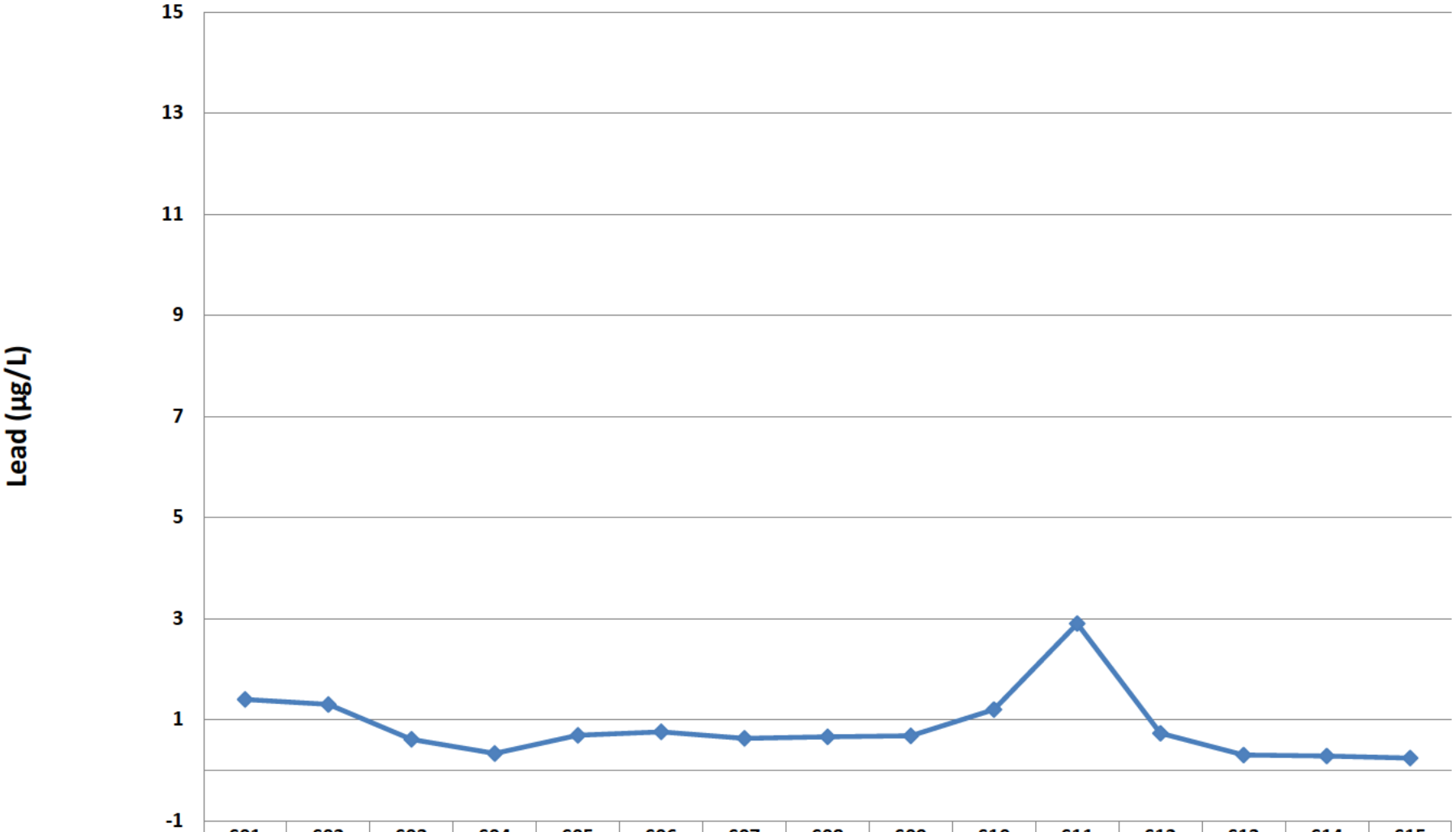


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 11/2/2016	14.3	7.5	6.8	9.0	12.8	9.8	9.5	9.8	8.0	10.1	12.6	13.4	10.4	5.9	4.0	3.8	3.6	3.6

Site ID: 3039

[redacted]

(Site ID: 3039 - ?/?)

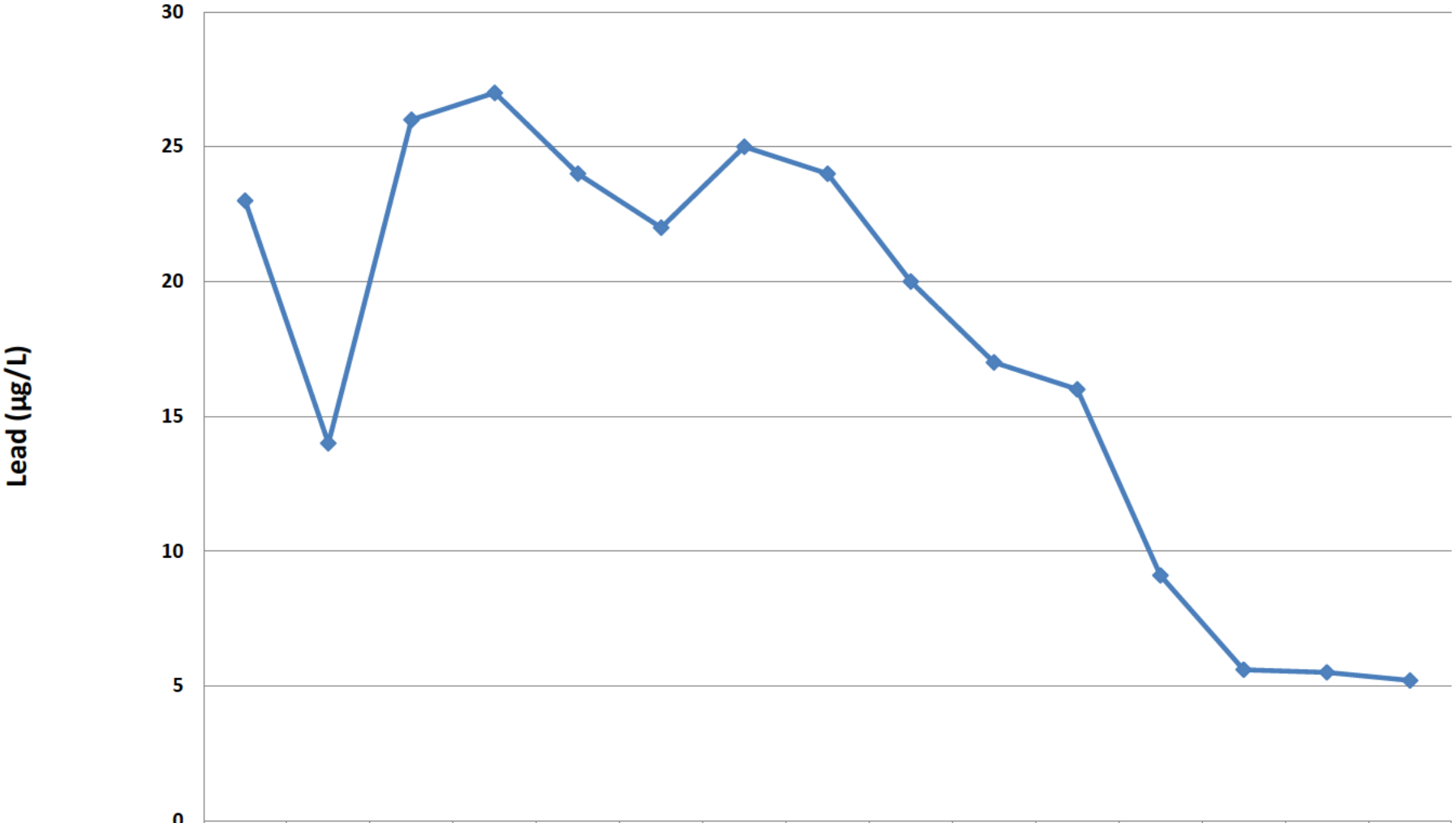


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 11/10/2016	1.4	1.3	0.61	0.33	0.69	0.76	0.63	0.66	0.68	1.2	2.9	0.73	0.3	0.28	0.24

Site ID: 3066

[redacted]

(Site ID: 3066 - Pb/G)

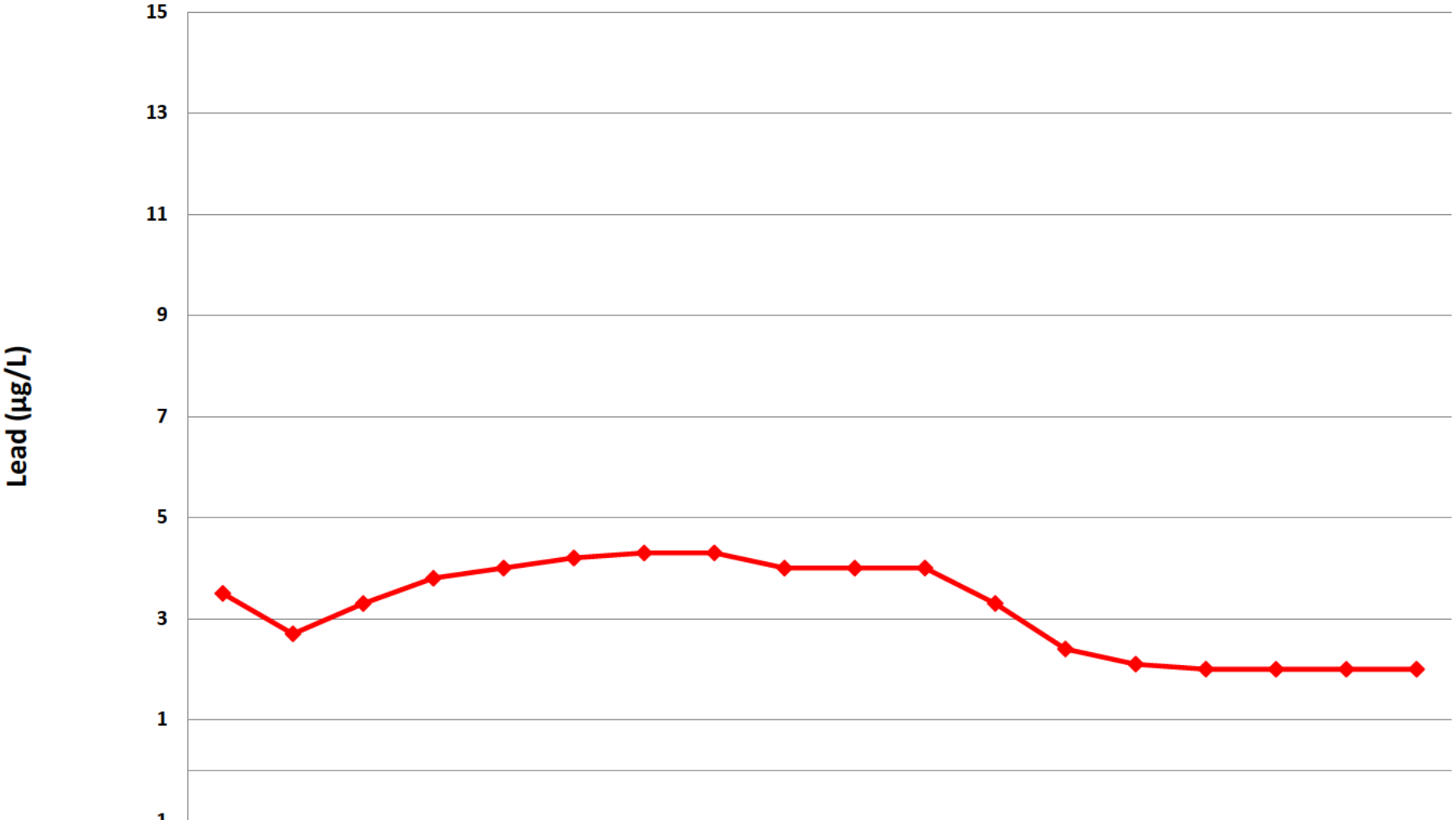


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/10/2016	23	14	26	27	24	22	25	24	20	17	16	9.1	5.6	5.5	5.2

Site ID: 3070

[redacted]

(Site ID: 3070 - G/?)



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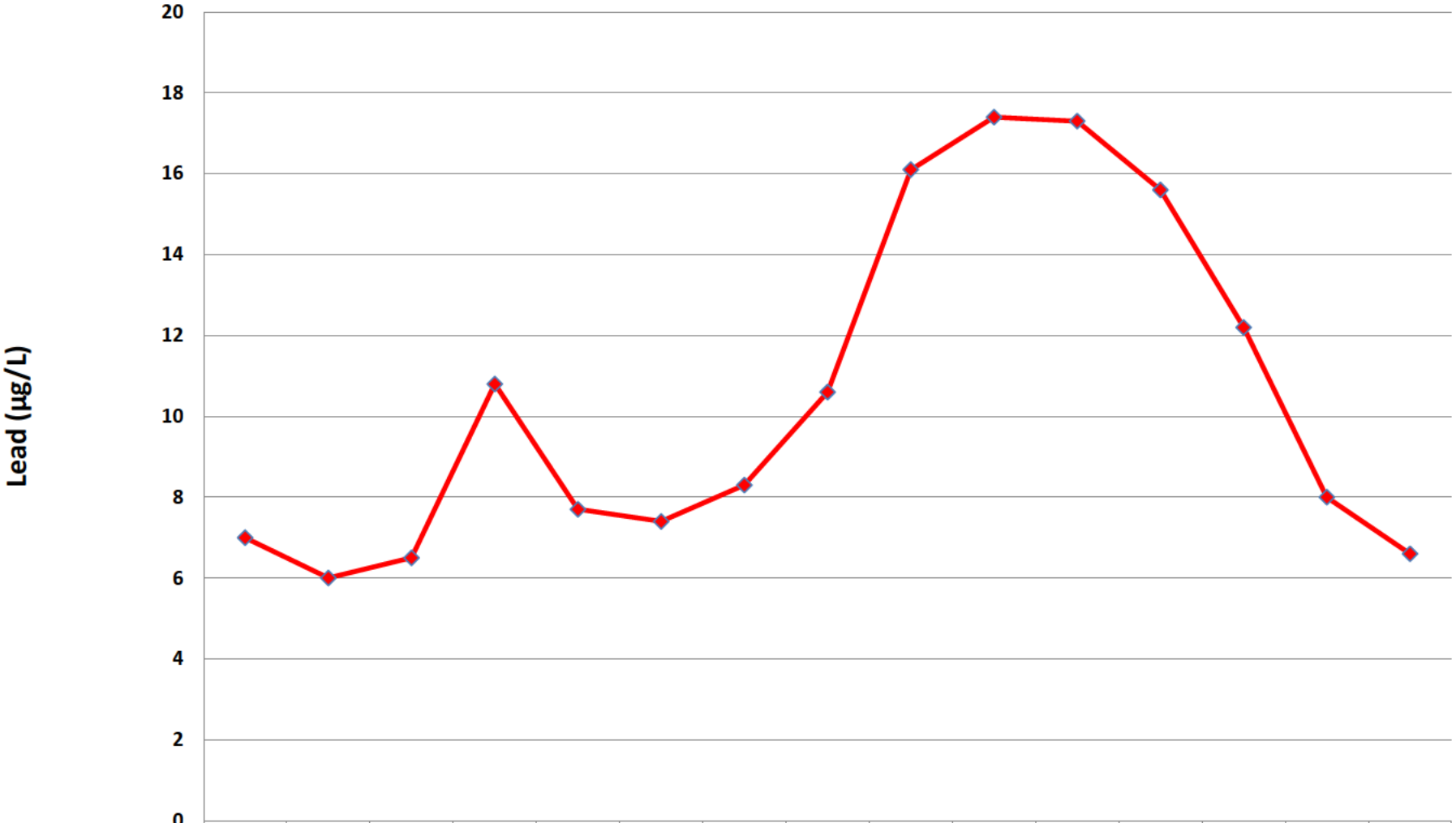
S2:11/8/2016	3.5	2.7	3.3	3.8	4.0	4.2	4.3	4.3	4.0	4.0	4.0	3.3	2.4	2.1	2.0	2.0	2.0	2.0

