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Letter of Transmittal

Attention:	Mr. Tauren Beggs Hydrogeologist, WDNR 2984 Shawano Ave Green Bay, WI 54313	Date:	7/14/16
Project reference:	Former Newton Pit BRRTS No. 02-36-000268	Project number:	60135471

We are sending you the following:

Number of originals:	Number of copies:	Description:
One	Zero	March 2016 Semi-Annual Potable Well Monitoring Letter Report

Mr. Beggs,

Attached is the March 2016 Semi-Annual Potable Well Monitoring Letter Report for the Former Town of Newton Gravel Pit, Manitowoc Wisconsin.

Please let me know if you have any questions.

Thank you.

D. S. Henderson

David Henderson, P.E.
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Cc: Kathleen M. McDaniel, City Attorney, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc
Elizabeth Heinen, Drinking Water Specialist, WDNR

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July 14, 2016

Mr. Tauren Beggs
Hydrogeologist
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313-6727

Subject: **March 2016 Semi-Annual Potable Well Monitoring Letter Report**
Former Town of Newton Gravel Pit
BRRTS No. 02-36-000268
AECOM Project No: 60135471(82518)

Dear Mr. Beggs:

AECOM Technical Services, Inc. (AECOM), on the behalf of the City of Manitowoc, is pleased to submit this Semi-Annual Potable Well Monitoring Letter Report for wells in the vicinity of the Former Town of Newton Gravel Pit site (See Figure1). The report provides the results from March 2016 sampling event.

Presented below are site background information, sampling methodology, the potable well monitoring results, and an update to the Semi-Annual Potable Well Monitoring Work Plan.

BACKGROUND INFORMATION

Regular monitoring has been ongoing since November 2013, when volatile organic compounds (VOCs) were discovered in private portable wells near the Former Town of Newton Gravel Pit. The most recent sampling was conducted in accordance with the Wisconsin Department of Natural Resources (WDNR) approved 2015 to 2016 Semi-Annual Potable Well Monitoring Work Plan. The Work Plan grouped the potable wells into the following categories:

- Target Zone Wells – wells with detectable contaminants of concern (COCs) or wells bounded by impacted wells.
- Replacement Wells – wells that were replaced due to regulatory standard exceedances of COCs.
- Sentinel Zone Wells – wells outside and adjacent to the Target Zone that do not have detectable COCs.
- Data Gap Wells – wells not previously sampled.
- Upgradient and Historically Sampled Wells – wells outside the Sentinel Zone that have been sampled in the past but are not currently scheduled to be sampled.

SAMPLING METHODOLOGY

The March 2016 sampling also includes monitoring conducted since the October 2015 event. In total, 1 well location was sampled in January 2016 and 28 wells were sampled during March 2016. Details of the monitoring event are as follows.

On January 14, 2016, the well at 3812 Silver Creek Road, a Sentinel Zone well, was sampled. The well was scheduled to be sampled during the March 2016 sampling event but the owners expressed concerns about their water quality. Therefore, the well was sampled in January, and not in March, in support of the owner's concerns.

January 14, 2016 Sentinel Zone Well Sampling Address
3812 Silver Creek Road

On March 30 and 31, 2016, a total of 28 wells (a total of 32 samples with quality control sampling) were collected from the target zone and sentinel zone wells:

March 30 and 31, 2016 Sentinel and Target Zone Wells Sampling Addresses	
3617 (3621) Viebahn Street	3533 CTH CR
3817 Viebahn Street	3618 CTH CR
3825 Viebahn Street	3627 CTH CR
3303 Hecker Road	4002 Thunder Ridge Road
3320 Hecker Road	4005 Thunder Ridge Road
3327 Hecker Road	4010 Thunder Ridge Road
3461 (3417) Hecker Road	4027 Thunder Ridge Road
3702 Hecker Road	4101 Thunder Ridge Road
3720 Hecker Road	4111 Thunder Ridge Road
2717 CTH CR (4141 Viebahn Street)	4127 Thunder Ridge Road
2832 (2904) CTH CR	3921 Blackhawk Court
3224 CTH CR	4156 Silver Creek Road
3412 CTH CR	4159 Silver Creek Road
3504 CTH CR	3027 Orchard Lane

We were unable to contact one property owner at the address 3318 Orchard Lane to arrange for sampling of the well. This is a non-residential well used for a garden plot.

Samples were collected following purging from a cold water tap or spigot as near to the well as possible, and preferably before any storage/pressure tanks or physical/chemical treatment system that might be present.

Samples for VOC laboratory analyses were collected in three 40-ml glass vials with hydrochloric acid preservative and Teflon septa. The vials were filled to the top, leaving no headspace or bubbles, and then quickly capped. Samples were labeled and stored on ice for shipment, with chain of custody, to the laboratory.

Samples collected by AECOM were submitted to a Wisconsin Administrative Code (WAC) Chapter NR 149 certified laboratory (Synergy Environmental Lab, Inc., Appleton, Wisconsin) for analyses of VOCs by EPA Method 8260B.

MONITORING RESULTS

The results for the March 2016 sampling event are discussed below. During this period AECOM obtained a total of 29 water samples (not including quality control samples).

A summary of the sampled wells with detected laboratory analytical results is presented on Table 1 and on Figure 2. Table 2 provides a summary of the analytical results for all wells sampled. The laboratory analytical reports are provided in Attachment A.

Laboratory Analytical Results

The laboratory analytical data indicates that contaminant compounds are present in some of the potable well water samples.

The concentration of the COCs found in the potable well water samples were compared to applicable WAC Chapter NR 140 Table 1 Public Health enforcement standards (ESs) and preventive action limits (PALs).

The laboratory analytical results are presented categorically as follows:

- COCs with NR 140 ES exceedances
- COCs with NR 140 PAL exceedances
- Detected COCs with no regulatory exceedances
- Observed changes in analytical results since the last monitoring event

Potable Wells with NR 140 COC ES Exceedances:
There was only one (1) potable well with a vinyl chloride ES exceedances and detectable concentrations of cis-1,2-dichloroethene (cis-1,2-dce) below regulatory (PAL) limits. It is:

ES Exceedance of Vinyl Chloride
3303 Hecker Road

Potable Wells with NR 140 COC PAL Exceedances:
There were no wells that had a COC PAL exceedance for vinyl chloride or cis-1,2-dce.

PAL Exceedances of Vinyl Chloride or cis-1,2-dce
No wells with PAL exceedances

Detected COCs with No Regulatory Exceedances:
There were a total of 12 wells that only had a single COC (cis-1,2-dce) below regulatory (PAL) limits.

Cis-1,2-dichloroethene Detects	
3327 Hecker Road	4027 Thunder Ridge Road
3461 (3417) Hecker Road	4101 Thunder Ridge Road
4159 Silver Creek Road	3504 CTH CR
4002 Thunder Ridge Road	3618 CTH CR
4005 Thunder Ridge Road	3617(3621) Viebahn Street
4010 Thunder Ridge Road	3921 Black Hawk Court

A summary of the sampled wells with detectable COC laboratory results is presented on Table 1 and on Figure 2. Table 2 provides a summary of the analytical results for all sampled wells. The laboratory analytical reports are provided in Attachment A.

OBSERVED CHANGES SINCE LAST MONITORING EVENT

During December 2015 the City of Manitowoc Public Utility District extended a City water main west along Viebahn Street and north along CTH CR, with a leg south along a section of CTH CR. The water main was initially designed to provide City drinking water to nine properties. They are as follows:

- 3617(3621) Viebahn Street
- 3701 Viebahn Street
- 3815 Viebahn Street
- 4025 Viebahn Street
- 4101 Viebahn Street
- 2717 CTH CR(4141 Viebahn Street)
- 2734(2804) CTH CR
- 2916 CTH CR
- 2917 CTH CR

At the time of the March 2016 sampling event eight properties were connected to the City water system. Their potable wells were abandoned and not sampled. One address (3617(3621) Viebahn Street) was not connected to the City water system due to the homeowners being out of town for an extended period of time. As indicated above, this well was monitored as part of the March sampling event.

Of the nine addresses to be provided City water only one address will keep their well for non-potable use and to allow future groundwater monitoring. The well is at 4141 Viebahn Street (2717 CTH CR). For future sampling events the well will be noted as a “non-potable well”.

The following changes were noted in the analytical results since the October 2015 sampling event:

- The following well had a change in vinyl chloride from a ES exceedance to a non-detect with a continued cis-1,2-dce detect below regulatory limits:
  - 3617 Viebahn Street

- The following well (now a non-potable well) had a change in vinyl chloride from an ES exceedance and a cis-1,2-dce detect to non-detectable levels of both vinyl chloride and cis-1,2-dce:
    - 2717 CTH CR(4141 Viebahn Street)

- The following wells had a change in cis-1,2-dichloroethene from a detect above the laboratory method detection limit (MDL) but below the PAL to a non-detect below the MDL
    - 3702 Hecker Road
    - 3027 Orchard Lane
    - 3817 Viebahn Street

UPDATES TO POTABLE WELL MONITORING WORK PLAN

The WDNR approved the 2015 to 2016 Semi-Annual Potable Well Monitoring Work Plan. The sampling schedule in the Work Plan for the October 2016 sampling event has been updated to reflect the following.

The following eight wells have been connected to a City of Manitowoc water main, the former potable wells have been abandoned, and the addresses will no longer be monitored. They are as follows:

- 3617(3621) Viebahn Street
- 3701 Viebahn Street
- 3815 Viebahn Street
- 4025 Viebahn Street
- 4101 Viebahn Street
- 2734(2804) CTH CR
- 2916 CTH CR
- 2917 CTH CR

One address (2717 CTH CR(4141 Viebahn Street)) will keep their well for non-potable use and to allow future groundwater monitoring. For future sampling events the well will be noted as a “non-potable well”.

The well at 3318 Orchard Lane will be included in the October 2016 monitoring event if sampling arrangements can be made with the property owners.

The updates are presented on Table 3 and on Figure 3, attached.

SUMMARY

The following is a summary of the impacted wells sampled during the March 2016 potable well monitoring event.

Analytical results indicate a single NR 140 ES standard exceedance for vinyl chloride at 3303 Hecker Road.

Analytical results from 12 potable well water samples indicate a single contaminant of concern (cis-1,2-dce) below regulatory (PAL) limits.

All other monitored wells (16 wells) had no VOC detects above laboratory MDLs.

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One potable well, 3318 Orchard Lane, was not sampled during the March 2016 event. This is a non-residential well used for a garden plot.

The next semi-annual potable well monitoring event is scheduled for October 2016. The sampling will be conducted in accordance with the updated 2015 to 2016 Semi-Annual Potable Well Monitoring Work Plan sampling schedule.

If you have any questions regarding these results, please contact Dave Henderson at 414.944.6190 or dave.henderson@aecom.com.

Yours sincerely,

AECOM Technical Services, Inc.

Andrew Pirrung
Project Scientist
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David Henderson
Senior Project Manager
dave.henderson@aecom.com

Cc: Kathleen M. McDaniel, City Attorney, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc

Attachments: Tables, Figures, Attachment A: Laboratory Reports

AECOM

Tables:

Table 1, Summary of Contaminates Detected in Potable Wells
Table 2, Summary of Contaminates Analyzed in Potable Wells
(Table 2 provided on CD copy of report)
Table 3, Potable Well Monitoring Work Plan Summary