Site ID: 3071

[redacted]

(Site ID: 3071 - Pb/G)

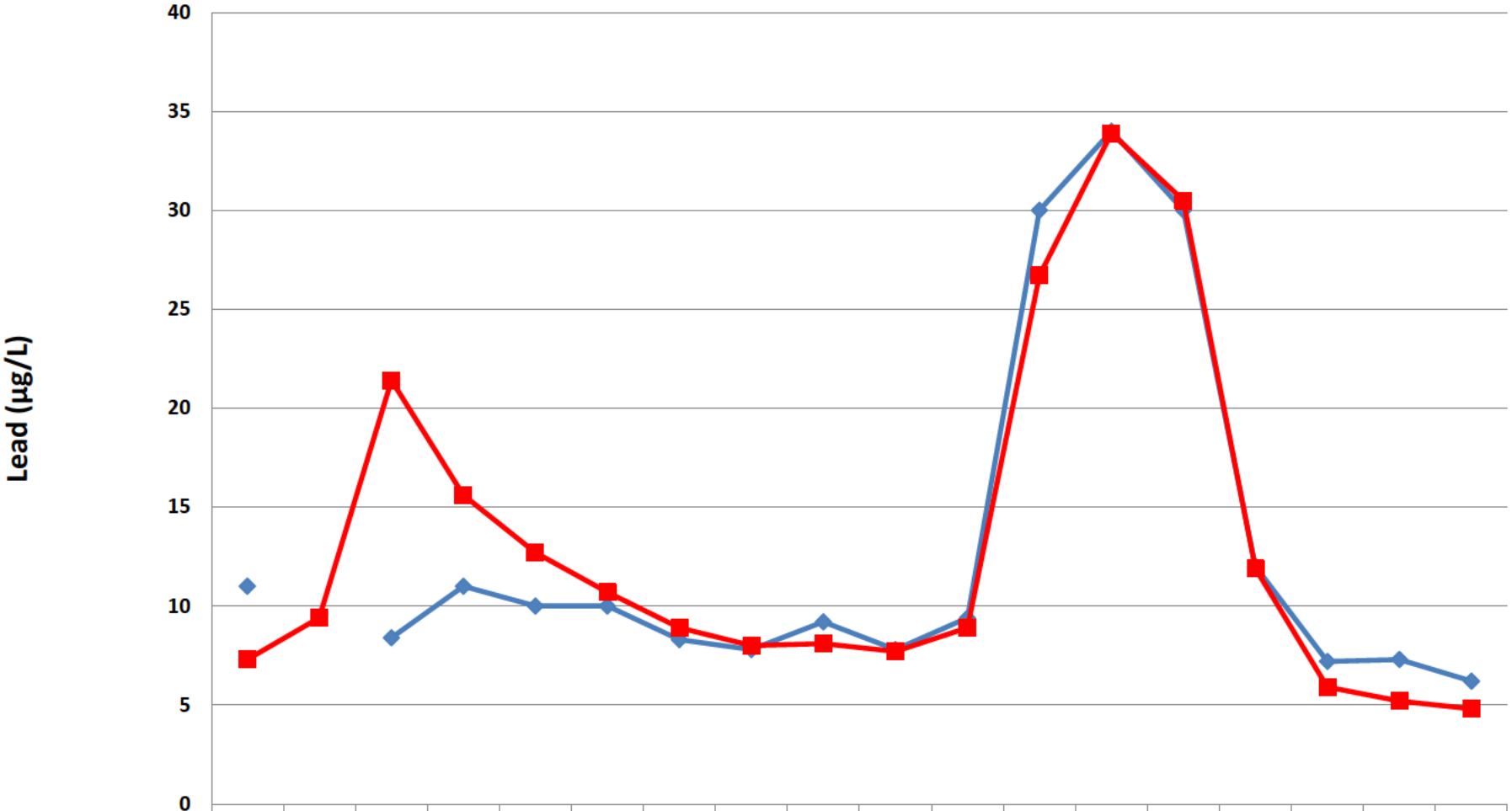


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S2: 11/18/2016	7	6	6.5	10.8	7.7	7.4	8.3	10.6	16.1	17.4	17.3	15.6	12.2	8	6.6

Site ID: 3072

[redacted]

(Site ID: 3072 - G/G)

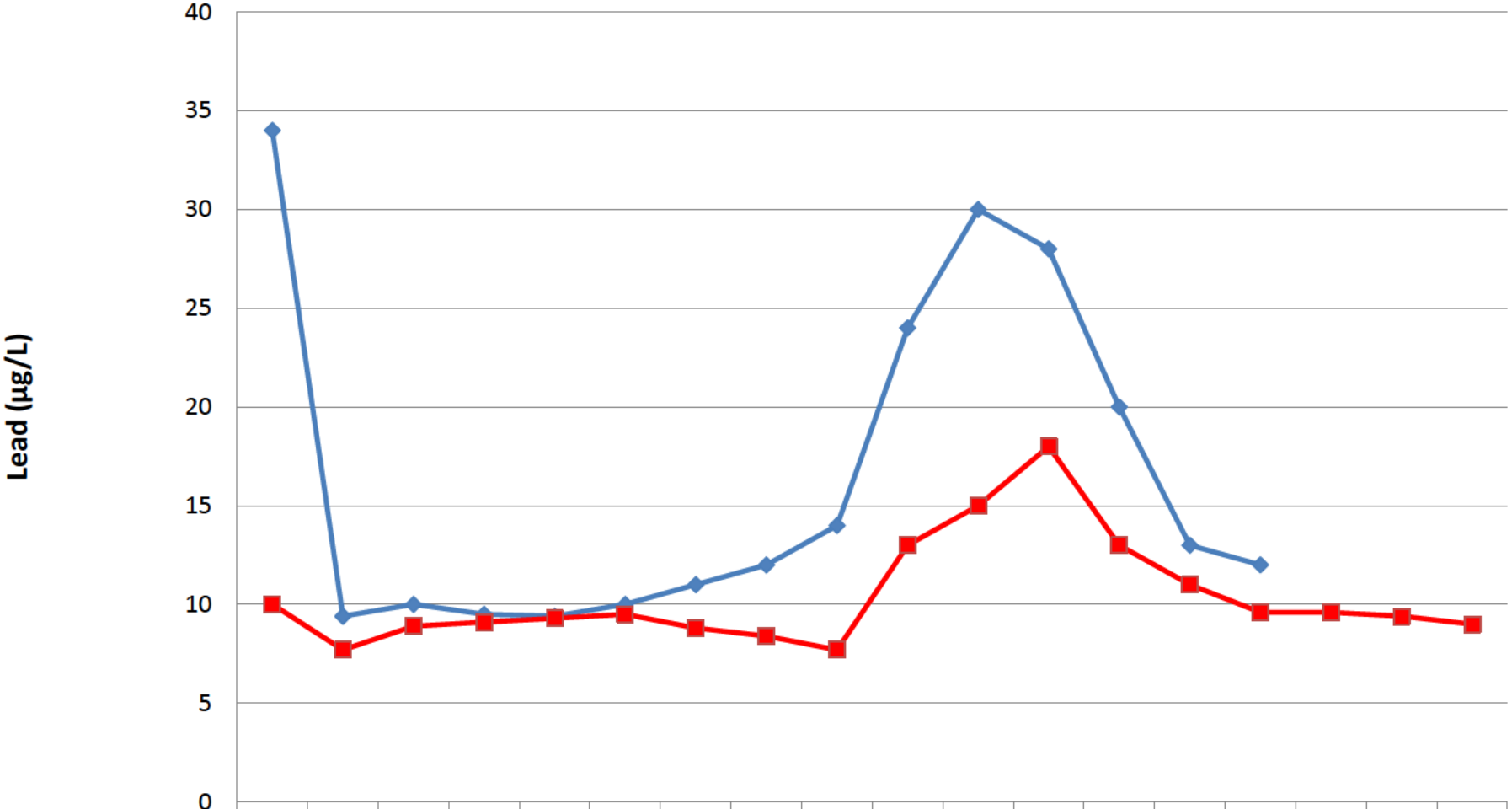


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/5/2016	11		8.4	11	10	10	8.3	7.8	9.2	7.8	9.4	30	34	30	12	7.2	7.3	6.2
S2: 11/17/2016	7.3	9.4	21.4	15.6	12.7	10.7	8.9	8	8.1	7.7	8.9	26.7	33.9	30.5	11.9	5.9	5.2	4.8

Site ID: 3087

[redacted]

(Site ID: 3087 - G/G)

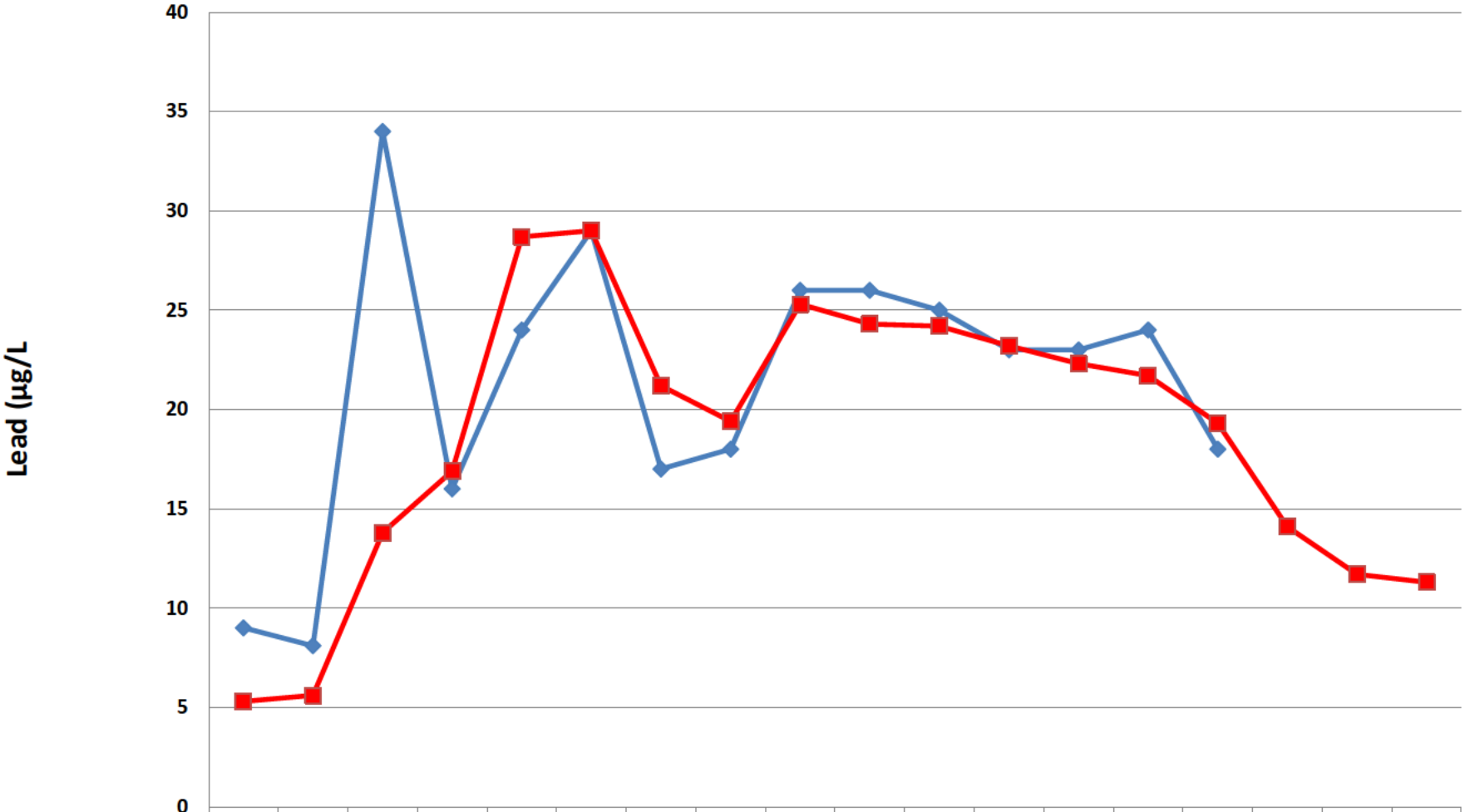


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/3/2016	34.0	9.4	10.0	9.5	9.4	10.0	11.0	12.0	14.0	24.0	30.0	28.0	20.0	13.0	12.0			
S2: 10/12/2016	10.0	7.7	8.9	9.1	9.3	9.5	8.8	8.4	7.7	13.0	15.0	18.0	13.0	11.0	9.6	9.6	9.4	9.0