Table 1
SUMMARY OF CONTAMINANTS DETECTED IN POTABLE WELLS

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3303 Hecker Rd.							
			10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/13/15	3/30/16
			Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	0.68 J	0.68 J	< 0.38	< 0.45	1.94	2.53
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	**0.44 J**	**0.51 J**
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3327 Hecker Rd.							
			10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/14/15	3/31/16
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**11**	**11.6**	6.4	6.9	5.6	4.3	4.2	3.2
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3461(3417) Hecker Rd.								
			10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15	10/13/15	3/30/16	3/30/16 (DUP)
			Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink
Volatile Organic Compounds (VOCs) (µg/L):											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	2.58	2.15	2.12	1.79	1.49	1.59	1.6	1.66	1.74
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)											
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3515 Hecker Rd.									
			Original Potable Well						Replacement Potable Well			
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	8/28/14	9/29/14	11/4/14	2/23/15	10/14/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**7.4**	**7.2**	**7.4**	NA	**10**	**7.8**	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**0.22 J**	**0.24 J**	**0.24 J**	NA	**0.47 J**	**0.28 J**	< 0.18	< 0.18	< 0.17	< 0.17
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	**0.0019**	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.15	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00034 J	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	0.000061 J	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3518 Hecker Rd.												
			Original Potable Well			Replacement Potable Well									
			10/23/13	11/7/13	11/7/13	3/11/14	3/11/14	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15	10/14/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Duplicate	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	**1.74**	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	0.42 J	< 4.1	< 4.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethene	7	0.7	**1.62**	< 4	< 4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**510**	**510**	**530**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	5.5	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**102**	**86**	**92**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17
RCRA Metals (mg/L)															
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3609 Hecker Rd.											
			Original Potable Well								Replacement Potable Well			
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	5/28/14(DUP)	7/11/14	8/25/16	8/25/14(DUP)	9/29/14	11/4/14	2/24/15	10/13/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**45**	**45**	**46**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	0.39 J	< 0.35	NA	0.42 J	0.37 J	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**1.0**	**1.09**	**1.02**	NA	**7.40**	**7.60**	**8.60**	**4.60**	**5.20**	< 0.18	< 0.18	< 0.17	< 0.17
RCRA Metals (mg/L)															
Arsenic	0.01	0.001	NA	NA	NA	0.00032 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00056 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	< 0.000049	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3702 Hecker Rd.							
			10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	10/14/15	10/14/2015 (DUP)	3/31/16
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.71 J	0.61 J	< 0.38	< 0.38	< 0.38	0.48 J	0.73 J	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	4159 Silver Creek Rd									
			12/12/13	1/6/14	6/4/14	6/4/14(DUP)	9/8/14	11/10/14	11/10/14 (DUP)	2/23/15	10/14/15	3/30/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.49 J	0.73 J	0.72 J	0.64 J	0.54 J	0.59 J	0.52 J	0.56 J	0.55 J	0.59 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	2717 CTH CR(4141 Viebahn St.)							
			Original Potable Well						City Water Provided December 2016	Non-Potable Well
			8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	10/13/15		3/31/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Garage Faucet
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44		< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48		< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65		< 0.65
cis-1,2-Dichloroethene	70	7	1.4	1.31	1.44	1.3	1.26 J	1.72		< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54		< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44		< 0.44
Vinyl Chloride	0.2	0.02	**0.21 J**	**0.29 J**	**0.31 J**	**0.39 J**	**0.35 J**	**0.47 J**		< 0.17
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA		NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA		NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA		NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA		NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	2734(2804) CTH CR							
			Original Potable Well							Well Abandoned, City Water Provided December 2016
			6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	10/14/15	
			Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank	
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	
cis-1,2-Dichloroethene	70	7	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	0.94 J	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.26 J**	**0.38 J**	**0.43 J**	**0.2 J**	**0.45 J**	
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	2916 CTH CR							
			Original Potable Well							Well Abandoned, City Water Provided December 2016
			2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	10/13/15
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	
cis-1,2-Dichloroethene	70	7	0.97 J	0.9 J	1.02 J	0.74 J	0.82 J	0.75 J	0.8 J	1.02 J	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	**0.18 J**	< 0.18	< 0.18	**0.28 J**	**0.37 J**	< 0.17	**0.18 J**	**0.26 J**	
RCRA Metals (mg/L)											
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			2917 CTH CR						3023 CTH CR						
			Original Potable Well						Original Potable Well			Replacement Potable Well			
			2/4/14	5/30/14	10/13/15	10/27/15	10/27/15 (DUP)		2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15	10/13/15
Analyte	**ES[1]**	**PAL[2]**	Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot	Well Abandoned, City Water Provided December 2016	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48		< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	1.6	1.41	1.67		2.84	2.87	2.34	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54		< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44		< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.43 J**	**0.37 J**	**0.37 J**		**0.55 J**	**0.41 J**	**0.33 J**	< 0.18	< 0.18	< 0.17	< 0.17
RCRA Metals (mg/L)															
Arsenic	0.01	0.001	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3120 CTH CR									
			Original Potable Well						Replacement Potable Well			
			1/3/14	2/4/14	5/28/14	5/28/14(DUP)	8/25/14	8/25/14(DUP)	10/8/14	11/4/14	2/23/15	10/13/15
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**0.60**	**0.43 J**	**0.35 J**	**0.26 J**	**0.27 J**	**0.24 J**	< 0.18	< 0.18	< 0.17	< 0.17
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3403 CTH CR							
			Original Potable Well				Replacement Potable Well			
			1/3/14	2/5/14	5/28/14	8/25/14	10/21/14	11/4/14	2/23/15	10/13/15
			Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.3	1.67	1.48	1.34	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**0.56 J**	**0.25 J**	**0.22 J**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3504 CTH CR													
			12/5/13	1/6/14	1/6/2014 (DUP)	2/5/14	5/30/14	5/30/14(DUP)	8/25/14	8/25/14(DUP)	11/18/14	11/18/2014 (DUP)	2/23/15	10/14/15	3/31/16	3/31/2016 (DUP)
			Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.28	1.43	1.34	1.42	1.22	1.13 J	0.99 J	1.02 J	1.41	1.26	1.19 J	1.27 J	0.76 J	0.91 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.23 J**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	**0.18 J**	**0.17 J**	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3618 CTH CR						
			1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	10/14/15	3/30/16
			Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.24	1.16 J	0.48 J	0.83 J	0.95 J	0.89 J	1.06 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)									
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	4002 Thunder Ridge Rd.						
			1/3/14	8/25/14	10/13/15	10/13/2015 (DUP)	10/27/15	3/31/16	3/31/16 (DUP)
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.67	1.29	1.3 J	1.14 J	1.26 J	0.68 J	1.03 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	**0.2 J**	**0.18 J**	< 0.17	< 0.17
RCRA Metals (mg/L)									
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4005 Thunder Ridge Rd.						4010 Thunder Ridge Rd.				
			5/29/14	8/26/14	11/11/14	2/23/15	10/14/15	3/30/16	5/28/14	8/26/14	2/24/15	10/20/15	3/31/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.83 J	0.9 J	< 0.38	0.81 J	0.91 J	0.97 J	1.37	1.18 J	1.43	1.27 J	1.47 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)													
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	4027 Thunder Ridge Rd.						
			5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	10/13/15	3/31/16
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.59 J	0.52 J	0.6 J	0.53 J	0.48 J	0.67 J	0.71 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)									
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4101 Thunder Ridge Rd.					4111 Thunder Ridge Rd.				
			8/26/14	11/17/14	3/11/15	10/14/15	3/30/16	8/25/14	11/17/14	2/23/15	10/13/15	3/30/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.73 J	0.63 J	0.76 J	0.87 J	0.71 J	0.41 J	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3617(3621) Viebahn St.					
			11/7/14	11/19/14	2/24/15	2/2415 (DUP)	10/13/15	3/30/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):								
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.13 J	1.12 J	0.92 J	0.87 J	1.3 J	1.12 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**0.48 J**	**0.4 J**	< 0.17	**0.18 J**	**0.23 J**	< 0.17
RCRA Metals (mg/L)								
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3701 Viebahn St.							
			Original Potable Well							Well Abandoned, City Water Provided December 2016
			10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)	10/14/15	10/14/2015 (DUP)	
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	
cis-1,2-Dichloroethene	70	7	1.23	1.18 J	1.29	1.31 J	1.09 J	1.55	1.48	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	**0.29 J**	**0.32 J**	**0.49 J**	**0.31 J**	**0.33 J**	**0.34 J**	**0.37 J**	
RCRA Metals (mg/L)										
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3815 Viebahn St.						3817 Viebahn St.				
			Original Potable Well					Well Abandoned, City Water Provided December 2016					
			11/7/14	11/19/14	2/23/15	10/13/15	10/13/15 (DUP)		10/29/14	11/7/14	2/24/15	10/20/15	3/31/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44		< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48		< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.74 J	0.94 J	0.90 J	1 J	1.12 J		0.4 J	< 0.38	< 0.45	0.49 J	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54		< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44		< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**0.33 J**	**0.31 J**	**0.25 J**	**0.2 J**	**0.32 J**		< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)													
Arsenic	0.01	0.001	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	4025 Viebahn St.					4101 Viebahn St.				
			Original Potable Well				Well Abandoned, City Water Provided December 2016	Original Potable Well				Well Abandoned, City Water Provided December 2016
			10/29/14	11/7/14	2/24/15	10/13/15		10/29/14	11/7/15	2/24/15	10/14/15	
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44		< 0.24	< 0.24	< 0.44	< 0.44	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48		< 0.41	< 0.41	< 0.54	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.65	< 0.65	
cis-1,2-Dichloroethene	70	7	1.38	1.46	1.11 J	1.85		1.48	1.13 J	1.24 J	1.59 J	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54		< 0.35	< 0.35	< 0.54	< 0.54	
Toluene	800	160	0.95 J	< 0.69	< 0.44	< 0.44		< 0.69	< 0.69	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	**0.34 J**	**0.31 J**	**0.32 J**	**0.44 J**		**0.38 J**	**0.39 J**	**0.43 J**	**0.54**	
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA		NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA		NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA		NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA		NA	NA	NA	NA	

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3027 Orchard Ln.						
			2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	10/14/15	3/31/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.59 J	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)									
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA

TABLE 1

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3921 Black Hawk Ct.						
			2/4/14	6/2/14	8/26/14	11/10/14	2/24/15	10/14/15	3/31/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J	1.04 J	0.71 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)									
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA

SUMMARY OF CONTAMINATES DETECTED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

NOTES:

(1) Enforcement Standard from NR140, January 2012.

(2) Preventive Action Limit from NR140, January 2012.

NL - ES or PAL not listed in NR140.

NA - Not analyzed.
ND - Not detected.
NM - Not measured.
NS - Not sampled.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
Q - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
& - LCS recovery was outside of control limits.
H - Holding time exceeded by (n) days
D - The result is from a dilution analysis.
A - Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
ED - Elevated detection limit due to matric effects.
MS - Either the matrix spike or matrix spike duplicate was outside of the acceptable control limits. All other supporting QC was within the acceptable control limits.
E - Analyte concentraion exceeds calibration range (see Sample Narrative).
* - Duplicate analyses not within control limits.
B(x) - Analyte is detected in the method blank at "x" concentration. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be basedon project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
N - Spiked sample revocery not within control limits; post-digestion spike recovery accepted.
B - Analyte found in method blank.
OC - Elevated reporting limit due to analyte concentration.

Bold indicates a PAL exceedance.
Bold and underlining indicates an ES exceedance.

Table 2
SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
(Table 2 provided on CD copy of report)

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3114 Hecker Rd.			3121 Hecker Rd.				3303 Hecker Rd.							
			10/22/13	11/8/13	5/28/14	10/22/13	11/7/13	5/28/14	10/14/15	10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/13/15	3/30/16
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):																	
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	**1.36 J**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	0.68 J	0.68 J	< 0.38	< 0.45	1.94	2.53
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	**0.44 J**	**0.51 J**
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3114 Hecker Rd.			3121 Hecker Rd.				3303 Hecker Rd.							
			10/22/13	11/8/13	5/28/14	10/22/13	11/7/13	5/28/14	10/14/15	10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/13/15	3/30/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
RCRA Metals (mg/L)																	
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																	
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																	
pH (IU)	--	--	7.84	8.22	7.85	6.01	7.55	7.55	7.37	8.13	7.32	7.32	7.32	7.85	8.04	7.43	NM
Conductivity (uS)	--	--	617	443	502	877	635	689	785	585	538	538	538	587	618	531	NM
Temperature (°C)	--	--	10.54	10.09	10.5	9.72	10.25	10.4	11.73	9.69	10.31	10.31	10.31	8.83	7.31	11.19	NM
Dissolved Oxygen (ppm)	--	--	4.11	150.31	1.3	4.22	8.42	2.2	2.34	4.22	2.41	2.41	2.41	6.84	7.1	6.69	NM
Redox Potential (mV)	--	--	20.2	90.5	70	90.1	95.7	38	-65.8	62	76.4	76.4	76.4	9.2	-131.9	-58.2	NM

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3320 Hecker Rd.				3327 Hecker Rd.								3461(3417) Hecker Rd.								
			10/22/13	11/7/13	5/28/14	3/30/16	10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/14/15	3/31/16	10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15	10/13/15	3/30/16	3/30/16 (DUP)
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink
Volatile Organic Compounds (VOCs) (µg/L):																							
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.45	**11**	**11.6**	6.4	6.9	5.6	4.3	4.2	3.2	2.58	2.15	2.12	1.79	1.49	1.59	1.6	1.66	1.74
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3320 Hecker Rd.				3327 Hecker Rd.								3461(3417) Hecker Rd.								
			10/22/13	11/7/13	5/28/14	3/30/16	10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/14/15	3/31/16	10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15	10/13/15	3/30/16	3/30/16 (DUP)
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink
RCRA Metals (mg/L)																							
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																							
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																							
pH (IU)	--	--	7.66	7.99	7.78	NM	8.38	7.82	7.81	7.72	8.04	8.13	7.38	NM	7.55	7.27	7.45	7.89	7.81	7.83	7.94	NM	NM
Conductivity (uS)	--	--	598	455	477	NM	620	478	528	603	596	614	590	NM	723	554	562	721	733	771	748	NM	NM
Temperature (°C)	--	--	10.41	9.78	11	NM	10.96	8.62	10.2	12.6	10.35	6.16	11.34	NM	10.5	9.43	11.9	14.1	10.72	7.91	8.25	NM	NM
Dissolved Oxygen (ppm)	--	--	4.03	6.51	0.89	NM	3.22	6.69	1.11	1.89	1.23	4.15	4.78	NM	4.73	17.93	1.53	0.95	2.47	4.12	3.49	NM	NM
Redox Potential (mV)	--	--	56	86.7	50	NM	53.7	93.9	71	146	-14.5	-144.2	16.5	NM	69	91.7	146	237	-112.9	-164.9	-91.6	NM	NM

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3515 Hecker Rd.									
			Original Potable Well						Replacement Potable Well			
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	8/28/14	9/29/14	11/4/14	2/23/15	10/14/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	NA	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	3	0.3	**1.02 J**	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	NA	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	NA	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**7.4**	**7.2**	**7.4**	NA	**10**	**7.8**	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	NA	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	NA	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	**0.22 J**	**0.24 J**	**0.24 J**	NA	**0.47 J**	**0.28 J**	< 0.18	< 0.18	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3515 Hecker Rd.									
			Original Potable Well						Replacement Potable Well			
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	8/28/14	9/29/14	11/4/14	2/23/15	10/14/15
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~												
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	**0.0019**	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.15	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	< 0.00016	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	< 0.00054	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00034 J	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	0.000061 J	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	< 0.00038	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	< 0.00031	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):												
Aroclor-1016	--	--	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	< 0.021	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	< 0.014	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	< 0.018	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	< 0.015	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA
Field Screening Measurements												
pH (IU)	--	--	8.02	7.77	7.44	NM	7.75	7.97	NM	NM	7.81	7.16
Conductivity (uS)	--	--	775	634	616	NM	694	783	NM	NM	2219	2127
Temperature (^{o}C)	--	--	9.56	10.1	10.48	NM	10.6	11.7	NM	NM	7.19	11.73
Dissolved Oxygen (ppm)	--	--	3.81	5.75	5.46	NM	2.13	1.73	NM	NM	5.19	1.85
Redox Potential (mV)	--	--	20.1	74.8	91.8	NM	92	231	NM	NM	-154.6	-51

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3518 Hecker Rd.												
			Original Potable Well			Replacement Potable Well									
			10/23/13	11/7/13	11/7/13	3/11/14	3/11/14	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15	10/14/15
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Duplicate	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	**1.74**	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 3.2	< 3.2	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 3.7	< 3.7	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 6.3	< 6.3	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	0.45 J	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 8.1	< 8.1	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 2.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 2.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 8.8	< 8.8	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 2.2	< 2.2	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	0.42 J	< 4.1	< 4.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	**1.62**	< 4	< 4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**510**	**510**	**530**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	5.5	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 3.2	< 3.2	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 5.5	< 5.5	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 15	< 15	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 3.1	< 3.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 2.5	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49
Toluene	800	160	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 9.8	< 9.8	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 3.4	< 3.4	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 7.1	< 7.1	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 22	< 22	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 14	< 14	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 22	< 22	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	**102**	**86**	**92**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 6.3	< 6.3	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3518 Hecker Rd.											
			Original Potable Well			Replacement Potable Well								
			10/23/13	11/7/13	11/7/13	3/11/14	3/11/14	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15	10/14/15
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Duplicate	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~															
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):															
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH (IU)	--	--	6.16	7.48	7.4	NM	NM	NM	NM	7.37	7.37	7.9	7.74	8.00	7.23
Conductivity (uS)	--	--	744	554	554	NM	NM	NM	NM	1571	1571	2080	1942	1948	2078
Temperature (°C)	--	--	9.89	9.36	10.58	NM	NM	NM	NM	11.2	11.2	12.5	10.11	7.33	13.37
Dissolved Oxygen (ppm)	--	--	3.21	3.32	3.85	NM	NM	NM	NM	3.87	3.87	1.22	1.93	4.83	1.37
Redox Potential (mV)	--	--	74.1	92	93.1	NM	NM	NM	NM	-190	-190	178	-109.4	-123.8	-90

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3609 Hecker Rd.												3625 Hecker Rd.		
			Original Potable Well								Replacement Potable Well						
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	5/28/14(DUP)	7/11/14	8/25/16	8/25/14(DUP)	9/29/14	11/4/14	2/24/15	10/13/15	10/22/13	11/7/13	11/7/13
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																		
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	NA	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	**0.82 J**	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	NA	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	NA	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	**45**	**45**	**46**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	0.39 J	< 0.35	NA	0.42 J	0.37 J	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	**0.82 J**	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	NA	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	NA	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	**1.0**	**1.09**	**1.02**	NA	**7.40**	**7.60**	**8.60**	**4.60**	**5.20**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 0.69	< 0.69	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3609 Hecker Rd.												3625 Hecker Rd.		
			Original Potable Well								Replacement Potable Well						
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	5/28/14(DUP)	7/11/14	8/25/16	8/25/14(DUP)	9/29/14	11/4/14	2/24/15	10/13/15	10/22/13	11/7/13	11/7/13
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																		
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	0.00032 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	< 0.00016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	< 0.00054	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00056 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	< 0.000049	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	< 0.00038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	< 0.00031	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																		
Aroclor-1016	--	--	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	< 0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	< 0.014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	< 0.018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	< 0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																		
pH (IU)	--	--	7.56	7.28	7.42	NM	7.5	7.5	7.91	7.7	7.7	NM	7.77	7.72	7.17	7.38	7.77	7.75
Conductivity (uS)	--	--	754	558	614	NM	634	634	983	675	675	NM	2248	2203	2290	782	552	651
Temperature (^{o}C)	--	--	10.53	9.99	12.84	NM	11.1	11.1	15.2	12.4	12.4	NM	10.69	7.01	7.17	11.04	10.92	15.5
Dissolved Oxygen (ppm)	--	--	4.02	3.9	4.14	NM	1.43	1.43	2.11	2.79	2.79	NM	3.42	7.78	1.92	4.54	5.31	1.71
Redox Potential (mV)	--	--	73	95.4	91.6	NM	60	60	131	199	199	NM	-141.9	-118.4	-75	68.4	85.9	119

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3627 Hecker Rd.			3702 Hecker Rd.								3720 Hecker Rd.				3812 Silver Creek Rd		3902 Silver Creek Rd
			10/23/13	11/7/13	5/29/14	10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	10/14/15	10/14/15 (DUP)	3/31/16	10/22/13	11/12/13	6/2/14	3/31/16	5/28/14	1/14/16	11/18/14
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.44	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.48	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.46	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.46	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 1.1	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 1.2	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 1	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.51	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.46	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.65	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.43	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	**1.48 J**	< 0.81	< 0.81	< 1.9	< 0.81	< 1.9	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.4	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.63	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 1.4	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.45	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.49	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.52	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.46	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.87	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.48	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 1.1	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.65	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	0.71 J	0.61 J	< 0.38	< 0.38	< 0.38	0.48 J	0.73 J	< 0.45	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.45	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.54	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.43	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 3.1	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.44	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.63	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.71	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 2.2	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.82	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 1.1	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 1.3	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 1.1	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.6	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.77	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.52	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.48	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.49	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.44	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 1.7	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 2.7	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.84	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.48	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.47	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.87	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.17	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.9	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3627 Hecker Rd.			3702 Hecker Rd.								3720 Hecker Rd.				3812 Silver Creek Rd		3902 Silver Creek Rd
			10/23/13	11/7/13	5/29/14	10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	10/14/15	10/14/15 (DUP)	3/31/16	10/22/13	11/12/13	6/2/14	3/31/16	5/28/14	1/14/16	11/18/14
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
RCRA Metals (mg/L)																				
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																				
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																				
pH (IU)	--	--	7.98	7.75	7.18	7.83	8.28	7.62	7.87	7.87	7.59	7.59	NM	8.03	7.86	7.43	NM	7.97	NM	8.26
Conductivity (uS)	--	--	707	531	576	757	522	552	657	657	635	635	NM	775	529	622	NM	520	NM	654
Temperature (^{o}C)	--	--	10.13	9.63	11.5	9.82	10.58	14	14.1	14.1	12.51	12.51	NM	9.56	10.58	12.1	NM	10.4	NM	10
Dissolved Oxygen (ppm)	--	--	4.53	4.69	2.53	4.73	8.16	4.6	3.77	3.77	6.25	6.25	NM	3.81	7.26	1.22	NM	1.98	NM	7.75
Redox Potential (mV)	--	--	45.1	91.3	137	52.9	100.4	158	245	245	-91.9	-91.9	NM	20.1	87.4	155	NM	112.0	NM	-38.0

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4004 Silver Creek Rd		4156 Silver Creek Rd		4159 Silver Creek Rd										4220 Silver Creek Rd	4314 Silver Creek Rd	
			11/18/14	10/13/15	5/28/14	3/30/16	12/12/13	1/6/14	6/4/14	6/4/14(DUP)	9/8/14	11/10/14	11/10/14 (DUP)	2/23/15	10/14/15	3/30/16	5/30/14	12/5/13	6/4/14
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Outside Spigot	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Pump Spigot	Pump Spigot
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.44	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.48	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.46	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.46	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 1.1	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 1.2	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 1	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.51	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.46	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.65	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.43	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 1.9	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.4	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.63	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 1.4	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.45	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.49	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.52	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.46	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.87	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.48	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 1.1	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.65	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.45	< 0.38	< 0.45	0.49 J	0.73 J	0.72 J	0.64 J	0.54 J	0.59 J	0.52 J	0.56 J	0.55 J	0.59 J	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.54	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.43	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 3.1	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.44	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.63	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.71	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 2.2	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.82	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 1.1	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 1.3	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 1.1	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.6	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.77	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.52	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.48	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.49	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.44	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 1.7	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 2.7	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.84	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.48	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.47	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.87	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.17	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.9	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4004 Silver Creek Rd		4156 Silver Creek Rd		4159 Silver Creek Rd										4220 Silver Creek Rd	4314 Silver Creek Rd	
			11/18/14	10/13/15	5/28/14	3/30/16	12/12/13	1/6/14	6/4/14	6/4/14(DUP)	9/8/14	11/10/14	11/10/14 (DUP)	2/23/15	10/14/15	3/30/16	5/30/14	12/5/13	6/4/14
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Outside Spigot	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Pump Spigot	Pump Spigot
~~RCRA Metals (mg/L)~~																			
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																			
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																			
pH (IU)	--	--	7.96	7.49	7.91	NM	8.75	7.99	7.53	7.53	7.53	7.93	7.93	7.94	7.51	NM	7.11	8.05	7.48
Conductivity (uS)	--	--	826	917	683	NM	979	593	562	562	562	562	562	654	646	NM	835	956	958
Temperature (°C)	--	--	9.68	10.88	12.2	NM	9.8	9.72	12.4	12.4	12.4	11.23	11.23	8.29	12.91	NM	11.4	8.64	11.7
Dissolved Oxygen (ppm)	--	--	2.8	3.87	3.76	NM	2.59	5.87	2.3	2.3	2.3	4.12	4.12	3.56	3.18	NM	4.54	7.32	2.97
Redox Potential (mV)	--	--	65.8	-48.6	117.0	NM	101.0	135.2	146	146	146	-63.9	-63.9	-138.9	-117.7	NM	145.0	87.0	168.0

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4315 Silver Creek Rd		4609 Silver Creek Rd		4620 Silver Creek Rd.				4752 Silver Creek Rd		4808 Silver Creek Rd		5202 Silver Creek Rd.		2706 CTH CR
			12/12/13	6/2/14	12/3/13	6/3/14	11/8/13	11/12/13	5/28/14	5/28/14	12/5/13	6/2/14	12/5/13	5/30/14	1/9/08	12/5/13	8/26/14
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	House-Outside	Barn-Inside	House-Outside	Barn-Inside	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Hose Bib	Inside Barn	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																	
Benzene	5	0.5	< 0.24	< 0.24	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.36	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	< NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.5	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.38	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.34	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.36	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.52	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.46	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.31	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.47	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.15	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.49	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.38	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.20	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.15	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.32	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.33	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.3	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.35	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.20	< 0.44	< 0.44	< 0.44	< 0.44	0.45 J	< 0.44	< 0.44	< 0.44	< 0.44	< 0.46	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.15	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.45	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.56	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.15	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.64	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.15	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.7	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.95	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.47	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.98	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.39	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.3	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.15	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.49	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.38	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 0.15	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.48	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.15	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.35	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.69	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.15	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.52	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 0.15	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.8	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.15	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.38	< 0.25	< 0.25
Styrene	100	10	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.20	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.75	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.52	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.46	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.15	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.5	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 0.15	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.6	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.15	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.5	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.44	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.15	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.61	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 0.15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.37	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.20	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.2	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4315 Silver Creek Rd		4609 Silver Creek Rd		4620 Silver Creek Rd.				4752 Silver Creek Rd		4808 Silver Creek Rd		5202 Silver Creek Rd.		2706 CTH CR
			12/12/13	6/2/14	12/3/13	6/3/14	11/8/13	11/12/13	5/28/14	5/28/14	12/5/13	6/2/14	12/5/13	5/30/14	1/9/08	12/5/13	8/26/14
Analyte	ES[1]	PAL[2]	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	House-Outside	Barn-Inside	House-Outside	Barn-Inside	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Hose Bib	Inside Barn	Outside Spigot
~~RCRA Metals (mg/L)~~																	
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																	
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																	
pH (IU)	--	--	8.32	7.38	NM	7.25	7.84	7.53	7.84	7.68	7.39	7.64	6.54	7.69	NM	8.72	7.59
Conductivity (uS)	--	--	789	545	NM	526	534	493	614	576	535	530	588	538	NM	609	540
Temperature (^{o}C)	--	--	6.8	12.3	NM	12.4	10.58	8.23	10.2	8.2	12.19	12.1	8.93	11.4	NM	7.50	14.20
Dissolved Oxygen (ppm)	--	--	4.01	1.91	NM	2.61	10.33	3.49	0.99	4.3	5.22	1.21	7.21	1.58	NM	5.32	1.76
Redox Potential (mV)	--	--	105	111	NM	165	86.7	114.5	89	88	69.9	138	83.4	137	NM	81.1	227

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			2716 CTH CR			2717 CTH CR(4141 Viebahn St.)						Non-Potable Well	2734(2804) CTH CR						
						Original Potable Well							Original Potable Well						
			9/8/14	11/18/14	10/13/15	8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	10/13/15	3/31/16	6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	10/14/15
Analyte	ES[1]	PAL[2]	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Garage Faucet	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	24.3	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	1.4	1.31	1.44	1.3	1.26 J	1.72	< 0.45	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	0.94 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	**0.21 J**	**0.29 J**	**0.31 J**	**0.39 J**	**0.35 J**	**0.47 J**	< 0.17	< 0.18	< 0.18	**0.26 J**	**0.38 J**	**0.43 J**	**0.2 J**	**0.45 J**
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2

City Water Provided December 2015

Well Abandoned, City Water Provided December 2015

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			2716 CTH CR			2717 CTH CR(4141 Viebahn St.)							Non-Potable Well	2734(2804) CTH CR							
						Original Potable Well								Original Potable Well							
			9/8/14	11/18/14	10/13/15	8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	10/13/15		3/31/16	6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	10/14/15	
Analyte	ES[1]	PAL[2]	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Garage Faucet	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank	
~~RCRA Metals (mg/L)~~																					
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	City Water Provided December 2015	NA	NA	NA	NA	NA	NA	NA	NA	Well Abandoned, City Water Provided December 2015
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Poychlorinated Biphenyls (PCBs) (µg/L):																					
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Field Screening Measurements																					
pH (IU)	--	--	7.59	8.61	7.87	8.03	7.87	7.87	7.95	8.15	7.73		NM	7.32	8.01	7.87	NM	NM	7.96	7.53	
Conductivity (uS)	--	--	658	374	409	640	721	721	625	662	621		NM	485	606	661	NM	NM	597	594	
Temperature (°C)	--	--	12.83	8.45	11.90	8.03	9.15	9.15	12.28	6.49	13.10		NM	12.20	15.50	10.42	NM	NM	6.11	13.10	
Dissolved Oxygen (ppm)	--	--	2.11	7.32	5.22	2.28	1.73	1.73	3.39	4.63	1.45		NM	0.97	0.96	1.79	NM	NM	6.15	1.01	
Redox Potential (mV)	--	--	131	20.6	-91	239	221	221	-65	-162.7	-113.4		NM	161	237	-99.4	NM	NM	-133.9	-121.2	

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			2832/2904 CTH CR			2911 CTH CR	2916 CTH CR								2917 CTH CR					
							Original Potable Well								Original Potable Well					
			2/4/14	6/3/14	3/30/16	5/29/14	2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	10/13/15	2/4/14	5/30/14	10/13/15	10/27/15	10/27/15 (DUP)	
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot	
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 1	
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	< 0.38	0.97 J	0.9 J	1.02 J	0.74 J	0.82 J	0.75 J	0.8 J	1.02 J	< 0.38	< 0.38	1.6	1.41	1.67	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	**0.18 J**	< 0.18	< 0.18	**0.28 J**	**0.37 J**	< 0.17	**0.18 J**	**0.26 J**	< 0.18	< 0.18	**0.43 J**	**0.37 J**	**0.37 J**	
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	
Total Xylenes	2,000	400	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	