Site ID: 3091

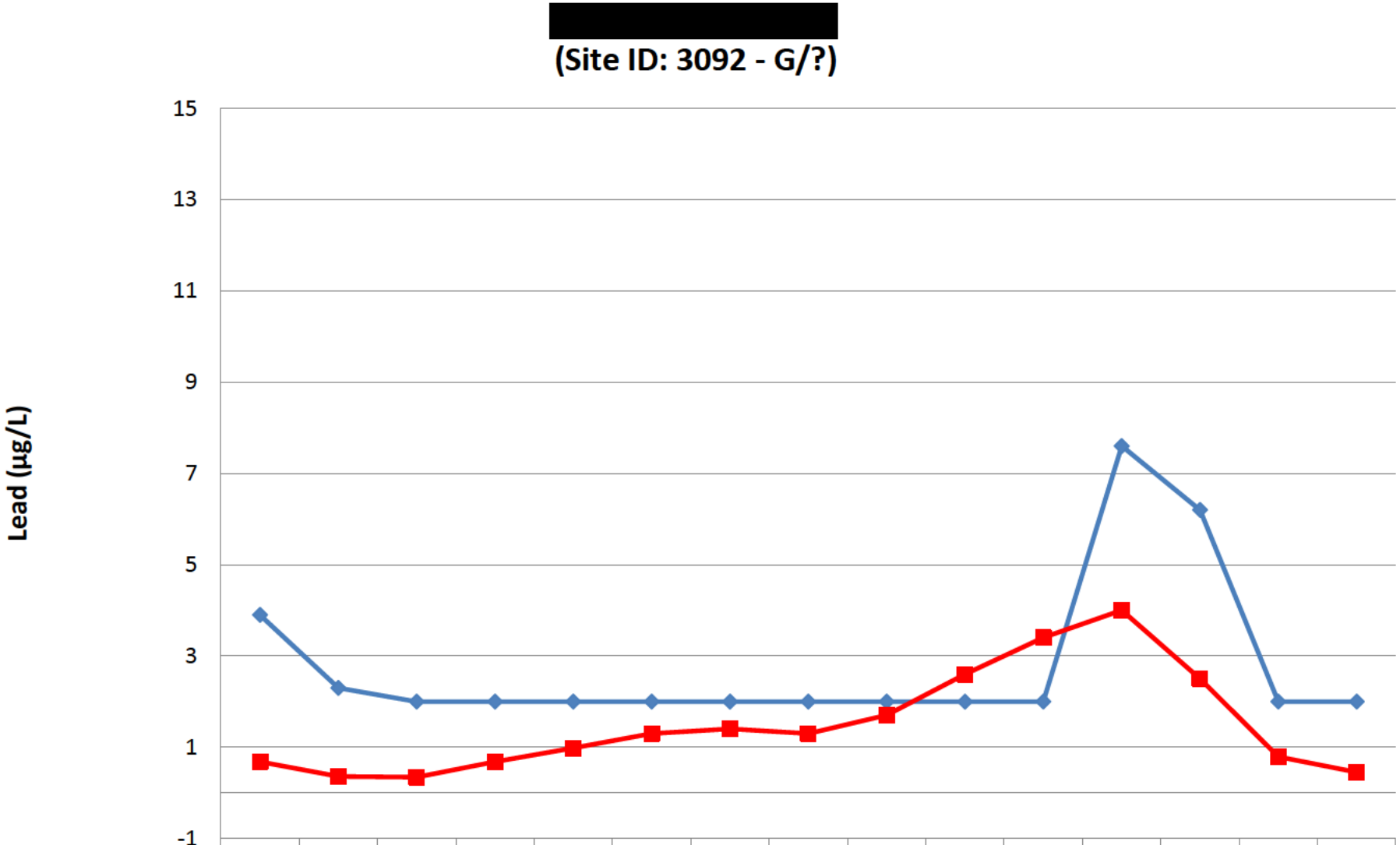
[redacted]

(Site ID: 3091 - G/?)



	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/4/2016	9.0	8.1	34	16	24	29	17	18	26	26	25	23	23	24	18			
S2: 11/11/2016	5.3	5.6	13.8	16.9	28.7	29	21.2	19.4	25.3	24.3	24.2	23.2	22.3	21.7	19.3	14.1	11.7	11.3

Site ID: 3092

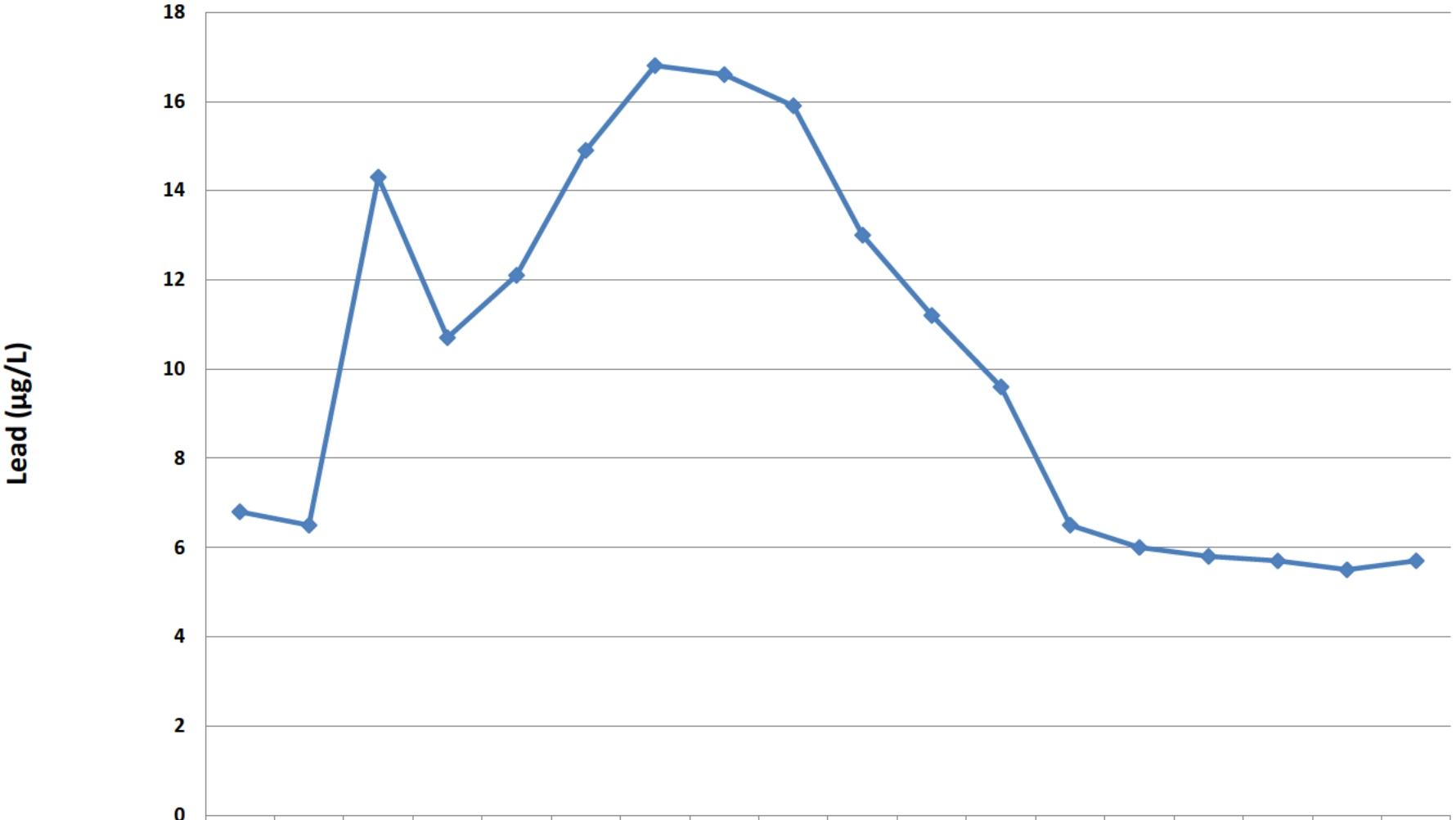


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/10/2016	3.9	2.3	2	2	2	2	2	2	2	2	2	7.6	6.2	2	2
S2: 11/3/2016	0.68	0.36	0.34	0.68	0.98	1.3	1.4	1.3	1.7	2.6	3.4	4	2.5	0.79	0.45

Site ID: 3097

[redacted]

(Site ID: 3097 - Pb/G & C)

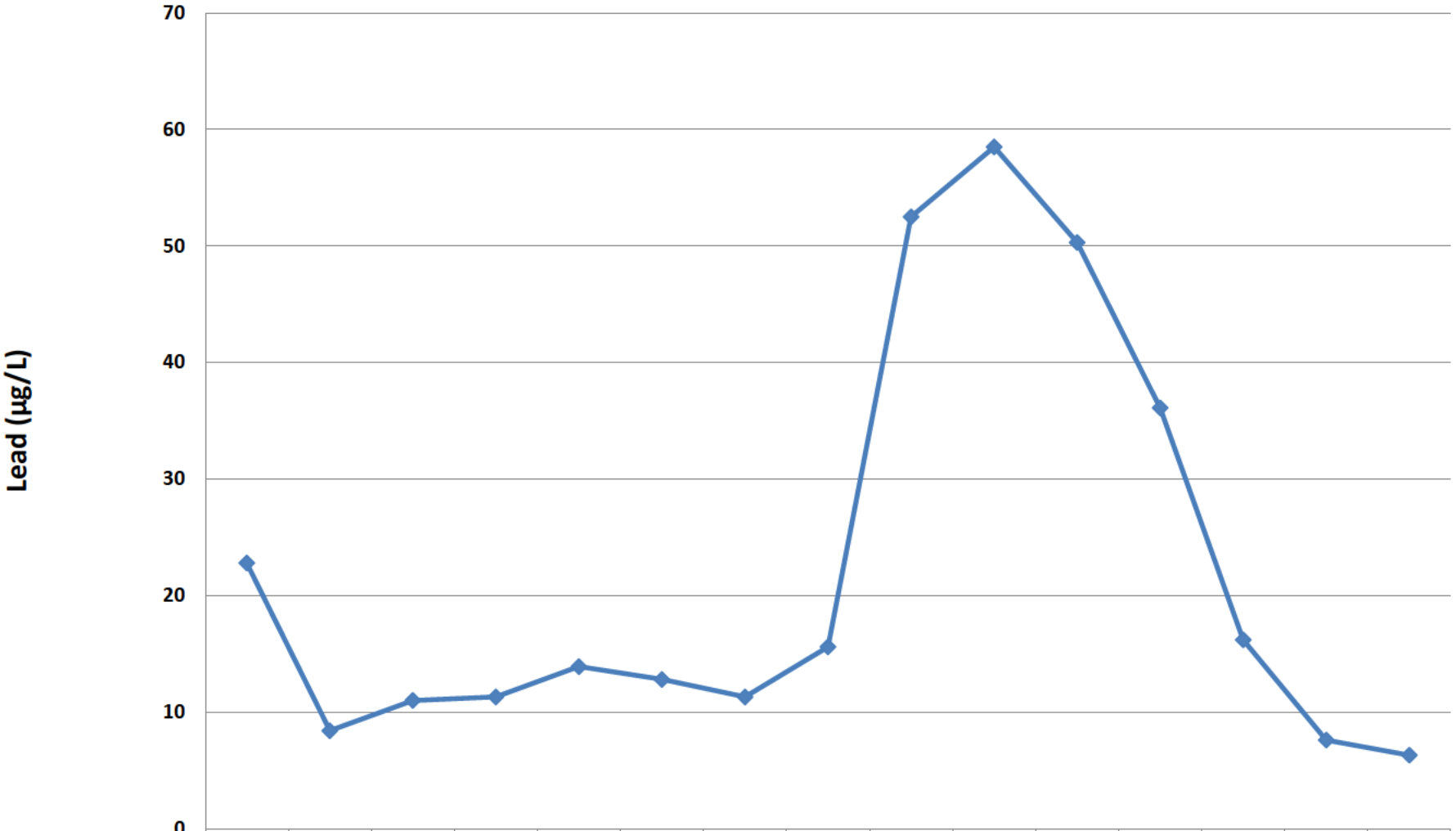


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/29/2016	6.8	6.5	14.3	10.7	12.1	14.9	16.8	16.6	15.9	13	11.2	9.6	6.5	6	5.8	5.7	5.5	5.7

Site ID: 3106

[redacted]

(Site ID: 3106 - ?/?)

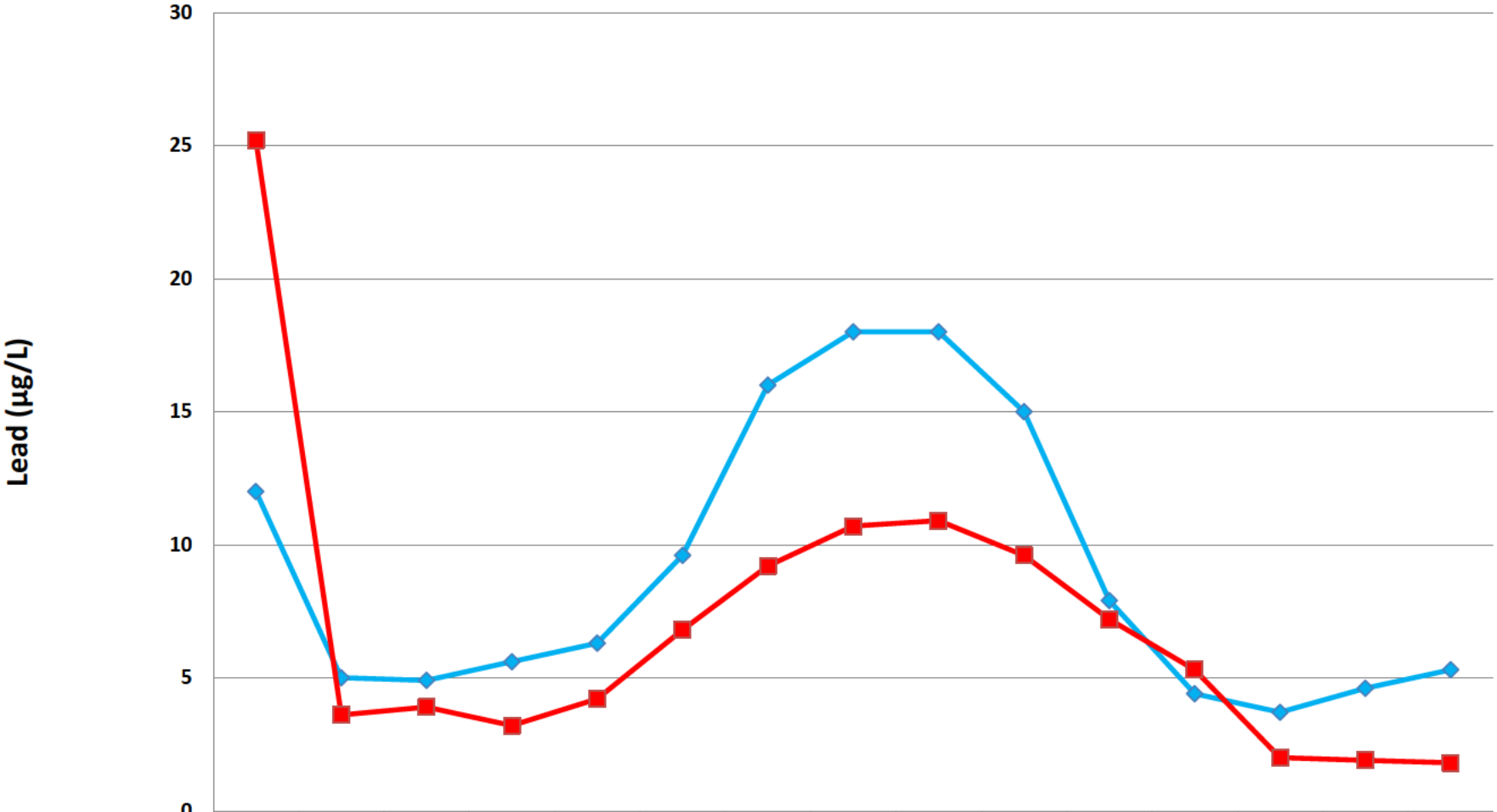


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 11/10/2016	22.8	8.4	11.0	11.3	13.9	12.8	11.3	15.6	52.5	58.5	50.3	36.1	16.2	7.6	6.3

Site ID: 3121

[redacted]

(Site ID: 3121 - Pb/?)



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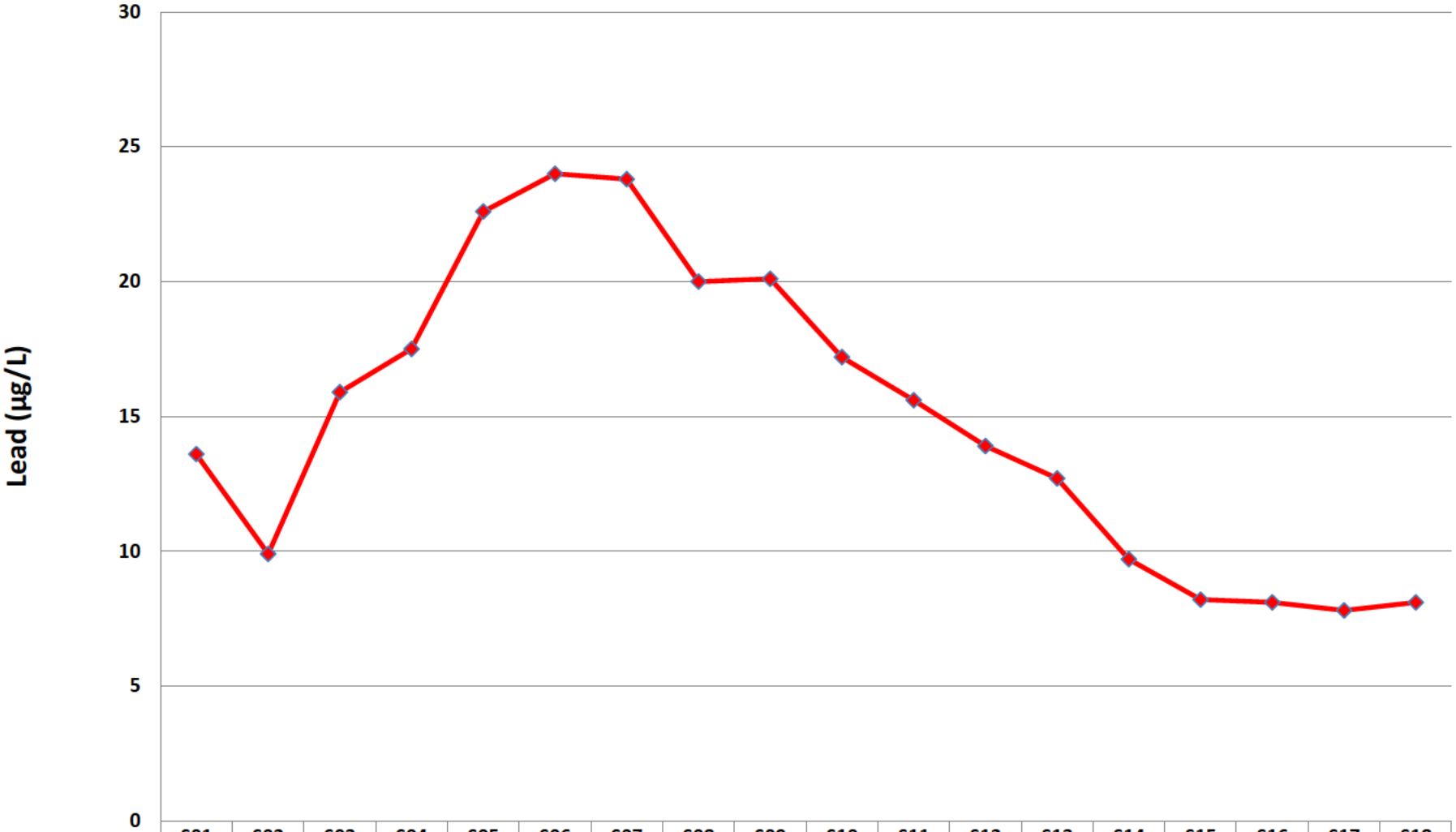
S1: 10/11/2016	12	5	4.9	5.6	6.3	9.6	16	18	18	15	7.9	4.4	3.7	4.6	5.3
S2: 11/16/2016	25.2	3.6	3.9	3.2	4.2	6.8	9.2	10.7	10.9	9.6	7.2	5.3	2.0	1.9	1.8

Site ID: 3135

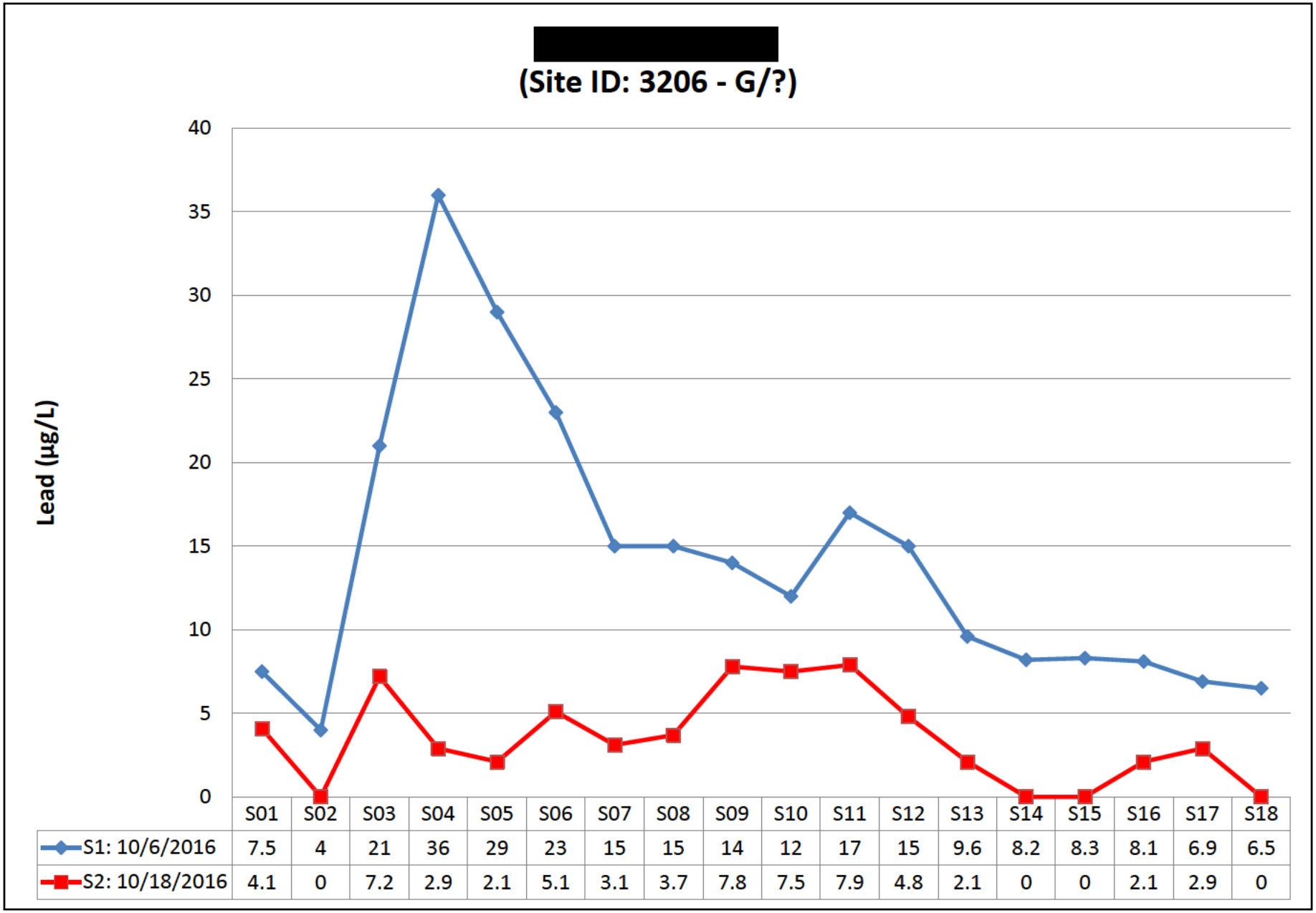
[redacted]

(Site ID: 3135 - Pb/G)



	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
11/3/2016	13.6	9.9	15.9	17.5	22.6	24	23.8	20	20.1	17.2	15.6	13.9	12.7	9.7	8.2	8.1	7.8	8.1

Site ID: 3206

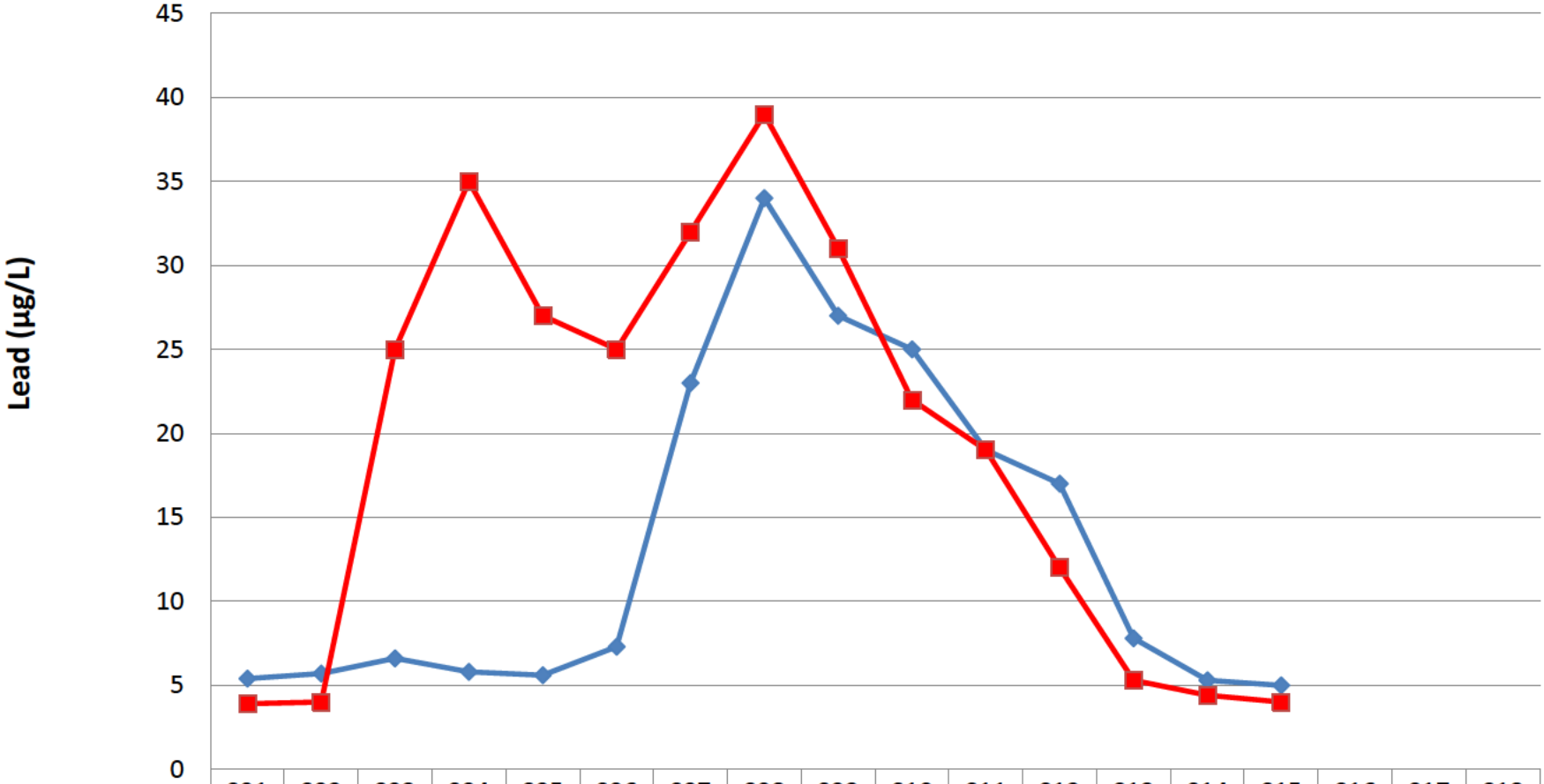


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/6/2016	7.5	4	21	36	29	23	15	15	14	12	17	15	9.6	8.2	8.3	8.1	6.9	6.5
S2: 10/18/2016	4.1	0	7.2	2.9	2.1	5.1	3.1	3.7	7.8	7.5	7.9	4.8	2.1	0	0	2.1	2.9	0