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TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			2832/2904 CTH CR			2911 CTH CR	2916 CTH CR								2917 CTH CR					
							Original Potable Well								Original Potable Well					
			2/4/14	6/3/14	3/30/16	5/29/14	2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	10/13/15	2/4/14	5/30/14	10/13/15	10/27/15	10/27/15 (DUP)	
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot	
RCRA Metals (mg/L)																				
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Poychlorinated Biphenyls (PCBs) (µg/L):																				
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Field Screening Measurements																				
pH (IU)	--	--	7.32	7.6	NM	7.19	7.35	12.6	7.53	7.91	NM	NM	NM	7.58	7.32	7.82	7.39	NM	NM	
Conductivity (uS)	--	--	411	588	NM	727	396	1329	NM	601	NM	NM	NM	614	962	1709	1134	NM	NM	
Temperature (°C)	--	--	6.61	14.50	NM	11.70	9.60	12.60	11.50	10.50	NM	NM	NM	11.98	9.01	11.90	12.32	NM	NM	
Dissolved Oxygen (ppm)	--	--	NM	2.35	NM	2.98	5.32	1.5	1.73	1.64	NM	NM	NM	4.4	NM	1.22	1.49	NM	NM	
Redox Potential (mV)	--	--	95.2	167	NM	115	110	121	138	-85.3	NM	NM	NM	-104.5	113.2	134	-135.9	NM	NM	

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TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3023 CTH CR							3120 CTH CR									
			Original Potable Well			Replacement Potable Well				Original Potable Well						Replacement Potable Well			
			2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15	10/13/15	1/3/14	2/4/14	5/28/14	5/28/14(DUP)	8/25/14	8/25/14(DUP)	10/8/14	11/4/14	2/23/15	10/13/15
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	2.84	2.87	2.34	< 0.38	< 0.38	< 0.45	< 0.45	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	**0.55 J**	**0.41 J**	**0.33 J**	< 0.18	< 0.18	< 0.17	< 0.17	**0.60**	**0.43 J**	**0.35 J**	**0.26 J**	**0.27 J**	**0.24 J**	< 0.18	< 0.18	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3023 CTH CR							3120 CTH CR									
			Original Potable Well			Replacement Potable Well				Original Potable Well						Replacement Potable Well			
			2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15	10/13/15	1/3/14	2/4/14	5/28/14	5/28/14(DUP)	8/25/14	8/25/14(DUP)	10/8/14	11/4/14	2/23/15	10/13/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
RCRA Metals (mg/L)																			
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																			
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																			
pH (IU)	--	--	7.32	7.42	7.75	NM	7.7	7.64	7.21	7.51	7.38	7.8	7.8	7.91	7.91	NM	7.61	7.79	7.19
Conductivity (uS)	--	--	404	562	619	NM	2352	2286	2337	566	570	616	616	649	649	NM	2177	2051	2119
Temperature (°C)	--	--	9.16	11.10	12.80	NM	10.30	8.17	13.01	8.27	8.04	11.20	11.20	7.91	7.91	NM	10.30	7.94	12.73
Dissolved Oxygen (ppm)	--	--	NM	1.5	0.87	NM	2.21	3.74	2.63	5.32	5.32	4.79	4.79	1.24	1.24	NM	3.21	4.58	2.5
Redox Potential (mV)	--	--	113.2	152	222	NM	-126.3	-112	-68.2	158.1	157.3	111	111	247	247	NM	-135.6	-112.7	-77.4

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3224 CTH CR					3312 CTH CR				3322 CTH CR				
			2/4/14	6/4/14	8/25/14	11/17/14	3/31/16	2/26/14	6/2/14	8/26/14	11/10/14	1/6/14	6/4/14	8/25/14	11/10/14	10/13/15
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Bath Tub	Bath Tub	Outside Spigot	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3224 CTH CR					3312 CTH CR				3322 CTH CR				
			2/4/14	6/4/14	8/25/14	11/17/14	3/31/16	2/26/14	6/2/14	8/26/14	11/10/14	1/6/14	6/4/14	8/25/14	11/10/14	10/13/15
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Bath Tub	Bath Tub	Outside Spigot	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
~~RCRA Metals (mg/L)~~																
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																
pH (IU)	--	--	NM	7.66	8.17	7.98	NM	NM	7.93	7.75	7.98	7.82	7.9	8.06	8.06	7.72
Conductivity (uS)	--	--	383	513	653	598	NM	NM	416	765	2750	417	380	475	475	520
Temperature (°C)	--	--	9.24	11.50	13.10	8.69	NM	NM	11.8	11.7	10.63	9.08	12.10	14.40	14.40	11.50
Dissolved Oxygen (ppm)	--	--	NM	2.87	1.91	2.61	NM	NM	2.48	0.57	3.11	5.32	1.3	0.57	0.57	2.02
Redox Potential (mV)	--	--	111.3	170	235	-55.8	NM	NM	87	225	40.3	174.8	151	242	242	-114.7

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3403 CTH CR								3412 CTH CR				3422 CTH CR			
			Original Potable Well				Replacement Potable Well											
			1/3/14	2/5/14	5/28/14	8/25/14	10/21/14	11/4/14	2/23/15	10/13/15	1/3/14	8/26/14	11/10/14	3/31/16	1/6/14	5/30/14	8/25/14	11/18/14
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																		
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	1.3	1.67	1.48	1.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	1.56 J	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	0.56 J	0.25 J	0.22 J	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3403 CTH CR								3412 CTH CR				3422 CTH CR			
			Original Potable Well				Replacement Potable Well											
			1/3/14	2/5/14	5/28/14	8/25/14	10/21/14	11/4/14	2/23/15	10/13/15	1/3/14	8/26/14	11/10/14	3/31/16	1/6/14	5/30/14	8/25/14	11/18/14
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
RCRA Metals (mg/L)																		
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																		
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																		
pH (IU)	--	--	7.51	7.18	7.64	7.74	NM	7.69	7.66	7.15	7.02	7.98	7.95	NM	7.13	7.62	8.07	8
Conductivity (uS)	--	--	935	682	1060	1094	NM	2528	2436	2361	909	521	512	NM	627	605	633	653
Temperature (°C)	--	--	7.63	8.12	10.50	12.90	NM	11.76	6.99	16.42	8.99	13.60	10.65	NM	8.81	12.30	14.20	10.56
Dissolved Oxygen (ppm)	--	--	6.51	5.01	1.19	3.23	NM	1.49	5.2	1.52	5.52	1.25	2.82	NM	5.32	4.07	2.53	7.38
Redox Potential (mV)	--	--	166.6	32.2	84	236	NM	-219.9	-129.3	-41.4	155.0	238.0	-51.5	NM	142.0	1.3	246.0	-84.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3504 CTH CR														3523 CTH CR		
			12/5/13	1/6/14	1/6/2014 (DUP)	2/5/14	5/30/14	5/30/14(DUP)	8/25/14	8/25/14(DUP)	11/18/14	11/18/2014 (DUP)	2/23/15	10/14/15	3/31/16	3/31/2016 (DUP)	1/3/14	6/3/14	10/14/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.33	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.41	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.28	1.43	1.34	1.42	1.22	1.13 J	0.99 J	1.02 J	1.41	1.26	1.19 J	1.27 J	0.76 J	0.91 J	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.33	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.23 J**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	**0.18 J**	**0.17 J**	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2

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FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3504 CTH CR														3523 CTH CR		
			12/5/13	1/6/14	1/6/2014 (DUP)	2/5/14	5/30/14	5/30/14(DUP)	8/25/14	8/25/14(DUP)	11/18/14	11/18/2014 (DUP)	2/23/15	10/14/15	3/31/16	3/31/2016 (DUP)	1/3/14	6/3/14	10/14/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
RCRA Metals (mg/L)																			
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																			
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																			
pH (IU)	--	--	8.15	7.53	7.53	7.13	7.39	7.39	7.75	7.75	8.05	8.05	7.92	7.5	NM	NM	7.93	7.93	7.5
Conductivity (uS)	--	--	633	636	636	503	586	586	699	699	687	687	715	709	NM	NM	506	506	567
Temperature (°C)	--	--	12.49	9.07	9.07	11.49	12.1	12.1	13.8	13.8	9.79	9.79	8.25	12.19	NM	NM	11.71	11.71	11.29
Dissolved Oxygen (ppm)	--	--	4.58	7.70	7.70	5.06	2.30	2.30	2.42	2.42	5.33	5.33	4.71	4.46	NM	NM	2.96	2.96	4.69
Redox Potential (mV)	--	--	75.3	124.4	124.4	38.2	144.0	144.0	242.0	242.0	-100.7	-100.7	-122.8	-109.5	NM	NM	187.0	187.0	-101.9

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3533 CTH CR			3611 CTH CR	3618 CTH CR							3626 CTH CR			3627 CTH CR			3904 CTH CR	
			1/6/14	6/3/14	3/30/16	5/30/14	1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	10/14/15	3/30/16	12/5/13	5/30/14	10/14/15	12/5/13	5/29/14	3/30/16	12/5/13	5/28/14
Analyte	**ES[1]**	**PAL[2]**	Basement	Basement	Basement	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Bathroom	Bathroom	Bathroom	Basement	Basement	Basement	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																					
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63
Chloroform	6	0.6	0.28 J	0.28 J	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	< 0.38	1.24	1.16 J	0.48 J	0.83 J	0.95 J	0.89 J	1.06 J	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3533 CTH CR			3611 CTH CR	3618 CTH CR							3626 CTH CR			3627 CTH CR			3904 CTH CR	
			1/6/14	6/3/14	3/30/16	5/30/14	1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	10/14/15	3/30/16	12/5/13	5/30/14	10/14/15	12/5/13	5/29/14	3/30/16	12/5/13	5/28/14
Analyte	**ES[1]**	**PAL[2]**	Basement	Basement	Basement	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Bathroom	Bathroom	Bathroom	Basement	Basement	Basement	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~																					
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																					
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																					
pH (IU)	--	--	7.49	6.84	NM	6.98	7.02	7.8	7.87	7.95	7.95	7.79	NM	8.42	7.58	7.86	8.49	7.5	NM	8.05	7.88
Conductivity (uS)	--	--	739	885	NM	931	543	520	658	674	674	649	NM	519	500	578	655	861	NM	828	905
Temperature (^{o}C)	--	--	9.92	12.50	NM	10.30	9.02	7.80	18.30	11.33	11.33	16.22	NM	8.69	11.98	11.99	12.16	15.1	NM	8.43	11.5
Dissolved Oxygen (ppm)	--	--	5.91	1.85	NM	3.95	5.32	2.24	0.8	1.44	1.44	1.49	NM	5.73	1.83	2.52	4.92	1.46	NM	5.32	3.84
Redox Potential (mV)	--	--	157.2	138	NM	166	147.6	136	238	-102.5	-102.5	-14.7	NM	90.0	143.0	-110.8	91.3	152	NM	96.9	138

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4024 CTH CR		4101 CTH CR		4002 Thunder Ridge Rd.							4005 Thunder Ridge Rd.					
			12/12/13	5/28/14	5/29/14	10/14/15	1/3/14	8/25/14	10/13/15	10/13/2015 (DUP)	10/27/15	3/31/16	3/31/16 (DUP)	5/29/14	8/26/14	11/11/14	2/23/15	10/14/15	3/30/16
Analyte	ES[1]	PAL[2]	Spigot in Barn	Spigot in Barn	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.45	1.67	1.29	1.3 J	1.14 J	1.26 J	0.68 J	1.03 J	0.83 J	0.9 J	< 0.38	0.81 J	0.91 J	0.97 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	**0.2 J**	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4024 CTH CR		4101 CTH CR		4002 Thunder Ridge Rd.							4005 Thunder Ridge Rd.					
			12/12/13	5/28/14	5/29/14	10/14/15	1/3/14	8/25/14	10/13/15	10/13/2015 (DUP)	10/27/15	3/31/16	3/31/16 (DUP)	5/29/14	8/26/14	11/11/14	2/23/15	10/14/15	3/30/16
Analyte	**ES[1]**	**PAL[2]**	Spigot in Barn	Spigot in Barn	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																			
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																			
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																			
pH (IU)	--	--	8.32	7.65	7.42	7.65	7.21	7.32	7.45	7.45	NM	NM	NM	7.75	8.06	8.00	8.06	7.23	NM
Conductivity (uS)	--	--	599	565	598	687	583	740	774	774	NM	NM	NM	663	781	774	744	778	NM
Temperature (^{o}C)	--	--	5.6	12.3	12.4	12.93	8.51	13.1	12.74	12.74	NM	NM	NM	12	14.9	9.71	8.1	10.7	NM
Dissolved Oxygen (ppm)	--	--	4.71	1.44	2.3	2.54	5.32	3.49	1.42	1.42	NM	NM	NM	1.43	1.35	1.66	8.33	4.65	NM
Redox Potential (mV)	--	--	99	124	126	-75	159.0	237.0	-135.8	-135.8	NM	NM	NM	122.0	199.0	-120.9	-195.4	-73.6	NM

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4010 Thunder Ridge Rd.					4027 Thunder Ridge Rd.							4101 Thunder Ridge Rd.				
			5/28/14	8/26/14	2/24/15	10/20/15	3/31/16	5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	10/13/15	3/31/16	8/26/14	11/17/14	3/11/15	10/14/15	3/30/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.37	1.18 J	1.43	1.27 J	1.47 J	0.59 J	0.52 J	0.6 J	0.53 J	0.48 J	0.67 J	0.71 J	0.73 J	0.63 J	0.76 J	0.87 J	0.71 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4010 Thunder Ridge Rd.					4027 Thunder Ridge Rd.							4101 Thunder Ridge Rd.				
			5/28/14	8/26/14	2/24/15	10/20/15	3/31/16	5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	10/13/15	3/31/16	8/26/14	11/17/14	3/11/15	10/14/15	3/30/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																			
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																			
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																			
pH (IU)	--	--	7.97	7.85	8.15	7.71	NM	7.52	7.43	7.95	7.95	7.94	7.25	NM	7.75	7.7	NM	6.91	NM
Conductivity (uS)	--	--	687	742	746	0.762	NM	702	837	890	890	1928	820	NM	836	777	NM	846	NM
Temperature (°C)	--	--	14.2	13.3	8.83	12.79	NM	12	13	11.13	11.13	8.09	11.61	NM	15.4	9.74	NM	10.58	NM
Dissolved Oxygen (ppm)	--	--	0.99	2.35	6.62	4.18	NM	2.1	1.96	3.25	3.25	4.48	3.29	NM	1.4	1.24	NM	3.21	NM
Redox Potential (mV)	--	--	118.0	245.0	-158.0	-99.1	NM	132.0	229.0	-109.8	-109.8	-150.9	-79.9	NM	236.0	-33.7	NM	-66.8	NM