Site ID: 3224

[redacted]

(Site ID: 3224 - Pb/G)

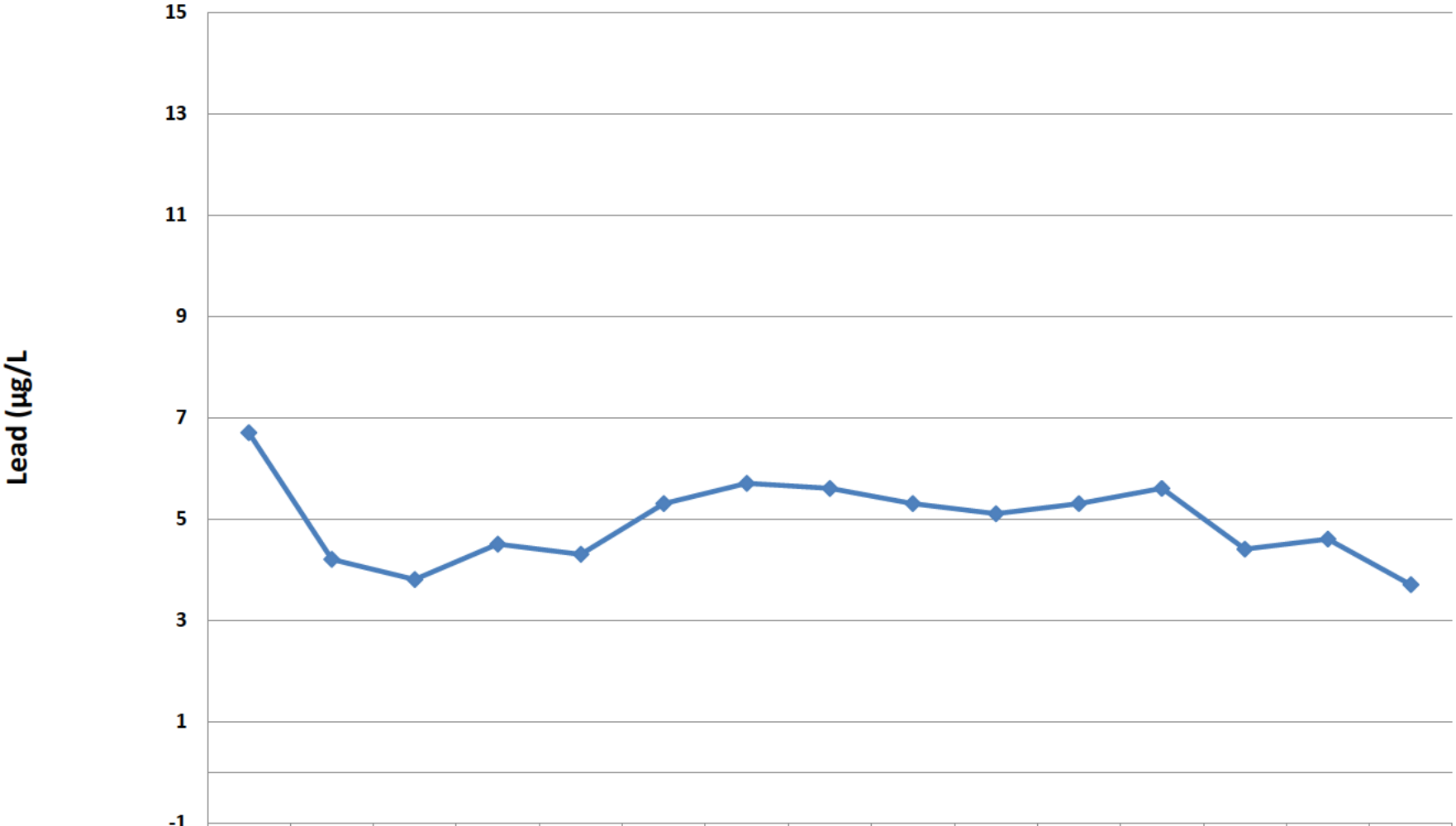


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 9/28/2016	5.4	5.7	6.6	5.8	5.6	7.3	23.0	34.0	27.0	25.0	19.0	17.0	7.8	5.3	5.0			
S2: 10/10/2016	3.9	4	25	35	27	25	32	39	31	22	19	12	5.3	4.4	4			

Site ID: 3226

[redacted]

(Site ID: 3226 - G/G)

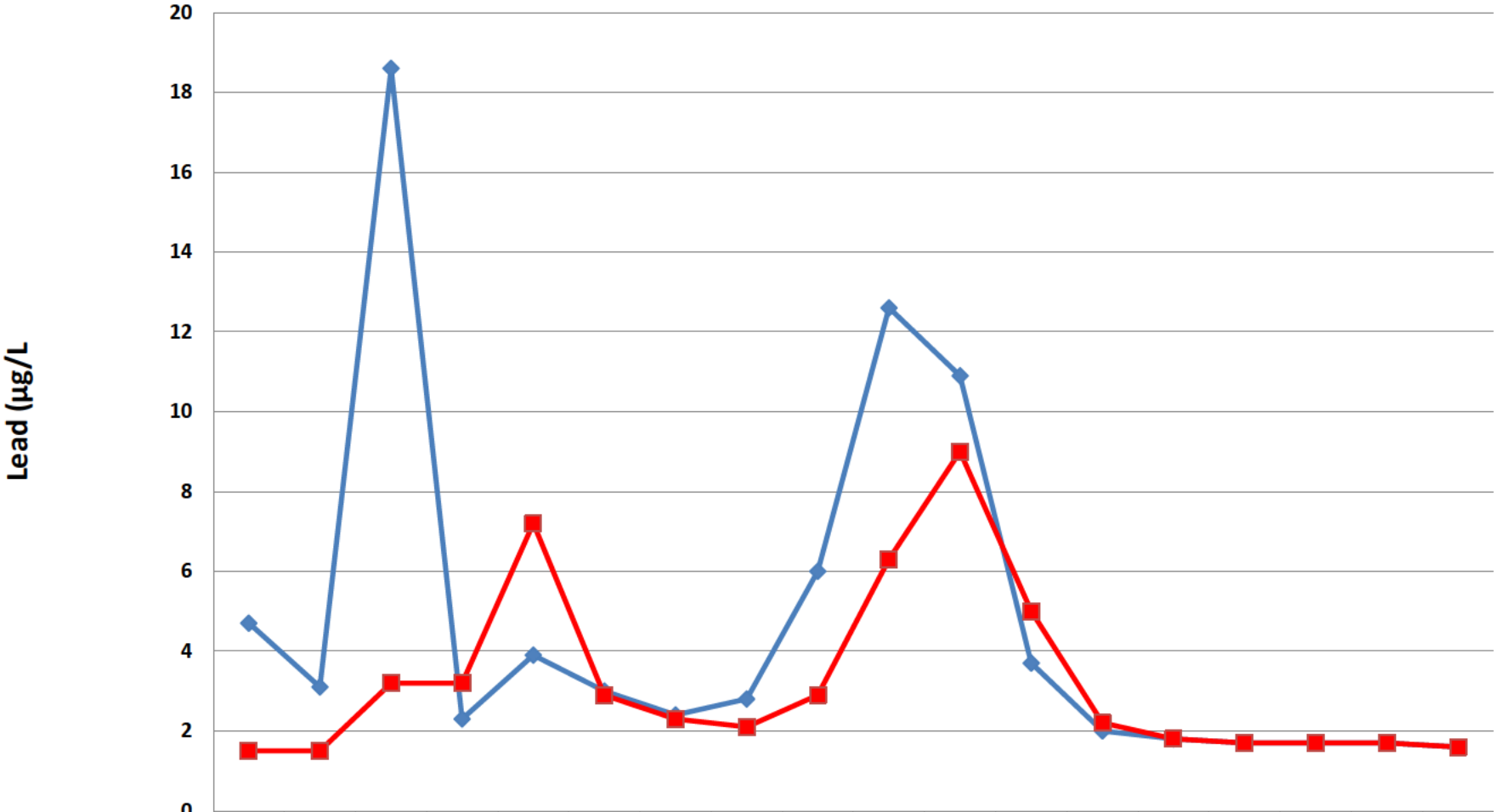


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/17/2016	6.7	4.2	3.8	4.5	4.3	5.3	5.7	5.6	5.3	5.1	5.3	5.6	4.4	4.6	3.7

Site ID: 3277

[redacted]

(Site ID: 3277 - ?/?)

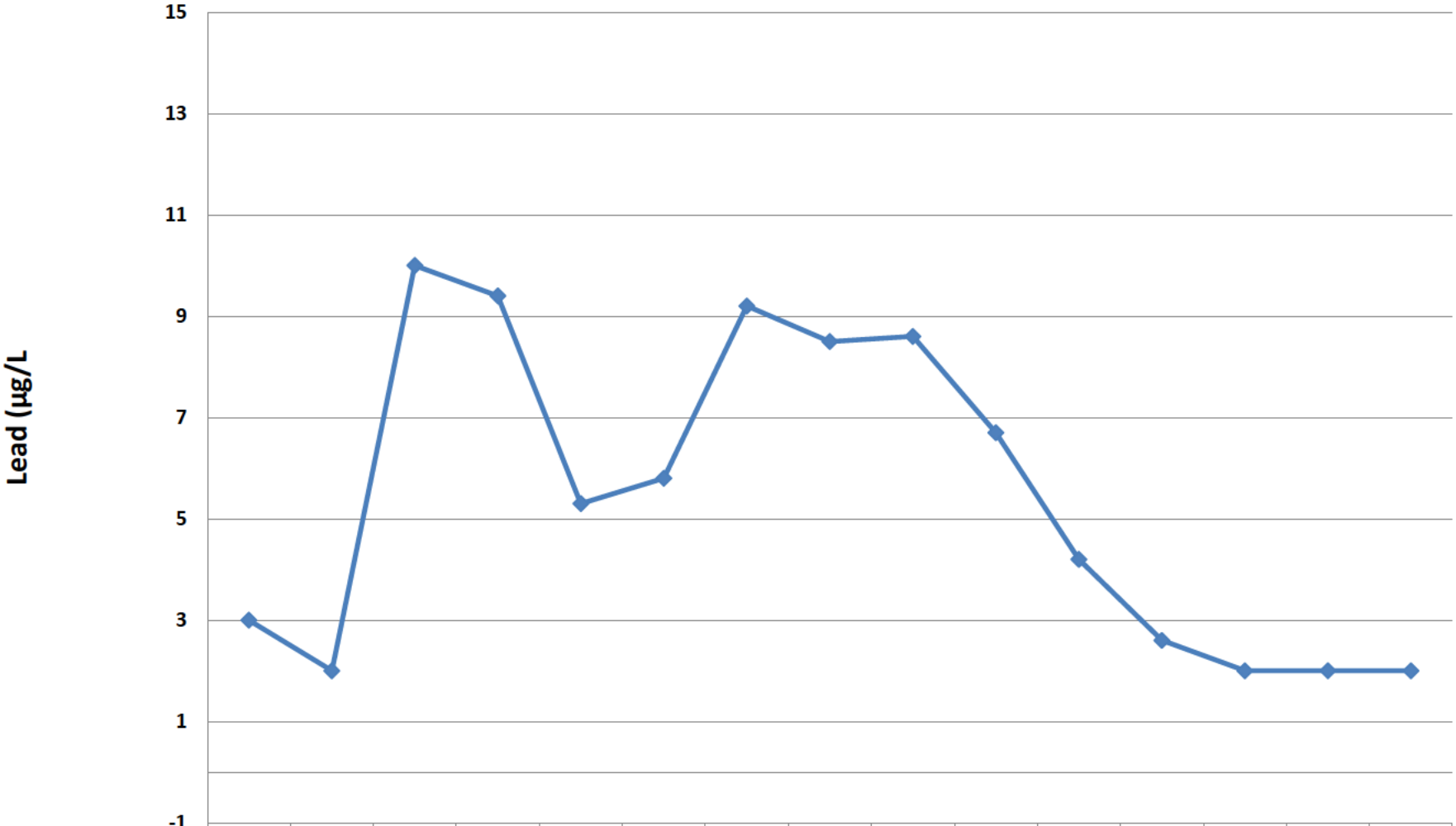


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 11/1/2016	4.7	3.1	18.6	2.3	3.9	3	2.4	2.8	6	12.6	10.9	3.7	2	1.8	1.7	1.7	1.7	1.6
S2: 11/19/2016	1.5	1.5	3.2	3.2	7.2	2.9	2.3	2.1	2.9	6.3	9.0	5.0	2.2	1.8	1.7	1.7	1.7	1.6

Site ID: 3282

[redacted]

(Site ID: 3382 - G/G)

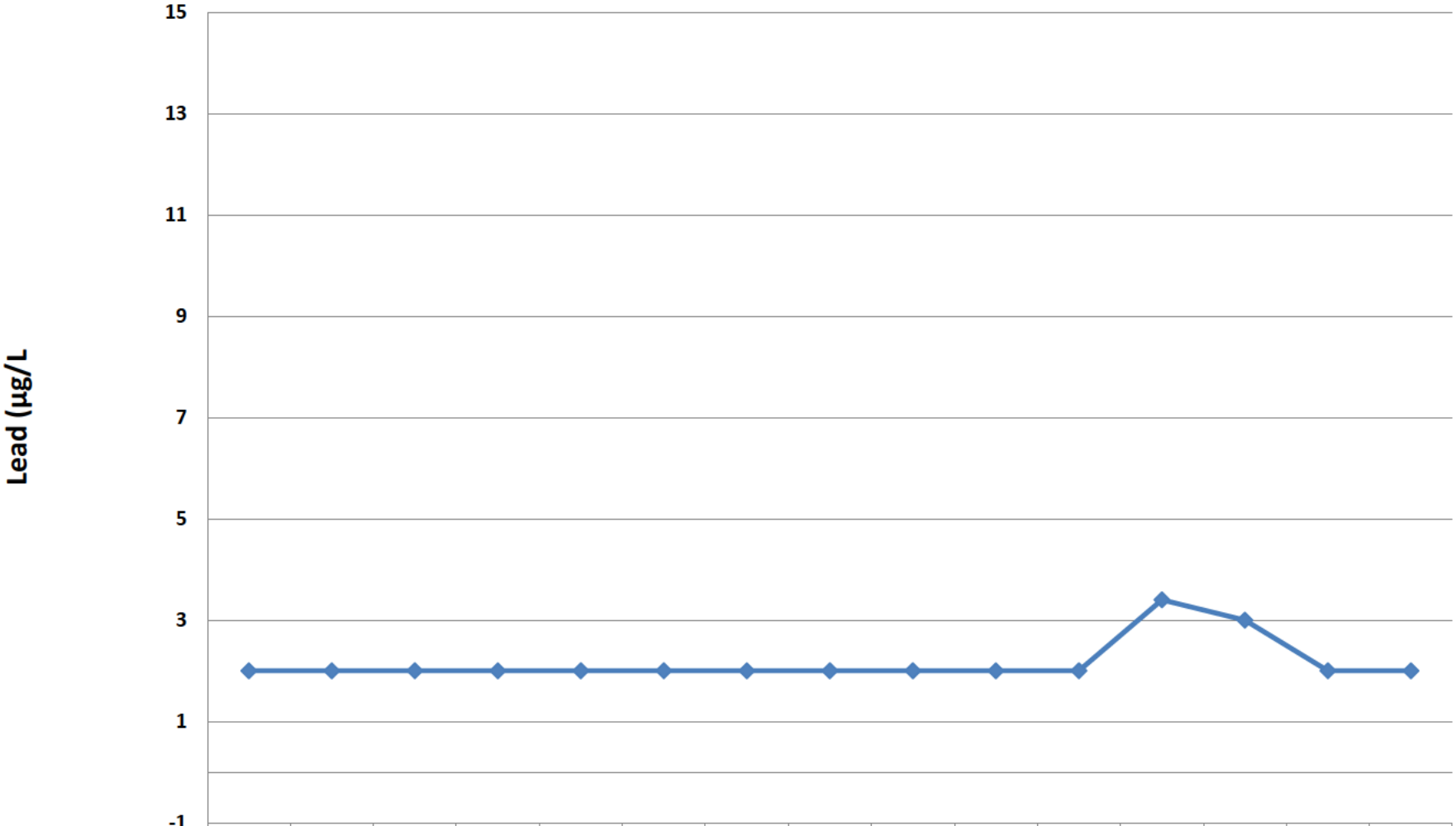


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/15/2016	3.0	2	10	9.4	5.3	5.8	9.2	8.5	8.6	6.7	4.2	2.6	2	2	2

Site ID: 3300

[redacted]

(Site ID: 3300 - Cu/G)

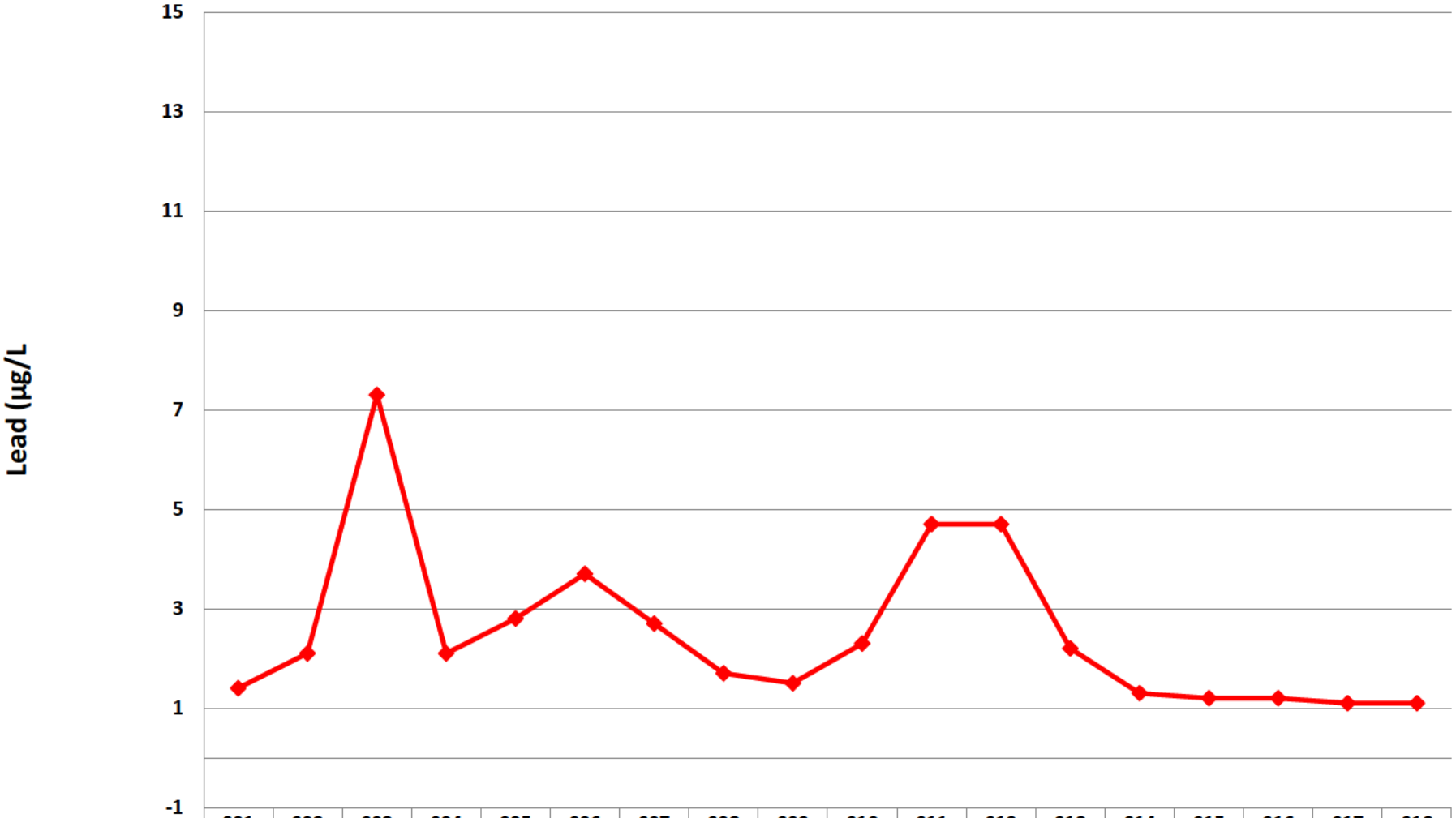


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/08/2016	2	2	2	2	2	2	2	2	2	2	2	3.4	3.0	2	2

Site ID: 3301

[redacted]

(Site ID: 3301 - G/G)

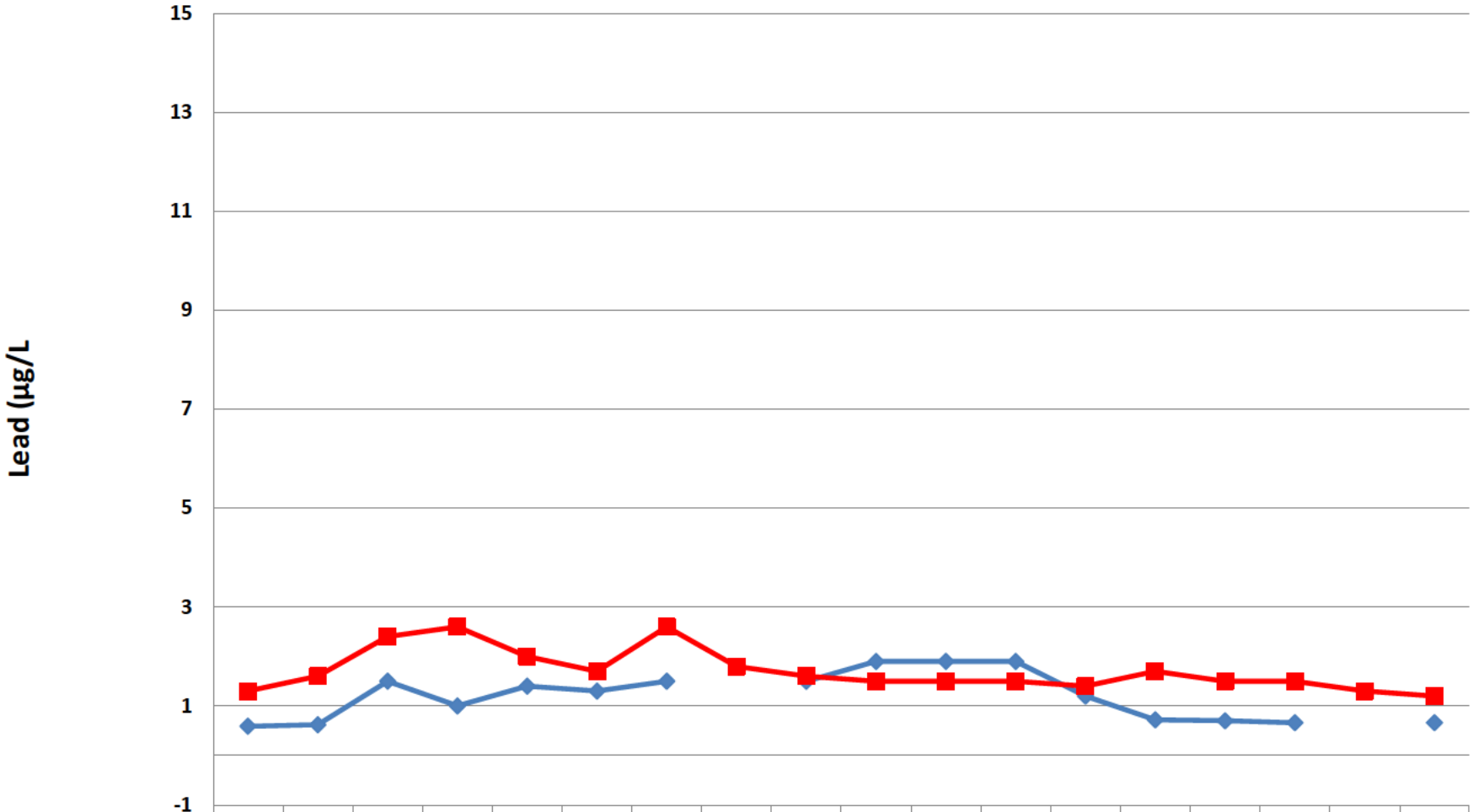


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S2: 11/15/2016	1.4	2.1	7.3	2.1	2.8	3.7	2.7	1.7	1.5	2.3	4.7	4.7	2.2	1.3	1.2	1.2	1.1	1.1

Site ID: 3302

[redacted]

(Site ID: 3302 - G/G)

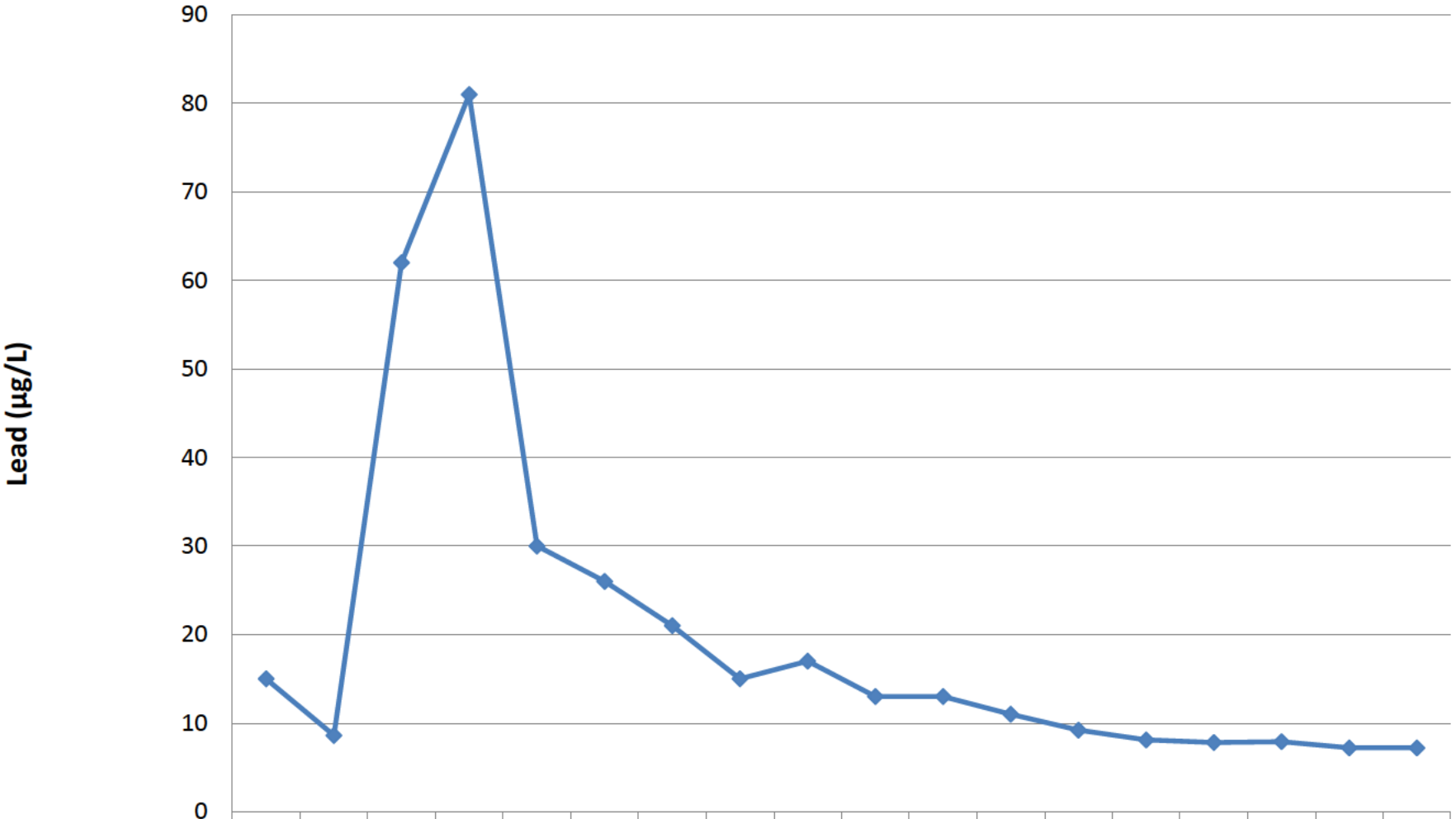


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1:10/25/2016	0.59	0.62	1.5	1	1.4	1.3	1.5		1.5	1.9	1.9	1.9	1.2	0.72	0.7	0.66		0.66
S2: 11/13/2016	1.3	1.6	2.4	2.6	2.0	1.7	2.6	1.8	1.6	1.5	1.5	1.5	1.4	1.7	1.5	1.5	1.3	1.2