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4111 Thunder Ridge Rd.					4127 Thunder Ridge Rd.			3107 Fricke Dr.	3617(3621) Viebahn St.					
			8/25/14	11/17/14	2/23/15	10/13/15	3/30/16	12/5/13	5/29/14	3/30/16	12/5/13	11/7/14	11/19/14	2/24/15	2/2415 (DUP)	10/13/15	3/30/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																	
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.41 J	< 0.38	< 0.45	< 0.45	< 0.45	< 0.38	< 0.38	< 0.45	< 0.38	1.13 J	1.12 J	0.92 J	0.87 J	1.3 J	1.12 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	**0.48 J**	**0.4 J**	< 0.17	**0.18 J**	**0.23 J**	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4111 Thunder Ridge Rd.					4127 Thunder Ridge Rd.			3107 Fricke Dr.	3617(3621) Viebahn St.					
			8/25/14	11/17/14	2/23/15	10/13/15	3/30/16	12/5/13	5/29/14	3/30/16	12/5/13	11/7/14	11/19/14	2/24/15	2/2415 (DUP)	10/13/15	3/30/16
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
RCRA Metals (mg/L)																	
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																	
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																	
pH (IU)	--	--	7.65	7.99	7.98	7.68	NM	8.24	7.32	NM	7.63	8.12	7.99	8.32	8.32	7.39	NM
Conductivity (uS)	--	--	809	786	818	827	NM	1033	1046	NM	561	646	590	511	511	663	NM
Temperature (°C)	--	--	12.8	8.88	7.83	13.73	NM	8.53	11.5	NM	8.58	10.44	9.95	9.00	9.00	12.06	NM
Dissolved Oxygen (ppm)	--	--	0.97	5.9	4.31	1.68	NM	5.21	1.33	NM	5.32	3.7	1.93	3.89	3.89	1.67	NM
Redox Potential (mV)	--	--	236.0	-41.4	-155.3	-120.9	NM	95.0	132.0	NM	80.3	-29.2	-147.6	-185.7	-185.7	-123.4	NM

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3701 Viebahn St.								3815 Viebahn St.						3817 Viebahn St.				
			Original Potable Well								Original Potable Well										
Analyte	ES[1]	PAL[2]	10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)	10/14/15	10/14/2015 (DUP)		11/7/14	11/19/14	2/23/15	10/13/15	10/13/15 (DUP)		10/29/14	11/7/14	2/24/15	10/20/15	3/31/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																					
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44		< 0.24	< 0.24	< 0.24	< 0.44	< 0.44		< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48		< 0.32	< 0.32	< 0.32	< 0.48	< 0.48		< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46		< 0.37	< 0.37	< 0.37	< 0.46	< 0.46		< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46		< 0.35	< 0.35	< 0.35	< 0.46	< 0.46		< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1		< 0.36	< 0.36	< 0.36	< 1.1	< 1.1		< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2		< 0.33	< 0.33	< 0.33	< 1.2	< 1.2		< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1		< 0.35	< 0.35	< 0.35	< 1	< 1		< 0.35	< 0.35	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51		< 0.33	< 0.33	< 0.33	< 0.51	< 0.51		< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46		< 0.24	< 0.24	< 0.24	< 0.46	< 0.46		< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65		< 0.63	< 0.63	< 0.63	< 0.65	< 0.65		< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43		< 0.28	< 0.28	< 0.28	< 0.43	< 0.43		< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9		< 0.81	< 0.81	< 0.81	< 1.9	< 1.9		< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4		< 0.21	< 0.21	< 0.21	< 0.4	< 0.4		< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63		< 0.21	< 0.21	< 0.21	< 0.63	< 0.63		< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4		< 0.88	< 0.88	< 0.88	< 1.4	< 1.4		< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45		< 0.22	< 0.22	< 0.22	< 0.45	< 0.45		< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49		< 0.3	< 0.3	< 0.3	< 0.49	< 0.49		< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52		< 0.28	< 0.28	< 0.28	< 0.52	< 0.52		< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46		< 0.36	< 0.36	< 0.36	< 0.46	< 0.46		< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87		< 0.44	< 0.44	< 0.44	< 0.87	< 0.87		< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48		< 0.41	< 0.41	< 0.41	< 0.48	< 0.48		< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1		< 0.3	< 0.3	< 0.3	< 1.1	< 1.1		< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65		< 0.4	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	1.23	1.18 J	1.29	1.31 J	1.09 J	1.55	1.48		0.74 J	0.94 J	0.90 J	1.0 J	1.12 J		0.4 J	< 0.38	< 0.45	0.49 J	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54		< 0.35	< 0.35	< 0.35	< 0.54	< 0.54		< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43		< 0.32	< 0.32	< 0.32	< 0.43	< 0.43		< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1		< 0.36	< 0.36	< 0.36	< 3.1	< 3.1		< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33		< 0.33	< 0.33	< 0.33	< 0.33	< 0.33		< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44		< 0.23	< 0.23	< 0.23	< 0.44	< 0.44		< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63		< 0.44	< 0.44	< 0.44	< 0.63	< 0.63		< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71		< 0.55	< 0.55	< 0.55	< 0.71	< 0.71		< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2		< 1.5	< 1.5	< 1.5	< 2.2	< 2.2		< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82		< 0.3	< 0.3	< 0.3	< 0.82	< 0.82		< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1		< 0.31	< 0.31	< 0.31	< 1.1	< 1.1		< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	1.5 J	1.17 J	1.12 J	< 1.3	< 1.3	< 1.3	< 1.3		< 0.5	< 0.5	< 0.5	< 1.3	< 1.3		< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1		< 0.23	< 0.23	< 0.23	< 1.1	< 1.1		< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6		< 1.7	< 1.7	< 1.7	< 1.6	< 1.6		< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77		< 0.25	< 0.25	< 0.25	< 0.77	< 0.77		< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52		< 0.45	< 0.45	< 0.45	< 0.52	< 0.52		< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48		< 0.33	< 0.33	< 0.33	< 0.48	< 0.48		< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49		< 0.33	< 0.33	< 0.33	< 0.49	< 0.49		< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44		< 0.69	< 0.69	< 0.69	< 0.44	< 0.44		< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7		< 0.98	< 0.98	< 0.98	< 1.7	< 1.7		< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7		< 1.8	< 1.8	< 1.8	< 2.7	< 2.7		< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84		< 0.33	< 0.33	< 0.33	< 0.84	< 0.84		< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48		< 0.34	< 0.34	< 0.34	< 0.48	< 0.48		< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47		< 0.33	< 0.33	< 0.33	< 0.47	< 0.47		< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87		< 0.71	< 0.71	< 0.71	< 0.87	< 0.87		< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6		< 2.2	< 2.2	< 2.2	< 1.6	< 1.6		< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5		< 1.4	< 1.4	< 1.4	< 1.5	< 1.5		< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6		< 2.2	< 2.2	< 2.2	< 1.6	< 1.6		< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	**0.29 J**	**0.32 J**	**0.49 J**	**0.31 J**	**0.33 J**	**0.34 J**	**0.37 J**		**0.33 J**	**0.31 J**	**0.25 J**	**0.2 J**	**0.32 J**		< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2		< 0.69	< 0.69	< 0.69	< 2.2	< 2.2		< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9		< 0.63	< 0.63	< 0.63	< 0.9	< 0.9		< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2		< 0.69	< 0.69	< 0.69	< 2.2	< 2.2		< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

Well Abandoned. City Water Provided December 2015

Well Abandoned. City Water Provided December 2015

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3701 Viebahn St.								3815 Viebahn St.						3817 Viebahn St.				
			Original Potable Well								Original Potable Well										
Analyte	ES[1]	PAL[2]	10/29/14 Pressure Tank	11/7/14 Pressure Tank	11/7/14 (DUP) Pressure Tank	2/23/15 Pressure Tank	2/23/15 (DUP) Pressure Tank	10/14/15 Pressure Tank	10/14/2015 (DUP) Pressure Tank	Well Abandoned, City Water Provided December 2015	11/7/14 Pressure Tank	11/19/14 Pressure Tank	2/23/15 Pressure Tank	10/13/15 Pressure Tank	10/13/15 (DUP) Pressure Tank	Well Abandoned, City Water Provided December 2015	10/29/14 Outside Spigot	11/7/14 Outside Spigot	2/24/15 Pressure Tank	10/20/15 Outside Spigot	3/31/16 Outside Spigot
~~RCRA Metals (mg/L)~~																					
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																					
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Field Screening Measurements																					
pH (IU)	--	--	8.38	7.76	7.76	8.04	8.04	7.32	7.32		8.01	7.63	7.68	7.43	7.43		7.83	8.31	8.13	8.27	NM
Conductivity (uS)	--	--	630	658	658	618	618	624	624		644	561	664	645	645		631	658	746	649	NM
Temperature (°C)	--	--	10.13	9.68	9.68	7.31	7.31	10.57	10.57		10.05	8.58	7.84	11.71	11.71		10.85	10.42	9.47	13.03	NM
Dissolved Oxygen (ppm)	--	--	6.51	4.68	4.68	7.1	7.1	3.3	3.3		2.54	5.32	3.51	5.54	5.54		3.22	3.37	2.72	8.4	NM
Redox Potential (mV)	--	--	-58.3	13.3	13.3	-131.9	-131.9	-90.3	-90.3		21.5	80.3	-113.7	-66.5	-66.5		-95.3	14	-158.6	-42.5	NM

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3825 Viebahn St.						4025 Viebahn St.					4101 Viebahn St.				
									Original Potable Well					Original Potable Well				
			10/29/14	11/7/14	2/23/15	2/23/15 (DUP)	10/14/15	3/31/16	10/29/14	11/7/14	2/24/15	10/13/15		10/29/14	11/7/15	2/24/15	10/14/15	
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Volatile Organic Compounds (VOCs) (µg/L):																		
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44		< 0.24	< 0.24	< 0.44	< 0.44	
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48		< 0.32	< 0.32	< 0.48	< 0.48	
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46		< 0.37	< 0.37	< 0.46	< 0.46	
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46		< 0.35	< 0.35	< 0.46	< 0.46	
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1		< 0.36	< 0.36	< 1.1	< 1.1	
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2		< 0.33	< 0.33	< 1.2	< 1.2	
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1		< 0.35	< 0.35	< 1	< 1	
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.65	< 0.51		< 0.33	< 0.33	< 0.65	< 0.51	
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46		< 0.24	< 0.24	< 0.46	< 0.46	
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65		< 0.63	< 0.63	< 0.65	< 0.65	
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43		< 0.28	< 0.28	< 0.43	< 0.43	
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9		< 0.81	< 0.81	< 1.9	< 1.9	
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4		< 0.21	< 0.21	< 0.4	< 0.4	
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63		< 0.21	< 0.21	< 0.63	< 0.63	
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4		< 0.88	< 0.88	< 1.4	< 1.4	
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45		< 0.22	< 0.22	< 0.45	< 0.45	
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49		< 0.3	< 0.3	< 0.49	< 0.49	
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52		< 0.28	< 0.28	< 0.52	< 0.52	
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46		< 0.36	< 0.36	< 0.46	< 0.46	
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87		< 0.44	< 0.44	< 0.87	< 0.87	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48		< 0.41	< 0.41	< 0.54	< 0.48	
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1		< 0.3	< 0.3	< 1.1	< 1.1	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.65	< 0.65	
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.45	1.38	1.46	1.11 J	1.85		1.48	1.13 J	1.24 J	1.59 J	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54		< 0.35	< 0.35	< 0.54	< 0.54	
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43		< 0.32	< 0.32	< 0.43	< 0.43	
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1		< 0.36	< 0.36	< 3.1	< 3.1	
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33		< 0.33	< 0.33	< 0.42	< 0.33	
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44		< 0.23	< 0.23	< 0.44	< 0.44	
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63		< 0.44	< 0.44	< 0.63	< 0.63	
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71		< 0.55	< 0.55	< 0.71	< 0.71	
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2		< 1.5	< 1.5	< 2.2	< 2.2	
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82		< 0.3	< 0.3	< 0.82	< 0.82	
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1		< 0.31	< 0.31	< 1.1	< 1.1	
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3		< 0.5	< 0.5	< 1.3	< 1.3	
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1		< 0.23	< 0.23	< 1.1	< 1.1	
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6		< 1.7	< 1.7	< 1.6	< 1.6	
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77		< 0.25	< 0.25	< 0.77	< 0.77	
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52		< 0.45	< 0.45	< 0.52	< 0.52	
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48		< 0.33	< 0.33	< 0.48	< 0.48	
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.74	< 0.49		< 0.33	< 0.33	< 0.74	< 0.49	
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	0.95 J	< 0.69	< 0.44	< 0.44		< 0.69	< 0.69	< 0.44	< 0.44	
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7		< 0.98	< 0.98	< 1.7	< 1.7	
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7		< 1.8	< 1.8	< 2.7	< 2.7	
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84		< 0.33	< 0.33	< 0.84	< 0.84	
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48		< 0.34	< 0.34	< 0.48	< 0.48	
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47		< 0.33	< 0.33	< 0.47	< 0.47	
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87		< 0.71	< 0.71	< 0.87	< 0.87	
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6		< 2.2	< 2.2	< 1.6	< 1.6	
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5		< 1.4	< 1.4	< 1.5	< 1.5	
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6		< 2.2	< 2.2	< 1.6	< 1.6	
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	**0.34 J**	**0.31 J**	**0.32 J**	**0.44 J**		**0.38 J**	**0.39 J**	**0.43 J**	**0.54**	
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2		< 0.69	< 0.69	< 2.2	< 2.2	
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9		< 0.63	< 0.63	< 0.9	< 0.9	
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.9	< 2.2		< 0.69	< 0.69	< 0.9	< 2.2	

Well Abandoned. City Water Provided December 2015

Well Abandoned. City Water Provided December 2015

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3825 Viebahn St.						4025 Viebahn St.					4101 Viebahn St.				
									Original Potable Well					Original Potable Well				
			10/29/14	11/7/14	2/23/15	2/23/15 (DUP)	10/14/15	3/31/16	10/29/14	11/7/14	2/24/15	10/13/15		10/29/14	11/7/15	2/24/15	10/14/15	
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2015	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2015
~~RCRA Metals (mg/L)~~																		
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Poychlorinated Biphenyls (PCBs) (µg/L):																		
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	
Field Screening Measurements																		
pH (IU)	--	--	7.87	8.21	8.03	8.03	7.67	NM	7.87	8.03	7.92	7.35		7.79	7.99	8.04	7.51	
Conductivity (uS)	--	--	674	668	670	670	655	NM	824	629	628	630		644	627	653	624	
Temperature (^{o}C)	--	--	10.27	9.86	7.43	7.43	12.83	NM	10.89	10.23	8.86	11.43		11.17	10.87	8.99	12.21	
Dissolved Oxygen (ppm)	--	--	2.94	6.05	4.32	4.32	1.16	NM	2.45	3.11	4.78	2.38		2.31	3.21	4.05	2.11	
Redox Potential (mV)	--	--	-104.5	-21.3	-120.7	-120.7	-116.2	NM	-104.9	-2.2	-126.9	-86.3		-91.1	-22.3	-151.7	-114.3	

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4219 Viebahn St.		5107 Viebahn St.	3609 M&M Ln.		3027 Orchard Ln.							3128 Orchard Ln.			3318 Orchard Ln.	3420 Orchard Ln.	
			9/8/14	10/27/15	12/5/13	12/4/13	12/16/13	2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	10/14/15	3/31/16	2/4/14	6/4/14	10/14/15	7/11/14	2/4/14	6/2/14
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.44	< 0.24	< 0.15	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.48	< 0.32	< 0.15	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.46	< 0.37	< 0.15	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.46	< 0.35	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 1.1	< 0.36	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 1.2	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 1	< 0.35	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.51	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.46	< 0.24	< 0.15	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.65	< 0.63	< 0.15	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.43	< 0.28	< 0.15	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 1.9	< 0.81	< 0.15	< 0.15	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.4	< 0.21	< 0.15	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.63	< 0.21	< 0.15	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 1.4	< 0.88	< 0.20	< 0.20	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.45	< 0.22	< 0.15	< 0.15	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.49	< 0.3	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.52	< 0.28	< 0.15	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.46	< 0.36	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.87	< 0.44	< 0.20	< 0.20	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.48	< 0.41	< 0.15	< 0.15	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 1.1	< 0.3	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.65	< 0.4	< 0.15	< 0.15	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.45	< 0.38	< 0.15	< 0.15	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.59 J	< 0.45	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.54	< 0.35	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.43	< 0.32	< 0.15	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 3.1	< 0.36	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.44	< 0.23	NA	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.63	< 0.44	< 0.15	< 0.15	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.71	< 0.55	< 0.15	< 0.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 2.2	< 1.5	< 0.15	< 0.15	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.82	< 0.3	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 1.1	< 0.31	< 0.15	< 0.15	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 1.3	< 0.5	< 0.15	< 0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 1.1	< 0.23	< 0.15	< 0.15	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.6	< 1.7	< 0.15	< 0.15	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.77	< 0.25	< 0.15	< 0.15	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.52	< 0.45	< 0.20	< 0.20	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.48	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.49	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.44	< 0.69	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 1.7	< 0.98	< 0.15	< 0.15	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 2.7	< 1.8	< 0.15	< 0.15	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.84	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.48	< 0.34	< 0.15	< 0.15	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.47	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.87	< 0.71	< 0.15	< 0.15	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 1.6	< 2.2	< 0.15	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.5	< 1.4	< 0.15	< 0.15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 1.6	< 2.2	< 0.15	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.17	< 0.18	< 0.20	< 0.20	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 2.2	< 0.69	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.9	< 0.63	< 0.15	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 2.2	< 0.69	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			4219 Viebahn St.		5107 Viebahn St.	3609 M&M Ln.		3027 Orchard Ln.							3128 Orchard Ln.			3318 Orchard Ln.	3420 Orchard Ln.	
			9/8/14	10/27/15	12/5/13	12/4/13	12/16/13	2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	10/14/15	3/31/16	2/4/14	6/4/14	10/14/15	7/11/14	2/4/14	6/2/14
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Kitchen Sink	Kitchen Sink
~~RCRA Metals (mg/L)~~																				
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																				
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																				
pH (IU)	--	--	7.45	NM	8.1	NM	NM	7.21	7.25	7.82	8.03	NM	7.88	NM	7.32	7.63	7.61	7.52	7.1	8.06
Conductivity (uS)	--	--	779	NM	571	NM	NM	379	136	921	553	NM	548	NM	603	797	843	1033	454	470
Temperature (°C)	--	--	11.75	NM	11.09	NM	NM	8.5	10.6	10.7	10.29	NM	12.69	NM	8.75	10.4	12.13	13.8	7.1	11.8
Dissolved Oxygen (ppm)	--	--	3.21	NM	4.23	NM	NM	7.42	2.5	1.22	4.06	NM	2.07	NM	NM	1.97	2.26	4.11	6.53	1.23
Redox Potential (mV)	--	--	225	NM	84.5	NM	NM	42.4	136	236	-7.3	NM	-100.6	NM	113.2	117	-106.5	123	123.2	165

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3523 Orchard Ln.		3524 Orchard Ln.				3911 Black Hawk Ct.	3921 Black Hawk Ct.						
			2/4/14	5/28/14	2/4/14	6/2/14	6/2/2014(DUP)	10/13/15	7/8/15	2/4/14	6/2/14	8/26/14	11/10/14	2/24/15	10/14/15	3/31/16
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J	1.04 J	0.71 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3523 Orchard Ln.		3524 Orchard Ln.				3911 Black Hawk Ct.	3921 Black Hawk Ct.						
			2/4/14	5/28/14	2/4/14	6/2/14	6/2/2014(DUP)	10/13/15	7/8/15	2/4/14	6/2/14	8/26/14	11/10/14	2/24/15	10/14/15	3/31/16
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~																
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																
pH (IU)	--	--	7.21	7.78	7.03	7.41	7.41	7.34	NM	7.21	7.61	7.45	7.95	7.99	7.5	NM
Conductivity (uS)	--	--	514	671	579	672	672	900	NM	468	636	762	754	810	742	NM
Temperature (°C)	--	--	8.96	10.6	9.29	12.1	12.1	12.28	NM	10.06	12.7	14.3	11.85	8.8	13.77	NM
Dissolved Oxygen (ppm)	--	--	5.32	4.99	5.3	1.62	1.62	1.77	NM	NM	2.83	1.34	5.53	7.64	2.48	NM
Redox Potential (mV)	--	--	210.0	111.0	117.3	159.0	159.0	-75.7	NM	100.3	148	206	-27.2	-160.9	-124.6	NM

SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

NOTES:

(1) Enforcement Standard from NR140, January 2012.

(2) Preventive Action Limit from NR140, January 2012.

NL - ES or PAL not listed in NR140.

NA - Not analyzed.
ND - Not detected.
NM - Not measured.
NS - Not sampled.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
Q - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
& - LCS recovery was outside of control limits.
H - Holding time exceeded by (n) days
D - The result is from a dilution analysis.
A - Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
ED - Elevated detection limit due to matric effects.
MS - Either the matrix spike or matrix spike duplicate was outside of the acceptable control limits. All other supporting QC was within the acceptable control limits.
E - Analyte concentraion exceeds calibration range (see Sample Narrative).
* - Duplicate analyses not within control limits.
B(x) - Analyte is detected in the method blank at "x" concentration. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be basedon project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
N - Spiked sample revocery not within control limits; post-digestion spike recovery accepted.
B - Analyte found in method blank.
OC - Elevated reporting limit due to analyte concentration.

Bold indicates a PAL exceedance.
Bold and underlining indicates an ES exceedance.

Table 3
POTABLE WELL MONITORING WORK PLAN

AECOM

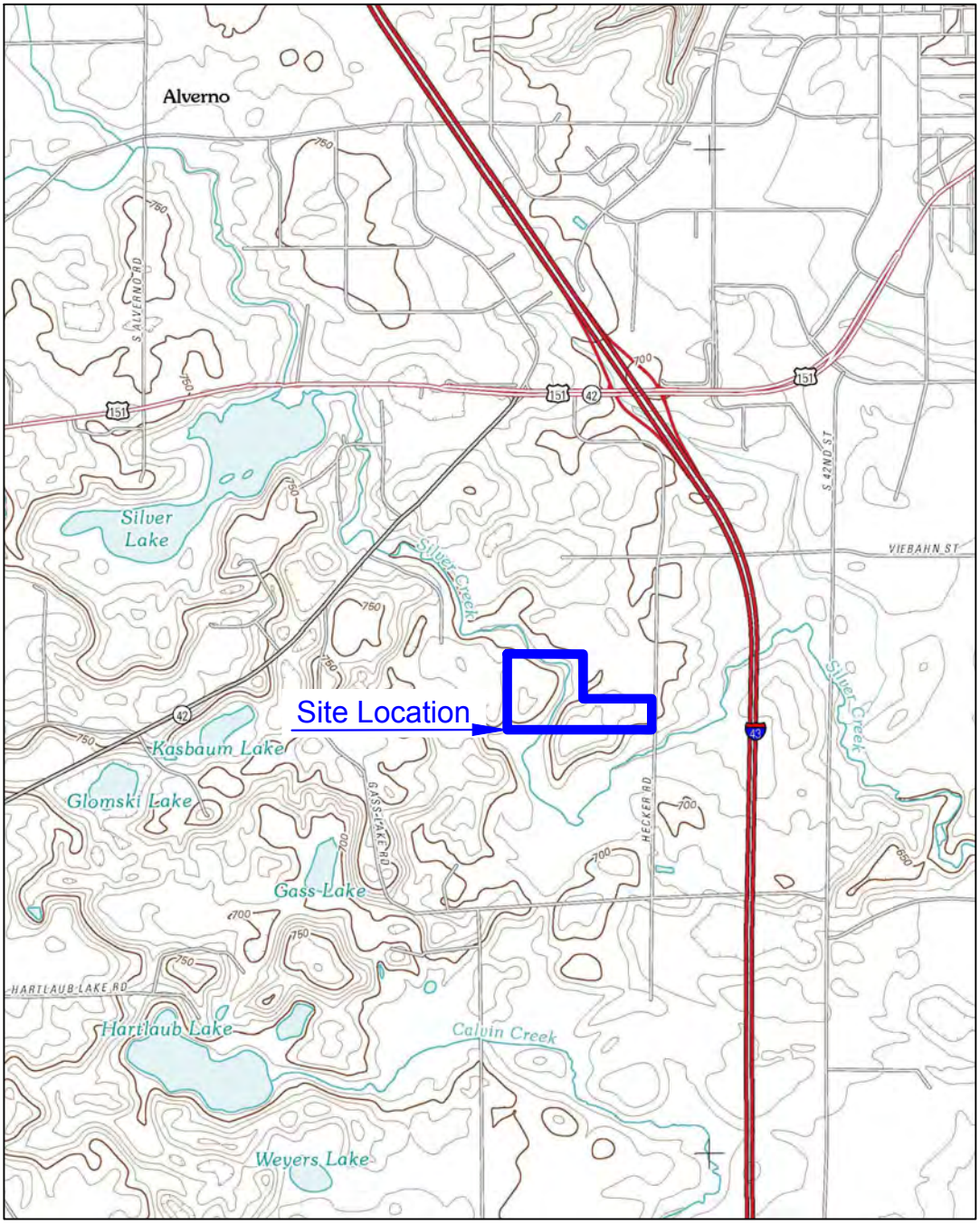
TABLE 3
POTABLE WELL MONITORING WORK PLAN
SUMMARY OF SEMI-ANNUAL POTABLE WELL SAMPLING, 2015 to 2016
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	1st Event October 2015	2nd Event March 2016	3rd Event October 2016	Notes
Target Zone Wells				
3617(3621) Viebahn St (City Water)	X	X	no sample - City Water	well abandoned
3701 Viebahn St (City Water)	X	no sample - City Water	no sample - City Water	well abandoned
3815 Viebahn St (City Water)	X	no sample - City Water	no sample - City Water	well abandoned
3817 Viebahn St	X	X	X	
3825 Viebahn St	X	X	X	
4025 Viebahn St (City Water)	X	no sample - City Water	no sample - City Water	well abandoned
4101 Viebahn St (City Water)	X	no sample - City Water	no sample - City Water	well abandoned
4141 Viebahn Street (2717 CTH CR) (City Water)	X	X	X non-potable	well to be left in-place for non-potable use and sampling
3303 Hecker Rd.	X	X	X	possible future replacement well location
3327 Hecker Rd.	X	X	X	
3461(3417) Hecker Rd.	X	X	X	
3702 Hecker Rd.	X	X	X	
2734(2804) CTH CR (City Water)	X	no sample - City Water	no sample - City Water	well abandoned
2916 CTH CR (City Water)	X	no sample - City Water	no sample - City Water	well abandoned
2917 CTH CR (City Water)	moved from Sentinel to Target Zone	no sample - City Water	no sample - City Water	well abandoned
3504 CTH CR	X	X	X	possible future replacement well location
3618 CTH CR	X	X	X	
4002 Thunder Ridge	X	X	X	possible future replacement well location
4005 Thunder Ridge	X	X	X	
4010 Thunder Ridge	X	X	X	
4027 Thunder Ridge	X	X	X	
4101 Thunder Ridge	X	X	X	
4111 Thunder Ridge	X	X	X	
3921 Black Hawk Ct.	X	X	X	
4159 Silver Creek Rd.	X	X	X	
3027 Orchard Ln.	X	X	X	
Replacement Wells				
3515 Hecker Rd.	X		X	
3518 Hecker Rd.	X		X	
3609 Hecker Rd.	X		X	
3023 CTH CR	X		X	
3120 CTH CR	X		X	
3403 CTH CR	X		X	
Sentinel Zone Wells				
4219 Viebahn St	x			
3121 Hecker Rd.	X			
3320 Hecker Rd.		X		
3625 Hecker Rd.			X	
3720 Hecker Rd.		X		
2706 CTH CR			X	
2716 CTH CR	X			
2832 (2904) CTH CR		X		
2911 CTH CR			X	
3224 CTH CR		X		
3312 CTH CR			X	
3322 CTH CR	X			
3412 CTH CR		X		
3422 CTH CR			X	
3523 CTH CR	X			
3533 CTH CR		X		
3611 CTH CR			X	
3626(3626B) CTH CR	X			
3627 CTH CR		X		
4024 CTH CR			X	
4101 CTH CR	X			
4127 Thunder Ridge Rd.		X		
3911 Blackhawk Ct			X	
3128 Orchard Ln.	X			
3318 Orchard Ln.		X (Not sampled-unable to contact property owners)	X	3/2016 sample will attempt to be collected 10/2016
3420 Orchard Ln.			X	
3524 Orchard Ln.	X			
3812 Silver Creek		X		
3902 Silver Creek Rd.			X	
4004 Silver Creek Rd.	X			
4156 Silver Creek		X		
Historically Sampled Wells				
5107 Veibahn St.				
2925 Fricke Rd.				
3107 Fricke Rd.				
3610 Gass Lake Rd.				
3609 M&M Ln.				
3717 M&M Ln.				
3804 M&M Ln.				
3114 Hecker Rd.				
3627 Hecker Rd.				
2881 CTH CR				
3904 CTH CR				
4212 Silver Creek 4220 Silver Creek (1 well serves 3 properties) 4236 Silver Creek				1 well serves 3 properties
4314 Silver Creek Rd.				
4315 Silver Creek Rd.				
4609 Silver Creek Rd.				
4620 Silver Creek Rd. (two wells)				2 wells on the property
4752 Silver Creek Rd.				
4808 Silver Creek Rd.				
5202 Silver Creek Rd.				
3523 Orchard Ln.				