Site ID: 3332

[redacted]

(Site ID: 3332 - G/G)

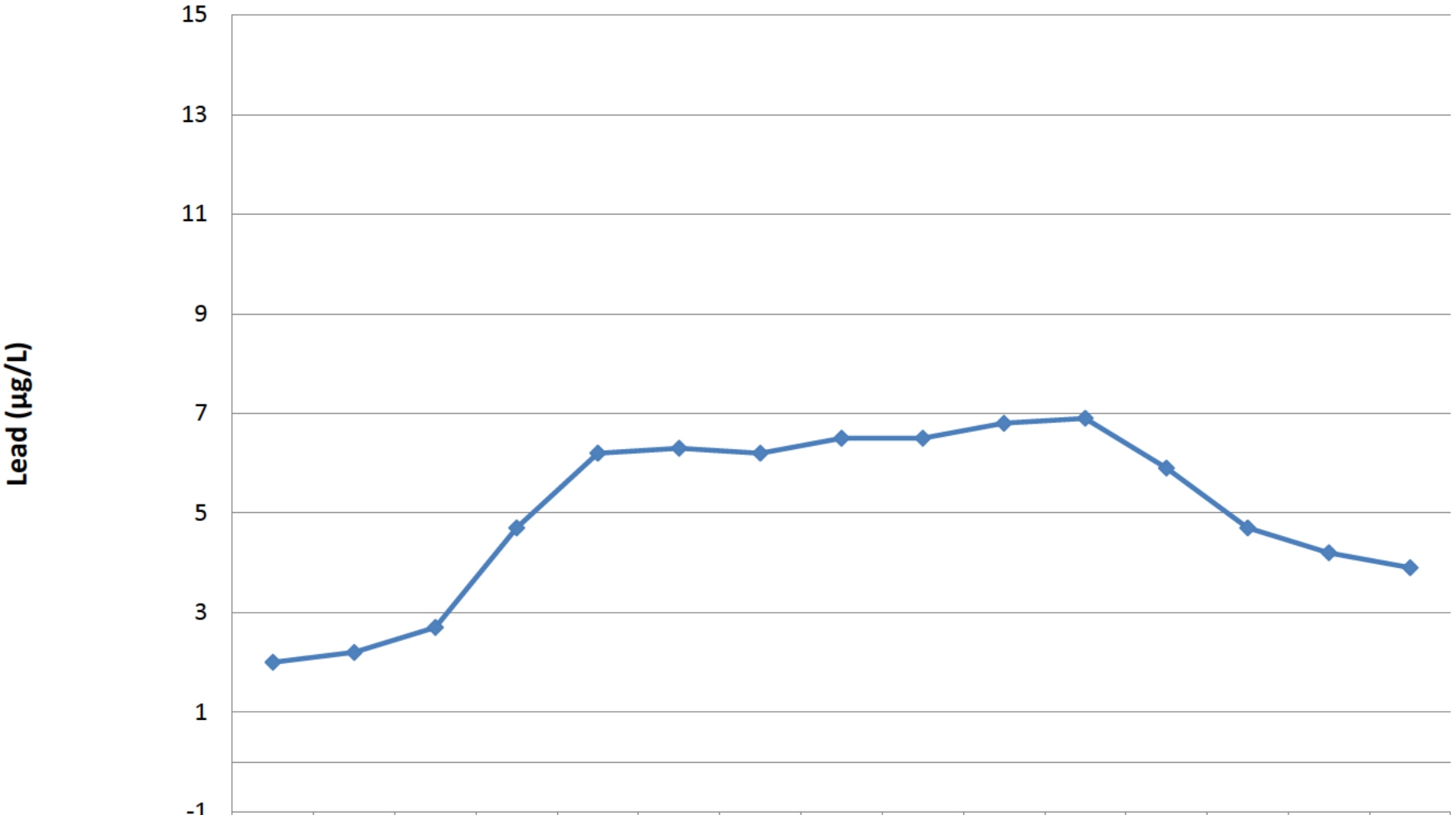


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/10/2016	15	8.6	62	81	30	26	21	15	17	13	13	11	9.2	8.1	7.8	7.9	7.2	7.2

Site ID: 3343

[redacted]

(Site ID: 3343 - ?/?)

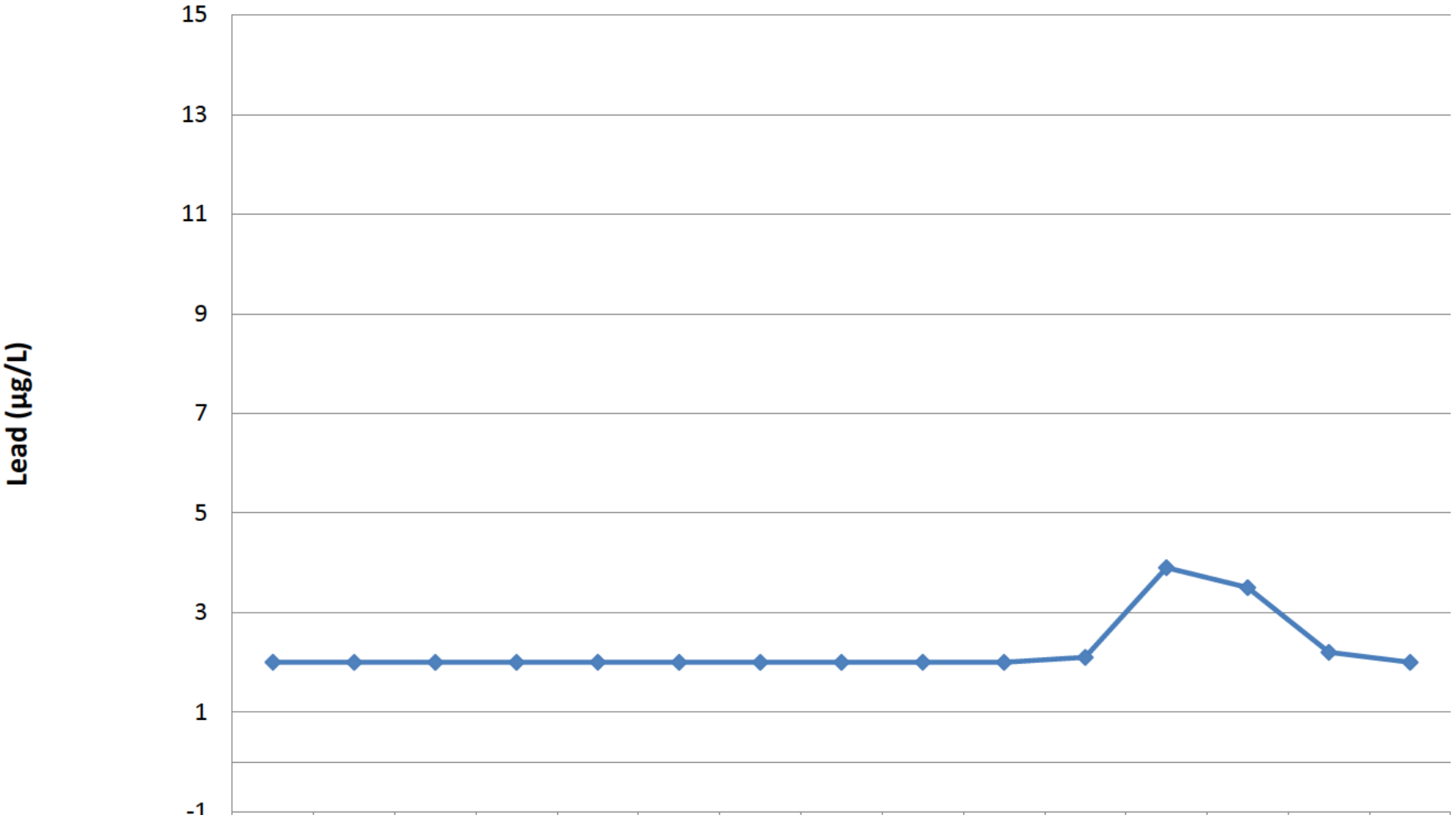


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/13/2016	2	2.2	2.7	4.7	6.2	6.3	6.2	6.5	6.5	6.8	6.9	5.9	4.7	4.2	3.9

Site ID: 3368

[redacted]

(Site ID: 3368 - G/G)

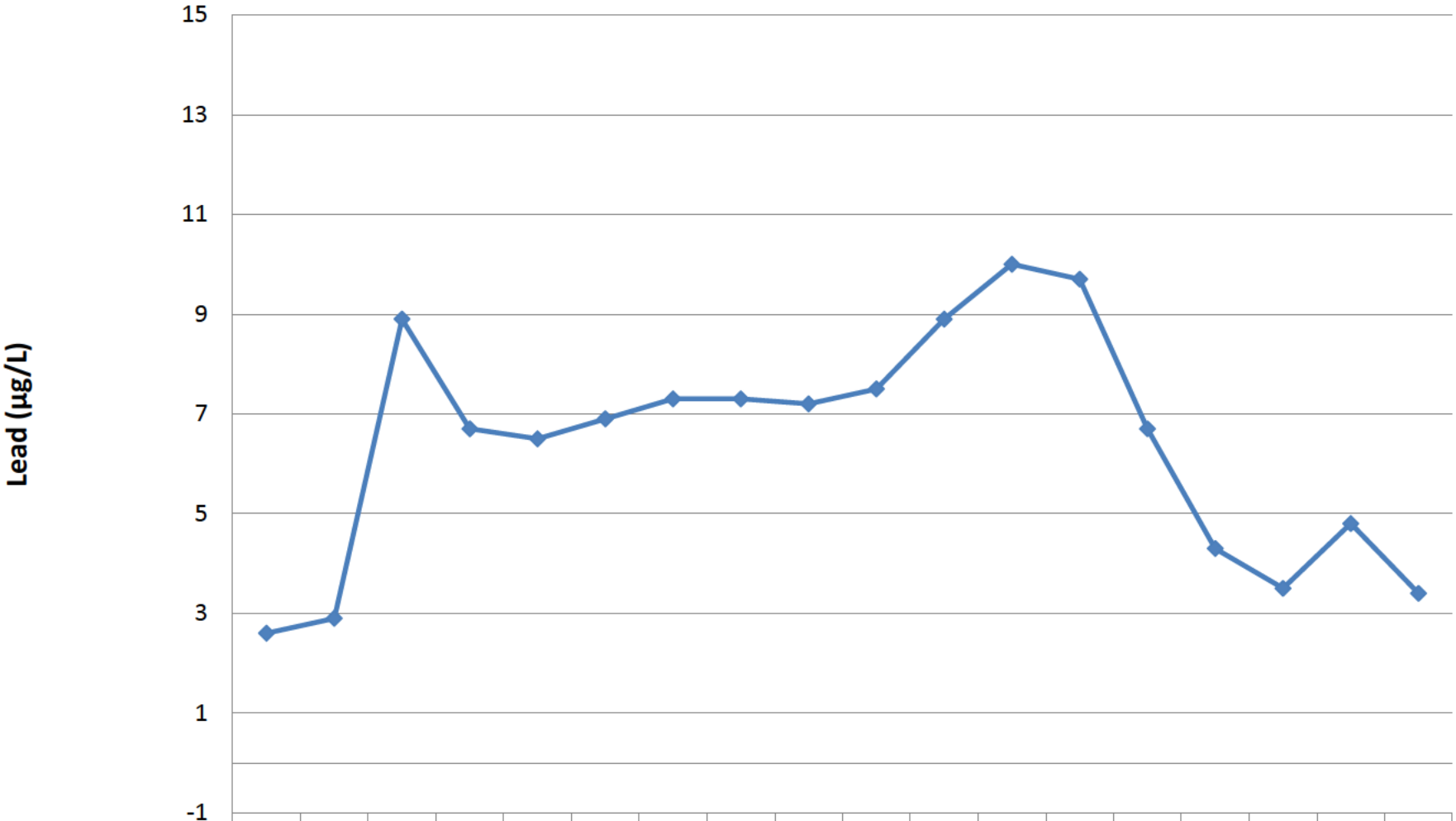


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/13/2016	2	2	2	2	2	2	2	2	2	2	2.1	3.9	3.5	2.2	2

Site ID: 3383

[redacted]

(Site ID: 3383 - G/G)

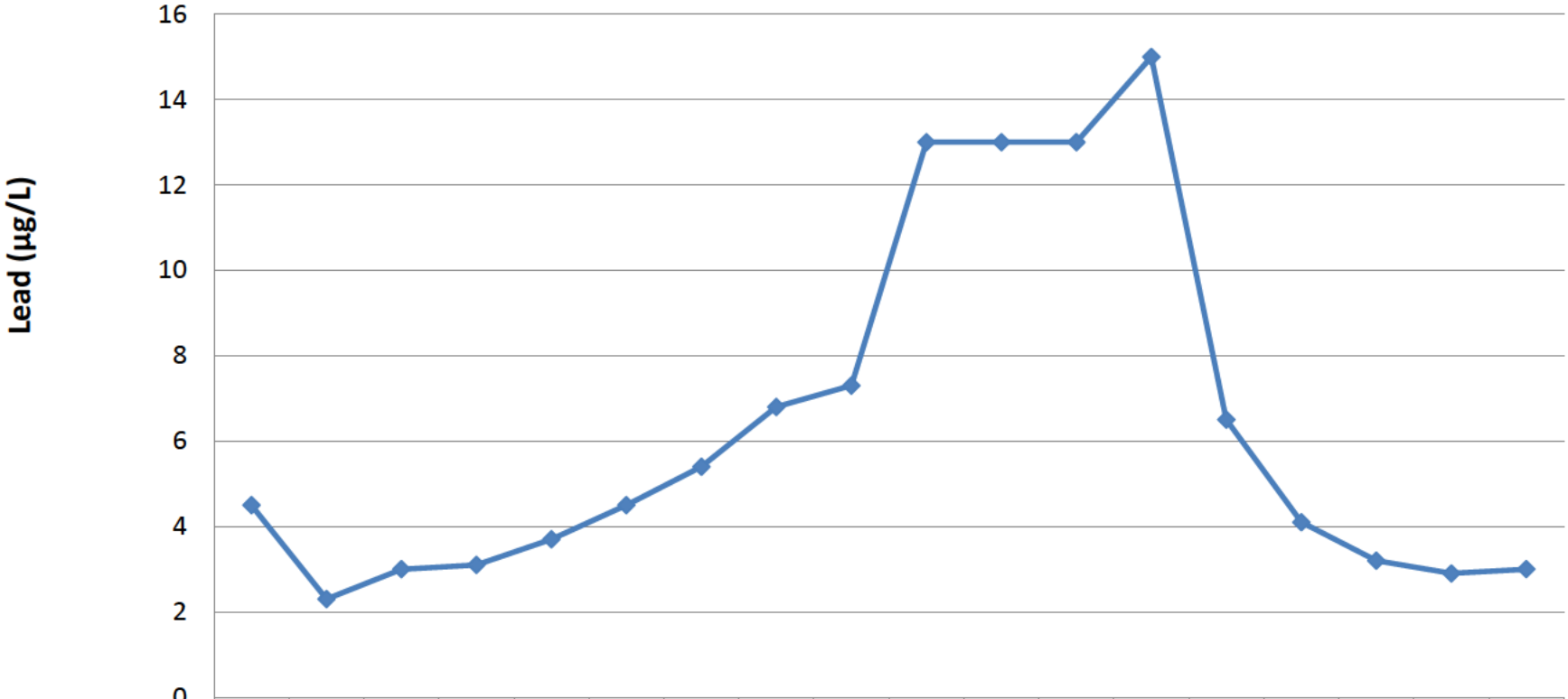


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/17/2016	2.6	2.9	8.9	6.7	6.5	6.9	7.3	7.3	7.2	7.5	8.9	10	9.7	6.7	4.3	3.5	4.8	3.4

Site ID: 3406

[redacted]

(Site ID: 3406 - G/?)