AECOM

Figures:

Figure 1; Site Location
Figure 2; March 2016 Potable Well Sampling Results
Figure 3; Updated 2015 and 2016 Potable Well Summary



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

Topographic Map courtesy of the United States Geological Survey

http://store.usgs.gov/b2c_usgs/usgs/maplocator/(ctype=areaDetails&xcm=r3standardpitrex_prd&carea=%24ROOT&layout=6_1_61_48&uiarea=2)/.do

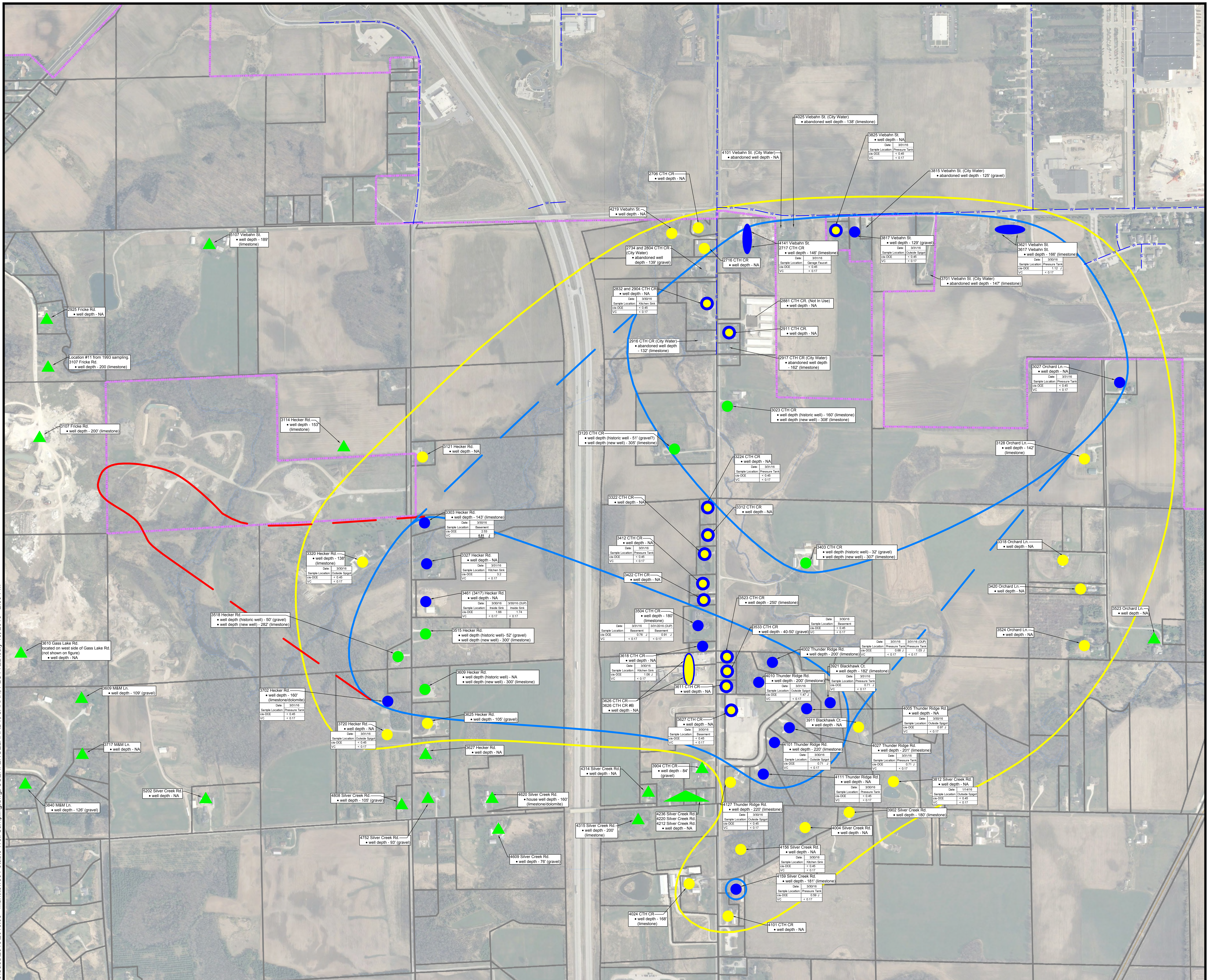
Map Date: 2010

AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

FORMER NEWTON GRAVEL PIT

SITE LOCATION

Project Number:	Drawn By:	Date:	Figure No. 1
60311767	SAE	4/14/2015	



LEGEND:

- PROPERTY BOUNDARY
- PROPERTY BOUNDARY - CITY LIMITS
- UTILITIES:
- -POTABLE WATER SUPPLY (from City of Manitowoc)
- POTABLE WELL SAMPLE LOCATIONS
- -WITHIN TARGET ZONE
- -WITHIN TARGET ZONE WITH NO DETECTS
- -WITHIN SENTINEL ZONE
- -REPLACEMENT WELL WITHIN TARGET ZONE
- -UPGRADIENT AND HISTORICALLY SAMPLED WELLS
- TARGET ZONE
- SENTINEL ZONE
- FORMER GRAVEL PIT ZONE
- WELL OUT OF SERVICE

NOTES:

1. VOCs detected from likely laboratory or sampling cross-contamination not reported on figure.
2. VOC values for October 2015 sampling event reported on figure.
3. Analytical data presented in µg/L.
   - VOCs = Volatile Organic Compounds
   - cis-DCE = cis-1,2-Dichloroethene
   - VC = Vinyl Chloride
   - **bold** = PAL exceedance
   - **bold and underlined** = ES exceedance
   - PAL = Preventive Action Limit
   - ES = Enforcement Standard

0 150' 300' 600'
SCALE

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Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

AECOM

FORMER NEWTON GRAVEL PIT

MARCH 2016 POTABLE WELL SAMPLING RESULTS

Project Number:	Drawn By:	Date:	
60311767	SAE	7/13/2016	Figure No. 2

5107 Viebahn St.
• well depth - 189' (limestone)

2925 Fricke Rd.
• well depth - NA

Location #11 from 1993 sampling.
3107 Fricke Rd.
• well depth - 200 (limestone)

3107 Fricke Rd.
• well depth - 200' (limestone)

3114 Hecker Rd.
• well depth - 153' (limestone)

3121 Hecker Rd.
• well depth - NA

3303 Hecker Rd.
• well depth - 143' (limestone)

3320 Hecker Rd.
• well depth - 138' (limestone)

3327 Hecker Rd.
• well depth - NA

3461 (3417) Hecker Rd.
• well depth - NA

3518 Hecker Rd.
• well depth (historic well) - 50' (gravel)
• well depth (new well) - 282' (limestone)

3515 Hecker Rd.
• well depth (historic well)- 52' (gravel)
• well depth (new well) - 300' (limestone)

3609 Hecker Rd.
• well depth (historic well) - NA
• well depth (new well) - 300' (limestone)

3625 Hecker Rd.
• well depth - 105' (gravel)

3627 Hecker Rd.
• well depth - NA

3702 Hecker Rd.
• well depth - 160' (limestone/dolomite)

3720 Hecker Rd.
• well depth - NA

3610 Gass Lake Rd.
located on west side of Gass Lake Rd. (not shown on figure)
• well depth - NA

3609 M&M Ln.
• well depth - 109' (gravel)

3717 M&M Ln.
• well depth - NA

3840 M&M Ln.
• well depth - 126' (gravel)

5202 Silver Creek Rd.
• well depth - NA

4808 Silver Creek Rd.
• well depth - 105' (gravel)

4620 Silver Creek Rd.
• house well depth - 160' (limestone/dolomite)

4752 Silver Creek Rd.
• well depth - 93' (gravel)

4609 Silver Creek Rd.
• well depth - 76' (gravel)

4025 Viebahn St. (City Water)
• abandoned well depth - 138' (limestone)

3825 Viebahn St.
• well depth - NA

4101 Viebahn St. (City Water)
• abandoned well depth - NA

3815 Viebahn St. (City Water)
• abandoned well depth - 125' (gravel)

2706 CTH CR
• well depth - NA

4219 Viebahn St.
• well depth - NA

4141 Viebahn St. (City Water)
2717 CTH CR
• non-potable well depth - 146' (limestone)

3817 Viebahn St.
• well depth - 129' (gravel)

3621 Viebahn St.
3617 Viebahn St. (City Water)
• abandoned well depth - 166' (limestone)

2734 and 2804 CTH CR (City Water)
• abandoned well depth - 139' (gravel)

2716 CTH CR
• well depth - NA

3701 Viebahn St. (City Water)
• abandoned well depth - 147' (limestone)

2832 and 2904 CTH CR
• well depth - NA

2881 CTH CR. (Not In Use)
• well depth - NA

2911 CTH CR.
• well depth - NA

2916 CTH CR (City Water)
• abandoned well depth - 132' (limestone)

2917 CTH CR (City Water)
• abandoned well depth - 162' (limestone)

3027 Orchard Ln.
• well depth - NA

3023 CTH CR
• well depth (historic well) - 160' (limestone)
• well depth (new well) - 308' (limestone)

3120 CTH CR
• well depth (historic well - 51' (gravel?)
• well depth (new well) - 305' (limestone)

3224 CTH CR
• well depth - NA

3128 Orchard Ln.
• well depth - 142' (limestone)

3322 CTH CR
• well depth - NA

3312 CTH CR
• well depth - NA

3412 CTH CR
• well depth - NA

3403 CTH CR
• well depth (historic well) - 32' (gravel)
• well depth (new well) - 307' (limestone)

3318 Orchard Ln.
• well depth - NA

3422 CTH CR
• well depth - NA

3420 Orchard Ln
• well depth - NA

3523 CTH CR
• well depth - 250' (limestone)

3504 CTH CR
• well depth - 180' (limestone)

3523 Orchard Ln.
• well depth - NA

3533 CTH CR
• well depth - 40-50' (gravel)

3524 Orchard Ln.
• well depth - NA

3618 CTH CR
• well depth - NA

4002 Thunder Ridge Rd.
• well depth - 200' (limestone)

3921 Blackhawk Ct.
• well depth - 182' (limestone)

4010 Thunder Ridge Rd.
• well depth - 200' (limestone)

3611 CTH CR
• well depth - NA

3626 CTH CR
3626 CTH CR #B
• well depth - NA

4005 Thunder Ridge Rd.
• well depth - NA

3627 CTH CR
• well depth - NA

3911 Blackhawk Ct.
• well depth - NA

4101 Thunder Ridge Rd.
• well depth - 220' (limestone)

4027 Thunder Ridge Rd.
• well depth - 201' (limestone)

4314 Silver Creek Rd.
• well depth - NA

3904 CTH CR
• well depth - 84' (gravel)

4111 Thunder Ridge Rd.
• well depth - NA

3812 Silver Creek Rd.
• well depth - NA

4127 Thunder Ridge Rd.
• well depth - 220' (limestone)

3902 Silver Creek Rd.
• well depth - 180' (limestone)

4236 Silver Creek Rd
4220 Silver Creek Rd.
4212 Silver Creek Rd.
• well depth - NA

4315 Silver Creek Rd
• well depth - 200' (limestone)

4004 Silver Creek Rd.
• well depth - NA

4156 Silver Creek Rd.
• well depth - NA

4159 Silver Creek Rd
• well depth - 181' (limestone)

4024 CTH CR
• well depth - 168' (limestone)

4101 CTH CR
• well depth - NA

LEGEND:

- PROPERTY BOUNDARY
- PROPERTY BOUNDARY - CITY LIMITS
- UTILITIES:
  - W — -POTABLE WATER SUPPLY (from City of Manitowoc)
- POTABLE WELL SAMPLE LOCATIONS
  - -WITHIN TARGET ZONE
  - -WITHIN TARGET ZONE WITH NO DETECTS
  - -WITHIN SENTINEL ZONE
  - -REPLACEMENT WELL WITHIN TARGET ZONE
  - -UPGRADIENT AND HISTORICALLY SAMPLED WELLS
- TARGET ZONE
- SENTINEL ZONE
- FORMER GRAVEL PIT ZONE
- WELL OUT OF SERVICE

N

0' 150' 300' 600'
SCALE

AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

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FORMER NEWTON GRAVEL PIT

OCTOBER 2016
POTABLE WELL SAMPLING PLAN

Project Number:	Drawn By:	Date:	
60311767	SAE	7/13/2016	Figure No. 3

Attachment A:

Laboratory Reports

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE HENDERSON
AECOM
1555 N RIVER CENTER DRIVE
MILWAUKEE, WI 53212

Report Date *25-Jan-16*

Project Name NEWTON PIT
Project # 60135471
Invoice # E30350

Lab Code 5030350A
Sample ID 3812 SILVER CRK
Sample Matrix Water
Sample Date 1/14/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		1/21/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		1/21/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		1/21/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		1/21/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		1/21/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		1/21/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		1/21/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		1/21/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		1/21/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		1/21/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		1/21/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		1/21/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		1/21/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		1/21/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		1/21/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		1/21/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		1/21/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		1/21/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		1/21/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		1/21/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		1/21/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		1/21/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		1/21/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		1/21/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		1/21/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		1/21/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		1/21/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		1/21/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		1/21/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		1/21/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		1/21/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		1/21/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		1/21/2016	CJR	1

Project Name NEWTON PIT **Invoice #** E30350
Project # 60135471

Lab Code 5030350A
Sample ID 3812 SILVER CRK
Sample Matrix Water
Sample Date 1/14/2016

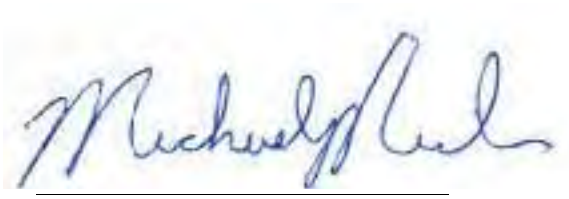
	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		1/21/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		1/21/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		1/21/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		1/21/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		1/21/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		1/21/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		1/21/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		1/21/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		1/21/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		1/21/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		1/21/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		1/21/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		1/21/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		1/21/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		1/21/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		1/21/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		1/21/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		1/21/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		1/21/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		1/21/2016	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		1/21/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		1/21/2016	CJR	1
SUR - 4-Bromofluorobenzene	110	REC %			1	8260B		1/21/2016	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		1/21/2016	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CHAIN OF CUSTODY RECORD

Synergy
Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # NO 2927

Page 1 of 1

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | **Quote No.:**

Project #: 60135471

Sampler: (signature) D.S. Henderson

Project (Name / Location): Newton Pit

Reports To: DSH	Invoice To: Same
Company AECOM	Company
Address 1555 N Rivercenter Dr	Address
City State Zip Milw WI 53212	City State Zip
Phone 414 4298304	Phone
FAX —	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
5030350A	3812 silver crk	1/14/16	10		X	N	3	GW	HCL

Analysis Requested | **Other Analysis**

DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
												X		

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Sm
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
D.S. Henderson		1/15/16			

Received in Laboratory By: [signature] Time: 8:00 Date: 1/18/16

Synergy Environmental Lab, INC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

DAVE HENDERSON
AECOM
1555 N RIVER CENTER DRIVE
MILWAUKEE, WI 53212

Report Date *07-Apr-16*

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769A
Sample ID 3618 CTH CR
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	1.06 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769A
Sample ID 3618 CTH CR
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	89	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769B
Sample ID 3533 CTH CR
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769C
Sample ID 3303 HECKER RD
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	2.53	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	0.51 "J"	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769D
Sample ID 3617 VIEBAHN
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	1.12 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	93	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769E
Sample ID 4156 SILVER CREE
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769F
Sample ID 3320 HECKER RD
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	86	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769G
Sample ID 4005 THUNDER RI
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.97 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	91	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769H
Sample ID 3627 CTH CR
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	89	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769I
Sample ID 3461 HECKER RD
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	1.66	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	94	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	90	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769J
Sample ID 3461 HECKER RD D
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	1.74	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	89	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769K
Sample ID 2832 CTH CR
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/6/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/6/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/6/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/6/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/6/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/6/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/6/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/6/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/6/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/6/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/6/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/6/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/6/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/6/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/6/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/6/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/6/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/6/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/6/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/6/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/6/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/6/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/6/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/6/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/6/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/6/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/6/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/6/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/6/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/6/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/6/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/6/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/6/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	90	REC %			1	8260B		4/6/2016	CJR	1
SUR - 4-Bromofluorobenzene	86	REC %			1	8260B		4/6/2016	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		4/6/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/6/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769L
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.71 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	105	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769M
Sample ID 4159 SILVER CREE
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.59 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769N
Sample ID 4127 THUNDER RI
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/6/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/6/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/6/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/6/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/6/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/6/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/6/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/6/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/6/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/6/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/6/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/6/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/6/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/6/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/6/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/6/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/6/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/6/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/6/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/6/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/6/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/6/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/6/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/6/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/6/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/6/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/6/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/6/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/6/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/6/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/6/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/6/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/6/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		4/6/2016	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		4/6/2016	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		4/6/2016	CJR	1
SUR - Toluene-d8	95	REC %			1	8260B		4/6/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769O
Sample ID 4111 THUNDER RI
Sample Matrix Water
Sample Date 3/30/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	113	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	113	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769P
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	3.2	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769Q
Sample ID 4027 THUNDER RI
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.71 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	112	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769R
Sample ID 3921 BLACK HAW
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.71 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769S
Sample ID 3504 CTH CR
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.76 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769T
Sample ID 3504 CTH CR DUP
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.91 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	108	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	106	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769U
Sample ID 3702 HECKER RD
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	107	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769V
Sample ID 3720 HECKER RD
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	94	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	117	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769W
Sample ID 3412 CTH CR
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769X
Sample ID 2717 CTH CR
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	111	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	106	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769Y
Sample ID 3825 VIEBAHN
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	96	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	112	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 5030769Z
Sample ID 4010 THUNDER RI
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	1.47	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	118	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	111	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	93	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 530769AA
Sample ID 3224 CTH CR
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	105	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	107	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 530769BB
Sample ID 4002 THUNDER RI
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	0.68 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 530769CC
Sample ID 4002 THUNDER RI
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	1.03 "J"	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	115	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	97	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	111	REC %			1	8260B		4/5/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 530769DD
Sample ID 3027 ORCHARD LN
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/6/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/6/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/6/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/6/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/6/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/6/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/6/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/6/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/6/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/6/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/6/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/6/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/6/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/6/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/6/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/6/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/6/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/6/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/6/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/6/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/6/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/6/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/6/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/6/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/6/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/6/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/6/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/6/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/6/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/6/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/6/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/6/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/6/2016	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		4/6/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	111	REC %			1	8260B		4/6/2016	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		4/6/2016	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260B		4/6/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 530769EE
Sample ID 3817 VIEBAHN
Sample Matrix Water
Sample Date 3/31/2016

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/6/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/6/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/6/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/6/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/6/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/6/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/6/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/6/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/6/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/6/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/6/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/6/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/6/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/6/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/6/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/6/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/6/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/6/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/6/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/6/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/6/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/6/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/6/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/6/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/6/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/6/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/6/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/6/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/6/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/6/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/6/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/6/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/6/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/6/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/6/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/6/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/6/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/6/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/6/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/6/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/6/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/6/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/6/2016	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		4/6/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	88	REC %			1	8260B		4/6/2016	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		4/6/2016	CJR	1
SUR - Dibromofluoromethane	108	REC %			1	8260B		4/6/2016	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E30769
Project #

Lab Code 530769FF
Sample ID TRIP BLANK
Sample Matrix Water
Sample Date 3/30/2016

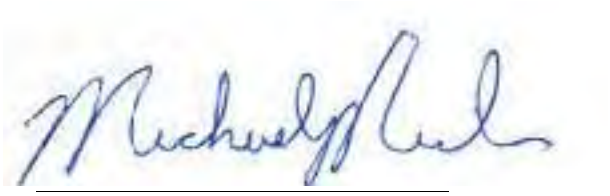
	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		4/5/2016	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		4/5/2016	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		4/5/2016	CJR	1
Carbon Tetrachloride	< 0.51	ug/l	0.51	1.6	1	8260B		4/5/2016	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		4/5/2016	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		4/5/2016	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		4/5/2016	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		4/5/2016	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		4/5/2016	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		4/5/2016	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		4/5/2016	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		4/5/2016	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2-Dichloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		4/5/2016	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		4/5/2016	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		4/5/2016	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		4/5/2016	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		4/5/2016	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		4/5/2016	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		4/5/2016	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		4/5/2016	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		4/5/2016	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		4/5/2016	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		4/5/2016	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		4/5/2016	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		4/5/2016	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		4/5/2016	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		4/5/2016	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		4/5/2016	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		4/5/2016	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		4/5/2016	CJR	1
Tetrachloroethene	< 0.49	ug/l	0.49	1.5	1	8260B		4/5/2016	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		4/5/2016	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		4/5/2016	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		4/5/2016	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		4/5/2016	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		4/5/2016	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		4/5/2016	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		4/5/2016	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		4/5/2016	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		4/5/2016	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		4/5/2016	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		4/5/2016	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		4/5/2016	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		4/5/2016	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		4/5/2016	CJR	1
SUR - 4-Bromofluorobenzene	94	REC %			1	8260B		4/5/2016	CJR	1
SUR - Dibromofluoromethane	105	REC %			1	8260B		4/5/2016	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



CHAIN OF CUSTODY RECORD

Synergy
Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 2701

Page 1 of 4

Sample Handling Request
_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #	
Account No. :	**Quote No.:**
Project #:	
Sampler: (signature) Andrew Pirrung	
Project (Name / Location): Newton Gravel Pit / Manitowoc, WI	
Reports To: Dave Henderson	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 1555 N. RiverCenter Dr. STE214	Address 1555 N. RiverCenter Dr. STE 214
City State Zip Milwaukee, WI 53212	City State Zip Milwaukee, WI 53212
Phone 414-944-6190	Phone 414-944-6190
FAX 414-944-6081	FAX 414-944-6081

Analysis Requested | **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
503769 A	3618 CTH CR	3/30/16	0845		X	N	3	GW	HCl													X		
B	3533 CTH CR	3/30/16	0915		X	N	3	GW	HCl													X		
C	3303 Hecker Rd	3/30/16	0945		X	N	3	GW	HCl													X		
D	3617 Viebahn	3/30/16	1015		X	N	3	GW	HCl													X		
E	4156 Silver Creek	3/30/16	1045		X	N	3	GW	HCl													X		
F	3320 Hecker Rd	3/30/16	1115		X	N	3	GW	HCl													X		
G	4005 Thunder Ridge	3/30/16	1200		X	N	3	GW	HCl													X		
H	3627 CTH CR	3/30/16	1220		X	N	3	GW	HCl													X		
I	3461 Hecker Rd	3/30/16	1250		X	N	3	GW	HCl													X		
J	3461 Hecker Rd DUP	3/30/16	1250		X	N	3	GW	HCl													X		

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Analysis per contract

Sample Integrity - To be completed by receiving lab.
Method of Shipment: SM
Temp. of Temp. Blank ____ °C On Ice: X
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Andrew Pirrung	0900	4/1/16			

Received in Laboratory By: Christopher Rose Time: 11:00 Date: 4/2/16

CHAIN OF CUSTODY RECORD

Synergy
Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 270

Page 2 of 4

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #	
Account No. :	**Quote No.:**
Project #:	
Sampler: (signature) Andrew Pirrung	
Project (Name / Location): Newton Gravel Pit / Manitowoc, WI	
Reports To: Dave Henderson	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 1555 N. RiverCenter Dr. STE 214	Address 1555 N. RiverCenter Dr. STE 214
City State Zip Milwaukee, WI 53212	City State Zip Milwaukee, WI 53212
Phone 414-944-6190	Phone 414-944-6190
FAX 414-944-6081	FAX 414-944-6081

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
503076k	2832 CTH CR	3/30/16	1315		X	N	3	GW	HCl													X		
L	4101 Thunder Ridge	3/30/16	1415		X	N	3	GW	HCl													X		
M	4159 Silver Creek	3/30/16	1445		X	N	3	GW	HCl													X		
N *	4127 Thunder Ridge	3/30/16	1515		X	N	9	GW	HCl													X		
O	4111 Thunder Ridge	3/30/16	1535		X	N	3	GW	HCl													X		
P	3327 Hecker Rd	3/31/16	0915		X	N	3	GW	HCl													X		
Q	4027 Thunder Ridge	3/31/16	0945		X	N	3	GW	HCl													X		
R	3921 Black Hawk	3/31/16	1015		X	N	3	GW	HCl													X		
S	3504 CTH CR	3/31/16	1045		X	N	3	GW	HCl													X		
T	3504 CTH CR DUP	3/31/16	1045		X	N	3	GW	HCl													X		

Analysis Requested | **Other Analysis**

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)
*Sample has extra volume for MS/MSD

Analysis per Contract

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Sm
Temp. of Temp. Blank ____ °C On Ice: X
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	0900	4/1/16			

Received in Laboratory By: _____ Time: 11:00 Date: 4/2/16

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 2706

Page 3 of 4

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #	
Account No. :	**Quote No.:**
Project #:	
Sampler: (signature) Andrew Pirrung	
Project (Name / Location): Newton Gravel Pit / Manitowoc, WI	
Reports To: Dave Henderson	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 1555 N. RiverCenter Dr. STE 214	Address 1555 N. RiverCenter Dr. STE 214
City State Zip Milwaukee, WI 53212	City State Zip Milwaukee, WI 53212
Phone 414-944-6190	Phone 414-944-6190
FAX 414-944-6081	FAX 414-944-6081

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
5030762 4	3702 Hecker Rd	3/31/16	1115		X	N	3	~~HC~~ GW	HCl													X		
V	3720 Hecker Rd	3/31/16	1125		X	N	3	~~HC~~ GW	HCl													X		
W	3412 CTH CR	3/31/16	1240		X	N	3	GW	HCl													X		
X	2717 CTH CR	3/31/16	1315		X	N	3	GW	HCl													X		
Y	3825 Viebahn	3/31/16	1345		X	N	3	GW	HCl													X		
Z *	4010 Thunder Ridge	3/31/16	1415		X	N	9	GW	HCl													X		
AA	3224 CTH CR	3/31/16	1720		X	N	3	GW	HCl													X		
BB	4002 Thunder Ridge	3/31/16	1745		X	N	3	GW	HCl													X		
CC	4002 Thunder Ridge DUP	3/31/16	1745		X	N	3	GW	HCl													X		
DD	3027 Orchard Ln	3/31/16	1805		X	N	3	GW	HCl													X		

Analysis Requested | Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

* Extra volume for MS/MSD

Analysis per contract

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Bus

Temp. of Temp. Blank ____ °C On Ice: X

Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	0900	4/1/16			

Received in Laboratory By: _____ Time: 11:00 Date: 4/2/16

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 2705

Page 4 of 4

Sample Handling Request
_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
_X_ Normal Turn Around

Lab I.D. #	
Account No. :	**Quote No.:**
Project #:	
Sampler: (signature)	Andrew Pirrung
Project (Name / Location):	Newton Gravel Pit / Manitowoc, WI
Reports To:	Dave Henderson
Company	AECOM
Address	1555 N. RiverCenter Dr. STE 214
City State Zip	Milwaukee, WI 53212
Phone	414-944-6190
FAX	414-944-6081
Invoice To:	Dave Henderson
Company	AECOM
Address	1555 N. RiverCenter Dr. STE 214
City State Zip	Milwaukee, WI 53212
Phone	414-944-6190
FAX	414-944-6081

Analysis Requested | **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
530762EE	3817 Viebahn	3/31/16	1825		x	N	3	GW	HCl													X		
FR	Trip Blank	3/30/16	0700		x	N	3	GW	HCl													X		

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW". Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Analysis per contract

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Sm
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	0900	4/1/16			

Received in Laboratory By: Time: 11:00 Date: 4/2/16