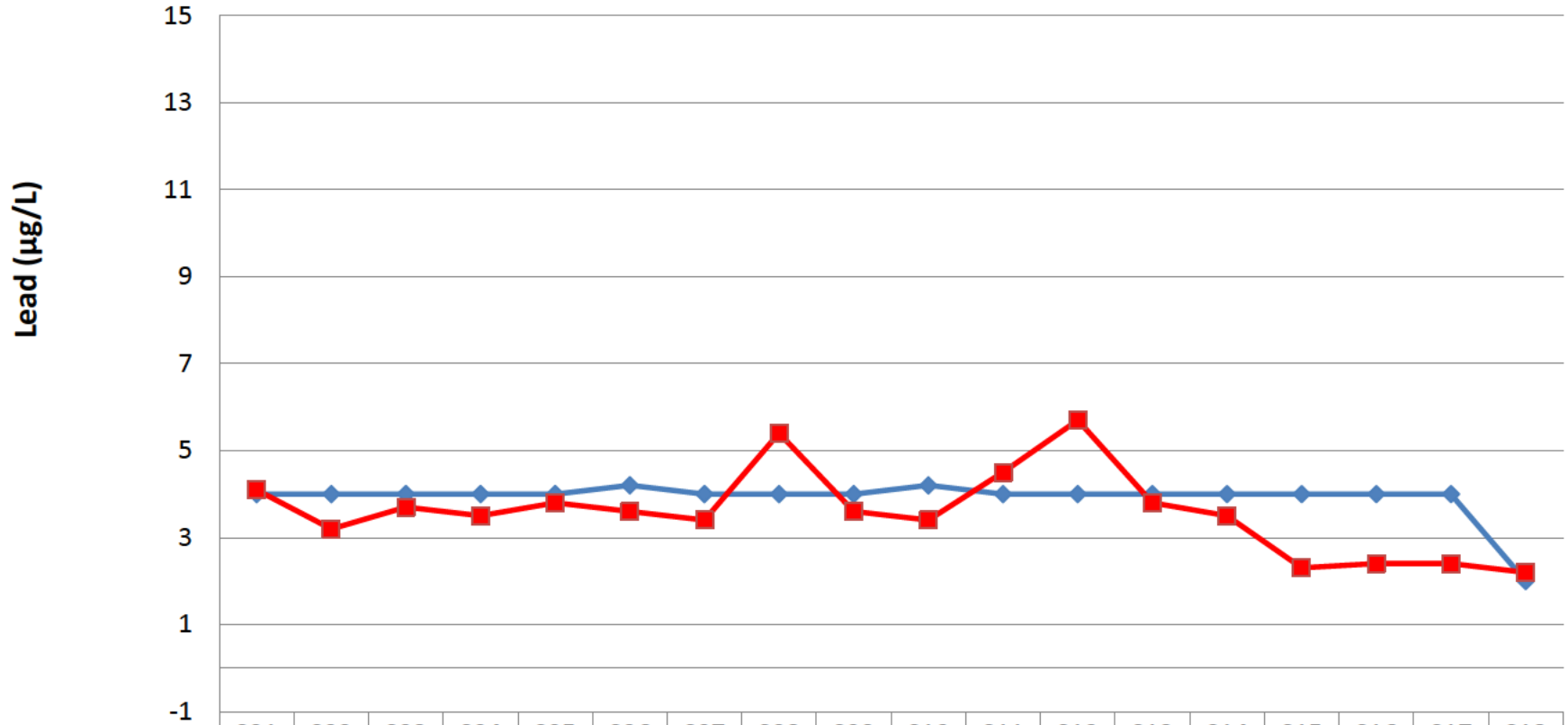


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/7/2016	4.5	2.3	3.0	3.1	3.7	4.5	5.4	6.8	7.3	13	13	13	15	6.5	4.1	3.2	2.9	3.0

Site ID: 3434

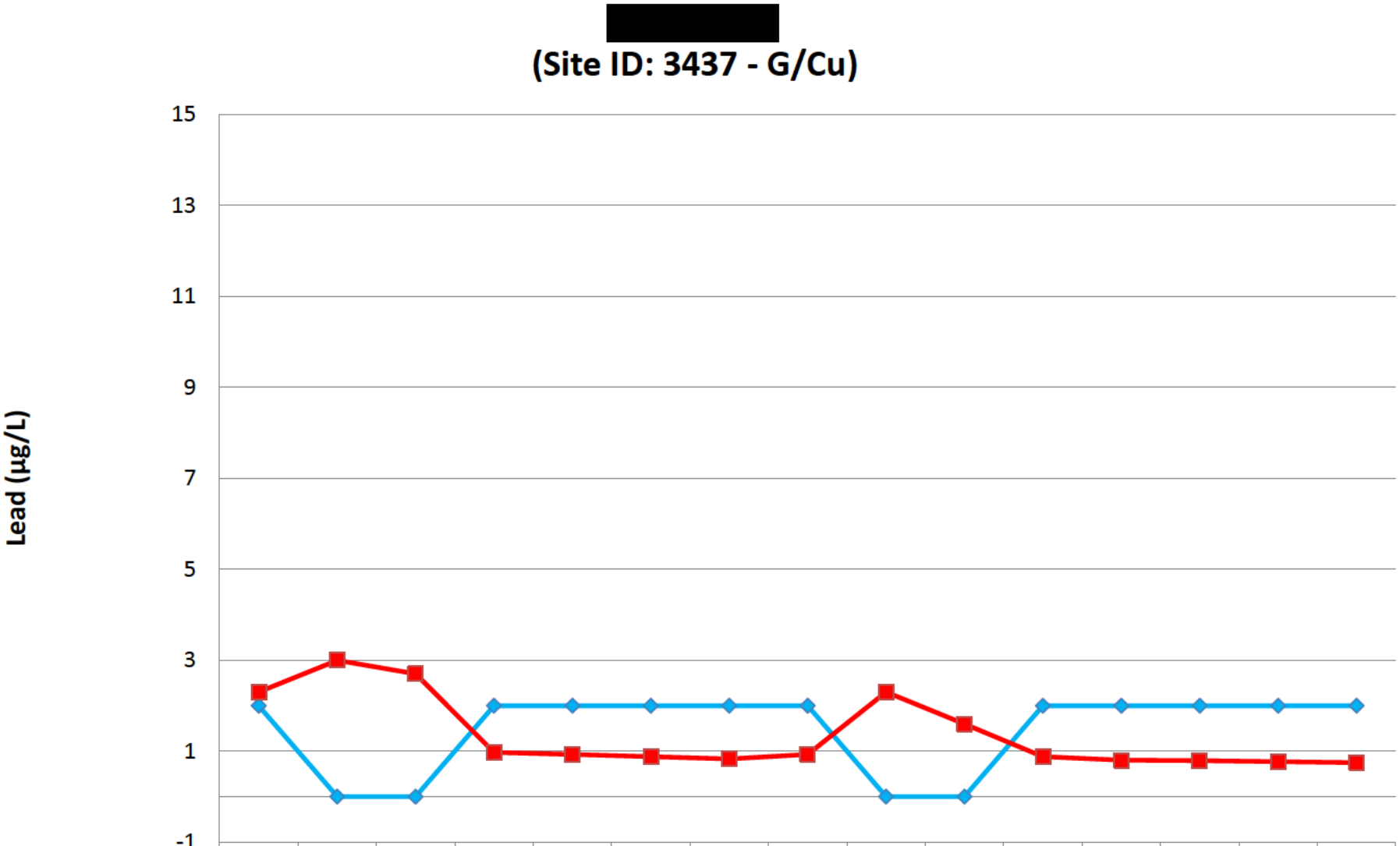
[redacted]

(Site ID: 3434 - G/G)



	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/6/2016	4	4	4	4	4	4.2	4	4	4	4.2	4	4	4	4	4	4	4	2
S2: 10/18/2016	4.1	3.2	3.7	3.5	3.8	3.6	3.4	5.4	3.6	3.4	4.5	5.7	3.8	3.5	2.3	2.4	2.4	2.2

Site ID: 3437

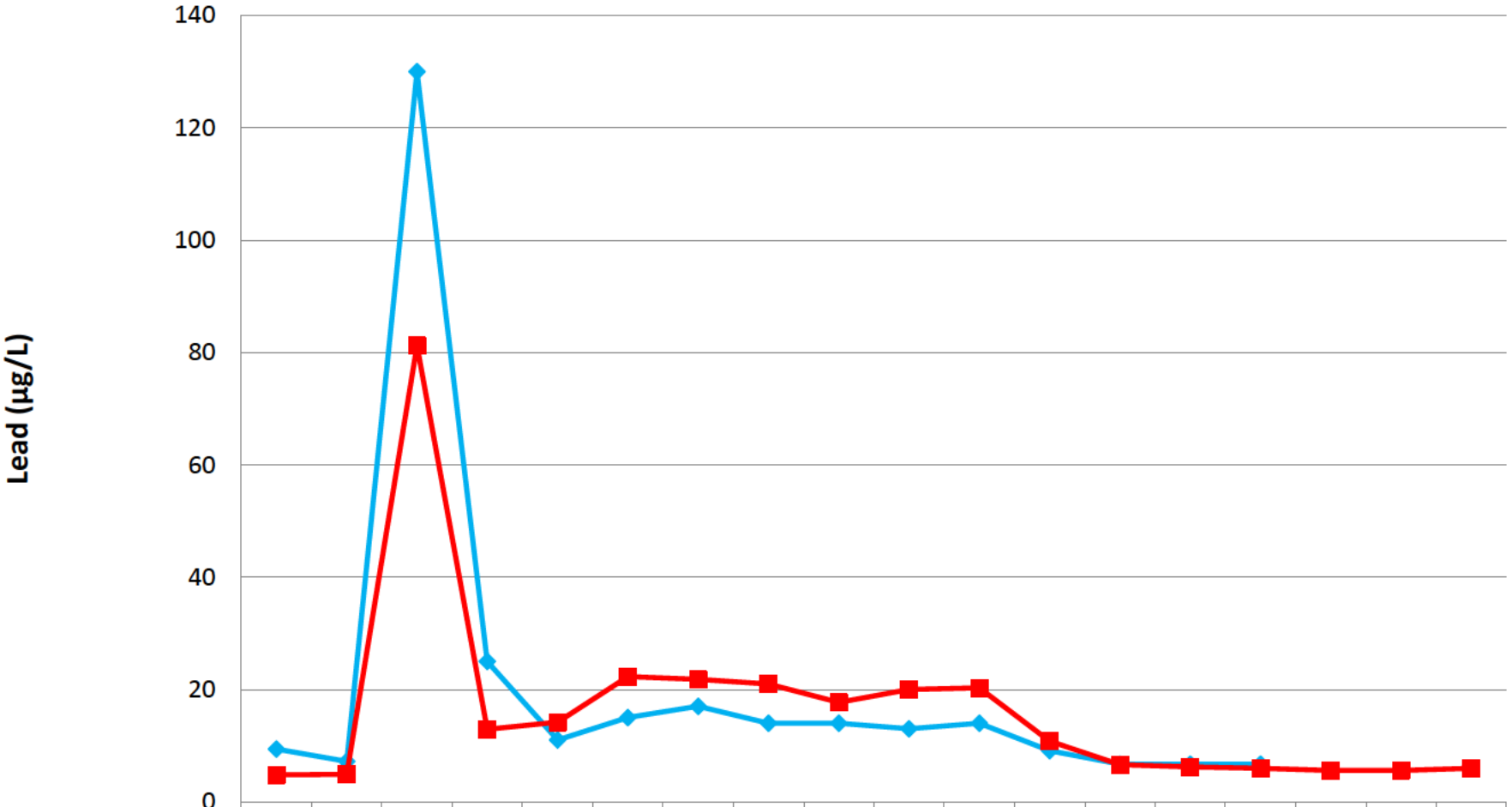


	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15
S1: 10/14/2016	2	0	0	2	2	2	2	2	0	0	2	2	2	2	2
S2: 11/3/2016	2.3	3	2.7	0.97	0.93	0.88	0.83	0.93	2.3	1.6	0.88	0.8	0.79	0.77	0.75

Site ID: 3443

[redacted]

(Site ID: 3443 - Pb / Cu)



	S01	S02	S03	S04	S05	S06	S07	S08	S09	S10	S11	S12	S13	S14	S15	S16	S17	S18
S1: 10/15/2016	9.4	7.2	130	25	11	15	17	14	14	13	14	9.1	6.7	6.7	6.7			
S2: 11/19/2016	4.8	4.9	81.2	12.9	14.2	22.3	21.8	21.0	17.7	20.0	20.3	10.8	6.6	6.2	6.0	5.6	5.6	6.0